

**CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION
RAIPUR**



Chhattisgarh State Power Distribution Co. Ltd.		P. No. 01/2016(T)
Chhattisgarh State Power Transmission Co. Ltd		P. No. 02/2016(T)
Chhattisgarh State Power Generation Co. Ltd.		P. No. 03/2016(T)
Chhattisgarh State Load Dispatch Centre		P. No. 04/2016(T)

**Present: Narayan Singh, Chairman
Vinod Shrivastava, Member**

In the matter of –

- (i). Chhattisgarh State Power Distribution Company Ltd. (CSPDCL) for final true up for 2014-15 and determination of ARR for FY 2016-17 to FY 2020-21 and determination of retail tariff for FY 2016-17;
- (i). Chhattisgarh State Power Transmission Company Ltd. (CSPTCL) for final true up for 2014-15 and determination of ARR and transmission tariff for FY 2016-17 to FY 2020-21;
- (ii). Chhattisgarh State Power Generation Company Ltd. (CSPGCL) for final true up for 2014-15 and determination of ARR and generation tariff for FY 2016-17 to FY 2020-21;
- (iii). Chhattisgarh State Load Dispatch Centre (CSLDC) for final true up for 2014-15 and determination of ARR and SLDC Charges for FY 2016-17 to FY 2020-21.

ORDER
(Passed on 30.04.2016)

1. As per provisions of the Electricity Act, 2003 (hereinafter referred as 'the Act') and the Tariff Policy, the Commission has notified the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2015 (hereinafter referred as 'MYT Regulations, 2015') for determination of tariff for the generating company, licensees, and Chhattisgarh State Load Despatch Centre (CSLDC).
2. This Order is passed in respect of the Petitions filed by the (i) Chhattisgarh State Power Distribution Company Ltd. (CSPDCL) for approval of final true up for 2014-15, determination of ARR for the Control Period from FY 2016-17 to FY 2020-21, and determination of tariff for FY 2016-17, (ii) Chhattisgarh State Power Transmission Company Ltd. (CSPTCL) for approval of final true up for 2014-15 and determination of ARR and tariff for the Control Period from FY 2016-17 to FY 2020-21, (iii) Chhattisgarh State Power Generation Company Ltd. (CSPGCL) for approval of final true up for 2014-15 and determination of ARR and tariff for the Control Period from FY 2016-17 to FY 2020-21 for thermal plants and Hydro Power Plant, and (iv) Chhattisgarh State Load Dispatch Centre (CSLDC) for approval of final true up for 2014-15 and determination of ARR and tariff for the Control Period from FY 2016-17 to FY 2020-21.
3. This Order is passed under the provisions of Section 32(3), Section 45 and 62 read with Section 86(1) of the Act. This combined Order is passed by the Commission on the four separate Petitions filed by CSPDCL, CSPTCL, CSPGCL, and CSLDC, after having considered all the information and documents filed with the said Petitions, the information submitted to the Commission after technical validation, and after having heard the applicant Companies, the consumers, their representatives and other stakeholders in the hearing held by the Commission.
4. According to provisions of the Regulation 5.2 of the MYT Regulations, 2015, the generating company, licensees and CSLDC were required to file the petition for approval of Aggregate Revenue Requirement (ARR) for the Control Period from FY

2016-17 to FY 2020-21 and determination of tariff for FY 2016-17 for CSPDCL and determination of tariff for FY 2016-17 to FY 2020-21 for CSPTCL, CSPGCL, and CSLDC, latest by 30th November 2015.

5. On the request submitted by the Companies, the Commission extended the date of filing the petition up to 31.12.2015. Subsequently, CSPDCL and CSPTCL filed Petitions on 29.12.2015 and 30.12.2015, respectively, while CSPGCL and CSLDC filed Petitions on 31.12.2015.
6. Subsequently, the Petitions were registered for CSPDCL (Petition No. 01 of 2016), CSPTCL (Petition No. 02 of 2016), CSPGCL (Petition No. 03 of 2016), and CSLDC (Petition No. 04 of 2016) on 01.01.2016.
7. The Petitions were made available on the website of the Commission as well as the Petitioners and were also made available at the offices of the Petitioners. A public notice along with the gist of the Petitions was also published in the newspapers. Suggestions/objections were invited as per the procedure laid down in the Regulations. Further, the Commission conducted hearings at Raipur on the Petitions on 09.02.2015, 10.02.2015, and 11.02.2015. The Commission also convened a meeting with Members of the State Advisory Committee on 01.03.2015 for seeking their valuable suggestions and comments. Taking into account all the suggestions/objections and after performing necessary due diligence on each of the issues, the Commission has finalised its views.
8. In the Multi-Year Tariff (MYT) Order passed on 12.07.2013, the Commission had approved the ARR for the Control Period from FY 2013-14 to FY 2015-16 for CSPGCL, CSPTCL and CSPDCL. For CSPDCL, only the total power purchase cost was revised for FY 2014-15, based on the revised sales projections and energy requirement, in the Tariff Order dated 12.06.2014. Accordingly, the Commission has undertaken the final true up for FY 2014-15 for CSPDCL, CSPTCL, and CSPGCL in accordance with the provisions of the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2012 (hereinafter referred as 'MYT Regulations, 2012'). For CSLDC, the final true up for FY 2014-15 has been

undertaken in accordance with the Chhattisgarh State Electricity Regulatory Commission (Fees and Charges of State Load Despatch Centre and other related matters) Regulations, 2012.

- 9.** The provisions of the MYT Regulations, 2015 have been considered for determination of ARR and Tariff for FY 2016-17 to FY 2020-21 for CSPTCL, CSPGCL, and CSLDC, and Tariff for FY 2016-17 for CSPDCL. These Regulations embody the principles for determination of tariff enunciated in the Act. In passing this Order, the Commission has also been guided by the National Electricity Policy (NEP), 2005 and revised Tariff Policy, as mandated under the provisions of the Act. The Commission has taken care to ensure that the revenue requirements of the Companies are based on reasonable and prudent expenditure required to serve the consumers efficiently and effectively.
- 10.** The order passed by the Hon'ble APTEL in Appeal No. 308 of 2013 has been considered in the respective ARR of CSPDCL, CSPTCL, CSPGCL, and CSLDC, and cumulatively considered in the ARR of CSPDCL for FY 2016-17. The impact of the Hon'ble APTEL Judgment is Rs. 1483.32 crore, of which the impact of the reversal of the notional interest on excess Consumer Security Deposit is Rs. 1130.80 crore. Passing on entire impact resulting due to Hon'ble APTEL Judgment in one year, would result in a steep tariff hike. Hence, the Commission at this stage has considered only Rs. 370 crore against the APTEL impact related to notional interest on excess Consumer Security Deposit along with carrying cost in the ARR of CSPDCL for FY 2016-17, and the balance has been carried forward to subsequent years. Out of this Rs. 370 Crore , share of CSPGCL, CSPTCL and CSPDCL is Rs. 169.84 crore, Rs. 50.69 crore and Rs. 149.47 crore respectively.
- 11.** For CSPTCL, CSPGCL, and CSLDC, based on the Final True up of FY 2014-15, the revenue deficit/(surplus) along with carrying/(holding) cost has been considered in the ARR of CSPDCL for FY 2016-17, along with the revenue deficit/(surplus) of CSPDCL for FY 2014-15 along with carrying/(holding) cost.
- 12.** The cumulative deficit for CSPTCL including impact of APTEL Judgment, truing up for FY 2014-15 and Review Petition No. 50 of 2015 with carrying cost up to FY 2016-17, has been approved as Rs. 89.90 crore. The cumulative deficit for CSPGCL

including impact of APTEL Judgment, truing up for FY 2014-15 and Review Petition No. 49 of 2015 with carrying cost up to FY 2016-17, has been approved as Rs. 514.30 crore. The cumulative deficit for CSLDC including impact of APTEL Judgment and truing up for FY 2014-15 with carrying cost up to FY 2016-17, has been approved as Rs. 0.54crore. The deficit for CSPDCL on account of truing up of FY 2014-15 including carrying cost up to FY 2016-17, has been approved as Rs. 1717.63 crore. The impact on account of APTEL judgment has been approved as Rs. 1081.92 crore out of which Rs. 321.13 crore has been passed in FY 2016-17. The cumulative for CSPDCL including impact of APTEL Judgment and truing up for FY 2014-15 with carrying cost up to FY 2016-17 has been allowed as Rs. 2038.76 crore. The combined revenue gap of CSPDCL, CSPTCL, CSPGCL, and CSLDC for FY 2014-15 along with carrying cost and impact of APTEL Judgment, amounting to Rs. 2643.55 crore, has been considered in the ARR of CSPDCL for FY 2016-17.

13. The Commission has issued the Orders on the Petitions for approval of Capital Investment Plan for CSPDCL, CSPTCL, CSPGCL, and CSLDC separately. The capitalisation approved by the Commission in the above-said Orders has been considered by the Commission for computation of capital expenditure related expenses in this Order for the Control Period.
14. For CSPGCL, the ARR for the Control Period from FY 2016-17 to FY 2020-21 for various existing plants has been approved in this Order, in accordance with the MYT Regulations, 2015. For Marwa TPP, as the capital cost is yet to be approved, therefore the Commission has approved revised provisional tariff of Rs. 3.90/kWh for FY 2016-17 in this Order. The Annual Fixed Cost (AFC) (excluding pension and gratuity contribution, water charges, SLDC charges, start-up power expenses and other statutory charges) and Energy Charge rate for the aforesaid stations for FY 2016-17 has been approved by the Commission as under :-

Thermal Power Stations

Sl. No.	Particulars	Units	FY 2016-17			
			KTPS	HTPS	DSPM	Korba West
1	Annual Fixed Cost	Rs. Crore	343.82	429.12	495.91	725.22
2	Energy Charge Rate (ex-bus power plant basis)	Rs/kWh	1.722	1.163	1.293	0.986

Hydro Power Station (Hasdeo Bango)

Sl.	Particulars	Units	FY 2016-17
1	Approved ARR	Rs. Crore	24.13
2	Approved Net Generation	MU	271.26
3	Approved Tariff	Rs/kWh	0.890

15. CSPTCL has filed ARR for FY 2016-17 of Rs. 925 Crore. The Commission after prudence check and due scrutiny has approved the same at Rs. 823.49 Crore. Transmission charge for FY 2016-17 shall be as under :-

Particulars	Units	FY 2016-17
ARR (AFC) for FY 2016-17	Rs. Crore	823.49
Gap/(Surplus) of FY 2014-15 with carrying cost up to FY 2016-17 and Impact due to compliance of APTEL Judgment in Appeal No. 308 of 2013	Rs. Crore	89.90
Total Annual Transmission Charges to be billed	Rs. Crore	913.39
Monthly Transmission Charges to be billed	(Rs.Cr./Month)	76.12
Short-term Transmission Charges to be billed	(Rs./kWh)	0.288

Further, Transmission losses at the rate of 3.22% for the energy scheduled for transmission at the point or points of injection shall be recoverable from open access customers.

16. CSLDC has filed ARR for FY 2016-17 of Rs. 13.36 Crore. The Commission after prudence check and due scrutiny has approved the same at Rs. 12.41 Crore.
17. CSPDCL has filed ARR for FY 2016-17 of Rs. 12940 Crore. The Commission after prudence check and due scrutiny has approved ARR at Rs. 11634.22 Crore, including the under-recovered VCA amount from October 2015 to March 2015, and after revising the quantum and rate of power available from Marwa.
18. It is noted that the State Government has made a provision of subsidy of Rs. 350 Crore to bridge a part of the revenue gap for FY 2016-17.

19. CSPDCL, in its Petition, has sought approval for cumulative deficit of Rs. 2028 Crore for FY 2016-17. However, this cumulative deficit was understated as CSPDCL had not considered the impact of the revenue gap of CSPTCL, CSPGCL, and CSLDC on account of final true-up for FY 2014-15, as well as the impact of the APTEL Judgment for CSPTCL, CSPGCL, and CSLDC. The Commission directed CSPDCL to include the cumulative deficit the impact of the revenue gap of CSPTCL, CSPGCL, and CSLDC in the ARR of CSPDCL, as the final revenue gap and tariff have to be designed for recovery of all these amounts. CSPDCL submitted the revised revenue gap till FY 2016-17 including APTEL impact as Rs. 2793 crore. The revenue gap of Rs. 2793 crore claimed by CSPDCL is too an understatement. The actual impact computed from the submissions on account of truing of FY 2014-15 for CSPGCL, CSPTCL, CSLDC and CSPDCL and impact due to Hon'ble APTEL judgment for these power companies is Rs. 4434.48 Crore.
20. The Commission after prudence check and scrutiny has arrived at a cumulative revenue gap of Rs. 1622.54 Crore for FY 2016-17 after adjusting the cumulative gap/(surplus) of CSPGCL, CSPTCL, and CSLDC, the impact of the APTEL Judgment except two-thirds of the impact of notional interest on excess Consumer Security Deposit, and the subsidy from the State Government. Based on the above, the Commission has approved the revised Tariff Schedule.
21. As regards rationalisation of tariff categories, the Commission has made the following changes in this Order as compared to the tariff categories approved in the previous Tariff Order:
- a) The tariff of all consumer categories has been increased in order to recover the approved revenue gap.
 - b) The tariffs for all consumer categories have been increased in such a manner that the cross-subsidies are reduced gradually, and the tariffs for most of the consumer categories is within the band of $\pm 20\%$ of Average Cost of Supply, as stipulated by the Tariff Policy notified by the Government of India.
 - c) The Commission has completely re-categorised the existing EHV and HV categories into different HV categories based on purpose of use, and has created

sub-categories within each HV category for different voltage levels, viz., 220 kV, 132 kV, 33 kV, and 11 kV. The revised HV categories are as under:

- i. HV 1: Railway Traction
- ii. HV 2: Mines (Coal & Others)
 - a. 220 kV
 - b. 132 kV
 - c. 33 kV
 - d. 11 kV
- iii. HV 3: Other Industry & General Purpose Non-Industrial
 - a. 220 kV
 - b. 132 kV
 - c. 33 kV
 - d. 11 kV
- iv. HV 4: Steel Industry
 - a. 220 kV
 - b. 132 kV
 - c. 33 kV
 - d. 11 kV
- v. HV 5: Low Load Factor Industries
 - a. 33 kV
 - b. 11 kV
- vi. HV 6: Irrigation, Agriculture Allied Activities & Public water Works
- vii. HV 7: Residential
- viii. HV 8: Start-up Power Tariff
- ix. HV 9: Industries related to manufacturing of equipment for power generation from renewable energy sources
- x. HV 10: Information Technology Industries

22. For ready reference, the Tariff Schedule applicable in reference to this Order is appended herewith as **Schedule**.
23. The Order will be applicable from 1st April, 2016 and will remain in force till 31.03.2017 or till the issue of next Tariff Order, whichever is later. The Commission directs the Companies to take appropriate steps to implement the Tariff Order.
24. This Order and tariff schedule of detail order shall supersede the order and tariff schedule issued on 31st March, 2016 and billing shall be done as specified in detail order.

Sd/-
(VINOD SHRIVASTAVA)
MEMBER

Sd/-
(NARAYAN SINGH)
CHAIRMAN

**CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION
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**Present: Narayan Singh, Chairman
Vinod Shrivastava, Member**

In the matter of –

- (i). Chhattisgarh State Power Distribution Company Ltd. (CSPDCL) for final true up for 2014-15 and determination of ARR for FY 2016-17 to FY 2020-21 and determination of retail tariff for FY 2016-17;
- (ii). Chhattisgarh State Power Transmission Company Ltd. (CSPTCL) for final true up for 2014-15 and determination of ARR and transmission tariff for FY 2016-17 to FY 2020-21;
- (iii). Chhattisgarh State Power Generation Company Ltd. (CSPGCL) for final true up for 2014-15 and determination of ARR and generation tariff for FY 2016-17 to FY 2020-21;
- (iv). Chhattisgarh State Load Dispatch Centre (CSLDC) for final true up for 2014-15 and determination of ARR and SLDC Charges for FY 2016-17 to FY 2020-21.

ORDER
(Passed on 31.03.2016)

1. As per provisions of the Electricity Act, 2003 (hereinafter referred as 'the Act') and the Tariff Policy, the Commission has notified the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2015 (hereinafter referred as 'MYT Regulations, 2015') for determination of tariff for the generating company, licensees, and Chhattisgarh State Load Despatch Centre (CSLDC).
2. This Order is passed in respect of the Petitions filed by the (i) Chhattisgarh State Power Distribution Company Ltd. (CSPDCL) for approval of final true up for 2014-15, determination of ARR for the Control Period from FY 2016-17 to FY 2020-21, and determination of tariff for FY 2016-17, (ii) Chhattisgarh State Power Transmission Company Ltd. (CSPTCL) for approval of final true up for 2014-15 and determination of ARR and tariff for the Control Period from FY 2016-17 to FY 2020-21, (iii) Chhattisgarh State Power Generation Company Ltd. (CSPGCL) for approval of final true up for 2014-15 and determination of ARR and tariff for the Control Period from FY 2016-17 to FY 2020-21 for thermal plants and Hydro Power Plant, and (iv) Chhattisgarh State Load Dispatch Centre (CSLDC) for approval of final true up for 2014-15 and determination of ARR and tariff for the Control Period from FY 2016-17 to FY 2020-21.
3. This Order is passed under the provisions of Section 32(3), Section 45 and 62 read with Section 86(1) of the Act. This combined Order is passed by the Commission on the four separate Petitions filed by CSPDCL, CSPTCL, CSPGCL, and CSLDC, after having considered all the information and documents filed with the said Petitions, the information submitted to the Commission after technical validation, and after having heard the applicant Companies, the consumers, their representatives and other stakeholders in the hearing held by the Commission.
4. According to provisions of the Regulation 5.2 of the MYT Regulations, 2015, the generating company, licensees and CSLDC were required to file the petition for approval of Aggregate Revenue Requirement (ARR) for the Control Period from FY

2016-17 to FY 2020-21 and determination of tariff for FY 2016-17 for CSPDCL and determination of tariff for FY 2016-17 to FY 2020-21 for CSPTCL, CSPGCL, and CSLDC, latest by 30th November 2015.

5. On the request submitted by the Companies, the Commission extended the date of filing the petition up to 31.12.2015. Subsequently, CSPDCL and CSPTCL filed Petitions on 29.12.2015 and 30.12.2015, respectively, while CSPGCL and CSLDC filed Petitions on 31.12.2015.
6. Subsequently, the Petitions were registered for CSPDCL (Petition No. 01 of 2016), CSPTCL (Petition No. 02 of 2016), CSPGCL (Petition No. 03 of 2016), and CSLDC (Petition No. 04 of 2016) on 01.01.2016.
7. The Petitions were made available on the website of the Commission as well as the Petitioners and were also made available at the offices of the Petitioners. A public notice along with the gist of the Petitions was also published in the newspapers. Suggestions/objections were invited as per the procedure laid down in the Regulations. Further, the Commission conducted hearings at Raipur on the Petitions on 09.02.2015, 10.02.2015, and 11.02.2015. The Commission also convened a meeting with Members of the State Advisory Committee on 01.03.2015 for seeking their valuable suggestions and comments. Taking into account all the suggestions/objections and after performing necessary due diligence on each of the issues, the Commission has finalised its views.
8. In the Multi-Year Tariff (MYT) Order passed on 12.07.2013, the Commission had approved the ARR for the Control Period from FY 2013-14 to FY 2015-16 for CSPGCL, CSPTCL and CSPDCL. For CSPDCL, only the total power purchase cost was revised for FY 2014-15, based on the revised sales projections and energy requirement, in the Tariff Order dated 12.06.2014. Accordingly, the Commission has undertaken the final true up for FY 2014-15 for CSPDCL, CSPTCL, and CSPGCL in accordance with the provisions of the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2012 (hereinafter referred as 'MYT Regulations, 2012'). For CSLDC, the final true up for FY 2014-15 has been

undertaken in accordance with the Chhattisgarh State Electricity Regulatory Commission (Fees and Charges of State Load Despatch Centre and other related matters) Regulations, 2012.

- 9.** The provisions of the MYT Regulations, 2015 have been considered for determination of ARR and Tariff for FY 2016-17 to FY 2020-21 for CSPTCL, CSPGCL, and CSLDC, and Tariff for FY 2016-17 for CSPDCL. These Regulations embody the principles for determination of tariff enunciated in the Act. In passing this Order, the Commission has also been guided by the National Electricity Policy (NEP), 2005 and revised Tariff Policy, as mandated under the provisions of the Act. The Commission has taken care to ensure that the revenue requirements of the Companies are based on reasonable and prudent expenditure required to serve the consumers efficiently and effectively.
- 10.** The order passed by the Hon'ble APTEL in Appeal No. 308 of 2013 has been considered in the respective ARR of CSPDCL, CSPTCL, CSPGCL, and CSLDC, and cumulatively considered in the ARR of CSPDCL for FY 2016-17. The impact of the Hon'ble APTEL Judgment is Rs. 1523 crore, of which the impact of the reversal of the notional interest on excess Consumer Security Deposit is Rs. 1135 crore. Passing on entire impact resulting due to Hon'ble APTEL Judgment in one year, would result in a steep tariff hike. Hence, the Commission at this stage has considered only Rs. 370 crore against the APTEL impact related to notional interest on excess Consumer Security Deposit along with carrying cost in the ARR of CSPDCL for FY 2016-17, and the balance has been carried forward to subsequent years.
- 11.** For CSPTCL, CSPGCL, and CSLDC, based on the Final True up of FY 2014-15, the revenue deficit/(surplus) along with carrying/(holding) cost has been considered in the ARR of CSPDCL for FY 2016-17, along with the revenue deficit/(surplus) of CSPDCL for FY 2014-15 along with carrying/(holding) cost.
- 12.** The deficit for CSPTCL including carrying cost upto FY 2016-17, has been approved as Rs. 9.79 crore. The deficit for CSPGCL including carrying cost upto FY 2016-17, has been approved as Rs. 279.44 crore, including the deficit of Rs. 95.48 crore on account of final true-up of Korba West TPP for FY 2013-14. The deficit for CSLDC including carrying cost upto FY 2016-17, has been approved as Rs. 0.40 crore. The

deficit for CSPDCL including carrying cost upto FY 2016-17, has been approved as Rs. 1731.24 crore. The combined revenue gap of CSPDCL, CSPTCL, CSPGCL, and CSLDC for FY 2014-15 along with carrying cost, amounting to Rs. 2020.87 crore, has been considered in the ARR of CSPDCL for FY 2016-17.

13. The Commission has issued the Orders on the Petitions for approval of Capital Investment Plan for CSPDCL, CSPTCL, CSPGCL, and CSLDC separately. The capitalisation approved by the Commission in the above-said Orders has been considered by the Commission for computation of capital expenditure related expenses in this Order for the Control Period.
14. For CSPGCL, the ARR for the Control Period from FY 2016-17 to FY 2020-21 for various existing plants has been approved in this Order, in accordance with the MYT Regulations, 2015. For Marwa TPP, as the capital cost is pending for approval by the Commission in a separate proceeding, and as no tariff has been determined for FY 2016-17 yet, the Commission has approved revised provisional tariff for FY 2016-17 in this Order. The Annual Fixed Cost (AFC) and Energy Charge rate for the aforesaid stations for FY 2016-17 has been approved by the Commission as under :-

Thermal Power Stations

Sl.	Particulars	Units	FY 2016-17			
			KTPS	HTPS	DSPM	Korba West
1	Annual Fixed Cost	Rs. Crore	341.97	451.63	553.14	745.63
2	Energy Charge Rate (ex-bus power plant basis)	Rs/kWh	1.72	1.16	1.29	0.99

Hydro Power Station (Hasdeo Bango)

Sl.	Particulars	Units	FY 2016-17
1	Approved ARR	Rs. Crore	31.13
2	Approved Net Generation	MU	274
3	Approved Tariff	Rs/kWh	1.14

15. CSPTCL has filed ARR for FY 2016-17 of Rs. 925 Crore. The Commission after prudence check and due scrutiny has approved the same at Rs. 796 Crore. Transmission charge for FY 2016-17 shall be as under :-

Sl.	Particulars	Units	FY 2016-17
1	ARR for CSPTCL	Rs. Crore	796.06
2	Monthly Transmission Charges for Medium and Long-term Open Access Customers.	Rs. Crore/month	66.46
3	Short-term Open Access Charges	Rs/kWh	0.274

Further, Transmission losses at the rate of 3.22% for the energy scheduled for transmission at the point or points of injection shall be recoverable from open access customers.

16. CSLDC has filed ARR for FY 2016-17 of Rs. 13.36 Crore. The Commission after prudence check and due scrutiny has approved the same at Rs. 12.88 Crore.
17. CSPDCL has filed ARR for FY 2016-17 of Rs. 12940 Crore. The Commission after prudence check and due scrutiny has approved ARR at Rs. 12124 Crore, including the under-recovered VCA amount, and after revising the quantum and rate of power available from Marwa.
18. It is noted that the State Government has made a provision of subsidy of Rs. 350 Crore to bridge a part of the revenue gap for FY 2016-17.
19. CSPDCL, in its Petition, has sought approval for cumulative deficit of Rs. 2028 Crore for FY 2016-17. However, this cumulative deficit was understated as CSPDCL had not considered the impact of the revenue gap of CSPTCL, CSPGCL, and CSLDC on account of final true-up for FY 2014-15, as well as the impact of the APTEL Judgment for CSPTCL, CSPGCL, and CSLDC. The Commission directed CSPDCL to include the cumulative deficit the impact of the revenue gap of CSPTCL, CSPGCL, and CSLDC in the ARR of CSPDCL, as the final revenue gap and tariff have to be designed for recovery of all these amounts. CSPDCL submitted the revised revenue gap till FY 2016-17 including APTEL impact as Rs. 2793 crore. However,

even this revenue gap of Rs. 2793 crore is an understatement, and the actual revenue gap claimed by CSPDCL is Rs. 3806 crore.

20. The Commission after prudence check and scrutiny has arrived at a cumulative revenue gap of Rs. 1626 Crore for FY 2016-17 after adjusting the cumulative gap/(surplus) of CSPGCL, CSPTCL, and CSLDC, the impact of the APTEL Judgment except two-thirds of the impact of notional interest on excess Consumer Security Deposit, and the subsidy from the State Government. Based on the above, the Commission has approved the revised Tariff Schedule.
21. As regards rationalisation of tariff categories, the Commission has made the following changes in this Order as compared to the tariff categories approved in the previous Tariff Order:
 - a) The tariff of all consumer categories has been increased in order to recover the approved revenue gap.
 - b) The tariffs for all consumer categories have been increased in such a manner that the cross-subsidies are reduced gradually, and the tariffs for most of the consumer categories is within the band of $\pm 20\%$ of Average Cost of Supply, as stipulated by the Tariff Policy notified by the Government of India.
 - c) The Commission has completely re-categorised the existing EHV and HV categories into different HV categories based on purpose of use, and has created sub-categories within each HV category for different voltage levels, viz., 220 kV, 132 kV, 33 kV, and 11 kV. The revised HV categories are as under:
 - i. HV 1: Railway Traction
 - ii. HV 2: Mines (Coal & Others)
 - a. 220 kV
 - b. 132 kV
 - c. 33 kV
 - d. 11 kV
 - iii. HV 3: Other Industry & General Purpose Non-Industrial
 - a. 220 kV
 - b. 132 kV

- c. 33 kV
 - d. 11 kV
 - iv. HV 4: Steel Industry
 - a. 220 kV
 - b. 132 kV
 - c. 33 kV
 - d. 11 kV
 - v. HV 5: Low Load Factor Industries
 - a. 33 kV
 - b. 11 kV
 - vi. HV 6: Irrigation, Agriculture Allied Activities & Public water Works
 - vii. HV 7: Residential
 - viii. HV 8: Start-up Power Tariff
 - ix. HV 9: Industries related to manufacturing of equipment for power generation from renewable energy sources
 - x. HV 10: Information Technology Industries
- 22. For ready reference, the Tariff Schedule applicable in reference to this Order is appended herewith as **Schedule**.
- 23. The Order will be applicable from 1st April, 2016 and will remain in force till 31.03.2017 or till the issue of next Tariff Order, whichever is later. The Commission directs the Companies to take appropriate steps to implement the Tariff Order.

Sd/-
(VINOD SHRIVASTAVA)
MEMBER

Sd/-
(NARAYAN SINGH)
CHAIRMAN

**CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION
RAIPUR**



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**Present: Narayan Singh, Chairman
Vinod Shrivastava, Member**

In the matter of –

- (i). Chhattisgarh State Power Distribution Company Ltd. (CSPDCL) for final true up for 2014-15 and determination of ARR for FY 2016-17 to FY 2020-21 and determination of retail tariff for FY 2016-17;
- (ii). Chhattisgarh State Power Transmission Company Ltd. (CSPTCL) for final true up for 2014-15 and determination of ARR and transmission tariff for FY 2016-17 to FY 2020-21;
- (iii). Chhattisgarh State Power Generation Company Ltd. (CSPGCL) for final true up for 2014-15 and determination of ARR and generation tariff for FY 2016-17 to FY 2020-21;
- (iv). Chhattisgarh State Load Dispatch Centre (CSLDC) for final true up for 2014-15 and determination of ARR and SLDC Charges for FY 2016-17 to FY 2020-21.

The Commission has issued order in the above petitions on 31/03/2016. In the order, few inadvertent typographical errors have been found on the face of record. Hence, the Commission hereby makes following corrections in the above order.

CORRIGENDUM ORDER

(Dated 02.04.2016)

1. Para 14 of operative order shall be read as
“For CSPGCL, the ARR for the Control Period from FY 2016-17 to FY 2020-21 for various existing plants has been approved in this Order, in accordance with the MYT Regulations, 2015. For Marwa TPP, as the capital cost is pending for approval by the Commission in a separate proceeding, and as no tariff has been determined for FY 2016-17 yet, the Commission has approved revised provisional tariff **of Rs. 3.90 per kWh** for FY 2016-17 in this Order.....”
2. In the table given in Para 15 of operative order the
Monthly Transmission Charges for Medium and Long-term Open Access Customers for FY 2016-17 shall be read as **Rs. 66.34** Crore in place of **Rs. 66.46 Crore**”
3. In para no. 1.1.4 of Tariff Schedule i.e. tariff for LV-4, Agriculture Allied Activities, the word “Rs. 130 per HP per month or Rs 160 per kW per month” appearing in table shall be read as “Rs. 130 per HP per month or **Rs 175 per kW per month.**”
4. In para no. 1.1.8 of Tariff Schedule i.e. tariff for LV-8, Temporary Supply under Notes “ii” the phrase “Agricultural connections shall also be billed one and half times of metered supply tariff (LV-3)” shall be deleted.
5. In para no. 1.1.9 of Tariff Schedule i.e. Terms and Conditions of L.V. Tariff at serial no. 6(i) i.e. Determination of Maximum Demand the phrase “measurement in average kVA at the point of supply” shall be read as “measurement in average kVA **or average kW as the case may be** at the point of supply”.
6. In para no. 1.1.9 of Tariff Schedule i.e. Terms and Conditions of L.V. Tariff, serial no. 8(i), there shall a second paragraph as under:
“2. Where the recording facility of demand is available, the billing on account of excess supply shall be restricted to the recorded month only.”

7. In para no. 17(a) of Terms and conditions of HV Tariff of Tariff Schedule i.e. Transmission Charges the phrase “The monthly transmission charges is Rs. 66.46 Crore” shall be read as “The monthly transmission charges is **Rs. 66.34 Crore**”
8. In para no. 17(h) of Terms and conditions of HV Tariff of Tariff Schedule i.e. Standby Charges the first paragraph shall read as
- “The standby charges for consumers availing open access (using transmission and/or distribution system of Licensee) and who draw power from the grid up to the contracted capacity of open access during the outage of generating plant/CPP shall be 1.5 times of the per kWh weighted average tariff of HV consumers, which is **Rs 11.27 per kWh** (1.5 times of the average billing rate of Rs.7.51 per kWh). For drawal of power in excess of the contracted capacity of open access, the tariff for availing standby support from the grid shall be two times of the per unit weighted average tariff of HV consumers, which is **Rs 15.02 per kWh** (2 times of the average billing rate of Rs. 7.51 per kWh). Further, in case of outage of CPP supplying power to captive/non captive consumer who has reduced its contract demand to zero and also availed open access draws power of CSPDCL **then** billing of such power drawn shall be done as per the standby charges mentioned above.”
9. In para no. 18(d) of Terms and conditions of HV Tariff of Tariff Schedule i.e. Intra-State Open Access Charges for renewable energy transactions Transmission Charges shall be read as
- “Transmission Charges **or** Wheeling Charges **or Combination thereof** in kind (energy losses) for long-term/medium-term/short-term open access - 6%”.
10. Second Paragraph of para no. 18(e)(ii) of Terms and conditions of HV Tariff of Tariff Schedule i.e. “In case of consumer connected to transmission system and receiving power through open access, the transmission licensee shall collect the cross-subsidy surcharge and remit the same to the distribution licensee.” shall be deleted.

Sd/-
(VINOD SHRIVASTAVA)
MEMBER

Sd/-
(NARAYAN SINGH)
CHAIRMAN

LIST OF ABBREVIATIONS

Abbreviation	Description
A&G	Administrative and General
APTEL	Hon'ble Appellate Tribunal of Electricity
ARR	Annual Revenue Requirement
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
COD	Date of Commercial Operation
CSEB	Chhattisgarh State Electricity Board
CSERC	Chhattisgarh State Electricity Regulatory Commission
CSPDCL	Chhattisgarh State Power Distribution Company Limited
CSPGCL	Chhattisgarh State Power Generation Company
CSPHCL	Chhattisgarh State Power Holding Company Limited
CSPTCL	Chhattisgarh State Power Transmission Company Limited
CSPTCL	Chhattisgarh State Power Trading Company Limited
CWIP	Capital Work in Progress
DPS	Delayed Payment Surcharge
DS	Domestic Service
FY	Financial Year
GCV	Gross Calorific Value
GFA	Gross Fixed Assets
GoCG	Government of Chhattisgarh
GoI	Government of India
HT	High Tension
Kcal	Kilocalorie
Kg	Kilogram
kV	Kilovolt
kVA	Kilovolt-ampere

Abbreviation	Description
kW	Kilowatt
kWh	Kilowatt-hour
MAT	Minimum Alternative Tax
ml	Millilitre
MMC	Monthly Minimum Charges
MT	Million Tonnes
MU	Million Units
MYT	Multi Year Tariff
NTI	Non Tariff Income
O&M	Operations and Maintenance
PLF	Plant Load Factor
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
RoE	Return on Equity
Rs	Rupees
SBI	State Bank of India
SERC	State Electricity Regulatory Commission
SLDC	State Load Dispatch Center
SLM	Straight Line Method
T&D Loss	Transmission and Distribution Loss
UI	Unscheduled Interchange

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1 BACKGROUND AND BRIEF HISTORY

1.1 BACKGROUND

The process of restructuring of the erstwhile Chhattisgarh State Electricity Board (CSEB) was initiated by the State Government in pursuance of the Provisions of part XIII of the Electricity Act, 2003. The Government of Chhattisgarh (GoCG) vide notification No. 1-8/2008/13/1 dated December 19, 2008, issued the CSEB Transfer Scheme Rules, 2008 with effect from January 1, 2009. As per the Rules, the erstwhile CSEB was unbundled into five independent Companies, i.e., Chhattisgarh State Power Generation Company Limited (CSPGCL), Chhattisgarh State Power Transmission Company Limited (CSPTCL), Chhattisgarh State Power Distribution Company Limited (CSPDCL), Chhattisgarh State Power Trading Company Limited (CSPTCL), and Chhattisgarh State Power Holding Company Limited (CSPHCL). The assets and liabilities of the erstwhile CSEB have been allocated to the successor Companies w.e.f. January 1, 2009 according to the provisions of the CSEB Transfer Scheme Rules, 2010. The validity of the present transfer scheme is extended up till December 2018.

1.2 THE ELECTRICITY ACT, 2003, TARIFF POLICY AND REGULATIONS

Section 61 of the Electricity Act, 2003 (herein after referred as the EA, 2003 or the Act) stipulates the guiding principles for determination of the tariff by the Commission and mandates that the tariff should progressively reflect cost of supply of electricity, reduce cross subsidy, safeguard consumers' interest and recover the cost of electricity in a reasonable manner. This Section also stipulates that the Commission while framing the Tariff Regulations shall be guided by the principles and methodologies specified by the Central Electricity Regulatory Commission for determination of the tariff applicable to generating companies and transmission licensees.

Section 62 of the EA, 2003 stipulates that the Commission shall determine the tariff for:

- Supply of electricity by a Generating Company to a Distribution Licensee;
- Transmission of electricity;
- Wheeling of electricity; and
- Retail sale of electricity.

The Tariff Policy notified by the Government of India in January 2006, as well as the amended Tariff Policy notified in January 2016, provides the framework to balance the conflicting objectives of attracting investments to ensure availability of quality power and protecting the interest of consumers by ensuring that the electricity tariffs are affordable.

The Commission notified the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2015 (hereinafter referred to as MYT Regulations, 2015) applicable for the Control Period from FY 2016-17 to FY 2020-21.

1.3 PROCEDURAL HISTORY

The Commission had notified Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2012 (hereinafter referred to as MYT Regulations, 2012). Based on the above said Regulations, the Commission had issued the MYT Order dated July 12, 2013 for CSPGCL, CSPTCL, and CSPDCL for the Control Period from FY 2013-14 to FY 2015-16. For CSLDC, the Commission had issued the Chhattisgarh State Electricity Regulatory Commission (Fees and Charges of State Load Despatch Centre and other related matters) Regulations, 2012 (hereinafter referred to as SLDC Regulations, 2012). Based on the above said Regulations, the Commission had issued the MYT Order dated July 9, 2013 for CSLDC for the Control Period from FY 2013-14 to FY 2015-16.

Vide Tariff Order dated May 23, 2015, the Commission has done true up for FY 2013-14 in accordance with Regulation 10 of the MYT Regulations, 2012. In this Order, the Commission has undertaken the final true up for FY 2014-15 for CSPDCL, CSPTCL, and CSPGCL in accordance with the provisions of the MYT Regulations, 2012. For CSLDC, the final true up for FY 2014-15 has been undertaken in accordance with the SLDC Regulations, 2012.

1.4 PETITIONS FILED UNDER MYT REGULATIONS, 2015 FOR CONTROL PERIOD FROM FY 2016-17 TO FY 2020-21

CSPDCL filed its Petition on December 29, 2015 for approval of true up for FY 2014-15, multi-year ARR for the entire Control Period and retail tariff for FY 2016-17, which was registered as Petition No. 01 of 2016 (T). CSPTCL filed the Petition for approval of final true up for FY 2014-15 and multi-year ARR and Transmission Tariff for the entire Control Period on December 30, 2015, registered as Petition No. 02 of 2016 (T). CSPGCL filed the petition for approval of true up for FY 2014-15 for HTPS, KTPS, DSPM and SHP, true-up of FY 2013-14 and FY 2014-15 for 1x500 MW Korba West TPP, and multi-year ARR and tariff for each year of the Control Period for each of the stations on December 31, 2015, registered as Petition No. 03 of 2016 (T). CSLDC filed the Petition for approval of final true up for FY 2014-15 and multi-year ARR and tariff for the entire Control Period on December 31, 2015, registered as Petition No. 04 of 2016(T).

1.5 ADMISSION OF THE PETITION AND HEARING PROCESS

The Petitions filed by CSPGCL, CSPTCL, CSPDCL and CSLDC were registered on 01 January, 2016.

The Companies were directed to publish the abridged version of the Petition in Hindi and English newspapers for inviting comments / objections / suggestions from all the stakeholders. The petitions were made available on the website of the Commission as well as on the Petitioners' websites. As required under Clause 21 of the CSERC (Details to be furnished by licensee etc.) Regulations, 2004, notices inviting suggestions /comments/objections from the stakeholders on the above proposals were published in the leading newspapers namely, Patrika, Navbharat, Central Chronicle, NayiDuniya, Hitvada, Dainik Bhaskar of the State on 10 Jan 2016, 12 Jan 2016 and 13 Jan 2016 by the Petitioners. A period of twenty one (21) days was given for

submission of written objections and suggestions by the public. The Companies were also directed to submit written replies to the Commission with copies endorsed to the objectors.

In order to have better clarity on the data submitted by the Petitioners and to remove inconsistency in the data, Technical Validation Sessions (TVS) were held on 6 February, 2016 and 1 March, 2016 with the petitioners. During the TVS, additional information required for processing of the petitions was sought from the petitioners. The petitioners submitted the additional information sought in the TVS. Notices under Section 94(2) of the Act were published in the following newspapers of the State for hearings:

Newspaper Name	Date of Notice Published
Patrika, Dainik Bhaskar, Ambika Vani, Dandkaranya Samachar, Hitvada	February 2, 2016
Navbharat, Haribhoomi, Nayi Duniya, Deshbandhu, Central Chronicle	February 5, 2016

The objections and suggestions from stakeholders were received on the Petitions filed by CSPGCL, CSPTCL, CSPDCL and CSLDC. The list of persons who filed the written submissions is annexed as **Annexure 1**.

The hearing was held on February 9, 10 and 11, 2016 in the Commission's office at Raipur. The Commission has ensured that the due process as contemplated under the law to ensure transparency and public participation was followed at every stage and adequate opportunity was given to all the persons to offer their views.

The issues raised by stakeholders along with the response of the petitioners' and views of the Commission are elaborated in Chapter 2 of this Order.

1.6 STATE ADVISORY COMMITTEE MEETING

A copy of the abridged Hindi and English version of the Petitions were also sent to all the members of the State Advisory Committee of the Commission on February 09, 2016 for their comments.

A meeting of the State Advisory Committee was convened on March 1, 2016 to discuss the petitions and seek inputs from the Committee. The companies gave a presentation in the meeting on the salient features of their petitions. Various aspects of the tariff petitions were discussed by the Members of the Committee in the meeting and following suggestions were given for consideration:

- To ascertain what benefits consumer can get because of implementation of UDAY scheme.
- To conduct a survey to find out how many meters have been installed till date in the State of Chhattisgarh before smart metering scheme under UDAY is implemented.
- Emphasis should be laid on extension of distribution lines and improvement in metering services.

2 HEARING PROCESS, INCLUDING THE COMMENTS MADE BY VARIOUS STAKEHOLDERS, THE PETITIONERS' RESPONSES AND VIEWS OF THE COMMISSION

2.1 LEGAL ISSUES

2.1.1 Deficiency in the MYT Regulations, 2015

Absence of Retail Tariff Determination Principles and Guidelines

The objectors submitted that the MYT Regulations, 2015 do not lay down any principle or guideline to determine the Retail Tariff of different categories of consumers. According to the Tariff Policy and the EA, 2003, the objective of MYT Regime is predictability and stability of category-wise retail tariff. However, in the absence of such principles, consumers cannot be assured of the justification, predictability and stability of retail tariff projected by the utilities.

Petitioner's Reply

CSPDCL submitted that the objections related to the provisions of MYT Regulations, 2015 notified by the Commission after undergoing due process of consultation on previously published draft Regulations in accordance with the conditions stipulated in Section 181 of the Act. It is a matter of record that the Commission had already gone through the process of inviting objections/suggestions prior to notification of said Regulations, hence raising these objections at this stage is not fair and proper. Further, provisions of MYT Regulations, 2015 are binding on all parties.

Commission's View

The objection pertains to the provisions of the MYT Regulations, 2015 notified by the Commission after undergoing due process of consultation on previously published draft Regulations, and not on the Petition filed by the Companies. This regulatory process is for hearing objections and suggestions on the Petition filed by the Companies. Further, the Commission outlines its tariff philosophy in each of its Tariff Orders, and also explains any change in tariff philosophy necessitated by circumstances, as and when necessary.

2.1.2 Relaxed Target for Reduction in Distribution Losses

The objectors submitted that reduction in Distribution Losses are not arrived at by a defined procedure or methodology and principles accepted nation-wide and guidelines (like Abraham Committee Report) have not been followed, which is objectionable. Relaxed targets specified for CSPDCL are providing opportunity to claim over-achievement benefits at the cost of consumers.

Petitioner's Reply

CSPDCL has not submitted any reply to this objection.

Commission's View

The distribution loss reduction trajectory has been specified in the MYT Regulations, 2015. Thus, the objection pertains to the provisions of the MYT Regulations, 2015 notified by the Commission after undergoing due process of consultation on

previously published draft Regulations, and not on the Petition filed by the Companies. This regulatory process is for hearing objections and suggestions on the Petition filed by the Companies.

2.1.3 Absence of any target for Reduction in Transmission Losses

The objectors submitted that the Commission has not specified any Transmission Loss reduction trajectory for CSPTCL for the MYT Control Period from FY 2016-17 to FY 2020-21 in the MYT Regulations, 2015.

The objectors submitted that in FY 2014-15, CSPTCL has reported Transmission Loss of 3.22% against an approved target of 4.3%. On this over-achievement, CSPTCL has claimed incentive of Rs. 37.38 crore. However, against actual transmission loss of only 3.22% in FY 2014-15, CSPTCL has proposed a target of 4.16% in FY 2016-17. The intention is to grab incentive against a relaxed target at the cost of consumers.

Petitioner's Reply

CSPTCL submitted that specifying the transmission loss reduction trajectory in the Tariff Order/MYT Regulations for the respective years of the Control Period based on the Transmission Loss achieved in previous years, falls under the jurisdiction of the Commission.

As the Commission has not specified the transmission loss trajectory in the MYT Regulations, 2015, CSPTCL has proposed loss target for the Control Period in the Petition stating reasoning therein. It is just a proposal from CSPTCL and loss target is to be decided by the Commission. CSPTCL has claimed the incentive against the reduction in transmission loss for FY 2014-15 as per the provision under the MYT Regulations, 2012. The amount of incentive is 50% of total saving on account of reduction in transmission loss as against the target set by the Commission. Though the objector has mentioned the incentive to CSPTCL, the objector has failed to see that 50% of the saving is passed on to the beneficiary/consumer(s). The objector's allegation that "CSPTCL's intention is clearly to grab incentive against a relaxed target at the cost of consumers" is totally misleading and objectionable. The objector has failed to note that the MYT Regulations, 2015 do not provide for any incentive towards reduction in transmission losses for the entire Control Period.

Commission's View

The Commission has analysed the performance of CSPTCL in reducing the transmission losses over the previous Control Period. Based on its performance vis-à-vis the trajectory stipulated in the previous Control Period, the Commission has stipulated the trajectory of transmission losses for the MYT Control Period from FY 2016-17 to FY 2020-21 as 3.22%, in this Order.

2.1.4 Determination of Voltage-wise Cost of Supply (VCoS) and determination of Cross Subsidy on the basis of VCoS

The objectors submitted that the Commission should determine Voltage-wise Cost of Supply (VCoS) from FY 2016-17 itself, based on the various Order/directives given by the Hon'ble APTEL in this regard. Once the VCoS for FY 2016-17 is determined,

cross-subsidy can also be determined based on the VCoS, since the Electricity Act, 2003 requires the State Electricity Regulatory Commissions to progressively reduce the cross subsidy in tariffs so as to ensure that the tariffs reflect the cost of supply.

Petitioner's Reply

CSPDCL submitted that the MYT Regulations, 2015 do not provide segregation of normative losses for the Distribution Licensee into voltage-wise normative losses and break-up of technical and commercial losses. Determination of voltage wise losses would require a detailed technical study of the distribution system. The Commission has issued directives to prioritize study on Voltage-wise Cost of Supply and to submit a Report. In compliance, CSPDCL is in the process of appointing a Consultant for which Technical Specifications of study regarding VCoS has been submitted to the Commission for obtaining its approval. Thereafter, CSPDCL shall initiate the process of consultancy in this regard.

However, based on the principles prescribed by the Hon'ble APTEL in its Judgment dated 24.03.2015 passed in Appeal No.103 of 2010, CSPDCL has endeavoured to segregate the voltage-wise losses and has apportioned the power purchase cost and all other costs in proportion to the sales and losses at respective voltage levels, to submit VCoS for FY 2013-14. The VCoS so worked out is indicative in nature and not accurate as the actual base data for the same needs to be duly collected. The Government of India has notified the amended Tariff Policy on January 28, 2016 and Clause 8.3: Tariff design, provides the guiding principles for determination of retail tariff and linkage of tariff to cost of service, as reproduced below:

“For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the Appropriate Commission would notify a roadmap such that tariffs are brought within $\pm 20\%$ of the average cost of supply. The road map would also have intermediate milestones, based on the approach of gradual reduction in cross subsidy”.

In view of the above, it can be seen that the existing approach of the Commission is in line with the above principles and accordingly objections raised under this head lack merit.

Commission's View

During the Technical Validation Session, the Commission had asked CSPDCL to submit the VCoS for FY 2013-14, which has been submitted by CSPDCL. The proposal submitted by CSPDCL regarding the Technical Specifications of study on VCoS is under examination. The calculations of VCoS submitted by CSPDCL and the Commission's analysis of the same are elaborated in Chapter 13: Tariff Philosophy. The Commission has also implemented differential tariffs for different voltages within the same category in this Order, as elaborated in Chapter 13: Tariff Philosophy.

2.1.5 Tariffs to be within +/-20% of Average Cost of Supply (ACoS)

The objectors submitted that the tariff for LT Industries, EHV3-Steel Industries, HV2-Mines & Cement Plants, Other HT Industries, HV3- Low Load Factor Industries, etc., are still outside the band of +/- 20% of ACoS (range for deviation stipulated in the

Tariff Policy). Therefore, any increase in tariff over and above the existing tariff will increase the Average Billing Rate (ABR) further, which would be in violation of the Tariff Policy and the EA 2003.

Petitioner's Reply

CSPDCL has not submitted any reply to this objection.

Commission's View

The Commission has taken cognizance of the objection raised. It has addressed this issue in the Tariff Philosophy Chapter, while determining the category-wise tariffs for FY 2016-17.

2.1.6 Disallowance of pass through of Tax paid by CSPDCL to Municipal Corporation

The objector submitted that under the Corporation Act, CSPDCL pays Tax every year. However, in the Tariff Order dated June 12, 2014, the Commission allowed CSPDCL to recover any tax paid to the Corporation by levying additional charges on the installation through which the Local Body receives supply. The said charges are a burden on the Local Body; therefore, any clause in the Regulation, which enables recovery of tax, should be deleted.

Petitioner's Reply

CSPDCL submitted that any tax paid to the Corporation is treated as an expense and Regulation 26 of the MYT Regulations, 2015, allows for recovery of such expenditure.

Commission's Views

The Regulations for Terms and Conditions for determination of tariff is based on cost-plus philosophy. According to the cost-plus philosophy, the cost is the expenses incurred by the regulated entity and plus is the return on equity deployed by the utility. It is apparent that the utility gets only the return on its equity and the expenses is required to be totally recovered. The MYT Regulations, 2015, allow for recovery of taxes paid by CSPDCL. Further, in principle, if taxes levied by any Local Body are not recovered from the same Local Body, then the same would be recovered from the ARR and from all the consumers, which would be unfair to them. It is appropriate that if the Local Body imposes any tax on the DISCOM on the activity of supplying electricity, which is not generally levied by other Local Bodies, then the same should be recovered from the same Local Body.

2.1.7 Independence of the Commission

The objector has submitted that the Commission is supposed to take unbiased decision keeping in mind the welfare of all strata of the society. However, at present there is a case pending before the Chhattisgarh High Court against the appointment of Shri. Narayan Singh as the Charirman of the Commission. Since the matter is yet to be decided, the incumbent Chairman should recuse himself from the tariff process. In addition, a complaint has also been filed against the appointment of Shri. V. Srivastava as the member of the Commission. The present member who was an employee of CSPGCL has been accused of being partial towards his previous organization while making decisions.

Petitioner's Reply

CSPDCL has not submitted any reply to this objection.

Commission's View

The objection does not pertain to the Petition filed by the Companies. This regulatory process is for hearing objections and suggestions on the Tariff Petition filed by the Companies.

2.2 RETAIL TARIFF ISSUES

2.2.1 Tariff for EHV3-Steel Industries, HV-3 Steel Industries, HV-3 Low Load Factor Industries, and HV-1 Steel Industries

The objectors submitted that:

ABR of 132 kV EHV3-Steel Industries should be kept lower than that for 33 kV and 11 kV Steel Industries, so that it encourages consumers to avail 132 kV supply.

Optional tariff should also be made available to 132 kV EHV3-Steel Industries.

Retail tariff of EHV3-Steel Industries should be competitive with cost of Captive Power and cost of Open Access Power in order to maintain healthy customer profile of the Discom.

Security deposit should be kept at an amount equal to one and half months' billing.

kWh billing system should again be adopted and sufficient time should be given to consumers before adopting the kVAh billing system again.

TOD Tariff should be allowed to 33 kV HV-3 Low Load Factor Industries.

The State Government should be advised to completely withdraw the Electricity Cess of 10 paise/unit and Electricity Duty of 3%.

Petitioner's Reply

CSPDCL submitted that there is no justification in comparing EHV/HV tariff applicable for retail supply with cost of captive power; both from technical as well as commercial point of view, as supply of electricity to these cases operate in different fields. The EA 2003 provides for determination of generation tariff only when there is sale by a generating company to a distribution licensee, and not for captive use.

Further, CSPDCL submitted that contents submitted by the objectors are a reproduction of figures of previous Tariff Order in respect of EHV-3, HV-3, HV-1, and LT industries, which has already been settled. Further, a Review Petition has been filed by the Chhattisgarh Re-Rollers Association, which is pending before the Commission as Petition No. 51/2015(M), comprising Tariff related issues in Tariff Order dated May 23, 2015. Accordingly, CSPDCL offers no comments on these submissions.

As regards the issue of advising the State Government on withdrawal of Cess, CSPDCL submitted that the issues related to Electricity Duty and Cess fall under the purview of the State Government, and hence, may not form a part of the Tariff Petition.

Commission's View

Cognizance has been taken of the objections and suggestions raised. As elaborated in the Chapter 13: Tariff Philosophy, the Commission has completely re-categorised the existing EHV and HV categories into different HV categories based on purpose of use, and has created sub-categories within each HV category for different voltage levels, viz., 220 kV, 132 kV, 33 kV, and 11 kV. The tariffs have been determined such that the tariff for higher voltages is lower than the tariff for lower voltages. Consequent to the above re-categorisation and rationalisation, the optional tariff earlier available to HV-1 Steel Category has been discontinued.

The retail tariffs are determined with a view to ensure recovery of the approved ARR, reduction of cross-subsidies, ensuring that no category is subject to a tariff shock, etc. Hence, it is neither feasible nor required to ensure that the retail tariffs are comparable to the cost of Captive Power and cost of Open Access power. It is for the consumer to assess the technical and economic viability of various options for sourcing power.

The security deposit amount is required to be maintained in accordance with the Supply Code notified by the Commission.

The kVAh billing has already been introduced by the Commission for HV categories in the last Tariff Order, and all consumers by now would have adjusted their active and reactive consumption appropriately, and hence, there is no merit in the suggestion to revert to kWh billing and give sufficient time to consumers before adopting the kVAh billing system again.

As the Low Load Factor industries are required to operate in day time only, i.e., between 6:00 a.m. and 6:00 p.m., it is not feasible to allow ToD tariff to this category.

As regards withdrawal of the Electricity Cess of 10 paise/unit and Electricity Duty of 3%, the same are within the purview of the State Government, and are not a subject matter of the Tariff Petitions filed by the Companies.

2.2.2 LT Industries

The objectors submitted that at present, the LT Industries category is sub-divided into the following four sub-categories:

- a. Flour mills, Hullers, power looms, grinders for grinding masalas up to 15 HP
- b. Other Industries up to 25 HP
- c. Other Industries between 25-75 HP
- d. Other Industries with Demand based Tariff- for Contract Demand of 15 kW to 75kW

Out of these four sub-categories, the first two are subsidized while the last two are subsidizing. Even though the overall ABR of LT industries is Rs. 6.74 per kWh, the ABR for Industries between 25-75 HP and Other industries with demand based tariffs is greater than Rs. 7.50 per kWh, which is beyond the stipulated higher limit of +20% of ACoS of Rs. 5.10 per kWh for FY 2015-16.

Petitioner's Reply

CSPDCL has not submitted reply on this issue

Commission's View

Cognizance has been taken on the objections and suggestions raised. As elaborated in the Chapter 13: Tariff Philosophy, the Commission has attempted to ensure that the cross-subsidies are reduced, and the tariffs of all categories are within +/-20% of ACOS as stipulated by the Tariff Philosophy.

2.2.3 South East Central Railways

The objector submitted that CSPDCL has proposed an abnormal hike in tariff. The ACoS approved by the Commission in the Tariff Order dated May 23, 2015 for FY 2015-16 is Rs. 5.10/unit. The ACoS for Railways after considering VCA, meter rent and standby feeder maintenance charges comes to about Rs. 6.30/kWh, which is 23.52% above the approved ACoS. The proposed hike of 19.82% will push the ACoS for Railways in FY 2016-17 to Rs. 6.11 per kWh, whereas projected per unit cost of Railway Traction will increase to Rs. 7.59/unit.

The power available for Railway Traction is fairly reliable, however, in FY 2014-15 there have been 71 interruptions for 39.52 hours in traction sub-station of SECR, due to failure of incoming supply from CSPDCL. These interruptions have caused major delays in trains and Railways have incurred heavy loss on this account.

The Ministry of Power vide letter no. 25/19/2004 – R&R dated May 6, 2014, has granted status of Deemed Licensee to Railways under the EA 2003. As a result, Railways has begun to procure power through Open Access under PPA done with RGPPL. This has drastically reduced the cost of power procurement in Maharashtra, Madhya Pradesh and Jharkhand. Rail Energy Management Company Ltd. (REMCL), on behalf of Indian Railways, will shortly invite bids for sourcing lower cost power for other States also, including Chhattisgarh. The Commission and CSPDCL should honour the orders of Government of India and the CERC and acknowledge the status of Railways as a deemed Distribution Licensee and pass on all rights applicable to the Railways. Hence, a separate tariff for Railways as a Deemed Licensee should be applicable as is being done by CSPGCL to CSPDCL. Railways shall pay the wheeling charges to CSPDCL for receiving power at Traction sub-stations without cross subsidy surcharge.

Petitioner's Reply

CSPDCL submitted that Tariff Policy notified by the Government of India on January 28, 2016, requires that the tariff of a consumer category should reflect the ACoS. The objection of Railways to the 19.82% tariff hike proposed by CSPDCL is not supported by any justified reasons, and mere submission to keep traction tariff equal

to the rate of power purchase by Railways from RGPPL/DVC/Adani Power lacks merit and appears against the principles of tariff design under Section 62(1)(a). The retail tariff determined by the Commission for Railway Traction is within the limits of $\pm 20\%$ of ACoS. CSPDCL submitted that the same philosophy may be taken into consideration for determination of retail tariff for Railways.

As regards the issue of interruptions, CSPDCL submitted that details of interruptions have not been provided by Railways, and specific comments can be made only after obtaining the factual status about such interruptions. However, CSPDCL endeavours to pursue CSPTCL for early restoration of supply as and when disruption of supply occurs, considering the technical and commercial value. Further, supply to traction sub-station (TSS) of Railways is fed from EHV S/S, which are under the control of CSPTCL.

On the issue of grant of deemed Distribution Licensee status to Railways, CSPDCL submitted that it has already submitted its comments on the CERC Order dated November 5, 2015 vide CSPDCL reply dated 23-01-2016. The relevant portion is reproduced below:

“CSPDCL hereby submits that the aforesaid order issued by CERC applies for treatment of Railways as Deemed Licensee under Electricity Act 2003 and to consider Railways as a separate regional entity for the purpose of scheduling and energy accounting in terms of deviation settlement as and when it is connected to ISTS. After getting connected to ISTS, the drawl point shall be treated as single entity for the purpose of scheduling. Further, entire group of TSS situated in the state and connected directly to ISTS shall be treated as ‘One fragmented control area’ for the purpose of scheduling. It is evident that neither of the TSS situated in the area of supply of CSPDCL are presently connected to ISTS”.

CSPDCL is not a contesting party before the proceedings in Appeal, hence, it may not be appropriate to comment on benefits claimed by Indian Railways as a deemed Distribution Licensee. Further, without prejudice to CSPDCL’s right to protect its commercial interest, under the EA 2003, consumption of electricity is possible either in the capacity of a consumer or captive use. Consumer or captive user can avail supply from a person other than the Licensee subject to observance of Section 42(2) of the EA 2003, i.e., Open Access. Under the third proviso to Section 14 of the EA 2003, recognition as a deemed Licensee enable Railways to perform the obligations/duties of a Licensee without having to obtain a Licence. Exercising the authority under Section 14, a deemed Licensee can purchase electricity for resale thereof but cannot self-consume. In the instant case, the deemed Licensee is itself a bulk consumer of electricity as far as traction load is concerned.

Commission’s View

Taking all the developments into consideration regarding Railways, it has been ensured that the tariff for Railways as a consumer of CSPDCL is within $\pm 20\%$ of ACoS. Further, a rebate of 10% in energy charges for new railway traction projects has been allowed for a period of five years from the date of connection for such new

projects for which Agreements for availing supply from CSPDCL are finalised during FY 2016-17. Even though the average cost of supply has increased by approximately 12%, due care has been taken in designing the tariff for railway traction and the increase for Railways has been limited to 3%. With respect to the other issues of Railways, it will be addressed appropriately taking all the factors into consideration.

2.2.4 Impact of APTEL Judgment

The objector has submitted that because of the recent APTEL Judgment, total cost to be borne by the people of Chhattisgarh will increase by Rs. 1100-1200 Crore. Therefore, the Judgment given by the APTEL should be analysed thoroughly, because in accordance with financial principles, interest earned on the principal amount belongs to those who have invested the principal amount. The objector further submitted that such a huge tariff impact in FY 2016-17 is on account of political pressure for not increasing the tariff in FY 2013-14 due to State elections. This raises questions about the independence of the Commission especially because of appointment of officials from the Utilities in the Commission.

Petitioner's Reply

CSPDCL submitted that the issue is related to the analysis of APTEL Judgment by the Commission and it will not be appropriate for CSPDCL to comment on the issue.

Commission's Views

The Commission has analysed the issue-wise impact of the APTEL Judgment in detail, as elaborated in Chapter 4 of the Order. The other issues raised by the objector are not relevant for the tariff process.

2.2.5 Money owed by CSPTTrCL to CSPDCL

The objector submitted that in FY 2008-09 and FY 2009-10, CSPTTrCL traded on behalf of CSPDCL and thus owes Rs. 800 Crore to CSPDCL. If CSPTTrCL has not paid CSPDCL then the latter must have taken loan to compensate for non-receipt of Rs. 800 Crore, and the burden of interest on the same will fall on the consumers.

Petitioner's Reply

CSPDCL submitted that Rs. 780 Crore has already been deducted from the income earned by CSPDCL from January 1, 2009 to March 31, 2010 and the benefits have been passed onto the consumers. Therefore, the objection raised is misplaced as there is no impact of this issue on tariff.

Commission's Reply

This amount has already been considered as revenue of CSPDCL in MYT Tariff Order FY 2013-14, and the tariffs have been adjusted accordingly. This Order was appealed before the Hon'ble APTEL in Appeal No. 308 of 2013, and the decision of the Commission has been upheld.

2.2.6 Rebate on pump connections to the farmers

The objector submitted that the Chhattisgarh Government provides free electricity upto 9000 units for one 5 HP agricultural pump. However, CSPDCL is not providing

the same facility on the second and third pumps. At the same time, several rebates are given to industrialists who are setting up their businesses in the State.

Petitioner's Reply

CSPDCL submitted that Clause 8.3 of the amended Tariff Policy stipulates that:

“While fixing tariff for agricultural use, the imperatives of the need of using ground water resources in a sustainable manner would also need to be kept in mind in addition to the average cost of supply. Tariff for agricultural use may be set at different levels for different parts of a state depending on the condition of the ground water table to prevent excessive depletion of ground water.”

In accordance with the above stated policy, the Chhattisgarh Government is providing rebates under Krishak Jyoti Yojana. Any changes to the Yojana can only be done by the State Government

Commission's View

The Commission has taken cognisance of the suggestion and this has been appropriately addressed in this Order.

2.2.7 Preferential Tariff

The objector has requested for determination of preferential tariff of Rs 2.50/unit for HV-7 Industries related to manufacturing of equipment for power generation from renewable energy sources.

Petitioner's Reply

CSPDCL submitted that the determination of tariff is the prerogative of the Commission under Section 62 of the EA 2003. Further, the State Government may provide subsidy to any consumer or class of consumer under Section 65 of the EA 2003. In the capacity of Distribution Licensee, CSPDCL requested the Commission to ensure that its approved ARR is recovered from the Retail Supply Tariff determined by the Commission.

Commission's View

The Commission has taken cognizance of the suggestion and this has been appropriately addressed in this Order.

2.2.8 Public Lighting and Water Works

The objector submitted that:

1. Tariff for Street Lights and Water Works should be lower than the prevailing rates. In fact, for such public works, the Corporation should get 50% rebate
2. The electricity tariffs for public toilets should be same as the tariff for Street Lights, as both are meant for public welfare.
3. Security deposit and additional security deposit should not be levied on service providers for street lights and water works.

4. The Commission had directed CSPDCL to install on/off timer panel for street lights. However, till date, CSPDCL has not adhered to the directive given by the Commission. Besides, street lights are switched on before dusk and not switched off beyond dawn. This is causing wastage of electricity and despite being informed, no action is being taken by CSPDCL in this regard.
5. No surcharges should be levied on Street Lights and Water works service providers.

Another objector submitted that:

1. When needed, CSPDCL is given land, which is under the jurisdiction of Municipal Corporation, free of cost. Therefore, CSPDCL should not increase the tariff for Municipal Corporation, which works for the welfare of people.
2. Last year, the tariff was hiked by 14%, therefore, it should not be hiked this year especially for public welfare works.
3. The Municipal Corporation constructs EWS colony for poor people under different Government Schemes. This work is done for public welfare and not for any other professional use. However, as per Clause 4.5 (V and VI) of Supply Code 2011, CSPDCL charges System Strengthening Charges at the rate of Rs. 4600/kW if load exceeds 50 kW. Such charges are a burden on the Municipal Corporation, which works for public welfare.
4. CSPDCL should provide connections to only those consumers who have 'No-Objection' certificates and adequate documentary proofs. This way encroachment and uncontrolled habitation can be controlled.

Petitioner's Reply

CSPDCL submitted that power to determine tariff is given to the Commission under Section 62 of the Electricity Act, 2003. Therefore, CSPDCL requested the Commission to ensure that its approved ARR is recovered from the Retail Supply Tariff determined by the Commission.

With respect to the issue of levy of surcharge, CSPDCL submitted that Delayed Payment Surcharge (DPS) is levied as per the Regulations and equally on all stakeholders including expenditures of CSPDCL. Besides, there is no such provision in the Regulation regarding differential treatment with respect to levy of DPS.

Commission's Views

As per Section 62(3) of the Electricity Act, 2003:

“(3) The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.”

As per the mandate of the act, the retail tariffs are determined with a view to ensure recovery of the approved ARR, reduction of cross-subsidies, ensuring that no category is subject to a tariff shock, etc. The Commission has ensured that the tariff for Street lights and Public Water Works is in accordance with the spirit of the Act.

The comments against the charges levied as per the Supply Code cannot be addressed under this regulatory proceeding.

2.3 COMMERCIAL ISSUES

2.3.1 Discrepancy in True-up Petition for FY 14-15 of CSPDCL

The objectors submitted that:

1. CSPDCL has reported revenue realization from Retail Sale as Rs. 7092.34 crore; however, the figure in the provisional Balance Sheet is Rs. 7171.24 crore.
2. CSPDCL has not accounted for grant of Rs. 465 crore from Government of Chhattisgarh during FY 2014-15 although it is duly accounted for in the provisional Balance Sheet.
3. In the provisional Balance Sheet under Exceptional Item in Note 10, an income of Rs. 427.61 crore. has been shown but there is no mention or clarification regarding the same in True-up Petition.
4. Rs. 5.32 crore is claimed as other debits/prior period expenses but provisional Balance Sheet shows Rs. (8.88) crore under Note 10.
5. True-up petition mentions interest amount as Rs. 97.66 crore instead of Rs. 106.14 crore, which has been claimed by CSPDCL but Note 9.3 of the provisional Balance Sheet mentions interest amount as Rs. 99.64 crore. Further, the provisional Balance Sheet is showing capitalization of interest cost as Rs. 17.44 crore, but the True-up petition is showing the same as nil.
6. CSPDCL has computed 1-month receivable as Rs. 738.25 crore while calculating working capital requirement whereas it is reporting annual revenue from sale of Rs. 7093 crore in the True-up petition and Rs. 7171 crore in the provisional Balance Sheet. Therefore, 1-month receivable should be only Rs. 597.98 crore as per the provisional Balance Sheet.
7. CSPDCL has reported higher Power Purchase Cost by Rs. 991.39 crore over approved Power Purchase Cost of Rs. 6375.65 crore. Such a huge deficit of Rs. 991.39 crore is left unrecovered even after provision of Variable Cost Adjustment (VCA) mechanism. Therefore, recovery through VCA during FY 2014-15 needs thorough examination because new consumers of FY 2016-17 cannot be burdened with under-recovery of Power Purchase Cost of FY 2014-15.
8. CSPDCL was directed to sell its surplus power at an average realization of Rs. 3.65/kWh by the Commission in the Tariff Order for FY 2015-16. However, CSPDCL has sold surplus power of 1297.65 MU at Rs. 3.35/kWh only, causing a loss of Rs. 38.93 crore, which cannot be burdened on consumers.
9. Against an approved projection of purchase of concessional power of 718.24 MU, CSPDCL has reported purchase of only 321.40 MU, which is lower by about 55%, however it has a cost of more than Rs. 123 crore to the consumers.

10. CSPDCL has shown sale of 250.22 MU to HV-3 category against an approved projection of 86 MU, showing a variation of 191%. However, sale to HV-3 during FY 2015-16 till December (9 months) is only 42.06 MU.
11. CSPDCL is reporting Non-Tariff Income of Rs. 268.72 crore against approved projection of Rs. 548.11 crore, showing a reduction of about 51%. No justification has been provided for it. Further, revenue from Delayed Payment Surcharge during FY 2014-15 is reported to be Rs. 152.86 crore against only Rs. 67.90 crore during FY 2013-14. CSPDCL's projection of depleting ARR component and swelling non-ARR component needs thorough examination.
12. CSPDCL has reported Net Energy Input at Distribution Periphery at 33 kV level as 18536 MU while CSPTCL has reported the same as 18595.16 MU in its true-up petition.
13. CSPDCL has reported sales to EHV consumers as 2764 MU while CSPTCL has reported the same as 2081.70 MU.
14. Data furnished by CSPTCL indicates a total outflow of 14595.52 MU from CSPGCL but CSPDCL is reporting a purchase of only 14571.11 MU from CSPGCL.
15. CSPDCL is reporting the cost of power purchase from CSPGCL as Rs. 3685.79 crore while CSPGCL is claiming total revenue from sale of power (including water & SLDC charges) as Rs. 3451.71 crore.
16. The provisional Balance Sheet of CSPDCL for FY 2014-15 is showing a receivable of Rs. 117.93 crore from CSPHCL and Rs. 16.91 crore from CSPTCL against Rs. 68.48 crore and Rs. 16.91 crore, respectively, in FY 2013-14. Such a huge amount pending with associate Companies needs to be clarified. CSPDCL is paying Delayed Payment Surcharge to CSPGCL and at the same time providing interest free borrowing to the associate Companies.
17. CSPDCL has submitted that the difference in Power purchase cost of CSPDCL and CSPGCL's revenue from sale of power is on account of treatment of electricity duty, cess and water charges. CSPGCL recovers these charges from CSPDCL and pays directly to the State Government whereas amount paid by CSPDCL forms a part of its expenses towards power purchase.
18. CSPDCL has submitted that it has not provided any loan to its associate Companies. However, audited accounts indicate inter-Company transactions and there is net payable by the petitioner to its associated companies.

Petitioner's Reply

1. At the time of filing of the Petition, provisional Accounts were considered as the base, and there was no difference in treatment of revenue from sale of power for FY 2014-15 in the Petition and provisional Accounts as submitted to the Commission on 30 December 2015. The Objector has raised the difference on account of final Accounts submitted to the Commission on 23 January 2016 and the Petition and the revised detail break-up is given below:

Revenue from Sale of Power (Rs. Crore)

Sr. No	Particulars	FY 2014-15	Remarks
1	Total Income (Revenue + Other Income)	8411.14	Audited Accounts Note 8.1 & 8.2
2	Less: Inter-State Sale of power	434.13	Table 14 of Petition - Adjusted in Power Purchase Cost
3	Less: Delayed Payment Charges	152.26	Provisional Accounts Note 8.1
4	Less: Non-Tariff Income	187.91	Revised as per Final Accounts
5	Less: Subsidy from State Government	465.00	Considered While Calculating Revenue Deficit in Table No 71
6	Total Revenue from Sale of Power	7171.24	Reported Revenue as Per Petition

2. CSPDCL has considered the State Government subsidy of Rs 465 Crore while calculating the revenue deficit in Table 71 of the Petition.
3. The Commission vide its Tariff Order for FY 2014-15 has approved surplus revenue from CSPGCL and CSPTCL of Rs. 27.47 Crore and 401.06 Crore, respectively. As per direction of the Commission to adjust the aforesaid surplus under the revenue of CSPDCL, it has classified this surplus as Income under Exceptional Item under Note 10, as this income does not relate to current FY, i.e., FY 2014-15.
4. CSPDCL has considered the Other Debits/Prior Period Expenses as Rs 8.88 Lakh in final Audited Accounts under Note 10.
5. CSPDCL submitted that it has considered Interest and Finance Charges in accordance with Regulation 23 of the MYT Regulations, 2012. Further, Rs 97.66 crore is the actual interest paid as per provisional Accounts, which is used to calculate the weighted average interest rate on the average loan outstanding during the FY.
6. CSPDCL has considered Interest on Working Capital in accordance with Regulation 25 of the MYT Regulations, 2012. The detailed calculation has already been explained in the petition under Table 25.
7. The power purchase cost of Rs 7367.04 crore is based on its provisional accounts and latest bills raised by the generators. The Commission in its Tariff Order dated June 12, 2014 had approved Power Purchase Cost of Rs 6375.65 crore which was based on the average power purchase cost while approving the Tariff Order which again has changed over the period of time and is out of CSPDCL's control. Variable Cost Adjustment (VCA) only takes care of energy charges whereas there are other charges also, which increase over a period of

time, viz., Fixed Charge – based on latest Tariff Orders issued by respective Electricity Regulatory Commission, Water Charges, Cess, etc., which need to be paid when raised by the generators.

8. The inter-State sale of electricity depends on the time and day slot available in the market. Due to the dynamic nature of the electricity market, the rate of power changes on daily basis, which is beyond CSPDCL's control. Further, sale of electricity other than to retail consumers is not within the regulatory purview of the Commission. As electricity cannot be stored, the surplus energy has to be sold as and when available at the market realized rates. The availability of surplus energy is dependent on the consumption of the consumers and not on the Licensee. The sale of surplus energy is always ensured to be sold with the objective of maximizing the revenue from such sale and to pass on the accrued benefit to the retail consumers.
9. Concessional power purchase to the tune of 321.40 MU is based on latest bills raised by the generators for FY 2014-15. It is made available to CSPDCL based on back-to-back PPA with CSPTTrDCL. The PPA is between the generator and CSPTTrDCL and energy is made available to CSPDCL based on generator availability and is out of CSPDCL's control.
10. The sale to HV 3 Low Load factor industries is as per actuals reported for FY 2014-15.
11. The Non-Tariff Income is based on final Accounts for FY 2014-15. The detailed breakup is mentioned in the Note 8 of final Accounts. Delayed Payment Surcharge is Rs 152.26 crore, which is mentioned in final accounts for FY 2014-15 under Note 8.1.
12. The difference of 59.16 MU in net energy received by CSPDCL at distribution periphery at 33kV and energy output at 33 kV by CSPTCL is on account of different boundaries of metering equipments. The distribution system is considered from off-take gantry of 33 kV system in EHV sub-station whereas 33 kV output of CSPTCL is energy recorded at power transformer, reduced by the auxiliary consumption. The figure considered by CSPDCL as 18536 MU at 33kV distribution periphery is correct as per the stipulated boundaries.
13. EHV sale to consumers of CSPDCL is 2788.19 MU, which includes 706.50 towards EHV sales to BSP and Praxair Oxygen Plant. A difference of 24.28 MU between the R-15 data and actual sales is on account of programme in SAP-ERP, which considers the energy consumed by 'Zero CD' consumers at EHV level under HV category.
14. Subsequent to giving effect to the Commission's Order dated September 29, 2014; the power purchase bills of KTPS, HTPS and DSPM generating stations were passed on the basis of scheduled energy w.e.f. October 2014. This is a deviation from earlier practice of passing the bills on 'sent out energy' basis. Accordingly, there is a difference of 19.50 MU (14,590.62 MU - 14,571.11 MU) during FY 2014-15 in power purchase quantum, towards the difference of energy sent out by CSPGCL and scheduled energy passed by CSPDCL during the period October 2014 to March 2015.

2.3.2 Discrepancy in True-up Petition of CSPTCL for FY 2014-15

The objectors submitted that:

1. CSPTCL has reported total income (including SLDC income) as Rs. 739.19 crore while in the provisional Balance Sheet, it is showing total revenue as Rs. 785.90 crore.
2. CSPTCL has reported Interest on Loan as Rs. 197.60 crore while in the provisional Balance Sheet, it is showing Finance cost as Rs. 138.53 crore after deducting interest on working capital.
3. CSPTCL has reported Non-tariff Income as Rs. 49.48 crore while in Form-9 it is showing Non-Tariff Income as Rs. 50.53 crore
4. CSPDCL has reported SLDC Charges as Rs. 19.06 crore, and SLDC charges of Rs. 7.21 crore are also recovered by CSPGCL in its true-up petition. However, CSPTCL is claiming SLDC income as Rs. 13.96 crore only.

Petitioner's Reply

1. There is no difference in treatment of revenue for FY 2014-15 in the Petition and final Accounts as submitted to the Commission on December 30, 2015 and January 28, 2016, respectively. The detailed breakup with reference is mentioned below:

Sl. No.	Particulars	FY 2014-15	Remarks
1	Total Income (Revenue + Other Income)	785.90	Audited Accounts Note 8.1 & 8.2
2	Less: Transmission Income	724.23	Table 30 of Petition & Audit Accounts Note 8.1
3	Less: SLDC Charges after transfer to SLDC fund	11.13	Audit Accounts Note 8.1
4	Less: Delayed Payment Surcharge	27.13	Table 30 of Petition & Audit Accounts Note 8.1
5	Less: Non-Tariff Income including SLDC	23.40	Table 27 of CSPTCL Petition and Table 11 of SLDC Petition
6	Difference	0.00	

2. CSPTCL has considered Interest and Finance charges in accordance with Regulation 23 of the MYT Regulations, 2012. The calculation is explained in detail in the Petition under Tables 16 and 17.
3. The difference of Rs. 1.05 crore is on account of SLDC share for Non-Tariff Income, which can be verified from Table No. 11 of SLDC Petition.
4. The Commission had issued the Tariff Order for FY 2014-15 on June 12, 2014 with new tariff effective from July 1, 2014. As a result, SLDC charges for the first three months (April 2014 – June 2014) were billed as per provisions of old Tariff Order and next nine months (July 2014 – March 2015) as per new Tariff Order. The detailed breakup of SLDC revenue is given below:

Sl. No.	Particulars	FY 2014-15	Remarks
1	Income for 3 months	3.09	MYT Order for 3 months (Rs. 12.3720 crore for whole FY)
2	Income for 9 months	10.61	Tariff Order for 9 months (Rs. 14.15 crore for whole FY)
3	Other operating charges	0.26	Audited Accounts Note 8.1
4	Total SLDC Income	13.96	Including Rs. 2.83 crore transferred to SLDC fund as per Note 3.2 of Audited Accounts. Excluding the same, SLDC Income comes to Rs. 11.13 crore

As per the table shown above, SLDC income of Rs. 13.96 crore has been shown.

2.3.3 Discrepancy in True-up Petition of CSPGCL for FY 2014-15

The objectors submitted that:

1. CSPGCL has reported a net generation of 5534.86 MU from HTPS but the same has been reported as 5539.65 MU by CSPTCL in its true-up petition.
2. CSPGCL has reported Rs. 494.97 crore as actual employee cost (inclusive of contribution to P&G Fund) and has claimed incentive on account of gains but the same is reported to be Rs.530.88 crore in the provisional Balance Sheet under Note 9.2.
3. CSPGCL has reported Rs. 1544.17 crore as actual fuel cost (Rs.1479.37 crore as coal cost and Rs. 64.80 crore as secondary fuel cost) and has claimed incentive on account of gains but the same is reported to be Rs. 1536.76 crore in the provisional Balance Sheet under Note 9.1.
4. CSPGCL has reported Rs. 470.42 crore as Interest on Loan and Finance charges, but the same is reported to be Rs. 452.66 crore (excluding interest on working capital) in the provisional Balance Sheet under Note 9.3.
5. CSPGCL has reported Rs. 17.06 crore as Non-Tariff Income but the same is reported to be Rs. 17.96 crore in the provisional Balance Sheet under Note 8.2.

Petitioner's Reply

1. The HTPS complex bus/outgoing feeders contain power from 4x210 thermal units as well as 2x0.85 MW mini hydro plant. The billing sheets for all 12 months have already been submitted to the Commission and JMR for all 12 months has also been submitted. It may be seen that, though for the first half year (April to September) the HTPS power has been arrived at by deducting the mini micro power from aggregate, however, for the period October 2014 to March 2015, probably inadvertently, in the CSPTCL sheet, the same could not be linked appropriately. As far as CSPGCL submission is concerned, the same is in line with the JMR.

2. The employee cost in the books, based on accrual concept, contain provision for Interim Relief in FY 2014-15. However, in accordance with the regulatory philosophy, practice and previous APTEL order, in the instant petition, CSPGCL has not made any claim against the provision of Interim Relief as the same shall be eligible for claim during true up of FY 2015-16. Further, the employee cost incurred for Marwa TPP has not been considered in the Petition as the same are not applicable in the present case. Not claiming such expenses has resulted in lower loading on beneficiaries as compared to what would have been, if applicable employee cost would have been claimed as per Balance Sheet. Reconciliation with Accounts is given below:

Particulars	Rs. Crore
Employee cost submitted in the Petition	494.97
Provision for interim relief	37.86
Cost incurred on Marwa TPP	26.41
Total	559.24
(-) Cost Capitalization (Marwa)	28.36
Employee cost as per accounts	530.88

3. In accordance with well settled principle and practice, the fuel cost in the Accounts and the regulatory filing follow two different paradigms. Further, unless there exists a specific reason, the true-up has to be in consonance with the methodology adopted in the Tariff Order. It is for this reason that CSPGCL has itself not claimed Rs. 35.96 crore, which has been shown in the books as prior period expenses for DSPM TPS.
4. The regulatory loan and accounting loan operate in two totally different spheres, as amply clarified in the Regulations and in previous Orders too. Hence, the objection/suggestion is misplaced.
5. The Non-Tariff Income in the Balance Sheet is for CSPGCL as a whole while the Petition deals with the Non-Tariff Income applicable for the plants covered in the Petition. Further, for the reasons explained earlier, the financing cost for staff loans has not been charged to Interest and Finance charges. As the expense has not been charged in ARR, the corresponding recovery has also not been included. The minor difference is due to the same. The reconciliation is as under:

Particulars	Rs. Crore
Other Income as per accounts	17.96
(-) Interest on staff loans	0.22
(-) Income for Marwa TPP	0.68
Other Income submitted in Petition	17.06

Commission's View

A common Technical Validation Session (TVS) with CSPGCL, CSPTCL and CSPDCL was convened for reconciling the figures in the true up petitions for FY 2014-15, and sought detailed explanation for the differences in amounts reported in the Audited Accounts and respective Petitions. Based on the submissions and explanations received from the Petitioners, it is observed that at the time of filing of Petition, Audited Accounts were not available with CSPGCL, CSPTCL, CSPDCL and CSLDC. The Petitions were filed on the basis of provisional Accounts and therefore, there are some numbers which are different in the Petition and Audited Accounts. However, CSPGCL, CSPTCL, CSPDCL and CSLDC have given reconciliation for such numbers. Further, in this Order, all the numbers considered are from the Audited Accounts, rather than the provisional Accounts. The amount of State Government subsidy as well as Revenue Gap/(Surplus) of CSPGCL, CSPTCL, and CSPDCL considered in the ARR of FY 2014-15, have been considered in the true-up for CSPDCL for FY 2014-15, as elaborated in Chapter 8 of this Order. The amount billed by CSPGCL to CSPDCL under FCA has been shown separately in the power purchase cost, while the amount recovered by CSPDCL through VCA has been shown separately under Revenue. The interest on loans and interest on working capital have been allowed in accordance with the applicable Regulations, as elaborated in respective Sections of this Order. The rate for sale of surplus power has been considered as Rs. 3.65 per kWh based on reasons elaborated in Chapter 8 of this Order.

The Commission directs CSPDCL to ensure that the purchase of power from IPPs at concessional rate should be maximised, so as to earn additional revenue, which can be used to reduce the ARR and hence, tariff applicable to the consumers.

The inter-State sale of power by CSPDCL is well within the regulatory purview of the Commission. Attention is drawn for CSPDCL in the judgment delivered by the Hon'ble APTEL in Appeal No. 89 of 2011:

“8.3 We are in agreement with the State Commission that the ARR of the Board for the FY 2007-08 and 2008-09 has to be trued up on a composite basis. The trading of power by the erstwhile Electricity Board was an incidental activity and the profit earned by the Electricity Board in trading of surplus electricity could not be allowed to be retained by any successor entity of the Electricity Board. When all the expenses incurred by the Electricity Board in carrying out its functions have been passed on to the consumers, it would be unreasonable not to pass on the surplus generated by the Electricity Board on account of trading of electricity to the consumers. We do not find any infirmity in the findings of the State Commission. Accordingly, this issue is decided against the Appellant.”

2.3.4 Discrepancy in Projection of Sales, Revenue Expenditure and Power Purchase cost of CSPDCL for FY 2016-17

The objectors submitted that:

1. The sales to EHV2, EHV3, HV2 and HV4 categories in FY 2016-17 are estimated to be lower than that approved for FY 2015-16, whereas sales to LV and HV3 categories is estimated on a much higher side than that approved for FY 2015-16. No explanation has been provided for such estimation.
2. ABR for all LV categories is estimated to be lower than that approved for FY 2015-16 based on existing tariff, without any justification.
3. On the basis of ABR approved for FY 2015-16 at Rs. 4.41/kWh for LV consumers and an estimated sale of 11274.81 MU in FY 2016-17, the revenue receipt from LV consumers would be Rs. 4972.19 crore as against Rs. 4430.55 crore projected by CSPDCL in Form R-9, considering the same tariff as in FY 2015-16.
4. CSPDCL has estimated a decrease in subsidizing sale and increase in subsidized sale and also a decrease in revenue estimation from LV consumers to deliberately project revenue loss.
5. There is found to be excess provision in the average Power Purchase Cost projected for FY 2016-17 from different power stations in Central Sector and no justification has been provided for the same. When entire increase in Power Purchase Cost on actual basis is recoverable through the VCA mechanism, then there can be no justification to any assumed increase, which will result in unnecessary tariff hike.
6. CSPDCL is providing 'Bank Guarantee' against power purchase from its sister concern CSPGCL and the Bank Charges for such Bank Guarantee are finally borne by the consumers. In place of the same, corporate guarantee may be provided, which will save unnecessary expenses.

Petitioner's Reply

1. The estimated sales of EHV and HV category for FY 2016-17 are based on CAGR of actual sales in last 5 FYs, i.e., including FY 2014-15, whereas the Commission had approved the sales for FY 2015-16 based on CAGR of last 5 FYs actual sales, i.e., including FY 2013-14 and Provisional Sales of FY 2014-15 till December including re- categorization, which was based on the situation prevalent at time of issuing the Tariff Order. Further, the detailed methodology and explanation is already provided in the MYT Chapter of the Petition for the Control Period from FY 2016-17 to FY 2020-21.
2. The revenue and ABR of a particular category depends on sales mix in a particular Financial Year. Revenue from existing tariff has been calculated based on sales, number of consumers and load mix. The detailed breakup of category-wise revenue is provided in the Tariff Petition and Excel model.
3. CSPDCL has considered a very reasonable approach for projecting the power purchase cost for FY 2016-17. The power purchase cost mainly comprises fixed charges and energy charges for two-part tariff stations, i.e., NTPC, NPCL and

others. CSPDCL has considered the approved average power purchase cost as approved by the Commission in Tariff Order dated May 23, 2015 for old CGS and State Generating Stations (SGS) and has escalated the same by a nominal rate of 5% Y-o-Y for the MYT Control Period. Further, while estimating the power purchase cost from the new CGS and SGS for FY 2016-17 to FY 2020-21, CSPDCL has considered the average power purchase cost at Rs 3.50/kWh (except Kakrapar Atomic Station, which is based on last approved average tariff with 5% escalation Y-o-Y, and power purchase cost of Marwa is based on last Tariff Order of the Commission). Power purchase from Solar has been estimated at the cost of Rs 6.50/kWh for the entire Control Period, whereas power purchase from biomass and other RE has been estimated at Rs 5.50/kWh and Rs 5.00/kWh, respectively, in FY 2016-17 with an escalation of 5% in subsequent years.

4. CSPDCL has entered into a back-to-back agreement for purchase of power from CSPGCL in accordance with the provisions of Transfer Scheme, Rules 2010. It has not provided any Bank Guarantee to CSPGCL for commercial transactions.

Commission's View

As elaborated in Chapter 12 of this Order, the Commission has projected the category-wise sales for the Control Period based on the appropriate CAGR, and considering the actual 9-month sales in FY 2015-16, rather than the sales upto FY 2014-15, as considered by CSPDCL in its Petition. The category-wise revenue from existing and revised tariffs has been calculated based on the sales and load and applicable fixed/demand charges and energy charges. The Commission has considered the actual source-wise rate of power purchase from CGS sources for the first 9 months of FY 2015-16, and has not factored in any increase in the rate of power purchase from CGS, as the same will be addressed under the FCA and VCA mechanism. The rate for purchase from CSPGCL stations are based on the station-wise generation tariff approved by the Commission in this Order for CSPGCL.

3 APPROACH OF THIS ORDER

3.1 MYT REGULATIONS, 2015

Regulations 5.2 and 5.3 of the MYT Regulations, 2015 specify that the generating company, STU/transmission licensee, CSLDC and distribution licensee shall file the Petition in accordance with Regulation 5.8(a)(i) and 5.8(a)(ii), which are reproduced below:

"5.8 The filing for the Control Period under these Regulations shall be as under;

(a) MYT Petition shall comprise of:

- i. For Generation, Transmission and CSLDC business -*
 - 1. Truing up for FY 2014-15*
 - 2. Multi-Year Aggregate Revenue Requirement for each year of the entire Control Period;*
 - 3. Application for determination of tariff and fees and charges for each year of the entire Control Period;*
- ii. For Distribution Wheeling and Retail Supply Business –*
 - 1. Truing up for FY 2014-15*
 - 2. Multi-Year Aggregate Revenue Requirement for each year of the entire Control Period;*
 - 3. Revenue from existing tariffs and charges and projected revenue gap for the first year of the Control Period*
 - 4. Application for retail tariff proposal for the first year of the Control Period."*

In this order, truing-up for FY 2014-15 for CSPGCL, CSPTCL, and CSPDCL under MYT Regulations, 2012; true up for FY 2014-15 for CSLDC under CSLDC Regulations, 2012; determination of ARR and tariff for CSPGCL, CSPTCL and CSLDC for the control period from FY 2016-17 to FY 2020-21; and determination of ARR for CSPDCL for the Control Period from FY 2016-17 to FY 2020-21 and retail tariff for FY 2016-17 has been done. The true-up for CSPGCL, CSPTCL, CSLDC and CSPDCL has been done based on the audited accounts, however, the Utilities are yet to submit the CAG's Remarks. The Commission shall appropriately review the true-up for FY 2014-15 once the CAG's Remarks are submitted, at the time of true-up for FY 2015-16.

3.2 ARR OF KORBA WEST TPP FOR FY 2014-15 AND FY 2015-16

In the tariff order dated May 23, 2015, the provisional truing-up for FY 2013-14 for Korba West TPP (Extn.) was carried out. Also, tariff for FY 2015-16 was approved provisionally.

On September 22, 2015, an order was issued in Petition No. 8 of 2015 approving capital cost of Korba West TPP (Extn.) on the basis of expenditure up to FY 2013-14. Based on the above order, the true-up of Korba West TPP (Extn.) for FY 2013-14 and FY 2014-15 has been carried out in this Order.

3.3 ARR OF MARWA TPS

CSPDCL has submitted availability of power from Marwa TPS during FY 2016-17 to FY 2020-21 in the petitions filed before the Commission. Considering the submission of CSPDCL, the provisional tariff for Marwa TPS has been estimated in this Order.

4 IMPACT OF APTEL JUDGMENT IN APPEAL NO. 308 OF 2013 ON CSPGCL, CSPTCL AND CSPDCL

4.1 BACKGROUND

On July 12, 2013, the Commission issued its Order for the MYT Control Period from FY 2013-14 to FY 2015-16 on the Petitions filed by CSPDCL, CSPGCL and CSPTCL. In the above said Order, the Commission carried out final true-up for FY 2006-07 to December 2008 (CSEB Period), FY 2008-09 (January to March 2009), FY 2009-10 and FY 2010-11, provisional true-up for FY 2011-12, and determination of ARR and Tariff for the MYT Control Period from FY 2013-14 to FY 2015-16. Aggrieved by the Commission's Order, CSPDCL filed Appeal No. 308 of 2013 an appeal before the Hon'ble APTEL. The Hon'ble APTEL, vide its Judgment dated October 9, 2015 in Appeal No. 308 of 2013, has partly decided the following issues in favour of CSPDCL:

- a) **Issue No.1:** Computation of working capital for FY 2006-07 to FY 2015-16 excluding the payment towards pension and gratuity fund
- b) **Issue No.2 & Issue No. 3:** Rate of interest on working capital for FY 2006-07 to FY 2009-10 and FY 2011-12 to FY 2012-13
- c) **Issue No.4:** Income on Consumer Security Deposit for FY 2006-07 to FY 2015-16
- d) **Issue No.8:** Distribution Loss for FY 2010-11
- e) **Issue No.9:** Contribution to Pension and Gratuity Fund

Even though the Appeal was filed by CSPDCL; all three Companies, viz., CSPDCL, CSPGCL and CSPTCL have sought to pass through their share of the impact on account of above Judgment in their respective MYT Petitions. The Commission is of the view that though the Appeal has been filed by CSPDCL only, the MYT Order was a combined Order for CSPDCL, CSPGCL and CSPTCL, and CSPDCL has obtained relief for the CSEB period also, which has to be shared between CSPDCL, CSPGCL and CSPTCL. Further, as the Hon'ble APTEL has laid down the principle for treatment of certain expenses and revenue for CSPDCL vide its Judgment, as the same MYT Order is also applicable for CSPGCL and CSPTCL, the Commission has considered the same relief for CSPGCL and CSPTCL.

The issue-wise claims of CSPDCL, CSPGCL and CSPTCL and the amount approved by the Commission for each year and cumulatively are discussed in the following paragraphs. Issues 1, 2, 3 and 4 are applicable for CSEB period as well as for the period after restructuring.

4.2 **ISSUE 1: COMPUTATION OF WORKING CAPITAL FOR FY 2006-07 TO FY 2015-16 EXCLUDING THE PAYMENT TOWARDS PENSION AND GRATUITY FUND**

The Commission, in the MYT Order dated July 12, 2013, while truing up for FY 2006-07 to FY 2012-13, had disallowed the contribution towards pension and gratuity while calculating normative interest on working capital. The Hon'ble APTEL in its Judgment has ruled as under:

"6.5 As per Tariff Regulations, 2006 and Tariff Regulations, 2010, the terminal benefit is a part of employees expenses/O&M expenses and therefore, 1/12 of the total O&M expenses including terminal benefits has to be allowed in determining the working capital. Accordingly, for the FY 2005-06 to 2012-13, the working capital has to be determined by including 1/12th of the terminal benefit approved by the Commission.

6.6 Tariff Regulations 2012 applicable for FY 2013-14 to FY 2015-16 provide for that the working capital shall inter alia include 1/12th of the amount of O&M expenses for the Financial Year (Regulation 25.1 (a) & (e). Regulation 53.1 enumerates the components of tariff payable for usages of distribution wires of the distribution licensee. In the components of tariff the O&M expenses and Pension & Gratuity Fund Contributions have been stipulated as separate heads. The ARR of distribution wheeling business is a component of ARR for Retail Supply Tariff as per Regulation 62.1. Thus, in 2012 Tariff Regulations, the terminal benefit is not a part of O&M expenses. Therefore, for FY 2013-14 to 2015-16, the amount allowed towards terminal benefit is not to be considered in determining the working capital.

6.7 Thus, there is no infirmity in the Commission's order in not including amount of terminal benefit in the working capital for the FY 2013-14 to FY 2015-16."(emphasis added)

4.3 **ISSUE 2 & 3: RATE OF INTEREST ON WORKING CAPITAL FOR FY 2006-07 TO FY 2009-10 AND FY 2011-12 TO FY 2012-13**

The Commission, in the MYT Order dated July 12, 2013, while truing up for FY 2006-07 to FY 2012-13, had considered the SBI Prime Lending Rate as on the first day of the Control Period, for calculating interest on working capital. The Hon'ble APTEL, in its Judgment has ruled as under:

"9.4 Thus, according to the judgment of this Tribunal, the interest rate on working capital has to be considered as per the prevailing short term SBI prime lending rate as on 1st day of each financial year of the control period. Accordingly, the interest on working capital has to be considered as per SBI prime lending rate as on 1st April of the respective year.

9.5 Accordingly, the State Commission is directed to re-compute the Interest on Working Capital for the Financial Years 2006-07 to 2009-10 as per SBI Prime Lending Rate as on 1st April of the

respective year. Similarly, for the Financial Years 2011-12 to Financial Years 1012-13, the Interest on Working Capital has to be considered accordingly. We are however not in agreement with Learned Counsel for the Appellant that the rate of interest has to be considered as weighted average PLR of SBI during the year. The simple interest rate has to be considered as there is no provision for compounding on monthly basis in the Regulations. Thus, this issue is decided in favour of the Appellant.”(emphasis added)

CSPGCL, CSPTCL, and CSPDCL have claimed their respective share of the financial impact based on the above ruling on Issue 1, Issue 2 and Issue 3 for the CSEB period as well as for the period after restructuring upto FY 2012-13, as all the three Issues are related to the computation of working capital and interest thereon. CSPGCL, CSPTCL, and CSPDCL have also claimed carrying cost on the respective amounts for the respective years. The Commission has allowed the consequential impact of Issue 1, Issue 2 and Issue 3, along with associated carrying cost for CSPGCL, CSPTCL, and CSPDCL, as discussed subsequently.

4.4 **ISSUE 4: INCOME ON CONSUMER SECURITY DEPOSIT FOR FY 2006-07 TO FY 2015-16**

The Commission, in the MYT Order dated July 12, 2013, while truing up for FY 2006-07 to FY 2012-13, and for the MYT Control Period from FY 2013-14 to FY 2015-16 had considered the interest income on the Consumer Security Deposit in excess of the working capital requirement as Non-Tariff Income for CSPDCL, and deducted from the ARR of CSPDCL. The Hon’ble APTEL, in its Judgment has ruled as under:

“12.13 Thus, deduction of notional interest from the interest on working capital in FY 2006-07 to 2008-09 (April-December), treating notional interest on consumer security deposit as non-tariff income for FY 2008-09 (Jan-March) and 2009-10 to 2011-12 and notional interest on excess consumer security deposit over and above the working capital requirement as non tariff income is contrary to the applicable Regulations.”

CSPGCL, CSPTCL, and CSPDCL have claimed their respective share of the financial impact based on the above ruling on Issue 4 for the CSEB period. CSPDCL has claimed the financial impact based on the above ruling on Issue 4 for the period after restructuring upto FY 2015-16. CSPGCL, CSPTCL, and CSPDCL have also claimed carrying cost on the respective amounts for the respective years.

As mentioned above, CSPDCL has asked for relief pertaining to Issue 4 up to FY 2015-16, however, APTEL has granted relief only up to FY 2011-12. Hence, there is no question of granting relief upto FY 2015-16 as claimed by CSPDCL. However, the Commission has granted this relief up to FY 2012-13 as the Tariff Regulations, 2010 were applicable till FY 2012-13, as discussed subsequently.

4.5 **ISSUE 8: DISTRIBUTION LOSS FOR FY 2010-11**

The Commission, in the MYT Order dated July 12, 2013, while truing up for FY 2010-11, had not deducted 130.95 MU of energy exported from 33 kV system to EHV system, while computing the Distribution Loss, and had accordingly disallowed power purchase cost of Rs. 3.55 crore, by considering the distribution loss as 34.12% against the target of 34%. The Hon'ble APTEL, in its Judgment has ruled as under:

“23.1 We find that the submission of the learned Counsel for the State Commission that 15100.55 MU taken as delivered at 33 KV already contains 130.95 MU of energy injection at 33 KV from CPP/IPP connected to 33/11 KV sub station. Therefore, 130.95 MU has to be deducted from the energy of 426.47 MU injected by CPP/IPP directly connected to 33/11 KV sub station.

*23.2 We, therefore, **direct the State Commission to reconsider the computation of energy loss below 33 KV and pass consequential order.**”*

CSPDCL has claimed the financial impact based on the above ruling on Issue 8 for FY 2010-11, and has claimed 50% of the incentive calculated by CSPDCL, on account of the distribution loss being lower than the target loss level. CSPDCL has also claimed carrying cost on the amounts for the respective years.

The Commission has recalculated the distribution loss for FY 2010-11 after considering the energy exported from 33 kV system to EHV system, and has reversed the penalty of Rs. 3.55 Crore imposed on CSPDCL. However, Commission has not allowed the sharing of efficiency gains of Rs. 6.77 Crore claimed by CSPDCL, as there are unresolved issues in the energy accounting between CSPDCL and CSPTCL, and the Hon'ble APTEL has remanded the CSPTCL's Appeal in this regard to the Commission, which is pending before the Commission. The Commission's Order on this remand by the Hon'ble APTEL shall be considered for computation of gains on account of lower than target distribution losses achieved by CSPDCL, as applicable.

4.6 **ISSUE 9: CONTRIBUTION TO PENSION AND GRATUITY FUND**

The Commission, in the MYT Order dated July 12, 2013, -11, had disallowed Rs. 65.87 crore against pension and gratuity fund from the ARR of FY 2013-14. The Hon'ble APTEL, in its Judgment has ruled as under:

“26.5 In view of the above, the State Commission should not disallow the excess payment of Rs.105.89 Crores from the contribution made by the Appellant for the FY 2013-14. Accordingly, the State Commission is directed not to disallow Rs.65.87 Crores from the contribution for the FY 2013-14 and allow the actual contribution as per this Tribunal order.

*26.6 Accordingly, **the State Commission is directed to allow the disallowed amount of Rs.65.87 Crores towards contribution for the FY 2013-14.** Accordingly, the issue is decided in favour of the Appellant.”(emphasis added)*

CSPDCL has claimed the financial impact based on the above ruling on Issue 9 for FY 2013-14, as Rs. 65.91crore. CSPDCL has also claimed carrying cost on this amount for the respective years. The Commission has allowed the consequential impact of Issue 9 along with associated carrying cost for CSPDCL, as discussed subsequently.

4.7 FINANCIAL IMPACT

The issue-wise financial impact of the APTEL Judgment for the CSEB period and standalone period have been discussed separately. From FY 2006-07 to December 2008, when CSEB was in its existence, the total impact has been allocated between CSPGCL, CSPTCL and CSPDCL in accordance with the methodology decided by the Commission in the MYT Order. The total claim post-allocation as on January 1, 2009, is treated as opening claim for the standalone period. From January 1, 2009, standalone claim has been calculated for CSPGCL, CSPTCL and CSPDCL.

Further, the impact of Issue 4, viz., Interest on Consumer Security Deposit, for the CSEB period as well as the standalone period has been considered separately, and has not been combined with the impact of other Issues, as the impact for this Issue alone is very high, and the Commission has decided to pass through only a part of this Impact in the ARR of FY 2016-17.

4.7.1 Impact of Issue 1, 2 & 3

The financial impact of Issue 1, 2 and 3 is being shown together as these matters are inter-related. Issue 1 requires inclusion of an additional item for computation of working capital requirement, while Issue 2 and Issue 3 require the interest rate to be considered as SBI PLR at the beginning of the year, for calculation of interest on working capital. The carrying cost has been considered at the same interest rate considered by the Commission for calculating carrying/holding for the respective year in the MYT Order, i.e., 10.25%, 12.25%, and 12.25% for FY 2006-07, FY 2007-08, and FY 2008-09 (Apr-Dec), respectively.

The additional impact of Issues 1, 2 and 3 for the CSEB period has been shown in the Table below:

**Table 4.7-1: Approved Impact for Issue 1, 2 and 3 for CSEB period
(Rs. Crore)**

Particulars	Principal Amount		Cumulative Amount with Carrying Cost	
	Petitioner	Commission	Petitioner	Commission
FY 2006-07	1.52	1.52	1.60	1.60
FY 2007-08	13.34	13.34	15.95	15.95
FY 2008-09 (Apr-Dec'08)	10.91	10.91	28.83	28.83
TOTAL FOR CSEB PERIOD	25.77	25.77	28.83	28.83

The above cumulative amount has been allocated to CSPGCL, CSPTCL and CSPDCL in the same ratio as approved by the Commission for allocating the surplus in the MYT Order, as shown below:

Table 4.7-2: Allocated Impact for Issue 1, 2 and 3
(Rs. Crore)

Particulars	CSPGCL	CSPTCL	CSPDCL	Total
Share	52.57%	15.69%	31.74%	100%
Claim for CSEB period	15.15	4.52	9.15	28.83

The claim amount allocated to each Company has been considered as the opening balance for FY 2008-09 (Jan-Mar 20'09) to compute the total amount due to the Companies along with carrying cost for the standalone period upto FY 2016-17.

CSPGCL and CSPTCL have claimed additional interest on working capital considering the higher rate of interest of 12.25% on working capital for the last 3 months of FY 2008-09 (post unbundling) and FY 2009-10, as compared to the interest rate of 10.25% considered by the Commission. The Commission is of the view that the interest rate of 10.25% originally considered by the Commission for CSPGCL and CSPTCL is correct, as the applicable Tariff Regulations for this period was the CSERC Tariff Regulations, 2006, which specified as under:

"CHAPTER - 2

Tariff for Generating Company and Transmission Licensee

...

5. Terms and Conditions

(1) The Commission shall be guided by the principles as laid down in section 61 (a) to (h) of the Act, National Electricity Policy, National Tariff Policy and follow the principles and methodologies specified by the Central Commission in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, in the determination of tariff for Generating company (thermal and hydel) and for a Transmission licensee."(emphasis added)

Thus, for CSPGCL and CSPTCL for this period, the tariff was to be determined in accordance with the CERC Tariff Regulations, 2004, which specifies as under:

*"(b) Rate of interest on working capital shall be on normative basis and shall be equal to the **short-term Prime Lending Rate of State Bank of India as on 1.4.2004** or on 1st April of the year in which the generating station or a unit thereof is declared under commercial operation, whichever is later. Interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency."(emphasis added)*

*"56 (v) (2) Rate of interest on working capital shall be on normative basis and shall be equal to the **short-term Prime Lending Rate of State Bank of India as on 1.4.2004** or on 1st April of the year in which the project or part thereof (as the case may be) is declared under commercial operation, whichever is later. The interest on working capital shall be payable on normative basis notwithstanding that the transmission licensee has not taken working capital loan from any outside agency." (emphasis added)*

Thus, as the interest rate of 10.25% originally considered by the Commission for CSPGCL and CSPTCL was the short-term Prime Lending Rate of State Bank of India as on 1.4.2004, to be considered in accordance with the CERC Tariff Regulations, 2004, the same is correct, and no relief is required to be granted to CSPTCL and CSPGCL in this regard. Hence, for re-computing the interest on working capital after considering the Pension & Gratuity contribution as part of O&M expenses for FY 2008-09 (Jan to March) and FY 2009-10, the Commission has considered the interest rate of 10.25% as considered earlier.

The additional impact of Issues 1, 2 and 3 for the standalone period, along with carrying cost upto FY 2016-17, has been shown in the Table below:

**Table 4.7-3: Approved Impact for Issue 1, 2 and 3 for standalone period
(Rs. Crore)**

Particulars	Principal Amount		Cumulative Amount with Carrying Cost	
	Petitioner	Commission	Petitioner	Commission
CSPGCL				
Opening Claim			15.15	15.15
FY 2008-09 (Jan-Mar 2009)	2.95	0.51	18.62	16.06
FY 2009-10	11.80	0.93	33.42	18.68
FY 2010-11	1.87	1.88	39.32	22.87
FY 2011-12	8.70	8.70	53.71	35.11
FY 2012-13	21.42	21.42	84.62	63.28
FY 2013-14			95.79	71.64
FY 2014-15			108.72	81.31
FY 2015-16			123.08	92.28
FY 2016-17			131.20	98.37
TOTAL FOR CSPGCL	46.74	33.44	131.20	98.37
CSPTCL				
Opening Claim			4.52	4.52

Particulars	Principal Amount		Cumulative Amount with Carrying Cost	
	Petitioner	Commission	Petitioner	Commission
FY 2008-09 (Jan-Mar 2009)	0.28	0.05	4.95	4.69
FY 2009-10	1.47	0.38	7.11	5.57
FY 2010-11	0.64	0.23	8.62	6.46
FY 2011-12	2.53	2.16	12.44	9.60
FY 2012-13	4.58	4.11	19.19	15.43
FY 2013-14			21.72	17.47
FY 2014-15			24.65	19.82
FY 2015-16			27.90	22.50
FY 2016-17			29.74	23.99
TOTAL FOR CSPTCL	9.49	6.92	29.74	23.99
CSPDCL				
Opening Claim			9.15	9.15
FY 2008-09 (Jan-Mar 2009)	1.21	1.21	10.65	10.65
FY 2009-10	13.83	13.83	26.64	26.62
FY 2010-11	1.30	1.30	31.14	31.12
FY 2011-12	12.24	1.25	48.23	36.50
FY 2012-13	37.30	1.50	95.40	43.49
FY 2013-14			107.99	49.23
FY 2014-15			122.57	55.87
FY 2015-16			138.74	63.42
FY 2016-17			147.90	67.60
TOTAL FOR CSPDCL	65.88	19.08	147.90	67.60

The carrying cost has been calculated at the interest rate of 12.25% for FY 2008-09 (Jan-Mar 2009) and FY 2009-10 for CSPDCL, and 10.25% for CSPGCL and CSPTCL for this period, 11.75% for FY 2010-11, 13% for FY 2011-12, 14.75% for FY 2012-13, 13.20% for FY 2013-14, 13.50% for FY 2014-15 and FY 2015-16, and 13.20% for FY 2016-17.

In FY 2011-12 and FY 2012-13, the amount approved against Issues 1, 2 and 3 for CSPDCL is lower than that claimed by CSPDCL, viz., Rs. 1.25 crore and Rs. 1.50 crore have been approved for FY 2011-12 and FY 2012-13, respectively, as against

Rs. 12.24 crore and Rs. 37.30 crore claimed by CSPDCL. In the Tariff Order for FY 2014-15 dated June 12, 2014, while carrying out final truing up for CSPDCL for FY 2011-12 and FY 2012-13, interest on working capital has already been computed as per the methodology upheld by the Hon'ble APTEL in Appeal No. 308 of 2013. However, the same was not done for CSPGCL and CSPTCL. As this impact has already been allowed in the earlier Order, the same is not being allowed in this Order.

4.7.2 Impact of Issue 4

The financial impact of Issue 4, viz., Interest on Consumer Security Deposit, for the CSEB period has been allocated to CSPGCL, CSPTCL and CSPDCL in the approved ratio, along with carrying cost calculated at the interest rates mentioned above for the respective years as shown in the Table below. The financial impact of Issue 4, viz., Interest on Consumer Security Deposit, for the standalone period for CSPDCL, along with carrying cost calculated at the interest rates mentioned above for the respective years, is also shown in the Table below:

**Table 4.7-4: Approved Impact for Issue 4 for CSEB period and standalone period
(Rs. Crore)**

Particulars	Principal Amount		Cumulative Amount with Carrying Cost	
	Petitioner	Commission	Petitioner	Commission
FY 2006-07	35.68	35.68	37.51	37.51
FY 2007-08	40.64	40.64	85.23	85.23
FY 2008-09 (Apr-Dec'08)	32.30	32.30	126.85	126.85
Sharing of CSD between Power utilities	CSPGCL (52.57%)	CSPTCL (15.69%)	CSPDCL (31.74%)	Total (100%)
As on Jan 1, 2009	66.68	19.90	40.26	126.85
CSPDCL				40.26
FY 2008-09 (Jan-Mar 2009)	11.16	11.16	52.83	52.83
FY 2009-10	52.86	52.86	115.40	115.32
FY 2010-11	77.12	77.12	210.61	210.52
FY 2011-12	111.95	111.95	357.21	357.11
FY 2012-13	163.70	163.70	585.67	585.86
FY 2013-14	30.98		696.01	662.85
FY 2014-15	63.28		857.52	752.34
FY 2015-16	51.06		1025.14	853.90
FY 2016-17			1092.80	910.26
TOTAL for CSPDCL	670.73	525.41	1092.80	910.26

Particulars	Principal Amount		Cumulative Amount with Carrying Cost	
	Petitioner	Commission	Petitioner	Commission
CSPGCL			66.68	66.68
FY 2008-09 (Jan-Mar 2009)			68.72	68.39
FY 2009-10			77.14	75.40
FY 2010-11			86.21	84.26
FY 2011-12			97.41	95.21
FY 2012-13			111.78	109.26
FY 2013-14			126.54	123.68
FY 2014-15			143.62	140.38
FY 2015-16			162.58	159.33
FY 2016-17			173.31	169.84
TOTAL for CSPGCL			173.31	169.84
CSPTCL			19.90	19.90
FY 2008-09 (Jan-Mar 2009)			20.51	20.41
FY 2009-10			23.02	22.50
FY 2010-11			25.73	25.15
FY 2011-12			29.07	28.42
FY 2012-13			33.36	32.61
FY 2013-14			37.76	36.91
FY 2014-15			42.86	41.90
FY 2015-16			48.52	47.55
FY 2016-17			51.72	50.69
TOTAL for CSPTCL			51.72	50.69
Total Impact for Issue 4			1317.84	1130.80

4.7.3 Impact of Issue 8

The financial impact of Issue 8 for FY 2010-11 for CSPDCL along with carrying cost calculated at the interest rates mentioned above for the respective years, is shown in the Table below:

**Table 4.7-5: Approved Impact for Issue 8 for CSPDCL for FY 2010-11
(Rs. Crore)**

Particulars	Principal Amount		Cumulative Amount with Carrying Cost	
	Petitioner	Commission	Petitioner	Commission
FY 2010-11	10.22	3.55	10.82	3.76
FY 2011-12			12.22	4.25
FY 2012-13			14.03	4.87
FY 2013-14			15.88	5.52
FY 2014-15			18.02	6.26
FY 2015-16			20.40	7.11
FY 2016-17			21.75	7.58
TOTAL	10.22	3.55	21.75	7.58

4.7.4 Impact of Issue 9

The financial impact of Issue 9 for FY 2013-14 for CSPGCL, CSPTCL, CSLDC, and CSPDCL along with carrying cost calculated at the interest rates mentioned above for the respective years, is shown in the Table below:

**Table 4.7-6: Approved Impact for Issue 9 for FY 2013-14
(Rs. Crore)**

Particulars	Principal Amount		Cumulative Amount with Carrying Cost	
	Petitioner	Commission	Petitioner	Commission
CSPGCL				
FY 2013-14	28.86	28.86	30.76	30.76
FY 2014-15			34.92	34.92
FY 2015-16			39.53	39.63
FY 2016-17			42.14	42.25
TOTAL FOR CSPGCL	28.86	28.86	42.14	42.25
CSPTCL				
FY 2013-14	10.65	10.65	11.35	11.35
FY 2014-15			12.89	12.89
FY 2015-16			14.59	14.63
FY 2016-17			15.55	15.59
TOTAL FOR CSPTCL	10.65	10.65	15.55	15.59

Particulars	Principal Amount		Cumulative Amount with Carrying Cost	
	Petitioner	Commission	Petitioner	Commission
CSLDC				
FY 2013-14	0.46	0.46	0.49	0.49
FY 2014-15			0.56	0.56
FY 2015-16			0.63	0.63
FY 2016-17			0.67	0.67
TOTAL FOR CSLDC	0.46	0.46	0.67	0.67
CSPDCL				
FY 2013-14	65.91	65.91	70.26	70.26
FY 2014-15			79.75	79.75
FY 2015-16			90.27	90.51
FY 2016-17			96.23	96.48
TOTAL FOR CSPDCL	65.91	65.91	96.23	96.48

As the above amount is specifically for Pension & Gratuity trust contribution, the utilities are directed to ensure that the same is deposited to the trust in twelve equally monthly instalments during FY 2016-17.

4.8 UTILITY-WISE FINANCIAL IMPACT OF ISSUES 1, 2, 3, 8 & 9, INCLUDING CARRYING COST UPTO FY 2016-17

The total financial impact approved to be passed through on account of Issues 1, 2, 3, 8 and 9 of the Hon'ble APTEL's Judgment in Appeal No. 308 of 2013 for CSPGCL, CSPTCL, and CSPDCL is shown in the Table below:

**Table 4.8-1: Approved Total Impact for Issues 1, 2, 3, 8 & 9
(Rs. Crore)**

Particulars	Principal Amount		Cumulative Amount with Carrying Cost	
	Petitioner	Commission	Petitioner	Commission
CSPGCL				
Issues 1, 2 & 3	46.74	33.44	131.20	98.37
Issue 9	28.86	28.86	42.14	42.25
TOTAL FOR CSPGCL	75.60	62.30	173.33	140.62
CSPTCL				
Issues 1, 2 & 3	9.49	6.92	29.74	23.99
Issue 9	10.65	10.65	15.55	15.59
TOTAL FOR CSPTCL	20.14	17.57	45.29	39.58

Particulars	Principal Amount		Cumulative Amount with Carrying Cost	
	Petitioner	Commission	Petitioner	Commission
CSLDC				
Issue 9	0.46	0.46	0.67	0.67
TOTAL FOR CSLDC	0.46	0.46	0.67	0.67
CSPDCL				
Issues 1, 2 & 3	65.88	19.08	147.90	67.60
Issue 8	10.22	3.55	21.75	7.58
Issue 9	65.91	65.91	96.23	96.48
TOTAL FOR CSPDCL	142.01	88.54	265.88	171.66
TOTAL FOR STATE	238.21	168.49	485.14	352.53

4.9 FINANCIAL IMPACT OF ISSUE 4 (CONSUMER SECURITY DEPOSIT), INCLUDING CARRYING COST UPTO FY 2016-17

As discussed earlier, the financial impact of Issue 4, i.e., Interest on Consumer Security Deposit works out to Rs. 1130.80 crore. Further, out of Rs. 1130.80 crore the share of CSPGCL, CSPTCL and CSPDCL is Rs. 169.84 crore, Rs. 50.69 crore, and Rs. 910.26 crore respectively.

Out of Rs. 1130.80 crore, the Commission has considered only Rs. 370 crore against the APTEL impact related to interest on excess Consumer Security Deposit along with carrying cost in the ARR of CSPDCL for FY 2016-17, and the balance of Rs. 760.80 crore has been converted into Regulatory Asset and carried forward to subsequent years. Further, out of Rs. 370 crore, CSPDCL shall pay CSPGCL and CSPTCL their full share of APTEL Impact on CSD issue i.e. Rs. 169.84 crore and Rs. 50.69 crore respectively. The remaining amount of Rs. 149.47 crore will be retained by CSPDCL.

4.10 SUMMARY OF APTEL IMPACT

Taking into consideration the relief given to CSPGCL, CSPTCL and CSPDCL on the above mentioned issues, the total amount to be passed through due to APTEL impact is as shown below:

Table 4.10-1: Approved Total Impact for Issues 1, 2, 3, 4, 8 & 9 in ARR of FY 2016-17

(Rs. Crore)

Particulars	Total Cumulative Amount with Carrying Cost up to FY 2016-17	Cumulative Amount with Carrying Cost allowed in FY 2016-17
CSPGCL		
Issues 1, 2 & 3	98.37	98.37
Issue 4	169.84	169.84
Issue 9	42.25	42.25
TOTAL FOR CSPGCL	310.46	310.46
CSPTCL		
Issues 1, 2 & 3	23.99	23.99
Issue 4	50.69	50.69
Issue 9	15.59	15.59
TOTAL FOR CSPTCL	90.27	90.27
CSLDC		
Issue 9	0.67	0.67
TOTAL FOR CSLDC	0.67	0.67
CSPDCL		
Issues 1, 2 & 3	67.60	67.60
Issue 4	910.26	149.47
Issue 8	7.58	7.58
Issue 9	96.48	96.48
TOTAL FOR CSPDCL	1081.92	321.13
TOTAL (included in ARR of CSPDCL)	1483.32	722.53

The above-stated amounts for CSPGCL, CSPTCL, CSPDCL and CSLDC, including carrying cost up to FY 2016-17, have been added to the ARR of CSPDCL for FY 2016-17. CSPDCL shall pay these amounts to CSPGCL and CSLDC in FY 2016-17 in twelve equal monthly instalments. The above-stated amount for CSPTCL, including carrying cost up to FY 2016-17, has been added to the amount to be billed by CSPTCL for FY 2016-17.

5 TRUE UP OF ARR FOR CSPGCL FOR FY 2014-15 AND TRUE UP OF KORBA WEST TPP (EXTN.) FOR FY 2013-14

5.1 INSTALLED CAPACITY

The installed capacity of conventional power stations of CSPGCL covered under the MYT Regulations, 2012 is shown in the Table below:

Table 5-1: Installed Capacity of Conventional Power Stations of CSPGCL as on March 31, 2015

Sl. No.	Name of Plant	Year of Commissioning	Configuration	MW
	Thermal			
1	KTPS Korba East			
a)	TPS PH II*	1966-68	4 X 50	200.00
b)	TPS PH III*	1976-81	2 X 120	240.00
2	HTPS Korba West	1983-86	4 X 210	840.00
3	DSPM TPS Korba	2007	2 X 250	500.00
4	Korba west Ext		1x 500	500
	Total (Thermal) – A			2280
	Hydro			
1	Hasdeo Bango HEP	1994-95	3 X 40	120.00
2	Gangrel HEP	2004	4 X 2.5	10.00
3	Sikasar HEP	2006	2 X 3.5	7.00
4	Mini Micro H.P.S Korba	2003-09	2 X 0.85	1.70
	Total (Hydro) – B			138.70
	Co-Generation			
1	Kawardha Co-generation Plant	2006	1 X 6	6.00
	Total (Co-Generation) – C			6.00
	Total Installed Capacity (A+B+C)			2424.70

Korba West TPP (herein after referred as “KWTPP”) generating station of 1 x 500 MW capacity was commissioned on September 5, 2013. Thus the total installed capacity of conventional power stations of CSPGCL is 2400 MW as on March 31, 2015.

5.2 TRUE-UP FOR KORBA WEST TPP (EXTN.) FOR FY 2013-14

KWTPP has achieved its COD on September 5, 2013 and its Capital Cost was approved vide Order dated September 22, 2015 in Petition No. 08/2015. In the previous Tariff Order, provisional true -up for KWTPP was undertaken for FY 2013-14, as the capital cost as on COD had not been approved by then. In this Order, the true-up for FY 2013-14 has been undertaken for the period from COD to March 31, 2014, as discussed below.

5.2.1 Norms of Operation

CSPGCL's Submission

The actual performance parameters vis-a-vis normative parameters for FY 2013-14 are given in the following Table:

Table 5-2: Actual parameters for KWTPP for FY 2013-14 as submitted by CSPGCL

Parameter	UoM	Normative/Approved	Actual
Plant Load factor (PLF)	%	85.00	65.97
Auxiliary Consumption	%	6.00	5.73
Specific Oil Consumption	ml/kWh	1.00	2.48
Station Heat Rate	kcal/kWh	2424	2668
Transit Loss	%	0.30	0.299

CSPGCL requested the Commission to take into account the factor of “Learning Curve” faced by CSPGCL in technology assimilation. The operation of 500 MW set is a big transition for CSPGCL, however, such transitions do not come without teething troubles and if such transitional costs are not allowed, it will de-motivate the Utility from adoption of newer and more efficient technologies.

The Commission in the APR Order dated April 28, 2012, after taking a realistic assessment of the teething troubles and learning curve, had expected PLF of only 60% in the first year of operation after the COD.

CSPGCL was unable to achieve the normative performance parameters during FY 2013-14 due to the following reasons:

- Commissioning, calibration and integrated trials for stabilisation of sub-systems, resulting in partial loading and inadvertent tripping.
- Frequent backing down instructions by CSLDC. During the period more than 200 backing down instructions (in less than 200 days of operation) were received from CSLDC, which added to the teething troubles.
- Fluctuations of load resulted in increased fuel oil consumption. To avoid unit tripping on flame failure, oil support became necessary.
- Low coal availability.

CSPGCL further added that technically it is well settled that with fluctuation in loading, efficiency of steam generator (boiler) as well as prime mover tend to get adversely affected. The teething troubles, integrated stabilisation of sub-systems, low coal availability and abnormally frequent backing down instructions by SLDC, clubbed together, resulted in deterioration of thermal efficiency of plant (SHR).

CSPGCL requested the Commission to revisit the issue and exercise the ‘Power to Relax’ and ‘Power to Remove Difficulty’ and other inherent powers vested in the Commission to consider the operating parameters as per actual.

Commission's Views

In Order dated September 22, 2015, the capital cost for KWTPP was approved as on COD. As regards the relaxation sought by CSPGCL in norms of operation for KWTPP, MYT Regulations, 2012, do not give any scope for inferior operational norms during the stabilisation period after COD. The norms of operation cannot be relaxed by placing reliance on the actual performance for a limited period. Hence, the norms of operation for KWTPP have been considered as per MYT Regulations, 2012.

As regards the auxiliary energy consumption for KWTPP, Regulation 39.4 of the MYT Regulations, 2012 specifies the normative auxiliary energy consumption of 6% for Unit size of 500 MW with steam driven boiler feed pumps and 8.50% for electrically driven boiler feed pumps. It was observed that CSPGCL has considered the normative auxiliary energy consumption for KWTPP as 6%. CSPGCL submitted that KWTPP has two steam driven boiler feed pumps and one electrically driven boiler feed pump. The normative auxiliary consumption for KWTPP has been considered as 6%.

Accordingly, the norms of operation approved for KWTPP for FY 2013-14 are as under:

Table 5-3: Approved Performance parameters for KWTPP for FY 2013-14

Parameter	UoM	CSPGCL Petition	Approved after true up
Plant Load factor (PLF)	%	65.97	85.00
Auxiliary Consumption	%	5.73	6.00
Specific Oil Consumption	ml/kWh	2.48	1.00
Station Heat Rate	kcal/kWh	2668	2424
Transit Loss	%	0.299	0.30

5.2.2 Fuel Cost

CSPGCL's submission

Regulation 42.5 of MYT Regulations, 2012 specifies that the energy charge shall cover the fuel cost (primary fuel as well as secondary fuel). CSPGCL submitted the actual values of Gross Calorific Value and Prices of Fuel for FY 2013-14.

The coal supply by SECL for KWTPP was from the same source and same mode, which is available for HTPS old plant (4 x 210 MW). With common coal stock, the base data for coal has been taken same as considered for HTPS old plant, however for KWTPP, the weighted average for the period from the month of September 2013 (COD) to March 2014 has been considered. Similarly, landed price of the Fuel oil has been computed considering common procurement for HTPS and KWTPP for FY 2013-14. However, fuel consumption as per actual has been considered separately for these plants.

Commission's Views

The actual prices of secondary fuel oil have been considered for FY 2013-14 as submitted by CSPGCL. The landed price of coal has been recomputed considering the approved transit and handling loss for FY 2013-14. Further, the normative fuel cost has been computed based on the approved performance parameters for KWTPP. The approved normative Fuel Cost and actual fuel cost for KWTPP for FY 2013-14 are as under:

Table 5-4: Approved Fuel Cost for KWTPP for FY 2013-14

Parameter	Actual	Normative Approved
Cost of Coal (Rs. Crore)	135.82	159.83
Cost of Oil (Rs. Crore)	25.05	13.03
Total Fuel Cost (Rs. Crore)	160.87	172.87
Net Generation (MU)	1552.38	1994.30
Fuel Cost per unit (Rs./kWh)	1.04	0.87

5.2.3 Capital Cost and additional capitalisation

CSPGCL's Submission

CSPGCL submitted the Capital Cost of KWTPP is in line with the capital cost approved by the Commission in its Order dated September 22, 2015. Further, CSPGCL submitted the additional capitalisation of Rs. 137.57 Crore for FY 2013-14, post COD.

Commission's Views

The Capital Cost for KWTPP has been considered as on COD in line with Capital Cost as approved in Order dated September, 22, 2015 and audited accounts for FY 2013-14. The approved Capital Cost has been considered as Opening GFA for the year. The additional capitalisation submitted by CSPGCL for FY 2013-14 has been scrutinised. The GFA addition approved is as under:

Table 5-5: Approved GFA Addition for KWTPP for FY 2013-14
(Rs. Crore)

Particulars	CSPGCL Petition	Approved after true up
Opening GFA for the year	2913.54	2913.54
Addition of GFA during the year	137.57	137.57
Closing GFA for the year	3051.11	3051.11

5.2.4 Depreciation

CSPGCL's Submission

CSPGCL has considered the actual depreciation as per audited accounts of FY 2013-14, duly accounting for the impact of Capital Cost approved by the Commission vide Order dated September 22, 2015.

Commission's Views

The depreciation for KWTPP for FY 2013-14 has been computed as per Regulation 24 of MYT Regulations, 2012 on average asset base during the year. The depreciation rate of 3.17% has been considered for KWTPP for FY 2013-14 based on actual depreciation and average asset base during the year, as per audited accounts for FY 2013-14. The depreciation approved is as under:

Table 5-6: Approved Depreciation for KWTPP for FY 2013-14
(Rs. Crore)

Particulars	CSPGCL Petition	Approved after true up
Depreciation	94.58	94.58

5.2.5 Return on Equity

CSPGCL's Submission

CSPGCL submitted that it has computed the Return on Equity for KWTPP for the period from COD to March 31, 2014.

Commission's Views

Regulation 22 of the MYT Regulations, 2012 specifies as under:

"22. RETURN ON EQUITY

22.1 Generation and Transmission: Return on Equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 17. Return on equity shall be computed on pre-tax basis at the base rate of maximum 15.5 % to be grossed up as per Regulation 22.3 of these Regulations.

...

22.3 The rate of return on equity for each year of the control period shall be computed by grossing up the base rate with the prevailing MAT rate of the base year:

Provided that return on equity with respect to the actual tax rate applicable to the generating company or the transmission licensee or distribution licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the Control Period shall be trued up separately for each year of the Control Period. In case, no tax is payable during the financial year, the tax rate for the purpose of truing up shall be taken as nil....”

The Commission has reviewed the submission given by CSPGCL and allowed the same. The Return on Equity approved is as under:

Table 5-7: Approved Return on Equity for KWTPP for FY 2013-14
(Rs. Crore)

Particulars	CSPGCL Petition	Approved after true up
Opening Equity for the year	465.94	465.94
Addition of Equity during the year	61.31	61.31
Closing Equity for the year	527.25	527.25
Rate of Return on Equity	15.50%	15.50%
Return on Equity	43.86	43.86

5.2.6 Interest and Finance Charges

CSPGCL's Submission

CSPGCL submitted that the interest and finance charges for FY 2013-14 have been computed in accordance with Regulation 23 of the MYT Regulations, 2012. CSPGCL has computed the normative interest and finance charges as per the applicable norms wherein the repayment for the year shall be deemed to be equal to the depreciation allowed for the year and the normative interest on loan shall be calculated on the normative average loan during the year by applying the weighted average rate of interest of actual loan portfolio at the beginning of the year.

Commission's Views

The Interest and finance Charges has been computed as per Regulation 23 of the MYT Regulations, 2012. The Interest and finance charges approved are as under:

**Table 5-8: Approved Interest and Finance Charges for KWTPP for FY 2013-14
(Rs. Crore)**

Particulars	CSPGCL Petition	Approved after true up
Net Normative Opening Loan for the year	2,447.60	2,447.60
Addition of Normative Loan during the year	76.27	76.27
Repayment of Normative Loan during the year	94.58	94.58
Net Closing Normative Loan for the year	2,429.29	2,429.29
Weighted Average Rate of Interest (%)	13.00%	13.00%
Interest and Finance Charges	180.65	180.65

5.2.7 Operation and Maintenance Expenses

CSPGCL's Submission

CSPGCL has computed the normative Operation and Maintenance (O&M) Expenses for KWTPP for FY 2013-14 in accordance with the methodology prescribed in MYT Regulations, 2012.

Commission's Views

Regulation 40.2 of the MYT Regulations, 2012 specifies as under:

“40.2 The O&M expenses for the base year i.e. FY 2012-13, for the units / stations coming into commercial operation after 01.04.2005, shall be considered as under:-

40.2.1 The normative O&M expenses as specified in the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulation 2009 above regulation for the year 2009-10 shall be admissible at the rate of 90% of the value allowed by CERC. Such normative value shall be exclusive of water taxes payable to the State government which shall be pass through to the beneficiary on actual basis. However, except for pension fund liabilities, normative value, so derived, shall be considered inclusive of all expenses incurred to meet head office or holding company expenses.

40.2.2 The adjusted value for 2009-10, as arrived above, shall be escalated by the actual inflation at a weighted average of 60: 40 of CPI : WPI ratio, on year to year basis till 2011-12.

40.2.3 For projecting the normative value for 2012-13 and onwards, average inflation of last three years (i.e 2009-10, 2010-11, 2011-12) shall be applied.

Provided, at the time of true up, the normative O&M cost shall be readjusted to take into account the effect of actual inflation for that period.

Provided, further that impact of pay revision (including arrears), if any, shall be considered separately during the true-up as per audited /unaudited accounts, subject to prudence check and any other factor considered appropriate by the Commission.”

In view of the above Regulations, the Normative O&M expenses for KWTPP for FY 2013-14 has been computed, by considering the period from COD to March 31, 2014. For escalating the O&M expenses from FY 2009-10 to FY 2013-14, the escalation rate approved in the Orders for the respective year has been considered. The actual O&M expenses for FY 2013-14 have been considered as submitted by CSPGCL. The O&M expenses approved are as under:

Table 5-9: Approved O&M Expenses for KWTPP for FY 2013-14
(Rs. Crore)

Particulars	CSPGCL Petition	Approved after true up
Normative O&M Expenses	46.72	46.72
Actual O&M Expenses	19.54	19.54

5.2.8 Pension and Gratuity Contribution

CSPGCL's Submission

CSPGCL has paid the Pension and Gratuity contribution of Rs. 39.28 Crore for FY 2013-14 as allowed in the MYT Order 2013, which included share of KTPS, HTPS, DSPM TPS and Hasdeo Bango HPS. As the sum of the pension fund contribution allocated to the four stations fell short of the total share allocated to CSPGCL, the differential amount of Rs. 4.57 Crore has been considered for KWTPP.

Commission's Views

In Order dated May 23, 2015 the Pension & Gratuity Contribution of Rs. 39.28 Crore was approved for FY 2013-14 for CSPGCL's Generating Stations, except KWTPP.

The Pension and Gratuity Contribution of Rs. 4.57 Crore for KWTPP for FY 2013-14 as submitted by CSPGCL has been approved

5.2.9 Interest on Working Capital (IoWC)

CSPGCL's Submission

CSPGCL submitted that it has calculated the normative interest on working capital in accordance with Regulation 25 of MYT Regulations, 2012. The applicable Base Rate of State Bank of India as on 1st April, 2013 plus 350 basis points has been considered for KWTPP for FY 2013-14.

Commission's Views

The Interest on Working Capital has been computed in accordance with Regulation 25 of MYT Regulations, 2012. Since, KWTPP achieved COD on September 5, 2013. The interest rate equal to applicable base rate of State Bank of India as on COD, plus

350 basis points has been considered. It is noted that CSPGCL has computed the working capital requirement for the whole year, i.e., 365 days and then proportionately computed the IoWC for the period from COD to March 31, 2014. However, the Working capital requirement has been computed on the basis of normative parameters for the period from COD to March 31, 2014 and the IoWC has been computed accordingly. The IoWC approved is as under:

**Table 5-10: Approved Interest on Working Capital for KWTPP for FY 2013-14
(Rs. Crore)**

Particulars	CSPGCL Petition	Approved after true up
Cost of Coal	23.37	23.37
Cost of Main Secondary Fuel Oil	3.39	3.39
O & M Expenses	6.83	6.83
Maintenance Spares	16.40	16.40
Receivables	74.63	74.63
Total Working Capital	124.61	124.61
Rate of Interest	13.20%	13.20%
Interest on Working Capital	9.37	9.37

5.2.10 Non-Tariff Income

CSPGCL's Submission

CSPGCL has computed the Non-Tariff Income in accordance with Regulation 38 read with Regulation 35 of MYT Regulations, 2012. CSPGCL submitted that for computation purposes, the plant specific income has been booked to respective plant and income appearing against HO & CAU has been allocated to the thermal plants on the basis of installed capacity. The actual Non-Tariff Income for KWTPP has been considered for FY 2013-14.

Commission's Views

The actual Non-Tariff Income for KWTPP has been considered as per audited accounts for FY 2013-14. Accordingly, Non-Tariff Income approved is shown in the following Table:

**Table 5-11: Approved Non-Tariff Income for KWTPP for FY 2013-14
(Rs. Crore)**

Particulars	CSPGCL Petition	Approved after true up
Non-Tariff Income	3.10	3.10

5.2.11 ARR for FY 2013-14

The summary of ARR approved for KWTPP for FY 2013-14 is shown in the Table below:

Table 5-12: Approved ARR for KWTPP for FY 2013-14**(Rs. Crore)**

Particulars	CSPGCL Petition	Approved after true up
Depreciation	94.58	94.58
Interest on Loan and Finance charges	180.65	180.65
Return on Equity	43.86	43.86
O & M Expenses	19.54	19.54
Pension and Gratuity Contribution	4.57	4.57
Interest on Working Capital	9.37	9.37
Less - Non Tariff Income	3.10	3.10
Total Annual Fixed Cost	349.47	349.47
Secondary fuel Oil cost	25.05	25.05
Cost of Coal	135.82	135.82
Total Energy Charges	160.87	160.87
Aggregate Revenue Requirement	510.34	510.34

5.2.12 Sharing of Gains and Losses**CSPGCL's Submission**

CSPGCL submitted the sharing of gains and losses in accordance with Regulation 13 of the MYT Regulations, 2012. However, CSPGCL has not considered any impact on account of such sharing of gains or losses, while computing the total impact of the True-up for FY 2013-14.

Commission's Views

Regulation 11 of MYT Regulations, 2012 specifies as under:

"11. CONTROLLABLE AND UN-CONTROLLABLE FACTORS

11.1 For the purpose of these Regulations, the term "uncontrollable factors" shall comprise of the following factors, but not limited to, which were beyond the control of the applicant, and could not be mitigated by the applicant:

- (a) Force Majeure events;*
- (b) Change in law*

...

11.2 For the purpose of these Regulations, the term "Controllable factors" shall comprise of the following:

...

- (b) Generation Performance parameters like SHR, Auxiliary consumption, etc;*

...

- (e) Operation & Maintenance expenses"*

Regulation 12 and 13 of MYT Regulations, 2012 specify the mechanism for pass through of gains and losses as under:

“12. MECHANISM FOR PASS THROUGH OF GAINS OR LOSSES ON

ACCOUNT OF UNCONTROLLABLE FACTORS

The aggregate net gains / losses to the generating company or STU/transmission licensee or distribution licensee on account of uncontrollable items (as per the tariff order) over such period shall be passed on to beneficiaries/consumers through the next ARR or as may be specified in the Order of the Commission passed under these Regulations.

13. MECHANISM FOR SHARING OF GAINS OR LOSSES ON ACCOUNT OF CONTROLLABLE FACTORS

The mechanism for sharing of aggregate net gain / loss on account of better/ under achievement in reference to the target set in tariff order for efficiency linked controllable items shall be passed on to the beneficiary / consumer(s) and the other one-half (or 50%) amount of gain/ loss shall be retained by the generating company or the licensee, as the case may be, over such period as may be stipulated in the Order of the Commission”.

The sharing of gains and losses for KWTPP for FY 2013-14 on account of controllable factors, has been computed in accordance with the MYT Regulations, 2012, and the established methodology for sharing of gains and losses, as elaborated in the MYT Order 2013 and previous Tariff Order. Pension and Gratuity Contribution has been excluded from the calculations, and has shared the gains/losses in the ratio of 50:50 in accordance with the MYT Regulations, 2012.

The sharing of gains and loss after True-up for KWTPP for FY 2013-14 is shown in the Table below:

Table 5-13: Approved Sharing of gains and loss for KWTPP for FY 2013-14
(Rs. Crore)

Particulars	Units	Legend	KWTPP
Fixed Charges @ NPLF			
Installed capacity	MW		500
NPLF as per MYT Regulations, 2012	%		85.00%
Actual PLF achieved	%		65.97%
Gross generation at NPLF	MU		2122
Gross generation at actual PLF	MU		1647
Normative Auxiliary Consumption	%		6.00

Particulars	Units	Legend	KWTPP
Actual Auxiliary Consumption	%		5.73
Normative Auxiliary Consumption	MU		127.30
Actual Auxiliary Consumption	MU		94.30
Normative Net Generation	MU	a	1994.30
Actual net generation	MU	b	1552.38
Generation Loss due to backing down	MU	c	29.84
Generation Loss due to system problem	MU	d	0.00
Generation Loss due to forced majeure outages	MU	e	0.00
Total Net Generation available (Including Loss due to backing down)	MU	$f=b+c+d+e$	1582.22
Total Net Generation to be considered for sharing of gains and losses		g	1582.22
Fixed Cost (norm-wise)			
Depreciation	Rs Cr	A	94.58
Interest on Loan and Finance charges	Rs Cr	B	180.65
Return on Equity	Rs Cr	C	43.86
Interest on Working Capital	Rs Cr	D	9.37
Less - Non Tariff Income	Rs Cr	E	46.72
Fixed cost expenditure excluding O&M and Sec fuel	Rs Cr	$G=\text{Sum}(A \text{ to } D)-E$	325.36
Normative per unit Fixed Cost (Rs/kWh) excluding O&M and Secondary fuel cost	Rs/kWh	$H=G/a*10$	1.63
Units available for Sale (for AFC recovery)(Actual Sent out Units)	MU	$I=g$	1582.22
Fixed cost recovery from generation considered from sharing of gains and losses	Rs Cr	$J=H*I/10$	258.13
Fixed cost gain/(loss) from normative cost	Rs Cr	$K=J-G$	(67.23)
Total gain/(loss)	Rs Cr	$L=\text{Sum}(K)$	(67.23)
O & M expenses			
Normative O&M Cost allowed	Rs Cr	M	46.72
Normative O&M Cost derived from	Rs/kWh	N	0.23

Particulars	Units	Legend	KWTPP
NPLF			
Actual O&M cost recovery due to net generation considered from sharing of gains and losses	Rs Cr	$O=N*g/10$	37.06
Actual O & M cost expenditure	Rs Cr	P	19.54
Gain/(loss) on O&M expenses	Rs Cr	$Q=O-P$	17.52
Total gain/(loss) on O&M expenses		$R=Sum(Q)$	17.52
Secondary Fuel Cost			
Normative SFC	Rs Cr	S	13.03
Normative SFC derived from NPLF	Rs/kWh	T	0.07
Secondary fuel cost recovery from actual generation	Rs Cr	$U=T*b/10$	10.14
Actual SFC incurred	Rs Cr	V	25.05
Gain/(loss) on SFC	Rs Cr	$W=U-V$	(14.90)
Total gain/(loss) on SFC	Rs Cr	$X=Sum(W)$	(14.90)
Coal Cost (primary fuel)			
Normative fuel Cost	Rs Cr	Y	159.83
Normative fuel Cost derived from NPLF	Rs/kWh	Z	0.80
Normative fuel cost on actual sent out	Rs Cr	$AA=Z*b/10$	124.42
Actual fuel cost	Rs Cr	AB	135.82
Coal Cost Gain/(Loss)	Rs Cr	$AC=AA-AB$	(11.41)
Total Coal Cost Gain/(Loss)	Rs Cr	$AD=Sum(AC)$	(11.41)
Total Gain/(Loss)	Rs Cr	$AE=Sum(L,R,X,AD)$	(76.02)
Gain/(Loss) to Utility	Rs Cr	$AF=AE/2$	(38.01)

From the above table, it is seen that due to non-achievement of norms, KWTPP had incurred loss of Rs. 76.02 Crore. As per the provisions of the Regulations, 50% of this loss has to be borne by CSPGCL.

5.2.13 Summary of Final True up for KWTPP for FY 2013-14

In Order dated May 23, 2015 the difference in the revenue (billed amount) against the power sold to CSPDCL and provisional True-up for FY 2013-14 has already been approved. Accordingly, only the difference between the provisional ARR and Final ARR for FY 2013-14 and impact of sharing of gains and losses, with the applicable carrying cost till the end of FY 2013-14 has been considered.

Accordingly, the total impact of True-up for FY 2013-14 for KWTPP is shown in the following table:

Table 5-14: Summary of True-up for KWTPP for FY 2013-14**(Rs. Crore)**

Particulars	CSPGCL Petition	Approved after true up
Revised ARR for FY 2013-14 after Final True-up	510.34	510.34
Sharing of Gains /(losses)for FY 2013-14	0.00	(38.01)
Allowable ARR for FY 2013-14	510.34	472.33
ARR for FY 2013-14 allowed in Provisional True-up	455.63	455.63
Gap/(Surplus) of KWTPP	54.71	16.70
Carrying cost for half year @ 13.20%	3.61	1.10
Gap/(surplus) for FY 2013-14 with carrying cost	58.33	17.81

5.3 TRUE UP FOR CSPGCL STATIONS FOR FY 2014-15

5.3.1 Norms of Operation

MYT Regulations, 2012 specifies the operational norms for the following performance parameters for generating stations:

- Plant Availability Factor
- Auxiliary Energy Consumption
- Gross Station Heat Rate
- Secondary Fuel Consumption
- Transit and handling losses

In the MYT Order 2013, the norms of operation for CSPGCL's stations for FY 2014-15 had been approved, except for KWTPP. As against the same, CSPGCL submitted the actual operational parameters for all stations including KWTPP for FY 2014-15 along with the reasons for deviation in operational parameters as compared to that approved in the MYT Order 2013.

CSPGCL's submissions regarding the reasons for deviations in operational norms and the Commission's ruling on the same are elaborated in the following paragraphs.

5.3.2 Normative Annual Plant Availability Factor

CSPGCL's submission

CSPGCL has submitted the actual Plant Availability Factor for its stations as compared to NAPAF approved by the Commission in the MYT Order 2013, except for KWTPP, as shown in the Table below:

Table 5-15: Actual Plant Availability Factor for FY 2014-15

Station	NAPAF	Actual PAF
KTPS	78.50%	57.50%
HTPS	83.00%	83.46%
DSPM	85.00%	87.08%
KWTPP	85.00%	80.13 %

CSPGCL submitted that the Commission vide its Order in Suo-Motu Petition No. 36 of 2014, has changed the billing system from two-part billing to three-part billing system with effect from October 1, 2014. For the first six months, the Availability has been computed as per well settled methodology, wherein backing down is added to actual generation to arrive at availability for fixed cost recovery. Further, with ABT implementation from October 1, 2014, the availability is now directly certified by SLDC in the monthly State Energy Account (SEA). Accordingly, effective PAF for FY 2014-15 has been worked out as weighted average of both periods. The loss of generation due to Backing Down Instructions (BDI) is certified by SLDC.

CSPGCL submitted that in the MYT Order 2013, the Commission has derived the target PAF for KTPS based on weighted average of individual operational targets for the two power houses, i.e., 83.1% for PH II and 74.64% for PH III. These targets were considered based on PLF achieved during the study carried out by CPRI, which was exclusive of Units under outage. If outage of Unit 6 would have been considered based on gross generation from PH III, PLF achieved during the period would have worked out to 37.32% and not 74.64%. CSPGCL submitted that this factual error has taken place while fixing the target for KTPS and an error of fact cannot be allowed to perpetuate in true up. The same issue was raised during previous year's petition; however, the Commission has not considered the contention. CSPGCL further submitted that at least the outage as considered in Kukade Committee Report must be factored in, without prejudice to the previous submissions made in the matter.

As regards the issue of marked slippage of performance of KTPS since FY 2012-13, CSPGCL submitted that before the refurbishment in 2002-05, KTPS' performance was lower than the present level. The Capital Investment incurred on refurbishment has already given multitude benefits to end users. CSPGCL denied that the failure to achieve the targeted operational parameters is on account of operational inefficiency, as cited by the Commission in previous Order. CSPGCL further submitted that because of inherent problems associated with the Units of 110/120 MW, the capacity group of 100-150 MW sets have been lower performer continuously for years.

CSPGCL submitted that during FY 2014-15, power stations across India suffered from coal shortages and the same has also been recognised by CERC explicitly in its MYT Regulations. In case of KWTPP, though the coal quality was better than that anticipated in the MYT Order 2013, the quantity received was so much lesser that even considering the operation at normative Station Heat Rate, the coal received during the period was grossly insufficient to achieve the normative PLF. The total coal received for KWTPP and HTPS was about 65 lakh tonnes, out of which approx.

44 lakh tonnes were consumed at HTPS (at better than normative Station Heat Rate) and balance left was about 21.47 lakh tonnes. Even at normative Station Heat Rate, it would have resulted in generation of only about 74% PLF. CSPGCL utilized the old stock to the fullest possible capacity, which finally led to about 80% PLF. It is further submitted that with Long Distance Coal Conveyor (LDCC), normally the Coal Handling Plant (CHP) is designed for throughput, i.e., the coal received through LDCC is directly transferred to internal CHP. Stocking the crushed coal and reclaiming was about 14% of the coal received, which is not expected beyond 10% of the annual requirement. In this regard, CSPGCL requested the Commission to exercise its power to remove difficulties and power to relax and to consider the actual PLF as Normative on account of the following reasons:

- a) The MYT Regulations, 2012 had not envisaged Coal shortage scenarios, wherein CERC accounted for such scenarios and has relaxed the criterion for the three year period from April 1, 2014. The period under true up falls in the same bracket and as per Section 61 of the Act, CERC Regulations are a guiding principle for SERCs.
- b) CSPGCL on its part is not claiming relief on theoretical ground based on CERC Regulations, as no claim on such ground has been raised in case of DSPM TPS wherein it actually received the coal.
- c) The factual matrix also shows that there was real coal shortage and the utility has done all that was possible to maximize the generation with available old stock.
- d) KWTPP was out of ABT mechanism and hence, could not have utilized the declared capacity as per machine availability to claim full fixed cost recovery.
- e) It is in the larger interest of all the stakeholders to consider practicable benchmarks.

CSPGCL in its petition (additional submission), submitted that KWTPP had to back down 68.98 MU power as per BDI of SLDC and non-claiming of additional gains on account of BDI is without prejudice to its submissions in Appeal No. 222 of 2015 before the Hon'ble APTEL.

Commission's Views

CSPGCL was asked to submit the SLDC's certificate for actual Plant Availability Factor and backing down instructions for its stations for FY 2014-15, which were submitted by CSPGCL. The documentary evidences submitted for availability were duly scrutinised.

The billing system has been changed during the year. The availability for first half of the year i.e., from April to September 2014 has been computed as per well settled methodology, wherein backing down instructions have been added to actual PLF to compute the Plant Availability Factor. From October 1, 2014 onwards, the actual availability was directly certified by SLDC in the monthly State Energy Account, which have been scrutinised.

As regards the determination of Plant Availability and actual performance of KTPS, in Order dated May 23, 2015 it has already been ruled that:

“The Commission has scrutinised the submissions of CSPGCL. The Commission does not find merit in the submissions of CSPGCL regarding the revision of NAPAF for KTPS for FY 2013-14. The Commission in the MYT Order ruled as under:

“10.2.1.2 KTPS – Korba East

...

*In order to estimate the achievable NAPAF of the KTPS Korba East Power Stations, PLF of both Units of 120 MW as 74.64% and four Units of 50 MW as 83.1% has been considered and accordingly, the weighted average PLF works out to 78.49%. For FY 2012-13, the benchmark PLF was 78.5%, as such the Commission decides to continue the same for the MYT Control Period.... It is noted that during the period of study, unit No. 6 (120 MW) was under outage. **Unlike other parameters, which don't get affected by the outage of the other unit,** auxiliary consumption has a steep tendency to go up as there are always some common facilities which are to be shared by the lone unit in service. The study data also corroborates the same...” (emphasis added)*

Regulation 39.5 of MYT Regulations, 2012 specifies as under:

“39.5 notwithstanding anything contained anywhere else, the norms of operation i.e. NAPAF, SHR, Station Heat Rate and Auxiliary Consumption for Korba East Thermal Station (KTPS), shall be decided by the Commission at the time of determination of MYT Tariff for the control period.”

In accordance with Regulation 39.5 of MYT Regulations, 2012, PLF was proposed in the MYT petition. In MYT tariff petition for 2013-16, CSPGCL had proposed NAPAF of 77.18% for all three years of the control period. In the true-up petition CSPGCL has submitted various reasons for not achieving the norms specified in the MYT Order.

...

... The NAPAF or PLF specified as norm is always decided taking in to consideration planned and forced outage of a plant. Therefore, all the reasons submitted by CSPGCL for the longer duration of outage and overhaul can be attributed to managerial/operational efficiency, and are not technical reasons as stated by CSPGCL. It is observed that the sudden deteriorations in the parameters of the power station are due to operational inefficiency and the losses incurred due to this cannot be totally passed on to the beneficiaries. Various consumers have also made representations on the deteriorating trend of the thermal power station.

.. ...

Hence, the Commission has not revised the NAPAF for KTPS in the true up for FY 2013-14”

CSPGCL has filed an appeal on the above said issue before the Hon'ble APTEL in Appeal No. 222 of 2015. Since, the matter is sub-judice before the Hon'ble APTEL, the Normative PAF has been considered as approved for KTPS in MYT Order 2013.

In MYT Order 2013 the NAPAF for KWTPP has not been specified. The NAPAF for KWTPP has been considered as 85.00% as per the provisions of MYT Regulations, 2012.

As regards KWTPP, CSPGCL submitted that during FY 2014-15, power stations across India suffered from coal shortages and the same has also been recognised by CERC explicitly in its MYT Regulations. The Commission is of view that fuel arrangement is the generator's responsibility and generator can declare its capacity on the basis of fuel other than the linked/domestic fuel sources. However, it may also be noted that the arrangement of fuel from sources other than linked coal, for a pit head station like KWTPP, would negate its purpose of being located nearer to source.

At present, the transportation of coal for KWTPP is being done through the same facilities available for HTPS. This operational difficulty for transportation of coal for KWTPP is likely to continue till the commissioning of new LDCC. In Order dated September 22, 2015 it has been recognised that the delay in the commissioning of new LDCC is beyond the control of CSPGCL.

In view of the above, there appears to be merit in the submission of CSPGCL regarding the PAF of KWTPP for FY 2014-15. Hence, by exercising its power to relax under Regulation 77 of MYT Regulations, 2012, the actual PAF of 80.13% of KWTPP has been considered as normative PAF for FY 2014-15. However, it is clarified that the actual PAF has been allowed for KWTPP for FY 2014-15, in the interest of fairness, as a special case, and this shall not form precedence for KWTPP in future years and for the other generating Stations of CSPGCL. However, any other matter will be considered, if any, on case to case basis and merit of the individual case.

Table 5-16: Approved Plant Availability Factor for FY 2014-15

Station	NAPAF	CSPGCL Petition	Approved NAPAF
KTPS	78.50%	57.50%	78.50%
HTPS	83.00%	83.46%	83.00%
DSPM	85.00%	87.08%	85.00%
KWTPP	85.00%	80.13 %	80.13 %

5.3.3 Auxiliary Energy Consumption

CSPGCL's submission

The Commission in the MYT Order 2013 has approved the auxiliary energy consumption for CSPGCL's stations, except KWTPP for FY 2014-15. As against the same, CSPGCL has submitted the actual auxiliary energy consumption for its stations as shown in the Table below:

Table 5-17: Actual auxiliary energy consumption for FY 2014-15 submitted by CSPGCL

Station	MYT Order 2013	Actual
KTPS	11.25%	13.33%
HTPS	9.70%	9.61%
DSPM	9.00%	7.78%
HBPS	1.00%	0.39%
KWTTP	–	4.62%

CSPGCL submitted that backing down instructions from SLDC resulted in increase in auxiliary consumption in percentage terms for some of the stations. CSPGCL has not claimed additional incentives on account of BDIs on operational parameters in the present Petition, as the matter is pending before Hon'ble APTEL in Appeal No. 222 of 2015.

As regards the auxiliary consumption of KTPS, CSPGCL submitted that the Commission allowed auxiliary consumption of 11.25% instead of 12.31% based on CPRI study, assuming that the study indicated the higher auxiliary consumption for PH III in comparison to PH II, while the past data is reverse. The achievable auxiliary consumption for PH II was 12.98%, which was higher than 11.75% indicated for PH III.

Commission's Views

CSPGCL has filed an appeal on the Auxiliary Consumption for KTPS as approved in Order dated May 23, 2015 before Hon'ble APTEL in Appeal No. 222 of 2015. Since, the matter is sub-judice before the Hon'ble APTEL, Auxiliary Consumption has been considered as approved for KTPS in MYT Order 2013.

The actual auxiliary consumption for FY 2014-15 has been considered as submitted by CSPGCL for the purpose of sharing of efficiency gains and losses. Further, the normative auxiliary energy consumption for FY 2014-15 has been considered in the computation of normative net generation in the true-up for FY 2014-15, as shown in the Table below:

Table 5-18: Approved Auxiliary energy consumption true up for FY 2014-15

Station	MYT Order 2013	Actual	Normative considered for true up
KTPS	11.25%	13.33%	11.25%
HTPS	9.70%	9.61%	9.70%
DSPM	9.00%	7.78%	9.00%
HBPS	1.00%	0.39%	1.00%
KWTTP	-	4.62%	6.00%

5.3.4 Gross Generation and Net Generation

CSPGCL's submission

The Commission, in the MYT Order 2013, has approved the gross generation and net generation for CSPGCL's stations for FY 2014-15, except KWTPP. As against the same, CSPGCL has submitted the actual gross generation and net generation for its stations as shown in the Table below:

Table 5-19: Gross Generation and Net Generation for FY 2014-15 (MU)

Station	MYT Order 2013		Actual	
	Gross Generation	Net Generation	Gross Generation	Net Generation
KTPS	3025.70	2685.31	2210.91	1916.30
HTPS	6107.47	5515.05	6123.02	5534.86
DSPM	3723.00	3387.93	3748.92	3457.40
HBPS	274	271.26	261.36	260.35
KWTPP	-	-	3509.67	3347.67
Total	13130.17	11859.55	15853.88	14516.58

Commission's Views

The billing mechanism has been changed during the year from October 1, 2014. Difference has been observed in the net generation reported by CSPGCL and power purchase quantum reported by CSPDCL from CSPGCL. CSPGCL was asked to submit the reconciliation of the same. In reply, CSPGCL submitted that with effect from October 1, 2014, for the thermal generating stations except KWTPP, the billing has been changed from JMR based two-part billing to three-part ABT billing, in which scheduled energy is considered instead of JMR energy. The reconciliation submitted has been analysed as shown in the following table:

Table 5-20: Reconciliation of Net Generation for KTPS, HTPS, and DSPM

Particulars	Net Generation (MU)			
	KTPS	HTPS	DSPM	Grand Total
JMR energy (actual energy) for whole year (1)	1916.30	5534.86	3457.40	10908.56
JMR energy (Actual Energy) under ABT Mechanism from 1st Oct 2014 to 31st Mar 2015 (2)	980.04	2838.56	1818.35	5636.94
Scheduled energy under ABT Mechanism from 1st Oct 2014 to 31st Mar 2015 (3)	976.11	2829.96	1785.91	5591.98
Total Energy Billed during year (1+3-2)	1912.06	5523.64	3453.48	10889.18

From the above table, it can be seen that there is a difference between the net energy generated and net energy billed. The actual energy generated is 19.38 MU higher than the net energy billed. For the purpose of true up and computation of fuel cost, the actual net generation has been considered.

Further, gross generation and net generation at NAPAF and normative auxiliary consumption has been considered for computing the normative fuel cost for thermal generating stations. The normative gross generation and net generation considered for true up of the fuel cost for thermal generating stations for FY 2014-15 is as shown in the Table below:

Table 5-21: Normative gross generation and net generation considered in true up of fuel cost for thermal generating stations for FY 2014-15

Station	Normative considered for true up of fuel cost for FY 2014-15	
	Gross Generation (MU)	Net Generation (MU)
KTPS	3025.70	2685.31
HTPS	6107.47	5515.05
DSPM	3723.00	3387.93
KWTPP	3509.67	3299.09
Total	16365.85	14887.38

5.3.5 Gross Station Heat Rate (GSHR)

CSPGCL's submission

The Commission, in the MYT Order 2013, has approved the Gross Station Heat Rate for CSPGCL's stations, except KWTPP for FY 2014-15. As against the same, CSPGCL has submitted the actual GSHR for its stations as shown in the Table below:

Table 5-22: Actual GSHR for FY 2014-15 (kcal/kWh)

Station	MYT Order 2013	Actual
KTPS	3110	3350.26
HTPS	2650	2623.65
DSPM	2500	2465.52
KWTPP	-	2547.13

CSPGCL submitted that backing down instructions from SLDC resulted in increase in Station Heat Rate for some of the stations. CSPGCL has not claimed additional incentives on account of BDIs on operational parameters in the present Petition, as the matter is pending before Hon'ble APTEL in Appeal No. 222 of 2015.

CSPGCL submitted that the normative Gross Station Heat Rate for KWTPP is 2424 kcal/kWh in accordance with Regulation 39.2 of the MYT Regulations, 2012. CSPGCL submitted that the plant was backed down by 59.11 MU as per BDIs issued by SLDC. The actual heat rate was higher on account of the reasons submitted earlier, which were beyond reasonable control. As submitted above, CSPGCL has not claimed any additional gains for KWTPP on account of such BDIs, as the matter is sub-judice before Hon'ble APTEL.

Commission's Views

The normative GSHR for KWTPP as submitted by CSPGCL in the true up for FY 2014-15 has been considered, as the same are in accordance with the design parameters specified in the MYT Regulations, 2012.

The actual GSHR for FY 2014-15 as submitted by CSPGCL has been considered for the purpose of sharing of efficiency gains and losses. Further, the normative GSHR for FY 2014-15 has been considered, in the computation of normative fuel cost for FY 2013-14, as shown in the Table below:

Table 5-23: Approved GSHR in true up for FY 2014-15 (kcal/kWh)

Station	MYT Order 2013	Actual	Normative considered for true up
KTPS	3110	3350.26	3110
HTPS	2650	2623.65	2650
DSPM	2500	2465.52	2500
KWTPP	-	2547.13	2424

5.3.6 Secondary Fuel Oil Consumption (SFC)

CSPGCL's submission

The Commission, in the MYT Order 2013, has approved the SFC for CSPGCL's stations, except KWTPP for FY 2014-15. As against the same, CSPGCL has submitted the actual SFC for its stations as shown in the Table given below:

Table 5-24: Actual SFC for FY 2014-15 (ml/kWh)

Station	MYT Order 2013	Actual
KTPS	2.00	2.77
HTPS	1.00	0.69
DSPM	1.00	0.21
KWTPP	-	0.40

CSPGCL submitted that the SFC for KTPS was higher than the normative SFC due to coal quality related problems. As regards directives of the Commission in the previous Tariff Order, continuous follow-up is being made at apex level of SECL regarding quality of coal. The coal quality has unavoidable impact on SFC and other

performance parameters. For any generator, there are three options to improve coal quality, i.e., coal washery, imported coal and better quality of coal from e-auction. However, none of these options were available to KTPS. CSPGCL submitted that the normative SFC for KWTPP is 1 ml/kWh in accordance with MYT Regulations, 2012.

Commission's Views

It can be noted that for KTPS station already relaxed norms was specified in the MYT Regulations, 2012 considering all the relevant aspects. Request for further relaxation in the operating parameter cannot be accepted. For the purpose of sharing of efficiency gains/losses, actual SFC for FY 2014-15 has been considered vis-a-vis normative SFC has been considered as shown in the Table below:

Table 5-25: Approved SFOC in true up for FY 2014-15 (kcal/kWh)

Station	MYT Order 2013	Actual	Normative considered for true up
KTPS	2.00	2.77	2.00
HTPS	1.00	0.69	1.00
DSPM	1.00	0.21	1.00
KWTPP	-	0.40	2.00

5.3.7 Transit and handling loss

CSPGCL's submission

The Commission, in the MYT Order 2013, has approved the transit loss for CSPGCL's stations, except KWTPP for FY 2014-15. As against the same, CSPGCL has submitted the actual transit loss for its stations as shown in the Table below:

Table 5-26: Actual transit and handling loss for FY 2014-15

Station	MYT Order 2013	Actual
KTPS	1.15%	1.14%
HTPS	0.30%	0.28%
DSPM	0.30%	0.27%
KWTPP	-	0.28%

Commission's Views

As regards the categorisation of DSPM as pithead or non-pithead, CSPGCL has filed an Appeal before the Hon'ble APTEL against the tariff Order dated May 23, 2015. As the matter is sub-judice, the normative transit loss of 0.30% has been considered for DSPM treating it as a pithead station as considered in MYT Order 2013.

The actual transit loss for FY 2014-15 has been considered as submitted by CSPGCL for the purpose of sharing of efficiency gains and losses. Further, the normative transit loss for FY 2014-15 has been considered, in the computation of normative fuel cost for FY 2014-15, as shown in the Table below:

Table 5-27: Approved Transit and handling loss in true up for FY 2014-15

Station	MYT Order 2013	Actual	Normative considered in true up
KTPS	1.15%	1.14%	1.15%
HTPS	0.30%	0.28%	0.30%
DSPM	0.30%	0.27%	0.30%
KWTPP	-	0.28%	0.30%

5.3.8 Calorific Value of Fuels**CSPGCL's submission**

CSPGCL submitted the actual calorific value of fuels for its thermal power stations for FY 2014-15.

Commission's Views

The details of month-wise Gross Calorific Value (GCV) for each Generating Station for FY 2014-15 were scrutinised. The calorific values of fuels for FY 2014-15 have been considered as submitted by CSPGCL; the same is shown in the Table given below:

Table 5-28: Calorific Values of fuels considered in true up for FY 2014-15

Station	Coal (kcal/kg)		Secondary Fuel Oil (kcal/L)	
	Actual	Approved after true up	Actual	Approved after true up
KTPS	2998.00	2998.00	10000	10000
HTPS	3649.00	3649.00	10000	10000
DSPM	3415.47	3415.47	10000	10000
KWTPP	3634.16	3634.16	10000	10000

5.3.9 Fuel Prices**CSPGCL's submission**

CSPGCL submitted the actual fuel prices for its thermal power stations for FY 2014-15.

Commission's Views

The actual prices of Secondary Fuel Oil for FY 2014-15 have been considered same as submitted by CSPGCL. The landed price of coal has been re-computed considering the approved transit and handling loss for FY 2014-15. The fuel prices considered in true up for FY 2014-15 are shown in the Table given below:

Table 5-29: Fuel prices considered in true up for FY 2014-15

Station	Coal (Rs./MT)		Secondary Fuel Oil (Rs./kL)	
	Actual	Approved after true up	Actual	Approved after true up
KTPS	1195.43	1195.51	49945.90	49945.90
HTPS	1195.96	1196.26	51504.07	51504.07
DSPM	1359.45	1359.83	54170.53	54170.53
KWTPP	1195.96	1196.26	58713.90	58713.90

5.3.10 Fuel Cost**Commission's Views**

Based on the approved performance parameters, calorific values of fuels and fuel prices, the normative fuel cost has been computed for FY 2014-15, as shown in the Table given below:

Table 5-30: Approved Fuel Cost in true up for FY 2014-15

Station	Actual					Normative Approved after true up				
	Cost of Coal (Rs. Crore)	Cost of Oil (Rs. Crore)	Total (Rs. Crore)	Net Generation (MU)	Fuel cost per unit (Rs./kWh)	Cost of Coal (Rs. Crore)	Cost of Oil (Rs. Crore)	Total (Rs. Crore)	Net Generation (MU)	Fuel cost per unit (Rs./kWh)
KTPS	292.91	30.63	323.54	1916.30	1.69	372.83	30.22	403.05	2685.31	1.50
HTPS	525.14	21.63	546.77	5534.86	0.99	528.59	31.46	560.04	5515.05	1.02
DSPM	367.58	4.30	371.88	3457.40	1.08	369.09	20.17	389.25	3387.93	1.15
KWTPP	293.73	8.24	301.97	3347.67	0.90	278.81	20.61	299.42	3299.09	0.91
Total	1479.36	64.80	1544.16	14256.23	1.08	1549.32	102.46	1651.76	14887.38	1.11

5.3.11 Capital Cost and Additional Capitalisation for FY 2014-15**CSPGCL's submission**

CSPGCL has considered the opening Capital Cost and capital structure of existing thermal and hydro power plants same as the closing values for FY 2013-14 as approved in the final true up order. The additional capitalization during the year has been considered as per audited accounts for FY 2014-15. In compliance with the directives of the Commission and in line with the approach adopted by the Commission in Order dated June 12, 2014 and subsequent letter No. 1705 dated October 27, 2014, CSPGCL has attempted to segregate the capital expenses considered in the books of accounts as R&M expenses.

Commission's Views

The station-wise additional capitalisation submitted by CSPGCL and additional capitalisation incurred as per the audited accounts for FY 2014-15 has been scrutinised. The details of additional capitalisation submitted by CSPGCL has been analysed with respect to Capital Investment Plan Orders, which are found to be in order.

After prudence check of the station-wise details of the additional capitalisation submitted by CSPGCL, the additional capitalisation as submitted by CSPGCL has been considered in accordance with MYT Regulations, 2012.

The capitalisation of KWTPP has been scrutinized in line with the capital expenditure approved in Order dated September 22, 2015 and it was found that the additional capitalisation claimed by CSPGCL for KWTPP is in order.

The additional capitalisation approved in true up for FY 2014-15 is shown in the Table given below:

Table 5-31: Approved Additional Capitalisation in true up for FY 2014-15
(Rs. Crore)

Station	MYT Order 2013	Actual	Approved after true up
KTPS	16.52	7.09	7.09
HTPS	17.51	25.68	25.68
DSPM	1.40	25.95	25.95
HBPS	5.06	0.30	0.30
KWTPP	0.00	340.27	340.27
Total	40.49	399.29	399.29

5.3.12 Means of finance for additional capitalisation

CSPGCL's submission

CSPGCL submitted that the means of finance for additional capitalisation has been considered in the normative debt:equity ratio of 70:30 in accordance with the provisions of the MYT Regulations, 2012, except for KWTPP. CSPGCL has considered the debt:equity ratio of 91:9 for additional capitalisation claimed for KWTPP in FY 2014-15.

Commission's Views

The means of finance of additional capitalisation for FY 2014-15 for the existing stations has been considered in the normative debt-equity ratio of 70:30 in accordance with Regulation 17 of the MYT Regulations, 2012. Further, the debt:equity ratio of 91:9 has been considered for the additional capitalisation claimed for KWTPP, in accordance with the Regulation 17.1 of MYT Regulations, 2012. The approved means of finance is as shown in the Table below:

**Table 5-32: Approved Means of Finance for existing stations in true up for 2014-15
(Rs. Crore)**

Station	Actual			Approved after true up		
	Debt	Equity	Total	Debt	Equity	Total
KTPS	4.96	2.13	7.09	4.96	2.13	7.09
HTPS	17.98	7.70	25.68	17.98	7.70	25.68
DSPM	18.17	7.79	25.95	18.17	7.79	25.95
HBPS	0.21	0.09	0.30	0.21	0.09	0.30
KWTPP	308.11	32.16	340.27	308.11	32.16	340.27
Total	349.43	49.87	399.29	349.43	49.87	399.29

5.3.13 Annual Fixed Cost (AFC)

Regulation 35 of the MYT Regulations, 2012 specifies as under:

“35. Annual Fixed Charges

35.1 The annual fixed cost (AFC) of a generating station shall consist of the following components –

- (a) Return on equity;*
- (b) Interest and finance charges;*
- (c) Depreciation;*
- (d) Interest on working capital;*
- (e) Operation and maintenance expenses;*

NOTE:

- 1. Non-Tariff Income as specified in the Regulation 38, shall be subtracted from the sum of above (a to e) to arrive at AFC.*
- 2. The SLDC charges shall be recovered in accordance with applicable CSERC (Fees and charges of SLDC) Regulations specified from time to time.*
- 3. Pension & Gratuity Fund Contribution shall be recoverable in equal monthly instalments as may be determined by the Commission in the Tariff Order.*
- 4. The Statutory Taxes and Duties shall be recoverable on reimbursement basis, as per actual.*

Provided that Depreciation, Interest and finance charges on Loan Capital, Interest on Working Capital and Return on Equity for Thermal and Hydro Generating Stations shall be allowed in accordance with the provisions specified in Chapter 3 of these Regulations.

5.3.14 Depreciation

CSPGCL's submission

As regards the depreciation of KTPS, CSPGCL submitted that the Central Pollution Control Board (CPCB) has served a closure notice for 50 MW sets of KTPS. CSPGCL has filed appeal against the same and the Hon'ble National Green Tribunal (NGT), Bhopal Bench has granted stay on the same. However, as the sets of 50 MW are very old and it is not possible to comply with the new stringent emission norms specified by the Chhattisgarh Pollution Control Board (CPCB), CSPGCL has been constrained to submit a closure plan before NGT as per which, the Units shall be closed down during the period from June 2016 to June 2018. Being old non-reheat cycle plants, the Central Electricity Authority (CEA) has also recommended retirement of these Units and the Commission has also taken cognizance of the same in its Order dated June 12, 2014. Further, PH III (120 MW sets) will also complete their extended useful life in FY 2020-21 (i.e., on completion of 15 years from the PG test after refurbishment). Accordingly, CSPGCL submitted depreciation for KTPS for FY 2014-15 for both the Power houses by applying the principle of 'Balance depreciable value' divided by 'Balance useful life'.

As regards the depreciation of HTPS, CSPGCL submitted the following:

- a) Without prejudice to its submissions in the Appeal before the Hon'ble APTEL in Appeal No. 238 of 2014, CSPGCL submitted the computation of the depreciation by the methodology adopted by the Commission in previous Order with specific changes.
- b) Regulation 3.67 of MYT Regulations, 2012 has defined the useful life of the coal based thermal power plant as 25 years. Accordingly, HTPS has completed its useful life in FY 2011-12. In the previous Capital Investment Plan, CSPGCL submitted proposal for comprehensive Renovation & Modernization of HTPS. However, the same was not approved. Hence, no life extension has taken place.
- c) CEA, in its National Perspective Plan for Renovation and Modernization and Life Extension of Thermal Power Stations issued in December 2009 has specifically dealt with the Life Extension and Renovation and Modernization work. The life extension has been considered by CEA as 15 years only. Hence, in case of renovation, expected life extension beyond the useful life of power plant may be 15 years only.
- d) In the MYT Order 2013 dated July 12, 2013, rate of depreciation on additional assets has been considered as 5.11%. Further, as per first Proviso to Regulation 24.4 of MYT Regulations, 2012, after completion of 15 years of useful life, the balance depreciation should be charged by spreading the balance depreciable value over the balance useful life.
- e) After completion of useful life, if the plant is expected to perform further, certain capital investments are required for safe and smooth operations. Apart from the above, certain capital works are also needed to comply with the change in statutory norms and works related to ash disposal. CSPGCL has submitted detail proposed capital work separately, in its Capital Investment Plan. If the works proposed in CIP are approved, it is expected that plant may perform further for period of 10 years from April 1, 2016.

- f) The depreciation on the assets before April 1, 2016 has been depreciated in the balance useful life up to FY 2015-16 as has been done in previous tariff and true up orders. However for the assets added after April 1, 2010, CSPGCL has computed the depreciation by dividing the balance depreciable value by balance useful life.
- g) In the absence of the extension of life, additional assets are liable to be depreciated in the same year of capitalization considering completion of useful life, as per MYT Regulations, 2012.

As regards the depreciation of DSPM TPS, CSPGCL has computed depreciation for FY 2014-15, as per the rates specified in the MYT Regulations, 2012. Further, the depreciation for Hasdeo Bango Hydel plant has been computed in accordance with the first proviso of the Regulation 24.4 of MYT Regulations, 2012. CSPGCL has charged this depreciation by spreading the balance depreciable value over the balance useful life, in line with the methodology adopted in the MYT Order 2013.

As regards the depreciation for KWTPP, CSPGCL has considered the actual depreciation as per annual financial statements of FY 2014-15, duly accounting for the impact of Capital cost approved by the Commission vide Order dated September 22, 2015.

Commission's Views

The depreciation for FY 2014-15 has been approved in the MYT Order 2013 based on the provisional true up for FY 2011-12. Thereafter, the final true up was carried out for FY 2011-12 and FY 2012-13 vide Order dated June 12, 2014 and for FY 2013-14 vide Order dated May 23, 2015.

In this order, the methodology adopted in earlier orders has been considered in computing the depreciation of KTPS and HTPS. However, the Commission further notes that Hon'ble APTEL has passed a Judgment on March 30, 2016 in Appeal No. 238 of 2014 on this issue. The Judgment of the Hon'ble APTEL shall be complied and depreciation allowed in this order shall be reviewed. The Commission has considered the weighted average depreciation rate of 5.52% for KTPS and 5.38% for HTPS in line with the Order dated March 26, 2016 in Petition No. 49 of 2015.

The depreciation for DSPM and HBPS has been considered as per Regulation 24 of MYT Regulations, 2012.

In case of KWTPP, the depreciation has been considered based on the actual depreciation from audited accounts for FY 2014-15.

The depreciation approved in the MYT Order 2013, as submitted by CSPGCL and approved in the true up for FY 2014-15 are shown in the Table given below:

**Table 5-33: Approved Depreciation in true up for FY 2014-15
(Rs. Crore)**

Particulars	Approved after true up			
	KTPS	DSPM TPS	Hasdeo Bango	KWTPP
Opening GFA	660.78	2,307.75	109.60	3051.11
Additional Capitalization	7.09	25.95	0.30	340.27
Closing GFA	667.87	2,333.70	109.90	3391.39
Average GFA	664.32	2,320.72	56.48	3221.25
Average Rate of Depreciation	5.52%	5.50%	-	4.91%
Net Depreciation for claim	30.15	127.62	2.65	158.15

Particulars	Approved after true up
	HTPS
Opening GFA	2,307.75
For assets up to FY 2009-10 Yearly depreciation as per Tariff Order Dt.12th June, 2014 for five years	23.38
For assets added after 2009-10	
Opening additional capitalization for FY 2014-15	306.71
Additional Capitalization during FY 2014-15	25.68
Closing capitalization up to FY 2014-15	332.39
Depreciation rate	5.38%
Depreciation charged for additional capitalization for FY 14-15	17.19
Total depreciation for FY 14-15	40.57

5.3.15 Return on Equity (RoE)

CSPGCL's submission

CSPGCL submitted that the Return on Equity for FY 2014-15 has been computed as per Regulation 22 of the MYT Regulations, 2012. It has computed RoE on pre-tax basis at the base rate of 15.50% for existing thermal and hydel power plants on permissible equity for FY 2014-15. Since, no actual income tax has been paid during FY 2014-15, no grossing up with applicable tax rate has been considered. Further, CSPGCL submitted that in case of any income tax liability for FY 2014-15 raised by the income tax authorities during the final assessment, the same may be allowed in the future true up Orders.

Commission's Views

Regulation 22 of the MYT Regulations, 2012 specifies as under:

“22. RETURN ON EQUITY

22.1 Generation and Transmission: Return on Equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 17. Return on equity shall be computed on pre-tax basis at the base rate of maximum 15.5 % to be grossed up as per Regulation 22.3 of these Regulations.

...

22.3 The rate of return on equity for each year of the control period shall be computed by grossing up the base rate with the prevailing MAT rate of the base year: Provided that return on equity with respect to the actual tax rate applicable to the generating company or the transmission licensee or distribution licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the Control Period shall be trued up separately for each year of the Control Period. In case, no tax is payable during the financial year, the tax rate for the purpose of truing up shall be taken as nil.

...”

The RoE for 2014-15 has been approved in the MYT Order 2013 based on the provisional True up for FY 2011-12. Thereafter, the final true up for FY 2011-12 and FY 2012-13 was carried out vide Order dated June 12, 2014 and for FY 2013-14 vide Order dated May 23, 2015.

For existing stations except KWTPP, the closing equity approved in True up for FY 2013-14 in Order dated May 23, 2015, has been considered as the opening equity for FY 2014-15. For KWTPP, the closing equity has been considered as approved by the Commission for FY 2013-14 in this Order. Further, the equity portion of the additional capitalisation in FY 2014-15 has been considered as approved in **Para 5.3.12** above. The return on equity for FY 2014-15 has been considered by considering the average of opening equity and closing equity for FY 2014-15.

As the income tax paid for FY 2014-15 is zero, the grossing up of base rate of RoE with the applicable tax rate has not been considered. The base rate of RoE of 15.50% has been considered as specified in the MYT Regulations, 2012. As regards the prayer of CSPGCL to allow the income tax liability for FY 2014-15 on actual basis after final assessment by the tax authorities, an appropriate view regarding the same shall be taken based on submissions of CSPGCL in this regard at the appropriate time.

The RoE approved in the MYT Order 2013, as submitted by CSPGCL and approved in true up for FY 2013-14 are shown in the Table below:

Table 5-34: Approved RoE in true up for FY 2014-15**(Rs. Crore)**

Particulars	KTPS	HTPS	DSPM	Hasdeo Bango	KWTPP
Permissible Equity in Opening GFA	204.82	348.31	687.10	37.63	527.25
Equity addition during the year	2.13	7.70	7.79	0.09	32.16
Permissible Equity in Closing GFA	206.95	356.01	694.89	37.72	559.41
Average Permissible Equity during the year	205.89	352.16	690.99	37.68	543.33
Rate of return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	31.91	54.59	107.10	5.84	84.22

5.3.16 Interest and finance charges**CSPGCL's submission**

CSPGCL submitted that the Interest and finance charges for FY 2014-15 have been computed as per Regulation 23 of MYT Regulations, 2012. The repayment for the year has been deemed to be equal to the depreciation for the year and normative interest on loan has been calculated on the normative average loan during the year by applying the weighted average rate of interest of actual loan portfolio at the beginning of the year.

Commission's Views

The interest and finance charges for FY 2013-14 have been approved in the MYT Order 2013 based on the provisional true up for FY 2011-12. Thereafter, the final true up for FY 2011-12 and FY 2012-13 were carried out vide Order dated June 12, 2014 and for FY 2013-14 vide Order dated May 23, 2015.

For existing stations except KWTPP, the closing loan balances approved in True up for FY 2013-14 in Order dated May 23, 2015 has been considered, as the opening loan balances for FY 2014-15. In case of KWTPP, the closing loan balance for FY 2013-14 approved in this Order has been considered. The debt portion of the additional capitalisation in FY 2014-15 has been considered as approved in **Para 5.3.12** above. The allowable depreciation for the year has been considered as the normative repayment for the year.

The actual weighted average interest rate as on April 1, 2014 has been re-computed as per annual audited accounts for FY 2014-15.

The interest and finance charges approved in the MYT Order 2013, as submitted by CSPGCL and approved in true up for FY 2014-15, are shown in the Table below:

**Table 5-35: Approved Interest and finance charges in true up for FY 2014-15
(Rs. Crore)**

Particulars	KTPS	HTPS	DSPM	Hasdeo Bango	KWTPP
Total Opening Net Loan	152.36	153.72	991.64	15.47	2,429.29
Repayment during the period	30.15	40.57	127.62	2.65	158.15
Debt Addition during the year	4.96	17.98	18.17	0.21	308.11
Total Closing Net Loan	127.17	131.13	882.18	13.03	2,579.25
Average Loan during the year	139.77	142.43	936.91	14.25	2,504.27
Weighted Average Interest Rate	11.28%	11.62%	12.25%	12.75%	13.00%
Interest Expense for the Period	15.76	16.55	114.77	1.82	325.55
Financing and Other Charges	0.02	0.03	0.00	-	-
Total Interest Expenses	15.78	16.58	114.77	1.82	325.55

5.3.17 Interest on Working Capital (IoWC)

CSPGCL's submission

CSPGCL submitted that the IoWC for FY 2014-15 has been computed in accordance with Regulation 25 of MYT Regulations, 2012, considering the interest rate equal to the applicable Base Rate of State Bank of India as on April 1, 2014 plus 350 basis points.

Commission's Views

The IoWC has been computed in accordance with Regulation 25 of the MYT Regulations, 2012. The rate of interest has been considered as 13.50% (SBI Base Rate as on April 1, 2014 plus 350 basis points), in accordance with Regulation 25.3 of MYT Regulations, 2012.

It is noted that for computing the working capital requirement for DSPM, CSPGCL has considered cost of coal for 1.5 months by assuming DSPM as a non-pit head station. In tariff Order dated May 23, 2015 for True-up for FY 2013-14, DSPM has been considered as a pithead station, and one month cost of coal has been considered. CSPGCL has filed an Appeal against this issue before Hon'ble APTEL in Appeal No. 222 of 2015. Since, the matter is sub-judice before the Hon'ble APTEL, IoWC for DSPM has been considered as per the approach adopted in previous Order.

The IoWC approved in the MYT Order 2013, as submitted by CSPGCL, and approved in the true up for FY 2014-15 is shown in the Table given below:

**Table 5-36: Approved IoWC in true up for FY 2014-15
(Rs. Crore)**

Station	MYT Order	CSPGCL Petition	Approved after true up
KTPS	18.66	20.52	20.13
HTPS	27.08	27.43	27.39
DSPM	19.30	21.09	19.06
HBPS	0.73	0.69	0.69
KWTPP	-	17.59	17.37
Total	65.77	87.32	84.64

5.3.18 Operation and Maintenance (O&M) expenses

CSPGCL's submission

CSPGCL submitted the O&M Expenses (excluding water charges) for existing thermal and hydel power plants, in accordance with Regulation 40 of MYT Regulations, 2012.

Further, as per the methodology adopted in earlier Orders, the cost incurred on coal transport has been reduced from the O&M Expense and added to the fuel cost. Similarly, as per settled methodology adopted by the Commission in its previous Orders, CSPGCL has not considered the productivity incentive as part of employee expense and donations as part of A&G expenses. O&M Expenses on support functions such as Head Office, CAU, etc., are allocated among the thermal power plants and Hasdeo Bango HEP, based on their installed capacities.

Further, the additional capitalization against works similar to those considered by the Commission as R&M expense in the previous Order, have been transferred from Capitalization to O&M head. CSPGCL further submitted that it has considered the contribution to pension trust as part of O&M expenses, which was not considered in the MYT Order 2013.

CSPGCL has computed the normative O&M expenses in the similar manner as approved in the Order dated May 23, 2015 and for the purpose of normalization of O&M expenses for FY 2014-15, the weighted average WPI- CPI inflation has been considered as 4.57%.

The normative O&M expenses for DSPM TPS have been computed as per Regulation 40.2 of MYT Regulations, 2012 normalizing the same with actual weighted average rate of inflation.

Commission's Views

Regulation 40 of the MYT Regulations, 2012 specifies as under:

*“40. OPERATION AND MAINTENANCE EXPENSES
40.1 Thermal Generating Station:*

(a) Operation and Maintenance (O&M) expenses for generating Company shall include:

I. Employee costs;

II. Administrative and General Expenses

III. Repairs and Maintenance

(b) The Operation and Maintenance expenses, excluding water charges, pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2012-13, shall be derived on the basis of the normalized average of the actual Operation and Maintenance expenses excluding water charges, pension fund contribution and impact of pay revision arrears available in the audited/un audited accounts for the previous three (3) years immediately preceding the base year FY 2012-13, subject to prudence check by the Commission.

(c) The normalization shall be done by applying weighted average inflation at the rate of 60% weightage to actual variation in CPI and 40% weightage to actual variation in WPI on year to year basis. The average of normalized net present value for 2009-10, 2010-11 and 2011-12, shall then be used to project base year value for 2012-13. The base year value so arrived, shall be escalated by the above inflation rate to estimate the O&M expense (excluding impact of pay revision, if any) for each year of the control period.

At the time of true up, the O&M cost shall be considered after taking into account the actual inflation instead of projected inflation for that period. Provided that water charges shall be pass through in tariff on reimbursement basis:

Provided further that impact of pay revision (including arrears) shall be allowed on actual during the true-up as per audited/unaudited accounts, subject to prudence check and any other factor considered appropriate by the Commission.”

The station-wise normative O&M expenses for FY 2014-15 has been re-computed, considering approved Normative O&M expenses for FY 2013-14 and actual inflation in FY 2014-15 over FY 2013-14. In case of KWTPP, the normative O&M expenses for FY 2013-14 as approved in this Order have been considered. The CPI and WPI data has been verified and the escalation rate has accordingly been considered as 4.57% for FY 2014-15.

Further, the actual O&M expenses have been verified with audited accounts for FY 2014-15. It is observed that CSPGCL in its Petition has not considered Wage Revision (Interim Relief) of Rs. 37.86 Crore, which has been provided for in the audited accounts for FY 2014-15. Since, no actual interim relief was paid to employees of CSPGCL, the provision towards interim relief has not been considered. The actual impact of Wage Revision (Interim Relief) shall be considered at an appropriate time, subject to prudence check.

It is noted that CSPGCL has considered the additional capitalisation of Rs. 1.56 Crore, transferred from the capitalisation to O&M expenses, based on the methodology adopted in previous Orders. These expenses have been considered as a part of O&M expenses.

The O&M expenses approved in the true up for FY 2014-15 are as shown in the Table given below:

Table 5-37: Approved O&M expenses in true up for FY 2014-15
(Rs. Crore)

Station	Normative O&M expenses			Actual O&M expenses	
	MYT Order 2013	CSPGCL Petition	Approved	CSPGCL Petition	Approved
KTPS	212.98	214.35	214.35	194.77	194.77
HTPS	277.79	263.81	263.81	244.62	244.62
DSPM	127.64	120.01	121.14	122.96	122.96
HBPS	13.55	13.20	13.20	9.37	9.37
KWTPP	-	85.72	85.72	41.95	41.95
Total	631.96	697.09	698.22	613.67	613.67

5.3.19 Non-Tariff Income

CSPGCL's submission

CSPGCL submitted the Non-Tariff Income as per Regulation 38 read with Regulation 35 of MYT Regulations, 2012 for FY 2014-15 for its existing thermal and hydel power plants. As per well-settled principle, Delayed Payment Surcharge has not been taken into account while determining the non-tariff income for FY 2014-15.

The plant specific income has been booked to the respective plant, and income appearing against HO & CAU has been allocated to the thermal plants on the basis of installed capacity. The interest on Fixed Deposit Receipts (FDR), whose cost has neither been charged to revenue expense nor the capital account, is not eligible for Non-Tariff Income. The matter is already before the Hon'ble APTEL in Appeal No. 222 of 2015 and non-claiming the exception is without prejudice to the contentions and claims of CSPGCL in the matter.

Commission's Views

In the MYT Order 2013 the Non-Tariff Income for FY 2014-15 had been approved. Actual station-wise Non-Tariff Income as per the books of accounts has been considered in true up for FY 2014-15. Delayed Payment Surcharge under Non-Tariff Income for FY 2014-15 has not been considered.

The Interest on Staff loan and advances has been considered as part of Non-tariff Income, which was not considered by CSPGCL. Further, in view of the Pending Appeal No. 222 of 2015 before the Hon'ble APTEL, the interest on FDRs has been considered under Non-Tariff Income.

The Non-Tariff Income approved in the MYT Order 2013, as submitted by CSPGCL and approved in the true up for FY 2014-15 is shown in the Table below:

Table 5-38: Approved Non-Tariff Income in true up for FY 2014-15
(Rs. Crore)

Station	MYT Order	CSPGCL Petition	Approved after true up
KTPS	6.03	2.63	2.67
HTPS	9.92	6.77	6.82
DSPM	6.04	3.87	3.90
HBPS	1.42	0.00	0.00
KWTPP	-	3.79	3.83
Total	23.41	17.06	17.22

5.3.20 Pension and Gratuity Contribution

CSPGCL's submission

CSPGCL submitted that as per MYT Order 2013 dated July 12, 2013, CSPGCL's share of Pension and Gratuity contribution for FY 2014-15 was determined as Rs. 81.77 Crore. Plant-wise contribution for HTPS, KTPS, DSPM TPS and Hasdeo Bango was also approved in the MYT Order 2013 which was lower than the Rs. 81.77 Crore share allocated to CSPGCL. Further, the allocation for KWTPP was also not available in MYT Order 2013. In view of this, CSPGCL has reallocated the contribution to P&G Contribution among its plants proportionate to their capacity.

Commission's Views

The actual pension fund contribution of Rs. 81.77 Crore has been approved for CSPGCL for FY 2014-15 and allocated the amount to the Generating Stations, including KWTPP, in the same proportion as allocated by CSPGCL.

5.3.21 Prior Period items

CSPGCL's submission

CSPGCL has considered the prior period (credits)/charges from audited accounts for FY 2014-15 in line with the approach adopted by the Commission in the previous Order. The prior period interest income /charges in the books of accounts have not been considered, as the same is computed and allowed on normative basis and is not related to accounts. Similarly, fuel related expenses relating to previous year have not been considered, as fuel cost is computed differently and during the respective true ups of the prior periods, the same was approved accordingly.

Except for the above exclusions, CSPGCL has considered remaining prior period (credits)/ charges. The prior period expenses against HO & CAU in audited accounts of FY 2014-15 have been allocated to the existing thermal plants based on their installed capacity.

Commission's Views

The prior period expenses as submitted by CSPGCL has been accepted and approved, as shown in the Table below:

**Table 5-39: Approved Prior Period Expenses approved in true up for FY 2014-15
(Rs. Crore)**

Station	CSPGCL Petition	Approved after true up
KTPS	0.34	0.34
HTPS	0.65	0.65
DSPM	0.39	0.39
KWTPP	0.39	0.39
Total	1.77	1.77

5.3.22 Other Charges

CSPGCL's submission

CSPGCL submitted that the actual water charges for FY 2014-15 were Rs. 120.53 Crore, SLDC charges were Rs. 7.21 Crore, and petition filing fees and publication expenses were Rs. 0.28 Crore for FY 2014-15.

Commission's Views

The other charges, as submitted by CSPGCL in the true up for FY 2014-15, have been approved.

5.3.23 ARR for FY 2014-15

The summary of ARR for KTPS, HTPS, DSPM, HBPS and KWTPP for FY 2014-15 is as shown in the Table given below:

Table 5-40: Approved ARR for HTPS, KTPS and DSPM, for FY 2014-15 (Rs. Crore)

Particulars	KTPS			HTPS			DSPM			HBPS			KWTPP		
	MYT Order 2013	CSPGCL Petition	Approved	MYT Order 2013	CSPGCL Petition	Approved	MYT Order 2013	CSPGCL Petition	Approved	MYT Order 2013	CSPGCL Petition	Approved	MYT Order 2013	CSPGCL Petition	Approved
Depreciation	29.63	66.05	30.15	42.66	44.67	40.57	117.7	127.62	127.62	2.51	2.65	2.65	-	158.15	158.15
Interest & Finance Charges	16.80	13.75	15.78	24.31	16.34	16.58	105.29	114.78	114.77	1.56	1.82	1.82	-	325.55	325.55
Return on Equity	40.35	31.91	31.91	74.88	54.59	54.59	129.44	107.10	107.10	7.44	5.84	5.84	-	84.22	84.22
O&M Expenses	212.98	194.77	194.77	277.79	244.62	244.62	127.64	122.96	122.96	13.83	9.37	9.37	-	41.95	41.95
Interest on Working Capital	18.66	20.51	20.13	27.08	27.43	27.39	19.30	21.09	19.06	0.73	0.69	0.69	-	17.59	17.38
Less: Non-Tariff Income	6.03	2.63	2.67	9.92	6.77	6.82	6.04	3.87	3.90	1.42	0.00	0.00	-	3.79	3.83
Pension and Gratuity Contribution	10.58	14.99	14.99	20.20	28.62	28.62	12.03	17.04	17.04	2.89	4.09	4.09	-	17.04	17.04
Total Annual Capacity Charge	322.97	339.37	305.06	457.00	409.50	405.54	505.36	506.72	504.66	27.54	24.45	24.45	-	640.72	640.46
Cost of Coal	279.85	292.91	292.91	484.92	525.14	525.14	303.88	367.58	367.58				-	8.24	8.24
Cost of Oil	29.83	30.63	30.63	30.19	21.63	21.63	18.55	4.30	4.30				-	293.73	293.73
Total Energy Charges	309.68	323.54	323.54	515.11	546.77	546.77	322.43	371.88	371.88				-	301.97	301.97
Net prior period (income)/expenses	0.00	0.34	0.34	0.00	0.65	0.65	0.00	0.39	0.39	-	-	0.00		0.39	0.39
Aggregate Revenue Requirement	632.65	663.25	628.94	972.11	956.92	952.97	827.79	878.99	876.93	27.54	24.45	24.45		943.08	942.82

5.3.24 Revenue from sale of power

CSPGCL's submission

CSPGCL submitted the revenue from sale of power for FY 2014-15 as Rs. 3451.72 Crore including the revenue of Rs. 120.53 Crore on account of water charges and SLDC charges of Rs. 7.21 Crore.

Commission's Views

CSPGCL was asked to reconcile the revenue from sale of power as submitted by CSPGCL and payment made by CSPDCL to CSPGCL. In reply to this query, the CSPGCL submitted billing sheets for all twelve (12) months, which have been scrutinised. CSPGCL further submitted that total bills of Rs. 3618.46 Crore were raised. From this total amount of bills raised, AFC and Energy charges of RE power of Rs. 28.46 Crore and Delayed Payment Surcharge of Rs. 138.29 Crore was excluded and the remaining amount of Rs. 3451.72 Crore has been considered as revenue from sale of power for CSPGCL Generating Stations. It is noted that the break-up of total revenue of Rs. 3451.72 Crore includes consolidated net amount of fixed charges, energy charges and Fuel Cost adjustments of Rs. 3323.97 Crore, Water Charges of Rs. 120.53 Crore and SLDC charges of Rs. 7.21 Crore.

In view of the above, the revenue from sale of power as submitted by CSPGCL for FY 2014-15 has been considered as shown in the following table:

Table 5-41: Approved Prior Period Expenses approved in true up for FY 2014-15 (Rs. Crore)

Particulars	CSPGCL Petition	Approved after true up
Revenue from Sale of Power	3185.76	3185.76
Revenue from FCA	138.22	138.22
Water Charges	120.53	120.53
SLDC charges	7.21	7.21
Grand total	3,451.72	3,451.72

5.3.25 Sharing of gains and losses for FY 2014-15

Regulation 11 of the MYT Regulations, 2012 specifies as under:

“11. CONTROLLABLE AND UN-CONTROLLABLE FACTORS

11.1 For the purpose of these Regulations, the term “uncontrollable factors” shall comprise of the following factors, but not limited to, which were beyond the control of the applicant, and could not be mitigated by the applicant:

- (a) Force Majeure events;*
- (b) Change in law*

... ..

11.2 For the purpose of these Regulations, the term “Controllable factors” shall comprise of the following:

...

(b) *Generation Performance parameters like SHR, Auxiliary consumption, etc;*

...
(e) *Operation & Maintenance expenses”*

Further, Regulation 12 of the MYT Regulations, 2012 specifies as under:

“12. MECHANISM FOR PASS THROUGH OF GAINS OR LOSSES ON ACCOUNT OF UNCONTROLLABLE FACTORS

The aggregate net gains / losses to the generating company or STU/transmission licensee or distribution licensee on account of uncontrollable items (as per the tariff order) over such period shall be passed on to beneficiaries/consumers through the next ARR or as may be specified in the Order of the Commission passed under these Regulations.”

Regulation 13 of the MYT Regulations, 2012 specifies as under:

“13. MECHANISM FOR SHARING OF GAINS OR LOSSES ON ACCOUNT OF CONTROLLABLE FACTORS

The mechanism for sharing of aggregate net gain / loss on account of better/ under achievement in reference to the target set in tariff order for efficiency linked controllable items shall be passed on to the beneficiary / consumer(s) and the other one-half (or 50%) amount of gain/ loss shall be retained by the generating company or the licensee, as the case may be, over such period as may be stipulated in the Order of the Commission”.

CSPGCL’s submission

CSPGCL submitted that Regulation 13 of the CSERC MYT Regulation 2012 specifies the method for sharing of gains and losses. In compliance of the Regulations 32 and 35, and settled methodology in previous Orders, the Pension and Gratuity Contribution, being old unfunded statutory liability without linkage to current performance, has been segregated from Annual Fixed Cost and considered as a separate line item. Further, sharing of gains and losses has not been considered in cases where CSPGCL has prayed for exercise of Regulations 77 and/or 79 of MYT Regulations, 2012.

Further, true up on account of DSM charges with effect from October 1, 2014 has not been considered in the Petition as the DSM methodology followed by SLDC for the period October 1, 2014 to December 31, 2014 is sub-judice before the Hon’ble APTEL. DSM mechanism was applicable for 6 months period and true up for the same shall have to be done in totality. However, the mechanism for billing for half of the period is under dispute and it is practically impossible to present fair picture. Hence, CSPGCL submitted that true up on account of DSM along with applicable sharing of gains and losses should be done on settlement of billing dispute for the period. CSPGCL proposed that as and when the billing issues are settled, the sharing of gains & losses shall be computed as follows:

Surplus/Deficit on account of DSM = DSM charges received/(paid)- Total actual Fuel expenses incurred /(saved) due to over/under generation

Commission's Views

The sharing of gains and losses on account of controllable factors has been computed, in accordance with the MYT Regulations, 2012, and the established methodology for sharing of gains and losses, as elaborated in the MYT Order 2013 and previous Tariff Order. The contribution to Pension & Gratuity Fund was excluded from the calculations, and gains/losses have been shared in the ratio of 50:50 in accordance with the MYT Regulations, 2012.

As discussed in earlier sections, the Net generation for KTPS, HTPS and DSPM has been considered equivalent to actual energy supplied to CSPDCL. However, the actual net energy is higher by 19.38 MU than the net energy billed. For the purpose of sharing of gains and losses of fuel cost, the actual energy supplied, i.e., net generation considered in this Order has been considered. However, it may be noted that, differential fuel cost pertaining to scheduled energy and actual energy is required to be recovered through ABT mechanism. The matter regarding ABT mechanism is sub-judice before Hon'ble APTEL and sharing for gains or loss shall be reviewed after Judgment of Hon'ble APTEL.

In case of KWTPP, since it has not been impacted on account of change in billing mechanism, net generation approved has been considered for sharing of gains and losses. Accordingly, the sharing of gains and losses has been computed for CSPGCL for FY 2014-15.

The sharing of gains and losses after true up for FY 2014-15 for KTPS, HTPS, DSPM and KWTPP is as shown in the Table below:

Table 5-42: Summary of true up for KTPS, HTPS and DSPM for FY 2014-15

Particulars	Units	Legend	FY 2014-15			
			KTPS	HTPS	DSPM	KWTPP
Fixed Charges @ NPLF						
Installed capacity	MW		440	840	500	500
Normative PLF	%		78.50%	83.00%	85.00%	80.13%
Actual PLF achieved	%		57.36%	83.21%	85.49%	80.13%
Gross generation at NPLF	MU		3025.70	6107.47	3723.00	3,509.67
Gross generation at actual PLF	MU		2206.02	6110.61	3744.67	3,509.67
Normative Auxiliary consumption	%		11.25%	9.70%	9.00%	6.00%

Particulars	Units	Legend	FY 2014-15			
			KTPS	HTPS	DSPM	KWTPP
Actual Auxiliary consumption	%		13.33%	9.61%	7.78%	4.62%
Normative Auxiliary consumption	MU		340.39	592.42	335.07	210.58
Actual Auxiliary consumption	MU		294.61	588.16	291.52	162.01
Normative Net Generation	MU	a	2685.31	5515.05	3387.93	3299.09
Actual net generation	MU	b	1916.30	5534.86	3457.50	3347.67
Generation Loss due to backing down up to September 2014	MU	c	3.38	15.16	52.11	68.98
Total Net Generation to be considered for sharing of gains and losses	MU	h=f+g	1919.68	5550.02	3509.51	3416.65
Total Net Generation to be considered for sharing of gains and losses (for fuel cost recovery)	MU	i	1916.30	5534.86	3457.40	3347.67
Fixed Cost (norm-wise)						
Depreciation	Rs Cr	A	30.15	40.57	127.62	158.15
Interest on Loan and Finance charges	Rs Cr	B	15.78	16.58	114.77	326.67
Return on Equity	Rs Cr	C	31.91	54.59	107.10	82.89
Interest on Working Capital	Rs Cr	D	20.13	27.39	19.06	17.37
Less - Non Tariff Income	Rs Cr	E	2.67	6.82	3.90	3.83
Fixed cost expenditure excluding O&M and Sec fuel	Rs Cr	G=Sum (A to D)-E	95.30	132.30	364.66	581.25
Normative per unit Fixed Cost (Rs/kWh) excluding O&M and Secondary fuel cost	Rs/kWh	H=G/a *10	0.35	0.24	1.08	1.76
Units available for Sale (for AFC recovery)(Actual Sent out Unit)	MU	I=h	1919.68	5550.02	3509.51	3416.65

Particulars	Units	Legend	FY 2014-15			
			KTPS	HTPS	DSPM	KWTPP
Fixed cost recovery from generation considered forsharing of gains and losses	Rs Cr	$J=H*I/10$	68.13	133.14	377.75	601.97
Fixed cost gain/(loss) from normative cost	Rs Cr	$K=J-G$	(27.17)	0.84	13.09	20.71
Total gain/(loss)	Rs Cr	$L=Sum(K)$	7.47			
O & M expenses						
Normative O&M Cost allowed	Rs Cr	M	214.35	263.81	121.14	85.72
Normative O&M Cost derived from NPLF	Rs/kW h	N	0.80	0.48	0.36	0.26
Actual O&M cost recovery due to net generation considered from sharing of gains and losses	Rs Cr	$O=N*h/10$	153.24	265.49	125.48	88.78
Actual O & M cost expenditure	Rs Cr	P	194.77	244.62	122.96	41.95
Gain/(loss)on O&M cost	Rs Cr	$Q=O-P$	(41.53)	20.86	2.53	46.83
Total gain/(loss)		$R=Sum(Q)$	28.68			
Secondary Fuel Cost						
Normative SFC	Rs Cr	S	30.22	31.46	20.17	21.86
Normative SFC derived from NPLF	Rs/kW h	T	0.11	0.06	0.06	0.07
Secondary fuel cost recovery from actual generation	Rs Cr	$U=T*b/10$	21.57	31.57	20.58	22.18
Actual SFC incurred	Rs Cr	V	30.63	21.63	4.30	8.24
Gain/(loss) from SFC	Rs Cr	$W=U-V$	(9.06)	9.94	16.28	13.94
Total gain/(loss)	Rs Cr	$X=Sum(W)$	31.10			
Coal Cost (primary fuel)						
Normative fuel Cost	Rs Cr	Y	372.83	528.59	369.09	295.84

Particulars	Units	Legend	FY 2014-15			
			KTPS	HTPS	DSPM	KWTPP
Normative fuel Cost derived from NPLF	Rs/kWh	Z	1.39	0.96	1.09	0.90
Normative fuel cost on actual sent out	Rs Cr	AA=Z*b/10	266.06	530.49	376.65	300.19
Actual fuel cost	Rs Cr	AB	292.91	525.14	367.58	293.73
Gain/(loss) from coal cost	Rs Cr	AC=A A-AB	(26.85)	5.34	9.07	6.46
Total gain/(loss)	Rs Cr	AD=Sum(AC)	(5.97)			
Gains/(Losses) for Hasdeo Bango	Rs Cr	AE	3.83			
Total Gains/(Losses)	Rs Cr	AF=Sum(L,R,X,AD,AE)	65.11			
Gain/(Loss) to Utility	Rs Cr	AG=A F/2	32.55			

From the above table, it is seen that CSPGCL has incurred gain of Rs. 65.11 Crore. As per the provisions of the Regulations, 50% of this gain has to be retained by CSPGCL and remaining 50% will be passed on to the consumers of the State.

5.3.26 Summary of True up for FY 2014-15

The summary of Final true up for FY 2014-15 for CSPGCL is as shown in the Table given below:

**Table 5-43: Summary of True up for FY 2014-15 for CSPGCL
(Rs. Crore)**

Particulars	CSPGCL Petition	Approved after true up
Total ARR of Power Plants for FY 2014-15	3466.69	3425.89
Sharing of Gain/(Losses) for FY 2014-15	66.80	32.55
Water Charges	120.53	120.53
SLDC Charges	7.21	7.21
Petition Filing Fee	0.28	0.28
Total ARR for FY 2014-15 (including statutory charges)	3661.51	3586.47
Revenue from Sale of Power	3451.72	3451.72
Standalone ARR Gap/(Surplus) for FY 14-15	209.80	134.75

Based on the approved numbers, the revenue gap for CSPGCL works out to Rs. 134.75 Crore for true up of FY 2014-15, as against the revenue gap of Rs. 209.80 Crore as submitted by CSPGCL in its Petition. Further, as discussed earlier in this Chapter, additional Revenue Gap of Rs. 17.81 Crore, considering carrying cost up to FY 2013-14, has to be allowed to CSPGCL, on account of final true-up of KWTPP for FY 2013-14. The total revenue gap for FY 2014-15 thus works out to Rs. 152.56 Crore.

After applying the carrying cost for 2 years, i.e., from mid-point of FY 2014-15 to mid-point of FY 2016-17 on this revenue gap of Rs. 152.56 Crore, the total amount which is required to be factored in the revenue requirement of CSPDCL for FY 2016-17 works out to Rs. 198.49 Crore.

5.3.27 Impact of Review of Tariff Order for FY 2015-16

The Commission has issued Order dated March 26, 2016 in Petition No. 45 of 2015 on the review filed by CSPGCL on Tariff Order for FY 2015-16. The Commission has considered the impact of this Order. After applying the carrying cost for three (3) years i.e., from mid-point of FY 2013-14 to mid-point of FY 2016-17, the total amount, which is required to be added in above said revenue gap works out to Rs. 5.35 Crore.

This cumulative amount of Rs. 203.84 Crore has been added to the ARR of CSPDCL for FY 2016-17. CSPDCL shall pay this amount to CSPGCL in FY 2016-17 in twelve equal monthly instalments i.e. Rs. 16.99 Crore (203.84/12) per month.

6 FINAL TRUE UP FOR CSPTCL FOR FY 2014-15

6.1 TRANSMISSION SYSTEM OF CSPTCL

The physical status of transmission system of CSPTCL as on March 31, 2015, as submitted by CSPTCL is shown in the Table below:

Table 6.1-1: Physical status of transmission system of CSPTCL as on March 31, 2015

Particulars	Units	As on March 31, 2015
A. EHV Transmission Lines		
400 kV	ckt. km.	1538.12
220 kV	ckt. km.	3313.93
132 kV	ckt. km.	5475.72
+/-100 kV HVDC	ckt. km.	360
Total	ckt. km.	10687.77
B. EHV Substations		
400 kV	No.	2
220 kV	No.	19
132 kV	No.	69
+/-100 kV HVDC	No.	1
Total	No.	91
C. Transformation Capacity of EHV Substations		
400/220 kV	MVA	1575
220/132 kV	MVA	6030
132/33kV	MVA	6119
+/-100 kV HVDC	MVA	243
Total	MVA	13967

6.2 REVIEW PETITION NO. 50 OF 2015

CSPTCL had filed a review petition against the tariff order dated May 23, 2015. CSPTCL has observed following apparent errors in the impugned order and requested for rectification/correction of the same in the review petition:

1. Remark regarding deficiency in petition,
2. Wrong computation of O&M expenses and incentive thereof,
3. Inadvertent omission on request made by CSPTCL in the revised calculation of capital structuring approved by the Commission in the tariff order dated 12.07.2013,

4. Disallowance of incentive on transmission loss,
5. Wrong computation of surplus and carrying/holding cost thereof.

In order dated February 5, 2016 in this instant review petition No. 50 of 2015, CSPTCL's prayers with respect to the inadvertent error appearing in computation of O&M expenses and capital structure for FY 2013-14 has been admitted. As regards the issue of disallowance of incentive on transmission loss, it was ruled that this issue will be dealt in separate petition which was remanded back by Hon'ble APTEL.

It was further ruled that inadvertent arithmetic error appearing in the computation of O&M expenses and revised calculation of capital structuring approved by the Commission in the tariff order dated 12.07.2013, shall be rectified. According based on decision in the review petition, the net revenue surplus with holding cost and recovery through FY 2015-16 has been re-determined as Rs. 56.59 instead of Rs. 83.82 Cr. After considering the carrying cost impact up to FY 2016-17, the difference of Rs. 27.23 in revenue surplus increases to Rs. 30.99 crore. The treatment of this amount of Rs. 30.99 crore has been given effect in this order.

For the purpose of true-up for FY 2014-15, the Commission has considered the base capital structure for FY 2013-14 as approved in the Order on Petition No. 50 of 2015.

6.3 AGGREGATE REVENUE REQUIREMENT FOR FY 2014-15

6.3.1 Annual Charges for Intra-State Transmission Network

Regulation 47.1 of the MYT Regulations, 2012 specifies as under:

“47.1 Aggregate Revenue Requirement of transmission licensee shall comprise the following components, viz.

- (a) Return on Equity (ROE)*
- (b) Interest and finance charges;*
- (c) Depreciation;*
- (d) Operation and maintenance expenses;*
- (e) Interest on working capital;*
- Less:*
- (f) Non-Tariff Income;*

NOTE:

- 1. Non-Tariff Income as specified in the Regulation 50, shall be subtracted from the sum of above (a to e) to arrive at AFC.*
- 2. Pension & Gratuity Fund Contribution shall be recoverable in equal monthly installments as may be determined by the Commission in the Tariff order.*
- 3. The Statutory Taxes and Duties shall be recoverable on reimbursement basis, as per actual.”*

6.3.2 Operation and Maintenance (O&M) expenses

CSPTCL's submission

CSPTCL submitted that in the MYT Order, the Commission had approved the normative O&M expenses of Rs. 193.46 Crore for FY 2014-15. As against the same, the actual O&M expenses for CSPTCL for FY 2014-15 are Rs. 187.81 Crore. CSPTCL requested the Commission to approve the O&M expenses of Rs. 187.81 Crore in the true up for FY 2014-15.

CSPTCL submitted that there was an interim wage relief impact as per Wage Advisory Committee Report dated January 29, 2015 to the tune of 15%. Total arrears on account of Wage Revision (Interim Relief) were to be passed on to employees in 15 equal instalments effective from January 1, 2014. Out of this, 7.5% of the interim relief has already been passed on in FY 2014-15, i.e., Rs. 9.88 Crore (Total Rs. 10.14 Crore net of CSLDC Wage Revision (Interim Relief) based on current working strength of CSLDC, i.e., Rs 0.26 Crore). The balance 7.5% will be accounted for in FY 2015-16. CSPTCL requested the Commission to allow the impact of interim wage relief.

CSPTCL submitted that as actual O&M expenses are lower than the normative O&M expenses approved by the Commission in the MYT Order, the sharing of 50% of the gain is allowable in accordance with MYT Regulations, 2012. CSPTCL requested the Commission to approve Rs. 2.83 Crore on account of sharing of gain on O&M expenses for FY 2014-15.

Commission's View

Regulation 47.5 of the MYT Regulations, 2012 specifies as under:

“47.5 Operation and Maintenance expenses

47.5.1 Operation and Maintenance (O&M) expenses for Transmission licensee shall include:

I. Employee costs;

II. Administrative and General expenses

III. Repairs and Maintenance

(a) The Operation and Maintenance expenses, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2012-13, shall be derived on the basis of the normalized average of the actual Operation and Maintenance expenses excluding pension fund contribution and impact of pay revision arrears available in the audited/un audited accounts for the previous three (3) years immediately preceding the base year FY 2012-13, subject to prudence check by the Commission.

(b) The normalization shall be done by applying weighted average inflation at the rate of 60% weightage to actual variation in CPI and 40% weightage to actual variation in WPI on year to year basis. The average of normalized net present value for 2009-10, 2010- 11 and 2011-12, shall then be used to project base year value for 2012-13. The base year value so arrived, shall be escalated by the above inflation rate to estimate the O&M expense (excluding impact of pay revision, if any) for each year of the control period.

At the time of true up, the O&M cost shall be considered after taking into account the actual inflation instead of projected inflation for that period.

Provided further that impact of pay revision (including arrears), if any, shall be considered on during the true-up as per audited /unaudited accounts, subject to prudence check and any other factor considered appropriate by the Commission.

47.5.2 The additional O&M Expenses on account of new transmission lines/ substations commissioned after March 31, 2013 shall be allowed by the Commission subject to prudence check at the time of truing up exercise.”

In the MYT Order dated July 12, 2013, the Commission had approved normative O&M expense of Rs. 193.46 Crore for FY 2014-15. As per MYT Regulations, 2012, at the time of true-up, the O&M cost shall be considered after taking into account the actual inflation instead of projected inflation for that period. The actual CPI and WPI for FY 2014-15 were 6.29% and 2%, respectively. Therefore overall inflation for FY 2014-15 works out to 4.57% (60% of CPI + 40% of WPI).

The gross normative O&M expense for FY 2013-14, as approved in the review petition no. 50 of 2015 is Rs. 192.04 Crore. The gross normative O&M expense of FY 2013-14 has been escalated by the actual inflation rate of 4.57% for FY 2014-15 to arrive at the gross normative O&M expense for FY 2014-15, as shown in the Table below:

**Table 6.3-1: Normative O&M expenses in true up for FY 2014-15
(Rs. Crore)**

Particulars	Base Gross O&M expense for FY 2013-14	Normative O&M expense for FY 2014-15, considering escalation rate of 4.57%
Normative O&M expenses	192.04	200.82

Further, the Commission has reduced the expenses capitalised by CSPTCL in FY 2014-15 as per audited accounts. Therefore, the Commission has considered the normative net O&M expense of Rs. 186.73 Crore in the true-up for FY 2014-15, as shown in the Table below:

**Table 6.3-2: Normative O&M expenses considered in true up for FY 2014-15
(Rs. Crore)**

Particulars	Considered after True-up
Normative O&M expense	200.82
Less: Capitalisation	
Employee Cost capitalised	(12.41)
R&M and A&G Expenses capitalised	(1.68)
Net Normative O&M expense	186.73

Based on the audited accounts for FY 2014-15, the actual O&M expenses for FY 2014-15 has been considered. CSPTCL was asked to confirm whether the A&G expenses included any expenses on donations or contributions under Corporate Social Responsibility (CSR), under the head "Other Miscellaneous Expenses". CSPTCL submitted the details of "Other Miscellaneous Expenses" under A&G expenses, and it is observed that an expense of Rs. 4.22 lakh against "donation-contribution" is included in the same. The expense of Rs. 4.22 lakh towards "donation-contribution" cannot be passed on to the beneficiaries.

CSPTCL in its Petition has claimed expenses on account of Wage Revision (Interim Relief) amounting to Rs. 10.14 Crore (including Rs. 0.26 Crore of CSLDC). It has been noted that the Wage Advisory Committee had submitted its report on January 29, 2015. Further, Wage Revision (Interim Relief) order was issued on July 23, 2015. Since the arrears for FY 2014-15 have been paid by CSPTCL from September 2015 onwards, the impact of the same will be passed through in true-up for FY 2015-16 and not FY 2014-15. Therefore, after prudence check, the impact on account of Wage Revision (Interim Relief) has been disallowed in the true-up for FY 2014-15.

The employee expenses of CSLDC have been deducted from the total expenses of CSPTCL, based on the details available in the Segmental Accounts of the audited accounts. The actual O&M expenses claimed by CSPTCL and approved by the Commission after true-up are as given in the Table below:

Table 6.3-3: Approved O&M expenses for FY 2014-15

(Rs. Crore)

Particulars	CSPTCL Petition	Approved after true-up
Employee Expenses	155.95	146.07*
R&M and A&G Expenses	45.95	45.91
Gross O&M Expenses	201.90	191.98
Less: Capitalisation		
Employee Cost capitalised	(12.41)	(12.41)
R&M and A&G Expenses capitalised	(1.68)	(1.68)
Net O&M expense	187.81	177.89

*Excluding Rs. 9.88 Crore due to impact of Wage Revision (Interim Relief)

Further, as O&M expenses are a controllable factor in accordance with MYT Regulations, 2012, the Commission has computed the sharing of gain/(loss) on O&M expenses for FY 2014-15 as shown in the Table below:

Table 6.3-4: Sharing of gain/(loss) on O&M expenses approved in true up for FY 2014-15

(Rs. Crore)

Particulars	CSPTCL Petition	Approved after true-up
Normative O&M expenses	193.46	186.73
Actual Net O&M Expenses (excluding Pension and Gratuity)	187.81	177.89
Total Gain/(loss)	5.65	8.84
CSPTCL's Share (1/2 of the Total Gain)	2.83	4.42

Thus, the total O&M expenses approved in true up for FY 2014-15 is Rs. 182.31Crore (186.73-4.42).

6.3.3 Contribution to Pension and Gratuity fund

CSPTCL's submission

CSPTCL submitted that in the MYT Order, the Commission had approved the contribution to pension and gratuity fund for FY 2014-15 as Rs. 30.72 Crore. As against the same, the actual contribution to pension and gratuity fund as per the audited accounts for FY 2014-15 is Rs. 31.48 Crore. Out of the same, the share of CSPTCL is Rs. 30.73 Crore and the share of CSLDC is Rs. 0.75 Crore. CSPTCL requested the Commission to approve the contribution to pension and gratuity fund for FY 2014-15 as Rs. 30.73 Crore.

Commission's View

After scrutiny of the submissions of CSPTCL and the audited accounts of CSPTCL, the Commission has approved the contribution to pension and gratuity fund of Rs. 30.73 Crore in the true up for FY 2014-15. Balance amount of Rs 0.75 Crore shall be treated as pension and gratuity fund for CSLDC for the FY 2014-15.

6.3.4 GFA for FY 2014-15

CSPTCL's submission

CSPTCL submitted that in the MYT Order, the Commission had approved the methodology for determination of capital structure of GFA into consumer contribution, debt and equity.

CSPTCL submitted that the capital structure for FY 2014-15 has been determined based on the following:

1. Closing CWIP of Rs. 564.63 Crore (net of CSLDC of Rs. 0.84 Crore) has been considered as per the audited accounts for FY 2014-15.
2. Opening consumer contribution has been considered as approved by the Commission for FY 09 (Jan to Mar), i.e., Rs 36.34 Crore (after deducting the

amount of Rs 55.51 Crore) for capital structuring based on the methodology approved in the MYT Order dated July 12, 2013 and as per Review Petition No. 50 of 2015.

3. The actual loan addition of Rs. 234.94 Crore has been considered as per the audited accounts for FY 2014-15.
4. Addition in consumer contribution has been considered as nil as per the audited accounts for FY 2014-15.
5. Normative equity addition has been considered as 20% of the total asset addition in FY 2014-15.
6. GFA addition of Rs. 343.57 Crore (net of GFA addition for CSLDC) has been considered as per the audited accounts for FY 2014-15.

The capital structure for FY 2014-15 as submitted by CSPTCL is shown in the Table below:

**Table 6.3-5: Capital Structure for FY 2014-15 as submitted by CSPTCL
(Rs. Crore)**

Particulars	MYT Order	CSPTCL Petition
Opening GFA	3263.09	3005.31
Opening CWIP	466.96	566.25
Opening Capex	3730.04	3571.56
Capitalisation during the year	461.53	343.57
Closing GFA	3724.62	3348.88
Closing CWIP	388.71	564.63
Closing Capex	4113.32	3913.52
Grants and Consumer Contribution		
Opening grants and consumer contribution	95.96	101.56
Consumer Contribution/Grants during the Year	-	-
Closing grants and consumer contribution	95.96	101.56
Consumer contribution in opening GFA	83.95	46.06
Consumer contribution in closing GFA	86.89	46.06
Actual Loan		
Opening Loan	2482.76	1734.50
Addition during the year	369.22	234.94
Closing Loan	2851.98	1969.43

Particulars	MYT Order	CSPTCL Petition
Loan in opening GFA	2015.44	1802.97
Loan in closing GFA	2381.72	2077.83
Equity		
Opening Equity	1151.32	1735.50
Addition during the year	14.06	107.02
Closing Equity	1165.38	1842.52
Equity in opening GFA	1163.70	1156.28
Equity in closing GFA	1256.01	1225
Average Gross Equity during the year	1209.85	1190.64
Permissible Equity in opening GFA	823.99	779.16
Permissible Equity in closing GFA	916.30	847.87
Average Gross Permissible Equity during the Year	870.14	813.51
Normative Loan		
Opening Normative Loan	339.71	377.13
Closing Normative Loan	339.71	377.13

The means of finance for the GFA addition during FY 2014-15 as submitted by CSPTCL, is shown in the Table below:

**Table 6.3-6: Means of Finance for GFA addition in FY 2014-15
(Rs. Crore)**

Particulars	FY 2014-15
GFA addition in FY 2014-15	343.57
Means of Finance	
Consumer contribution	0.00
Equity (20%)	68.71
Debt (80%)	274.86

Commission's View

The opening GFA for FY 2013-14 as approved in the review order in Petition No. 50 of 2015, has been considered. Additions in the GFA for FY 2014-15 as submitted by CSPTCL which is based on the audited accounts has also been allowed. The means of finance as submitted by CSPTCL has been agreed.

The GFA addition and means of finance approved in the true up for FY 2014-15 is as shown in the Table below:

Table 6.3-7: GFA addition and Means of Finance approved in true up for FY 2014-15
(Rs. Crore)

Particulars	CSPTCL Petition	Approved after true-up
GFA addition in FY 2014-15	343.57	343.57
Means of Finance		
Consumer contribution	0.00	0.00
Equity	68.71	68.71
Debt	274.86	274.86

6.3.5 Interest and finance charges

CSPTCL's submission

CSPTCL submitted that it has calculated Interest and Finance Charges as per Regulation 23 of the MYT Regulations, 2012. CSPTCL has considered the closing loan balance as per its submission in the true up for FY 2013-14 and added impact of its Review Petition No. 50 of 2015 to arrive at the opening loan balance for FY 2014-15. The actual debt component of GFA addition in FY 2014-15 has been considered as the loan addition during the year. The allowable depreciation for the year has been considered as the normative repayment for FY 2014-15. The actual weighted average interest rate of 12.17% has been considered for computation of interest expenses.

Commission's view

The closing loan balance for FY 2013-14 as approved in the review order in petition No. 50 of 2015 has been considered, as the opening loan balance for FY 2014-15. The approved debt component of GFA addition in FY 2014-15 has been considered as the loan addition during the year. The allowable depreciation for the year has been considered as the normative repayment for the year. The actual weighted average interest rate of 12.20% at the beginning of the year has been considered for computation of interest expenses, in accordance with the MYT Regulations, 2012. The interest and finance charges approved in true up for FY 2014-15 are as shown in the Table below:

Table 6.3-8: Interest and finance charges approved in final true up for FY 2014-15
(Rs. Crore)

Particulars	MYT Order	CSPTCL Petition	Approved after true-up
Total Opening Net Loan	1757.01	1560.56	1562.10
Repayment during the period	172.30	148.89	147.43
Additional Capitalization of Borrowed Loan during the year	366.28	274.86	274.86
Total Closing Net Loan	1950.99	1686.53	1689.53
Average Loan during the year	1854.00	1623.54	1625.82
Wt. Avg. Interest Rate	11.70%	12.17%	12.20%
Interest Expenses	216.92	197.60	198.31

6.3.6 Depreciation

CSPTCL's submission

CSPTCL submitted that the depreciation for FY 2014-15 has been calculated in accordance with MYT Regulations, 2012 and the methodology considered by the Commission in the Tariff Orders of the past. CSPTCL requested the Commission to approve the depreciation of Rs. 148.89 Crore in true up for FY 2014-15.

Commission's View

In accordance with the approval given in review order in Petition No.50 of 2015, the closing GFA for FY 2013-14 has been considered as the opening GFA for FY 2014-15. The GFA addition for FY 2014-15 has been considered as reflected in the audited accounts. The closing value of consumer contribution for FY 2013-14 as approved in the true up for FY 2013-14, has been considered as the opening value of consumer contribution for FY 2014-15, and the consumer contribution in GFA addition for FY 2014-15 has been considered as nil as submitted by CSPTCL. The depreciation has been computed considering the weighted average depreciation rate of 5.25% for FY 2014-15, as submitted by CSPTCL.

CSPTCL has considered Rs. 16.45 Crore for FY 2014-15 towards the depreciation on fully depreciated assets. The depreciation on fully depreciated assets based on the revised data given by CSPTCL in reply to data gaps has been deducted, while approving the allowable depreciation for FY 2014-15. The depreciation approved in true up for FY 2014-15 is as shown in the Table below:

Table 6.3-9: Depreciation approved in true up for FY 2014-15 (Rs. Crore)

Particulars	MYT Order	CSPTCL Petition	Approved after true-up
Opening GFA	3264.42	3005.31	3005.31
Additional Capitalisation during the Year	583.62	343.57	343.57
Closing GFA	3848.04	3348.88	3348.88
Average GFA for the year	3556.23	3177.10	3177.10
Depreciation @ 5.25% as per applicable Regulations	186.94	166.85	166.80
Opening consumer contribution	-	28.86	46.06
Addition: consumer contribution during the year	-	-	-
Closing consumer contribution	-	28.86	46.06
Average consumer contribution	-	28.86	46.06
Less: Depreciation @ 5.25% on consumer contribution on live assets	2.75	1.52	2.42
Less: Depreciation on Fully Depreciated Assets	11.89	16.45	16.32
Net Depreciation	172.30	148.89	148.06

6.3.7 Interest on Working Capital (IoWC)

CSPTCL's submission

CSPTCL submitted that the normative IoWC for FY 2014-15 has been computed in accordance with the MYT Regulations 2012, considering the interest rate of 13.50% (SBI Base Rate of 10% on April 1, 2014 plus 350 basis points). CSPTCL requested the Commission to approve the IoWC of Rs. 14.39 Crore in the true up for FY 2014-15.

Commission's View

The normative IoWC for FY 2014-15 has been computed according to the provisions specified in the MYT Regulations, 2012. The interest rate of 13.50%, which is the base rate of SBI as on April 1, 2014 plus 350 basis points has been applied to arrive at the normative IoWC for true up of FY 2014-15. The normative IoWC approved by the Commission in the true up for FY 2014-15, is shown in the Table below:

Table 6.3-10: IoWC approved in final true up for FY 2014-15
(Rs. Crore)

Particulars	MYT Order	CSPTCL Petition	Approved after true-up
Operation and Maintenance expenses for one Month	16.12	15.65	15.56
Maintenance spares at 15% of O&M Expenses	29.02	28.17	28.01
Receivables equivalent to 1 month of fixed cost	50.15	62.75	58.33
Total working capital requirement	95.29	106.57	101.90
Applicable Interest Rate (%)	13.20%	13.50%	13.50%
Interest on Working Capital	12.58	14.39	13.76

6.3.8 Prior period expenses/(income)/other debits

CSPTCL's submission

CSPTCL submitted that the net prior period income for FY 2014-15 as per the audited accounts is Rs. 23.29 Crore. CSPTCL requested the Commission to approve the net prior period income of Rs. 23.29 Crore in the true up for FY 2014-15.

Commission's View

For proper scrutiny of prior period expenses and prior period income for FY 2014-15, CSPTCL was asked to submit the details of "Other Charges" as reported under prior period expenses. CSPTCL's reply shows that the "Other Charges" includes "Plantation Expenses" of Rs. 20.60 lakh which was incurred in FY 2012-13. Such expenses are not permissible in regulated business and cannot be passed on to the consumers. Thus, the net prior period expenses approved for the true up for FY 2014-15 after scrutiny of the audited accounts, is as shown in the Table below:

Table 6.3-11: Net prior period expense/(income) approved by the Commission in true up for FY 2014-15

(Rs. Crore)

Particulars	CSPTCL Petition	Approved after true-up
Prior period Income	(1.49)	(1.49)
(a) Transmission Charges Related to Previous Year	(0.98)	(0.98)
(b) Excess Interest Charged during previous year	(0.51)	(0.51)
Prior period Expenses	24.78	24.58
Depreciation	0.33	0.33
Employee Costs	0.42	0.42
Electricity Charges	18.43	18.43
Other Charges	5.60	5.40
Net Prior Period (Income) / Expenses	23.29	23.09

6.3.9 Return on Equity (RoE)

CSPTCL's submission

CSPTCL submitted that it has computed Return on Equity at the rate of 19.61% as per Clause 22 of the MYT Regulations, 2012, by grossing up the rate of Return on Equity of 15.50% with the MAT rate of 20.9605%.

Commission's View

The closing equity of Rs. 779.16 Crore as approved in the final true up for FY 2013-14, has been considered as the opening equity for FY 2014-15. Equity addition in FY 2014-15 has been considered as 20% of actual capitalisation of Rs. 343.57 Crore. Considering the fact that CSPTCL has not paid any Income Tax in FY 2014-15, the rate of RoE cannot be grossed up with the MAT rate. Therefore, RoE for FY 2014-15 has been approved considering the base rate of RoE of 15.50%. The RoE as approved in accordance with the MYT Regulations, 2012, is shown in Table below:

Table 6.3-12: RoE approved in true up for FY 2014-15

(Rs. Crore)

Particulars	MYT Order	CSPTCL Petition	Approved after true-up
Permissible Equity in Opening GFA	823.99	779.16	779.16
Permissible Equity in Closing GFA	916.30	847.87	847.87
Average Gross Permissible Equity during the Year	870.14	813.51	813.51
Rate of Return on Equity	19.377%	19.61%	15.50%
Return on Equity	168.81	159.53	126.10

6.3.10 Non-Tariff Income

CSPTCL's submission

CSPTCL submitted that in the MYT Order, the Commission had approved the Non-Tariff Income of Rs. 28.95 Crore. As against the same, the actual Non-Tariff Income for FY 2014-15 as per the audited accounts is Rs. 49.48 Crore. CSPTCL requested the Commission to approve the Non-Tariff Income of Rs. 49.48 Crore in true up for FY 2014-15.

Commission's View

After scrutiny of the submissions of CSPTCL and the audited accounts, it is observed that CSPTCL has considered the income of Rs. 27.13 Crore from delayed payment charges as part of the Non-Tariff Income. As in previous tariff orders, neither delay payment surcharge paid has been considered as expense in the ARR, nor delay payment surcharge received has been considered as income in the ARR. Therefore, the income from delayed payment charges is not to be considered as part of the Non-Tariff Income. Hence, the Non-Tariff Income of Rs. 22.35 Crore has been approved, after excluding the delayed payment charges of Rs. 27.13 Crore, in the true up for FY 2014-15, and excluding the amount of Rs. 1.05 crore against Non-Tariff Income of CSLDC.

6.4 INCENTIVE FOR LOWER TRANSMISSION LOSS IN FY 2014-15

6.4.1 Transmission Loss

CSPTCL's submission

CSPTCL submitted that in the MYT Order, the Commission had approved the target loss level of 4.30% for FY 2014-15. As against the same, the actual loss level for FY 2013-14 is 3.22%. The computation of actual loss level for FY 2014-15 as submitted by CSPTCL is shown in the Table below:

Table 6.4-1: Transmission Loss for FY 2014-15 as submitted by CSPTCL

Particulars	CSPTCL Petition
Total Energy injected into Transmission System at 132 kV & above (MU)	21364.96
Energy output from the Transmission System (MU)	
- EHV Sales	2081.70
- Energy delivered to CSPDCL at 33 kV side Power Transformer	18595.16
Net Energy delivered (MU)	20676.86
Energy Loss (MU)	688.11
Transmission Loss (%)	3.22%

CSPTCL submitted that the MYT Regulations, 2012 provides for incentive for better performance. CSPTCL submitted that the eligible incentive for FY 2014-15 on account of lower transmission loss is Rs. 37.38 Crore, as shown in the Table below:

Table 6.4-2: Incentive for lower Transmission Loss for FY 2014-15 as submitted by CSPTCL

Particulars	CSPTCL Petition
Actual energy input to CSPDCL(MU)	21364.96
Actual Transmission Loss (%)	3.22%
Transmission Loss (MU)	687.95
Normative Transmission Loss (%)	4.30%
Normative Transmission Loss (MU)	918.69
Energy saved (MU)	230.74
Average Power Purchase Cost as per CSPDCL Petition (Rs./kWh)	3.24
Gain on account of lower transmission loss (Rs. Crore)	74.76
Sharing of gains (Rs. Crore)	37.38

CSPTCL requested the Commission to approve the incentive for lower transmission loss considering the average power purchase cost for CSPDCL mentioned in its Truing-up section for FY 2014-15 under the MYT Petition filed for the Control Period FY 2016-17 to FY 2020-21.

Commission's View

CSERC MYT Regulations, 2012 specifies the transmission loss as a controllable factor. As the issue regarding incentive on transmission loss achievement has been remanded by the Hon'ble APTEL for fresh consideration, the principle and methodology decided in this remanded petition may be applied for deciding the matter.

6.4.2 Aggregate Revenue Requirement

Based on the above, the ARR approved in the true up for FY 2014-15 is shown in the Table below:

Table 6.4-3: ARR approved in true up for FY 2014-15 (Rs. Crore)

Particulars	MYT Order	CSPTCL Petition	Approved after true-up
Gross O & M Expenses	193.46	201.90	191.98
O&M Expenses capitalized	0.00	(14.09)	(14.09)
Contribution to Pension and Gratuity	30.72	30.73	30.73

Particulars	MYT Order	CSPTCL Petition	Approved after true-up
Depreciation	172.30	148.89	148.06
Interest on Loan and Finance Charges	216.92	197.60	198.28
Interest on Working Capital	12.58	14.39	13.76
Total Expenses	625.98	579.42	568.71
Return on Equity	168.61	159.53	126.10
Net Prior Period Expenses/(Credit)/Other Debits	0.00	23.29	23.09
Less - Non Tariff Income	(28.95)	(49.48)	(22.35)
Aggregate Revenue Requirement	765.64	712.76	695.54
Add: Gains/(Loss) for savings in O&M expense		2.83	4.42
Add: Incentives for reduction in transmission losses		37.38	0.00
Net Aggregate Revenue Requirement	765.64	752.96	699.96

6.5 REVENUE SIDE TRUE UP

6.5.1 Revenue from transmission charges

CSPTCL's submission

CSPTCL submitted that the transmission charges approved in the MYT Order were implemented from July 2013. For the months of April to June, 2013, the transmission charges approved in the previous Tariff Order were applicable.

CSPTCL submitted that the revenue billed in FY 2014-15 is Rs. 724.23 Crore. CSPTCL requested the Commission to approve the same in the true up for FY 2014-15.

Commission's View

After scrutiny of the submissions of CSPTCL and the audited accounts, the revenue from transmission charges in the true up for FY 2014-15 has been considered as Rs. 724.23 Crore, which includes Rs. 685.30 Crore of revenue from CSPDCL and revenue of Rs. 38.93 Crore from others.

6.6 REVENUE GAP/(SURPLUS) FOR FY 2014-15

Based on the above, the Revenue Gap/(Surplus) after true up for FY 2014-15 as approved is shown in the Table below:

Table 6.6-1: Approved Revenue Gap/(Surplus) for FY 2014-15
(Rs. Crore)

Particulars	CSPTCL Petition	Approved after true-up
Net Aggregate Revenue Requirement	752.96	699.96
Income/Revenue	724.23	724.23
Standalone Revenue Gap/(Surplus)	28.73	(24.27)

Based on the approved numbers, the revenue surplus for CSPTCL works out to be Rs. 24.27 crore for true up of FY 2014-15, as against a revenue gap of Rs. 28.73 crore as submitted by CSPTCL in its Petition. After applying the carrying cost for 2 years, i.e., from mid-point of FY 2014-15 to mid-point of FY 2016-17 on this revenue surplus of Rs. 24.27 Crore, the total amount which is required to be factored in the revenue requirement of CSPDCL for FY 2016-17 works out to Rs. 31.35 crore.

As discussed earlier in this Chapter, additional Revenue Gap of Rs. 30.99 crore, considering carrying cost upto FY 2016-17, has to be allowed to CSPTCL, on account of the impact of the Review Order in Petition No. 50 of 2015.

This cumulative surplus amount of Rs. 0.36 crore [30.99 -31.35] has been adjusted to the ARR of CSPDCL for FY 2016-17. CSPDCL shall adjust this amount from the bills of CSPTCL in FY 2016-17.

7 TRUE UP FOR CSLDC FOR FY 2014-15

7.1 BACKGROUND

The Annual Revenue Requirement for CSLDC for FY 2013-14 to FY 2015-16 was approved vide order dated July 12, 2013, in accordance with SLDC Regulations, 2012.

Regulation 5 of the SLDC Regulations, 2012 specifies as under:

“5. Truing up of annual fees and operating charges:

5.1 The CSLDC shall make a petition, in the formats approved by the Commission for carrying out truing up exercise by 30th November of the each year for the previous year.

....

5.3 The Commission shall carry out the annual truing up exercise. The fees and charges recovered for a year shall be trued up and considered for determination of fees and charges for the next year, by the Commission after prudence check.

5.4 Where after the truing up, the fee & charges recovered if exceeds/falls short of the amount approved by the Commission under these regulations, the excess amount so recovered or shortfall to be recovered, as the case may be shall be adjusted while determining the fee and charges for the next year or as decided by the Commission.”

In accordance with Regulation 5.8 (a)(i)(1) of MYT Regulations 2015, CSLDC is required to file the Petition for true up for FY 2014-15. Therefore, CSLDC has filed the present Petition for final true-up of FY 2014-15.

The true-up for CSLDC for FY 2014-15 has been carried out in accordance with the SLDC Regulations, 2012.

7.2 ANNUAL CSLDC CHARGES

7.2.1 Components of Annual Charges

Regulation 11 of the SLDC Regulations, 2012 specifies as under:

“11. Components of annual charges: The annual charges shall consist of the following components, namely:-

- (a) Return on equity;*
- (b) Interest on loan capital;*
- (c) Depreciation;*
- (d) Operation and maintenance expenses;*
- (e) Interest on working capital;*
- (f) Pension fund.”*

7.2.2 Operation and Maintenance (O&M) expenses

CSLDC's Submissions

CSLDC submitted that the O&M expenses comprise Employee expenses, Repair and Maintenance (R&M) expenses, and Administration and General (A&G) expenses. CSLDC submitted that separate accounts are not being prepared for CSLDC and the asset transfer scheme between CSLDC and CSPTCL has not been notified.

CSLDC submitted that it has considered normative O&M expenses for FY 2013-14 and escalated the same by 4.57% in accordance with SLDC Regulations, 2012, to arrive at the normative O&M expenses for FY 2014-15.

CSLDC submitted that there was an impact of interim wage relief as per Wage Advisory Committee Report dated January 29, 2015 to the tune of 15%. Total arrears on account of Wage Revision (Interim Relief) were to be passed on to employees in 15 equal instalments effective from January 1, 2014. Out of this, 7.5% of the interim relief has already been passed in FY 2014-15, i.e., total of Rs 10.14 Crore out of which, share of CSLDC is Rs 0.26 Crore. The balance 7.5% will be accounted in FY 2015-16.

CSLDC has claimed the actual O&M expenses of Rs. 9.61 Crore for FY 2014-15 as against the normative O&M expenses of Rs. 7.52 Crore.

Commission's Views

The normative O&M expenses for FY 2014-15 has been computed by escalating the approved normative O&M expenses of Rs. 7.17 crore for FY 2013-14 with the escalation rate of 4.57% computed in accordance with the SLDC Regulations, 2012. As explained in true up section of CSPTCL (chapter 6), impact of Wage Revision (Interim Relief) to the tune of Rs. 0.26 Crore will be passed through in the true up of FY 2015-16 and not FY 2014-15. The normative O&M expenses approved in the true up for FY 2014-15 are shown in the Table below:

Table 7.2-1: Normative O&M expenses approved in true up for FY 2014-15
(Rs. Crore)

Particulars	MYT Order	CSLDC Petition	Approved after true up
Gross Employee Expenses	8.62	5.28*	7.50
Gross A&G Expenses		3.54	
Gross R&M Expenses		0.53	
O&M Expenses	8.62	9.61	7.50

*Excluding Rs. 0.26 Crore due to impact of Wage Revision (Interim Relief)

Further, as O&M expenses are controllable, and the actual O&M expenses are higher than the normative O&M expenses, the Commission has carried out the sharing of (gain)/losses in O&M expenses as shown in the Table below:

Table 7.2-2: Sharing of (gain)/loss in O&M expenses approved in true up for FY 2014-15

(Rs. Crore)	
Particulars	Approved after true up
Normative O&M expenses	7.50
Actual O&M Expenses, including interim wage relief	9.35
Total (Gain)/Loss	1.85
CSLDC's Share (1/2 of the Total Loss)	0.93

Thus, approved O&M expenses for true up of FY 2014-15 are Rs. 8.43 (7.5 + 0.93) Crore.

7.2.3 GFA for FY 2014-15

CSLDC's Submissions

CSLDC submitted that the opening GFA for FY 2014-15 has been considered the same as the closing GFA of FY 2013-14 as approved by the Commission in the final true-up Order issued on May 23, 2015. CSLDC submitted that no GFA addition has been considered in FY 2014-15, as actual capitalisation in FY 2014-15 was nil.

Commission's Views

The closing GFA as approved for CSLDC for FY 2013-14 in the final true up for FY 2013-14, has been considered as the opening GFA for FY 2014-15. The Commission has not considered any GFA addition in FY 2014-15 as the actual capitalisation in FY 2014-15 is zero.

7.2.4 Means of Finance

CSLDC's Submissions

CSLDC submitted that the GFA as on March 31, 2014 has been considered to be funded through equity as no debt has been taken over from CSPTCL.

Commission's Views

The closing equity and closing loan balance as approved for FY 2013-14 in the final true up for FY 2013-14, has been considered as the opening equity and opening loan balance for FY 2014-15. As the actual capitalisation in FY 2014-15 is zero, hence, no addition of loan or equity has been considered in FY 2014-15.

7.2.5 Return on Equity (RoE)

CSLDC's Submissions

CSLDC submitted that the permissible equity in opening GFA for FY 2014-15 has been considered the same as given in the audited accounts for FY 2014-15. RoE has been computed by grossing up the base rate of 15.50% with the MAT Rate of 20.9605%. CSLDC requested the Commission to approve the RoE of Rs. 1.05 Crore in the true up for FY 2014-15.

Commission's Views

The permissible equity in the closing GFA as approved for FY 2013-14 in final true up for FY 2013-14, has been considered as the opening equity for the purpose of computation of RoE for FY 2014-15. The RoE rate of 15.50% has not been grossed up with the MAT rate, as CSLDC has not paid any Income Tax in FY 2014-15. The RoE approved in the true up for FY 2014-15 is shown in the Table below:

Table 7.2-3: RoE approved in true up for FY 2014-15 (Rs. Crore)

Particulars	MYT Order	CSLDC Petition	Approved after true up
Permissible Equity in Opening GFA	8.15	5.37	5.37
Additional capitalisation during the year	0.05	0.00	0.00
Addition to equity due to increase in GFA (30%)	0.02	0.00	0.00
Permissible Equity in Closing GFA	8.16	5.37	5.37
Average Gross Permissible Equity during the Year	8.15	5.37	5.37
Rate of Return on Equity	19.38%	19.61%	15.50%
Return on Equity	1.58	1.05	0.83

7.2.6 Interest on loan capital

CSLDC's Submissions

CSLDC submitted that since it is not operating as a separate company, it has considered the actual loan as applicable to STU, i.e., CSPTCL, for consideration of applicable interest rate. The closing loan balance for FY 2013-14 as approved in the Tariff Order dated May 23, 2015 for FY 2015-16, has been considered as the opening balance for FY 2014-15. The allowable depreciation for the year has been considered as normative repayment for the year. CSLDC has computed interest on loan on the basis of average loan for the year at the weighted average interest rate of 12.17%. CSLDC requested the Commission to approve the interest on loan capital of Rs. 0.86 Crore in the true-up for FY 2014-15.

Commission's Views

The closing loan balance for FY 2013-14 as approved in the final true up for FY 2013-14, has been considered as the opening loan balance for FY 2014-15. As there has been no capitalisation in FY 2014-15, there is no addition to the loan during the year. The allowable depreciation for the year has been considered as the normative repayment for the year. The interest on loan has been computed on the average loan for the year at the interest rate of 12.20%, which is the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of the year.

The interest on loan capital approved by the Commission in the true up for FY 2014-15 is shown in the Table below:

Table 7.2-4: Interest on loan approved in true up for FY 2014-15 (Rs. Crore)

Particulars	MYT Order	CSLDC Petition	Approved after true up
Total Opening Net Loan	13.75	7.46	7.46
Repayment during the period	1.25	0.87	0.87
Additional Loan borrowed during the year	0.04	0.00	0.00
Total Closing Net Loan	12.52	6.59	6.59
Average Loan during the year	13.14	7.03	7.02
Wt. Avg. Interest Rate	11.70%	12.17%	12.20%
Interest Expenses	1.54	0.86	0.86

7.2.7 Depreciation

CSLDC's Submissions

CSLDC submitted that its asset base comprises of SCADA system, computer terminals, equipment, building, etc. The asset base of CSLDC has been identified from the accounts of CSPTCL by the Asset Segregation Committee and the same has been considered in its computations. As the asset class wise segregation of the CSLDC's asset base is not available, the weighted average depreciation rate has been considered for computing the depreciation for FY 2014-15. The closing asset base of Rs. 16.58 Crore as approved by the Commission in Tariff Order for FY 2015-16 dated May 23, 2015, has been considered for the computation of depreciation. CSLDC requested the Commission to approve the depreciation of Rs. 0.87 Crore in the true up for FY 2014-15.

Commission's Views

The closing GFA for FY 2013-14 as approved in the final true up for FY 2013-14, has been considered as the opening GFA for FY 2014-15. It is pertinent to note that the CSLDC is not operating as a separate Company. In view of this, the depreciation has been computed considering the weighted average depreciation rate of 5.25%, as considered for CSPTCL. The depreciation approved in the true up for FY 2014-15 is shown in the Table below:

Table 7.2-5: Depreciation approved in true up for FY 2014-15 (Rs. Crore)

Particulars	MYT Order	CSLDC Petition	Approved after true up
Opening GFA	26.44	16.58	16.58
Additional Capitalisation during the Year	0.05	0.00	0.00
Closing GFA	26.49	16.58	16.58
Average GFA for the year	26.47	16.58	16.58
Depreciation Rate	4.73%	5.25%	5.25%
Depreciation	1.25	0.87	0.87

7.2.8 Interest on Working Capital (IoWC)**CSLDC's Submissions**

CSLDC submitted that the IoWC for FY 2014-15 has been computed in accordance with SLDC Regulations, 2012. The rate of interest has been considered as 13.50% (SBI Base Rate of 10% as on April 1, 2014, plus 350 basis points). CSLDC requested the Commission to approve the IoWC of Rs. 0.43 Crore in the true up for FY 2014-15.

Commission's Views

The normative IoWC for FY 2014-15 has been approved in accordance with the SLDC Regulations, 2012. The rate of interest has been considered as 13.50%, which is the SBI Base Rate as on April 1, 2014, plus 350 basis points. The IoWC approved in the true up for FY 2014-15 is shown in the Table below:

Table 7.2-6: IoWC approved in the true up for FY 2014-15 (Rs. Crore)

Particulars	MYT Order	CSLDC Petition	Approved after true up
Operation and Maintenance expenses for one Month	0.72	0.80	0.62
Maintenance spares at 15% of O&M Expenses	1.29	1.44	1.12
Receivables equivalent to 1 month of fixed cost	1.03	0.93	0.95
Total working capital requirement	3.04	3.17	2.70
Applicable Interest Rate (%)	13.20%	13.50%	13.50%
Interest on working capital	0.40	0.43	0.36

7.2.9 Contribution to Pension Fund

CSLDC's Submissions

CSLDC submitted that the pension fund of CSLDC employees has not been segregated from CSPTCL's pension fund. The portion of pension fund attributable to CSLDC has been worked out on pro-rata basis considering the employee strength as on April 1 of the preceding year. CSLDC requested the Commission to approve Rs. 0.75 Crore towards pension fund for FY 2014-15.

Commission's Views

Regulation 17 of the SLDC Regulations, 2012 specifies as under:

"17. Pension fund:

Pension fund: For meeting up the past unfunded liabilities of erstwhile CSEB/State Power Companies employees appointed before 1.1.2004, a pension and gratuity trust has been created and funding to the same has been allowed in the past Tariff Orders of the Commission. The contribution to the fund shall be decided by the Commission on the same manner as specified for the State Power Companies. Till the time CSLDC is part of STU, CSLDC's share out of the STU contribution shall be decided on pro-rata basis. For the purpose of ratio determination, the employee strength as on 1st April of the preceding year shall be considered."

In the MYT order FY 2014-15, provisions were made for contribution to pension fund and an amount of Rs. 0.75 Crore was approved for this purpose. The actual contribution of Rs. 0.75 Crore to pension fund has been considered in the true up for FY 2014-15.

7.2.10 Annual CSLDC Charges

Based on the above, the Annual CSLDC Charges as approved in the true up for FY 2014-15 is as shown in the Table given below:

Table 7.2-7: Annual CSLDC Charges approved in the true up for FY 2014-15
(Rs. Crore)

Particulars	MYT Order	CSLDC Petition	Approved after true up
O&M Expenses	8.62	8.56	8.43
Contribution to Pension and Gratuity	0.75	0.75	0.75
Depreciation	1.25	0.87	0.87
Interest on Loan and Finance Charges	1.54	0.86	0.86
Interest on Working Capital	0.40	0.43	0.36
Return on Equity	1.58	1.05	0.83
Annual CSLDC Charges	14.15	12.52	12.10

7.3 REVENUE SIDE TRUE UP

7.3.1 Revenue from CSLDC Charges

CSLDC's Submissions

CSLDC submitted the actual revenue from CSLDC Charges for FY 2014-15 as Rs. 11.13 Crore.

Commission's Views

The revenue of Rs. 11.13 crore as recovered by CSLDC for FY 2014-15 has been considered for truing up.

7.4 REVENUE GAP/(SURPLUS) FOR FY 2014-15

The Revenue Gap/(Surplus) for FY 2014-15 as approved is shown in the Table below:

Table 7.4-1: Revenue Gap/(Surplus) approved by the Commission for FY 2014-15
(Rs. Crore)

Particulars	CSLDC Petition	Approved after true up
Annual CSLDC Charges	12.52	12.10
Revenue from CSLDC Charges	11.13	11.15
Non-Tariff Income	1.05	1.05
Standalone Gap/(Surplus)	0.34	(0.10)

The net revenue surplus of Rs. 0.10 Crore has been approved for CSLDC in the true up for FY 2014-15 as against net revenue gap of Rs. 0.34 Crore claimed by CSLDC.

This Revenue Surplus has been adjusted from the Revenue Requirement of CSPDCL for FY 2016-17, with carrying cost for 2 years, i.e., from mid-point of FY 2014-15 to mid-point of FY 2016-17, when it is recovered/passed through to the consumers, and works out to Rs. 0.13 crore.

8 FINAL TRUE UP FOR FY 2014-15 FOR CSPDCL

8.1 FINAL TRUE UP FOR FY 2014-15

8.1.1 Consumer category-wise energy sales for FY 2014-15

CSPDCL's submission

CSPDCL submitted that during FY 2014-15, it served more than 40 lakh consumers connected at LV level and more than 2000 consumers connected at HV and EHV level.

CSPDCL submitted that in the Tariff Order dated June 12, 2014, the Commission had approved the sales of 16903 MU for FY 2014-15. As against the same, the actual sales for FY 2014-15 were 17101.43 MU. CSPDCL requested the Commission to approve the actual consumer category-wise sales in the true up for FY 2014-15.

Commission's View

The actual consumer category-wise energy sales submitted by CSPDCL for FY 2014-15 have been scrutinized with the actual billing data submitted by CSPDCL.

Regulation 11.1 of the MYT Regulations, 2012 identifies the sales mix and quantum of sales as an uncontrollable item. Also, the actual sales for FY 2014-15 for all the other categories except Agriculture, Heavy Industries & Others, Steel Industries and Low Load Factor industries have reduced vis-à-vis the sales estimated in the Tariff Order. However, it is observed that the actual sales of CSPDCL during FY 2014-15 is higher by 198.43 MU as compared to the estimated sales in the Tariff Order dated June 12, 2014, i.e., 1.17% higher..

The consumer category-wise sales for FY 2014-15 estimated in the Tariff Order dated June 12, 2014, actuals submitted by CSPDCL and approved in the true up are shown in the Table below:

Table 8.1-1: Approved Consumer category-wise sales true up for FY 2014-15 (MU)

Particulars		Order dt. June 12, 2014	CSPDCL Petition	Approved
LV-1	Domestic	4596	4,419	4,419
LV-2	Non-Domestic	867	757	757
LV-3	Non-Domestic (Demand Based)	10	14	14
LV-4	Agriculture Metered	2532	2,693	2,693
LV-5	Agriculture Allied	22	16	16
LV-6	LV Industrial	556	523	523
LV-7	Public Utilities	333	283	283
LV-8	Temporary	381	480	480
	Sub Total LV	9298	9,185	9,185

Particulars		Order dt. June 12, 2014	CSPDCL Petition	Approved
EHV-1	Railway Traction	1055	866	866
EHV-2	Heavy Industries	1181	1,650	1,650
EHV-3	Steel Industries	218	248	248
	Sub Total EHV	2454	2,764	2,764
HV-1	Steel Industries	2916	3,085	3,085
HV-2	Mines, Cement, Other Industries & General Purpose Non-Industrial	1756	1,514	1,514
HV-3	Low Load Factor	86	250	250
HV-4	Residential, Public Water Works, Irrigation & Agriculture Allied Services	317	274	274
HV-5	Start Up Power	77	28	28
HV-6	Industries related to renewable power tariff	0	1	1
	Sub Total HV	5151	5,152	5,152
	Total	16903	17,101.43	17,101.43

8.1.2 Distribution Loss

CSPDCL's submission

CSPDCL submitted that the distribution losses have been calculated in accordance with MYT Regulations, 2012, as under:

“The energy loss for 33 kV and below voltage level, shall be calculated taking into consideration the clause 4.2.5 and 8.4.3 of the State Grid Code 2011. The difference between the energy injected at 33 kV voltage level and the sum of energy sold to all consumers (retail and open access), at voltage level 33 kV and below shall be the energy loss for the 33 kV and below system. The same shall be considered for gain/loss at the time of true up.”

The Energy Balance for FY 2014-15 as submitted by CSPDCL is shown in the Table below:

Table 8.1-2:Energy Balance for FY 2014-15 as submitted by CSPDCL

Particulars	Legend	Order dt. June 12, 2014	Actual
Energy Requirement			
LV Sales	A	9298	9185
HV Sales	B	5151	5152
Sub-total	C=A+B	14449	14337
Distribution Loss below 33 kV (%)	D	28.00%	25.33%
Distribution Loss below 33 kV (MU)	E	5619	4863
Gross Energy requirement at 33 kV level	F=C+E	20068	19200
Less: Direct Input to distribution at 33 kV level	G	425	664
Net Energy Input required at Distribution Periphery at 33 kV level	H=F-G	19643	18536
Sales to EHV consumers	I	2454	2764
Input at Transmission periphery	J=H+I	22098	21300
Distribution loss including EHV Sales	K		22.14%

CSPDCL submitted that the actual distribution loss in FY 2014-15 is lower than that approved in the MYT Order and hence, in accordance with Regulation 13 of the MYT Regulations, 2012, CSPDCL is eligible for part of the financial gains derived from achieving higher loss reduction in comparison to the approved target level. CSPDCL claimed an incentive of Rs. 61.67 Crore on account of the actual energy loss being lower than the approved target level, as shown in the Table below:

Table 8.1-3: Incentive for Distribution Loss for FY 2014-15 as submitted by CSPDCL

Particulars	Units	Legend	CSPDCL Petition
Energy recorded at 33 kV outgoing feeder of all EHV S/S	MU	A	18536
Add: Net energy injected by generators connected at 33/11 kV S/S	MU	B	664
Energy input at distribution periphery below EHV level	MU	C=A+B	19200
Add: EHV Sales	MU	D	2764
Energy input considered for distribution business	MU	E=C+D	21964
Energy sales to LV	MU	F	9185

Particulars	Units	Legend	CSPDCL Petition
Energy sales to HV	MU	G	5152
Energy sales to EHV	MU	H	2764
Total Sales	MU	$I=F+G+H$	17101
Distribution losses below 33 kV level	MU	$J=C-(F+G)$	4863
Distribution losses below 33 kV level	%	$K=J/C*100$	25.33%
Target Loss level	%	L	27.00%
Overachievement	%	$M=L-K$	1.67%
Total Power Purchase Cost	Rs. Crore	O	7367.04
Average power purchase cost at distribution periphery (including EHV)	Rs./kWh	$P=O/E*10$	3.35
Overachievement amount	Rs. Crore	$Q=P*M*E/10$	123.35
CSPDCL's entitlement	Rs. Crore	$R=50\% \text{ of } Q$	61.67

Commission's View

Following has been observed as under, in the Order dated June 12, 2014, while approving the final true up for FY 2012-13 for CSPDCL:

“6.3.3 Distribution Loss

....

The distribution losses worked out by CSPDCL raises question when CSPDCL itself has reported that about 6% LV consumer meters are defective. As mandated in the Supply Code, 2011, the defective meters should not be more than 2.5%. Similarly a large number of 11 kV and 33 kV feeder meters are also lying defective which are meant for energy accounting. In absence of proper energy accounting data, sharing of gains and losses is not permitted. Various stake holders have also expressed their concern on distribution losses.

In such scenario, allowing incentive to CSPDCL is not justified and directs CSPDCL to make extra efforts to minimise defective meters within the permissible limit as per the provision of Supply Code, 2011.....”

Further vide suo-motu Petition no. 19/2011, cognizance has been taken of news reports containing complaints on irregular, improper or wrong meter reading and passed an Order dated 20.11.2013, relevant portion of which is reproduced below:

“12. After going through the submission made by the respondent vide their letter No. 4799 dated 30.09.2013, it appears that the respondent are serious in ensuring proper meter reading and billing and are making their sincere efforts for their implementation. Therefore, we have reached to the conclusion that as all possible corrective measures

are taken by the respondent, therefore, we hereby close the petition with direction to the respondent that action taken report and compliance of instructions and assurance given by the respondent in their previous submissions be completed and quarterly report be submitted to the Commission for its perusal.”

Information had been sought through letter number 680 dated April 9, 2015 for submitting the factual position regarding meterisation and billing of agriculture consumers, but no information was submitted. Further, there are unresolved issues in the energy accounting between CSPDCL and CSPTCL, and the Hon'ble APTEL has remanded the CSPTCL's Appeal in this regard to the Commission, which is pending before the Commission. The Commission's Order on this remand by the Hon'ble APTEL shall be considered for computation of gains on account of lower than target distribution/transmission losses achieved by CSPDCL/CSPTCL, if applicable.

Therefore, in line with the earlier approach, any incentive on account of over-achievement of the energy loss as stated by CSPDCL has not been approved. Hence, based on information submitted by CSPDCL, the actual energy loss as reported by CSPDCL for FY 2014-15 has been taken on record.

Table 8.1-4: Approved Distribution Loss for FY 2014-15

Particulars	Unit	CSPDCL Petition	Approved
Energy Sales at LT & HV (below EHV)	MU	10228.88	10,228.88
Energy Delivered at 33 kV outgoing feeder of all EHV S/s	MU	15100.55	15,100.55
Energy injected by CPP/IPP at 33/11 kV S/s	MU	426.47	426.47
Less: Energy Exported from 33 kV system to EHV system		130.95	130.95
Total Energy available at 33 kV	MU	15396.07	15,396.07
Energy Loss below 33 kV	MU	5167.19	5167.19
Energy Loss below 33 kV in %	%	33.56%	33.56%

8.1.3 Power Purchase Cost for FY 2014-15

CSPDCL's submission

CSPDCL submitted that in FY 2014-15, power has been procured from Central Generating Stations, CSPGCL's generating stations, captive power plants, renewable energy sources, CSPTCL and other short-term sources. The actual power purchase cost for FY 2014-15 is Rs. 7367.04 Crore as against the power purchase cost of Rs. 6375.65 Crore approved in the Order dated June 12, 2014.

CSPDCL submitted that the Commission historically restricts the power purchase rate of the short-term power purchased from Jindal Steel and Power Ltd.(JSPL) to only minimum rate of Rs. 1.50 per unit instead of actual rates paid to the generator. As the

said matter is already pending before the Hon'ble APTEL in Appeal No. 41, 67 and 182 of 2015, CSPDCL requested the Commission to consider the purchase from JSPL as per the actual rate paid considering the terms of the PPA and applicable orders for short-term purchase by CSPDCL.

CSPDCL considered the revenue of Rs. 434.13 Crore from sale of surplus power, based on sales of 1297.65 MU at the average rate of Rs. 3.35 per kWh.

Commission's View

The actual average cost of power purchase from the Central Generating Stations was Rs. 3.04/kWh as against Rs. 2.75/kWh estimated in the Order. The inter-State sales have been recorded lower than the estimated sales. It is observed that the sales was lower by 5259 MU as compared to the estimated sales.. The revenue from inter-State sales has been considered under Revenue separately, and has not been considered in the power purchase cost.

The actual inter-State transmission charges, intra-State transmission charges, UI and SLDC Charges has been considered, as per actuals claimed by CSPDCL, after verifying the same from the audited accounts of CSPDCL.

CSPDCL was asked to submit the details regarding the Delayed Payment Charges paid to Central Generating Stations, CSPGCL, CSPTCL, and other parties, in FY 2014-15. CSPDCL submitted that it had paid a total of Rs. 150.97 Crore as Delayed Payment Charge to CSPGCL, CSPTCL, Renewable Energy sources, and CPP/IPP in FY 2014-15.

As regards the procurement of power from JSPL, it has been observed that CSPDCL has incurred Rs 41.68 Crore for procurement of 194.77 MU power from JSPL in FY 2014-15. Thus, the average rate of power procured from JSPL during FY 2014-15 works out to Rs 2.14/kWh. While carrying out the truing up for FY 2011-12 and FY 2012-13, in the Order dated June 12, 2014, it was deliberated that JSPL had supplied power, which is of non-firm nature. Therefore, base rate of Rs. 1.50/kWh was allowed for power supplied by JSPL. CSPDCL has filed an appeal with Hon'ble APTEL on the Order dated June 12, 2014 in which it has raised this issue of reduction in power purchase rate for procurement of power from JSPL. This matter is sub-judice before the Hon'ble APTEL. In the tariff order for FY 2014-15 it was directed that CSPDCL should approach the Commission for short-term power purchase based on the demand supply scenario. Subsequently, CSPDCL filed a petition on July 11, 2014 for procuring of 200 MW RTC power on short-term basis through competitive bidding. CSPDCL further informed that the power availability from Marwa power project has been delayed. CSPDCL conveyed that due to abnormal delay in the monsoon power consumption for agriculture pump has increased significantly whereas, the availability of power from tied up sources is not sufficient to meet the demand of the State. CSPDCL informed that they had conducted the competitive bidding and JSPL had offered the lowest rate of Rs. 2.60/kWh against the maximum ceiling rate of Rs. 3.10/kWh. CSPDCL informed that second lowest bid rate is Rs. 3.10/kWh. Due to exigencies in the demand supply gap, CSPDCL requested for an urgent hearing on the petition and approval was granted. It is observed that the actual weighted average cost of power purchase from JSPL for FY 2014-15 is Rs. 2.14/kWh. Hence, the

Commission has approved the power purchase rate of Rs 2.14/kWh for purchase of power from JSPL during FY 2014-15 while carrying out the true up for FY 2014-15.

After scrutiny of the material placed on record including the audited accounts for FY 2014-15, the actual source-wise power purchase cost for FY 2014-15 has been approved except on account of the following head:

CSPDCL has paid Delayed Payment Charges of Rs. 150.97 Crore to different entities and claimed the same as part of power purchase cost, which has not been considered in line with the approach adopted in previous Order. Further, either the income earned by Delayed Payment Charges from consumers as part of Non Tariff Income, or the Delayed Payment Charges paid by CSPDCL are not considered.

Based on the above, the power purchase quantum and power purchase cost approved in the true up for FY 2014-15 is shown in the Table below:

Table 8.1-5: Approved Power Purchase Quantum and Power Purchase Cost for FY 2014-15

Sr. No.	Particulars	Order dt. June 12, 2014			CSPDCL Petition			Approved after True-Up		
		Quantum (MU)	Amount (Rs. Crore)	Rs/ kWh	Quantum (MU)	Amount (Rs. Crore)	Rs/ kWh	Quantum (MU)	Amount (Rs. Crore)	Rs/ kWh
A	Purchase from Central Generating Stations									
1	N.T.P.C.	7453.64	1998.31	2.68	7097.11	2108.54	2.97	7097.11	2108.54	2.97
2	N.T.P.C. – SAIL	335.96	144.41	4.30	227.71	108.46	4.76	227.71	108.46	4.76
3	N.P.C. Limited	276.21	82.62	2.99	331.66	97.33	2.93	331.66	97.33	2.93
4	Others	16.64	1.33	0.80	171.37	67.01	3.91	171.37	67.01	3.91
	Sub Total A	8082.45	2226.67	2.75	7827.85	2381.35	3.04	7827.85	2381.35	3.04
B	Purchase from State Generating Stations									
5	CSPGCL	20403.54	4691.15	2.30	14571.11	3685.79	2.53	14571.11	3685.79	2.53
6	Traders/CSPTrdCL/ Others	0.00	0.00	0.00	100.03	30.19	3.02	100.03	30.19	3.02
7	CPPs/PPs	38.56	10.02	2.60	566.15	139.42	2.46	566.15	139.42	2.46
8	Concessional Power	718.24	136.47	1.90	321.40	61.84	1.92	321.40	61.84	1.92
9	Biomass	659.64	372.63	5.65	630.45	370.05	5.87	630.45	370.05	5.87
10	Solar	132.47	66.24	5.00	10.69	9.19	8.59	10.69	9.19	8.59
11	Procurement of RE		88.11							
12	Other RE(Hydel) (Private)	330.32	139.08	4.21	13.50	6.26	4.64	13.50	6.26	4.64
	Sub Total B	22282.77	5503.70	2.47	16213.33	4302.74	2.65	16213.33	4302.74	2.65
C	Transmission & Other Charges									
13	Inter-State Transmission Charges		258.73			266.16			266.16	
14	Intra-State Transmission Charges		765.64			679.37			679.37	
15	Transmission - Other Charges		0.00			63.05			63.05	
16	UI		0.00			91.72			91.72	
17	SLDC		14.15			19.06			19.06	
	Sub Total C		1038.52			1119.36			1119.36	

Sr. No.	Particulars	Order dt. June 12, 2014			CSPDCL Petition			Approved after True-Up		
		Quantum (MU)	Amount (Rs. Crore)	Rs/ kWh	Quantum (MU)	Amount (Rs. Crore)	Rs/ kWh	Quantum (MU)	Amount (Rs. Crore)	Rs/ kWh
18	Less:: Rebate on Power Purchase					2.28			2.28	
	Gross Power Purchase Cost	30365.22	8768.89	2.89	24041.18	7801.17	3.24	24041.18	7801.17	3.24
19	Less:Inter-State Sale including Other Income	6556.85	2393.24	3.65	1297.65	434.13	3.35	**	**	**
20	Less: DPC paid to CSPGCL & CSPTCL								150.97	
	Net Power Purchase Cost	23808.37	6375.65	2.68	22743.53	7367.04	3.24	24041.18	7650.20	3.18

Note: ** - Considered under Revenue

8.1.4 Operation and Maintenance (O&M) expenses

CSPDCL's submission

CSPDCL submitted that the O&M expenses comprise Employee expenses, Repair and Maintenance (R&M) expenses, and Administration and General (A&G) expenses. CSPDCL further submitted that the Pension and Gratuity fund contribution has been considered separately under the head of O&M expenses. CSPDCL submitted that the actual O&M expenses for FY 2014-15 are Rs. 929.40 Crore as against Rs. 780.97 Crore (actual amount approved for FY 2014-15 was Rs. 852.91 crore) approved in the MYT Order. CSPDCL requested the Commission to approve the actual O&M expenses in the true up for FY 2014-15.

CSPDCL submitted that the actual employee expenses for FY 2014-15 were Rs. 683.39 Crore. CSPDCL submitted that the employee expenses are governed by the approved pay scales and associated costs as approved under the applicable governing orders and CSPDCL is bound by the same.

CSPDCL submitted that there was an interim wage relief impact as per Wage Advisory Committee Report dated January 29, 2015 to the tune of 15%. Total arrears on account of Wage Revision (Interim Relief) were to be passed on to employees in 15 equal instalments effective from January 1, 2014. Out of this, 7.5% of the interim relief, i.e., total of Rs 45.42 Crore, has already been passed on in FY 2014-15, and is included in the actual employee expenses of Rs. 683.39 Crore.

CSPDCL submitted that the actual R&M expenses for FY 2014-15 are Rs. 121.38 Crore. CSPDCL submitted that the actual A&G expenses for FY 2014-15 are Rs. 124.63 Crore.

CSPDCL submitted that the actual contribution to Pension and Gratuity fund for FY 2014-15 is Rs. 186.75 Crore, which is same as that approved in the MYT Order.

Commission's View

In the MYT Order, the O&M expenses for FY 2014-15 were approved as Rs. 852.91 Crore. Further, the contribution to Pension and Gratuity fund for FY 2014-15 had been approved separately, as Rs. 186.75 Crore.

The actual O&M expenses comprising of employee expenses, R&M expenses, and A&G expenses for FY 2014-15 claimed by CSPDCL are Rs. 929.40 Crore.

Regulation 57.4 of the MYT Regulations, 2012 specifies as under:

“57.4 Operation and maintenance expenses

57.4.1 Operation and Maintenance (O&M) expenses for shall include:

I. Employee costs;

II. Administrative and General expenses

III. Repairs and Maintenance

(a) The Operation and Maintenance expenses, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2012-13, shall be derived on the basis of the normalized average of the actual Operation and Maintenance expenses excluding pension fund contribution and impact of pay revision arrears available in the audited/un audited accounts for the previous three (3) years immediately preceding the base year FY 2012-13, subject to prudence check by the Commission.

(b) The normalization shall be done by applying weighted average inflation at the rate of 60% weightage to actual variation in CPI and 40% weightage to actual variation in WPI on year to year basis. The average of normalized net present value for 2009-10, 2010-11 and 2011-12, shall then be used to project base year value for 2012-13. The base year value so arrived shall be escalated by the above inflation rate to estimate the O&M expense (excluding impact of pay revision, if any) for each year of the control period.

(c) At the time of true up, the O&M cost shall be considered after taking into account the actual inflation instead of projected inflation for that period.

...”

In order dated May 23, 2015 the normative O&M expenses for FY 2013-14 were approved as Rs. 779.98 Crore while carrying out the true up. The normative O&M expenses for FY 2014-15 has been arrived at by escalating the trued up expenses for FY 2013-14 with the escalation rate of 4.57%, computed in accordance with MYT Regulations, 2012. Thus, the normative O&M expenses for FY 2014-15 work out to Rs. 815.63 Crore.

The O&M expenses from the audited accounts for FY 2014-15 have been scrutinised. The Commission observed that there are minor differences in the actual O&M expenses as claimed by CSPDCL and as reported in the audited accounts. CSPDCL clarified that the minor differences are due to the fact that the Petition was prepared on the basis of provisional accounts, due to the non-availability of audited accounts at that time.

CSPDCL in its Petition has claimed expenses on account of Wage Revision (Interim Relief) amounting to Rs. 45.42 Crore. It has been noted that the Wage Advisory Committee had submitted its report on January 29, 2015. Further, Wage Revision (Interim Relief) order was issued on July 23, 2015. Since the arrears for FY 2014-15

have been paid by CSPDCL from September 2015 onwards, the impact of the same will be passed through in true-up for FY 2015-16 and not FY 2014-15. Therefore, after prudence check, the impact on account of Wage Revision (Interim Relief) has been disallowed in the true-up for FY 2014-15.

The O&M expenses considered after true-up for FY 2014-15 are shown in the Table below:

Table 8.1-6: Actual O&M Expenses considered in true up for FY 2014-15
(Rs. Crore)

Particulars	CSPDCL Petition	Approved
Gross Employee Expenses	718.46	673.04
Gross R&M Expenses	124.96	123.98
Gross A&G Expenses	124.50	124.56
Less: Capitalisation		
Employee Cost capitalised	35.07	35.07
R&M Expenses capitalised	0.33	0.33
A&G Expenses capitalised	3.13	3.13
Net O&M Expenses (excl Pension)	929.40	883.05

Hence, the actual O&M expenses for FY 2014-15 are Rs. 883.05 Crore as against the normative O&M expenses of Rs. 815.63 Crore, resulting in an efficiency loss of Rs. 67.42 Crore.

Further, as the O&M expenses are a controllable factor, the sharing of loss in O&M expenses has been carried out in accordance with MYT Regulations, 2012, as shown in the Table below:

Table 8.1-7: Sharing of loss in O&M expenses for FY 2014-15
(Rs. Crore)

Particulars	Normative O&M	Actual O&M	Efficiency Gain/(Loss)	Entitlement of Gain/(Loss)	
				CSPDCL	Consumers
O&M expenses	815.63	883.05	(67.42)		
Total			(67.42)	(33.71)	(33.71)

Hence, the net allowable O&M expenses for FY 2014-15, after sharing of loss, works out as Rs. 849.34 Crore (815.63+33.71).

As regards the contribution to Pension and Gratuity fund for FY 2014-15, it has been observed that the amount is reported as Rs. 187.19 Crore in the audited accounts. The actual contribution to Pension and Gratuity fund allowed is Rs. 187.19 Crore in the trueing up for FY 2014-15.

8.1.5 GFA for FY 2014-15

CSPDCL's submission

CSPDCL submitted that in view of the APTEL Judgment in Appeal No. 308 of 2013, it has considered the capital structure as approved in the MYT Order dated 12 July, 2013. Further, the capital structure for FY 2014-15 has been determined based on following:

1. Closing CWIP of Rs. 1745.23 Crore of FY 2013-14 has been considered as the opening CWIP for FY 2014-15.
2. The actual loan addition of Rs. 441.85 Crore has been considered for FY 2014-15.
3. Addition in consumer contribution has been considered as Rs. 209.13 Crore as per the accounts for FY 2014-15.
4. Normative equity addition for FY 2014-15 has been considered as per actuals based on capital restructuring methodology approved by the Commission in the MYT Order dated 12 July, 2013.
5. GFA addition of Rs. 829.41 Crore has been considered as per the accounts for FY 2014-15.

The details of capital expenditure and capitalisation for FY 2014-15, as submitted by CSPDCL, are shown in the Table below:

Table 8.1-8: GFA for FY 2014-15 as submitted by CSPDCL
(Rs. Crore)

Particulars	CSPDCL Petition
Gross Fixed Assets (GFA)	
Opening GFA	4390.43
Opening CWIP	1745.23
Capitalisation during the Year	829.41
Closing GFA	5219.83
Closing CWIP	2019.43
Grants & Consumer Contributions	
Opening grant & contribution	2059.22
Addition during the year	209.13
Closing consumer contribution	2268.35
Consumer contribution in opening GFA	1473.50
Consumer contribution in closing GFA	1635.58

Commission's View

The closing GFA for FY 2013-14 as approved in the true-up Order has been considered as the opening GFA for FY 2014-15. Addition in the GFA for FY 2014-15 as submitted by CSPDCL which is based on the audited accounts has been allowed. The GFA considered in the true up for FY 2014-15 is shown in the Table below:

Table 8.1-9: GFA Approved in the true up for FY 2014-15**(Rs. Crore)**

Particulars	MYT Order	CSPDCL Petition	Approved
Opening GFA	3067.84	4390.43	4390.43
Additional Capitalisation during the Year	250	829.41	829.41
Closing GFA	3317.84	5219.83	5219.83

8.1.6 Means of Finance**CSPDCL's submission**

CSPDCL submitted that the additional capital expenditure in FY 2014-15 has been funded by consumer contribution of Rs. 209.13 Crore, debt of Rs. 441.85 Crore and equity of Rs.452.63 Crore.

Commission's View

CSPDCL was asked to provide information regarding the Grants and Consumer Contribution to be considered against capitalisation during the year. CSPDCL submitted the total receipt of Government Grants in FY 2014-15 as Rs. 209.15 crore, and receipt of Consumer Contribution in FY 2014-15 as Rs. 56.97 crore. CSPDCL clarified that the amount of Grant and Consumer Contribution received during FY 14-15 has been adjusted against Gross Block, as any particular Grant and Consumer Contribution could not be linked with individual assets created from the amount received. Thus, total Grants and Consumer Contribution to be considered against capitalisation during FY 2014-15 works out to Rs. 266.51 crore.

The funding of additional capitalisation reduced by the above Consumer Contribution has been considered in the normative debt equity ratio of 70:30. The means of finance for funding of additional capitalisation for FY 2014-15 considered in the true-up for FY 2014-15 is shown in the Table below:

Table 8.1-10: Approved Means of Finance for additional capitalisation for FY 2014-15**(Rs. Crore)**

Particulars	Approved
Addition in GFA	829.41
Sources of Funding:	
Government Grants & Consumer Contribution	266.11
Equity	168.99
Debt	394.31

8.1.7 Depreciation

CSPDCL's submission

CSPDCL submitted that the depreciation for FY 2014-15 has been calculated in accordance with Regulation 24 of the MYT Regulations, 2012 and the Commission's past methodology. CSPDCL claimed the depreciation of Rs. 152.77 Crore for FY 2014-15 as against Rs. 77.71 Crore approved in the MYT Order.

Commission's View

The depreciation for FY 2014-15 has been computed by applying the weighted average depreciation rate of 4.95%. From the depreciation computed, depreciation on Grants and Consumer Contribution and depreciation on fully depreciated assets has been deducted, in accordance with the approach adopted in the previous Orders. The depreciation on fully depreciated assets has been considered on the basis of reconciliation of funding of GFA in FY 2014-15 under Grants, Consumer Contribution, Debt, and Equity as submitted by CSPDCL.

The depreciation for FY 2014-15 as approved is shown in the Table below:

Table 8.1-11: Approved Depreciation for FY 2014-15
(Rs. Crore)

Particulars	MYT Order	CSPDCL Petition	Approved
Opening GFA	3067.84	4390.43	4390.43
Additional Capitalisation during the Year	250.00	829.41	829.41
Closing GFA	3317.84	5219.83	5219.83
Average GFA for the year	3192.84	4805.13	4805.13
Depreciation @ scheduled rates	176.09	237.81	237.81
Less: Depreciation on Consumer Contribution on live assets	81.43	69.65	99.54
Less: Depreciation on Fully Depreciated Assets	16.95	15.39	17.44
Net Depreciation	77.71	152.77	120.83

8.1.8 Interest on loan capital

CSPDCL's submission

CSPDCL submitted that the interest on loan has been computed in accordance with Regulation 23 of the MYT Regulations, 2012. The closing loan balance as per last submission in true up for FY 2013-14 has been considered as the opening loan balance for FY 2014-15. The debt component of GFA addition in FY 2014-15 has been considered as the loan addition during the year. The depreciation for the year has been considered as the normative repayment for the year. The weighted average interest rate of 8.24% based on the actual loan portfolio has been considered for computing the interest expenses for FY 2014-15. CSPDCL has claimed the interest and finance charges of Rs. 106.14 Crore in true up for FY 2014-15.

Commission's View

The closing loan balance as approved for FY 2013-14 in the final true up for FY 2013-14 has been considered as the opening loan balance for FY 2014-15. The debt portion of the approved additional capitalisation for FY 2014-15 has been considered as the loan addition during the year. The allowable depreciation for the year has been considered as the normative repayment for the year. The actual weighted average interest rate based on the actual loan portfolio has been considered for computing the interest expenses for FY 2014-15.

The interest expenses approved for FY 2014-15 are shown in the Table below:

Table 8.1-12: Approved Interest Expenses for FY 2014-15
(Rs. Crore)

Particulars	MYT Order	CSPDCL Petition	Approved
Total Opening Net Loan	293.87	1155.53	1110.99
Repayment during the period	77.71	152.77	120.83
Increase due to Capitalization during the year	180.33	327.19	394.31
Addition/(Reduction) in Normative loan during the year	(21.08)	91.31	
Total Closing Net Loan	375.40	1421.26	1384.46
Average Loan during the year	334.63	1288.40	1247.73
Wt. Avg. Interest Rate	11.70%	8.24%	8.24%
Interest Expense	39.15	106.14	102.79

8.1.9 Interest on Working Capital (IoWC)

CSPDCL's submission

CSPDCL submitted that the IoWC for FY 2014-15 has been computed in accordance with the MYT Regulations, 2012. The interest rate of 13.50% has been considered, which is the SBI Base Rate as on April 1, 2014, plus 350 basis points. CSPDCL submitted that the normative IoWC entitlement for FY 2014-15 in accordance with MYT Regulations, 2012 is zero.

Commission's View

The normative IoWC has been computed in accordance with the MYT Regulations, 2012. The receivables equivalent to 1 month's actual revenue has been considered rather than 1 month's ARR as considered by CSPDCL. The average Consumer Security Deposit of Rs. 1033.72 Crore has been considered during FY 2014-15. The working capital requirement for FY 2014-15 in accordance with MYT Regulations, 2012 works out to Rs. 781.39 Crore. As the Consumer Security Deposit amount is more than the normative working capital requirement, the entitlement of IoWC for FY 2014-15 is zero. Hence, the normative IoWC works out to zero, as shown in the Table below:

Table 8.1-13: Approved IoWC for FY 2014-15**(Rs. Crore)**

Particulars	CSPDCL Petition	Approved
Operation and Maintenance expenses for one Month	77.45	67.97
Maintenance spares at 15% of O&M Expense	139.41	122.34
Receivable equivalent to one months of revenue from sale of electricity	738.25	591.08
Total Working Capital Requirement	955.11	781.39
Less: Consumer Security Deposit	1033.72	1033.72
Net Working Capital Requirement	0.00	0.00
Rate of Interest on Working Capital	13.50%	13.50%
Interest on Working Capital	0.00	0.00

8.1.10 Interest on Consumer Security Deposit**CSPDCL's submission**

CSPDCL submitted that the interest on Consumer Security Deposit (CSD) of Rs. 83.70 Crore for FY 2014-15 has been claimed as per the actual, in accordance with MYT Regulations, 2012, as against Rs. 105.63 Crore approved in the MYT Order.

Commission's View

The Commission has approved the interest on CSD for FY 2014-15 as claimed by CSPDCL, as shown in the table below:

Table 8.1-14: Approved Interest on CSD for FY 2014-15**(Rs. Crore)**

Particulars	CSPDCL Petition	Approved
Opening Security Deposit	896.17	896.17
Addition to Consumer Security Deposit	275.09	275.09
Closing Security Deposit	1171.26	1171.26
Interest rate	9.34%	8.10%
Interest on Consumer Security Deposit	83.70	83.70

8.1.11 Return on Equity (RoE)**CSPDCL's submission**

CSPDCL submitted that the RoE for FY 2014-15 has been computed in accordance with the MYT Regulations, 2012, at the base rate of 16% on the average equity for the year. CSPDCL has claimed the RoE of Rs.234.98 Crore in the true up for FY 2014-15.

Commission's View

The closing equity approved for FY 2013-14 as approved in final true up for FY 2013-14 has been considered as the opening equity for FY 2014-15. The equity portion of the additional capitalisation for FY 2014-15 has been considered as the equity addition for the year. The RoE has been computed considering the base rate of 16% on the average equity for the year.

The RoE approved in the true up for FY 2014-15 is shown in the Table below:

Table 8.1-15: Approved RoE for FY 2014-15
(Rs. Crore)

Particulars	MYT Order	CSPDCL Petition	Approved
Permissible Equity in Opening GFA	947.40	1344.19	1084.36
Permissible Equity in Closing GFA	1022.40	1593.01	1253.35
Average Gross Permissible Equity during the Year	984.90	1468.60	1168.85
Rate of Return on Equity	15.50%	16.00%	16.00%
Return on Equity	152.66	234.98	187.02

8.1.12 Income tax

CSPDCL's submission

CSPDCL has not claimed income tax in the true up for FY 2014-15.

Commission's View

As the actual income tax for FY 2014-15 is zero, the income tax has not been considered in the true up for FY 2014-15.

8.1.13 Prior period (income)/expenses

CSPDCL's submission

CSPDCL has claimed the prior period expense of Rs. 5.32 crore in true up for FY 2014-15, as shown in the Table below:

Table 8.1-16: Prior period expenses for FY 2014-15 as submitted by CSPDCL
(Rs. Crore)

Particulars	CSPDCL Petition
Prior period income from redemption of bonds	(0.70)
Sub Total Income	(0.70)
Employee Costs	0.57
Interest Reversal	4.05
Sub Total Expenses	4.62
Prior Period (Income)/Expenses	5.32

Commission's View

CSPDCL in its MYT Petition had claimed prior period expenses of Rs. 5.32 Crore. However, in reply to the query asked, CSPDCL claimed prior period income of Rs. 8.88 Lakh, as shown in the Table below. The prior period charges for FY 2014-15 as claimed by CSPDCL has been scrutinized and then approved, as given in the Table below:

Table 8.1-17: Approved Prior Period Expenses for FY 2014-15
(Rs. Crore)

Particulars	CSPDCL Petition	Approved after true-up
Excess Provision pertaining to previous years written back	1.35	1.35
Sub Total Income		
Employee Costs	0.57	0.57
Redemption of bonds	0.70	0.70
Sub Total Expenses	1.27	1.27
Prior Period (Income)/Expenses	0.08	0.08

8.1.14 Provision for Bad and doubtful debts

CSPDCL's submission

CSPDCL has not claimed any provision for bad and doubtful debts in the true up for FY 2014-15.

Commission's View

In the MYT Order, provision for bad and doubtful debts for FY 2014-15 had been approved as Rs. 67.72 Crore. As CSPDCL has not claimed any provision for bad and doubtful debts in the true up for FY 2014-15, the same has not been considered.

8.1.15 Non-Tariff Income

CSPDCL's submission

CSPDCL has submitted the non-tariff income of Rs. 268.72 Crore in the true up for FY 2014-15.

Commission's View

CSPDCL was asked to submit the details of recurring and non-recurring items in the non-tariff income for FY 2014-15. CSPDCL submitted that most of the items in the non-tariff income are recurring in nature except for some items like delayed payment surcharge and the penalty recovered from various contractors for delay in execution of work. CSPDCL submitted that as there is no separate head for such penalty recovered, the same is accounted under miscellaneous receipts.

The non-tariff income under various heads as submitted by CSPDCL and as reflected in the audited accounts has been considered. Further, as stated earlier, the average Consumer Security Deposit available with CSPDCL in FY 2014-15 was Rs. 1033.72 Crore, while the working capital requirement for FY 2014-15 was only Rs. 781.39 Crore. The MYT Regulations, 2012 specify that in case of retail supply of electricity, the working capital requirement shall be calculated by reducing the amount held as security deposits in cash from the consumers. As the Consumer Security Deposit is used to meet the working capital requirement, it follows that if there is excess Consumer Security Deposit with respect to the working capital requirement, the same shall earn interest in the same manner, as incurred by the working capital requirement. Hence, as the Consumer Security Deposit amount is more than the normative working capital requirement, in accordance with the philosophy adopted by the Commission in the previous Tariff Order, the Commission has considered the interest on the excess Consumer Security Deposit for FY 2014-15, i.e., difference between Consumer Security Deposit of Rs. 1033.72 Crore and Working Capital Requirement of Rs. 781.39, i.e., Rs. 252.32 Crore. The notional interest has been computed @13.50%, i.e., the rate of interest considered for IoWC, which works out to Rs. 34.06 Crore, and has been considered under the Non-Tariff Income for FY 2014-15.

In line with the approach adopted in previous Orders, the Commission has not considered the income from Delayed Payment Surcharge as Non-Tariff Income.

The Non-Tariff Income approved in the true up for FY 2014-15 is shown in the Table below:

Table 8.1-18: Approved Non-Tariff Income for FY 2014-15
(Rs. Crore)

Particulars	CSPDCL Petition	Approved after true up
Non Tariff Income	268.72	268.72
Interest Income on Excess Consumer Security Deposits		34.06
Total	268.72	300.87

8.1.16 Aggregate Revenue Requirement (ARR)

Based on the above, the ARR approved in the true up for FY 2014-15 is shown in the Table below:

Table 8.1-19: Approved ARR for FY 2014-15
(Rs. Crore)

Sr. No	Particulars	FY 2014-15		
		Order dt. June 12, 2014	CSPDCL Petition	Approved After True-Up
1	Power Purchase Cost	5337.13	6339.39	6773.52*
2	Inter-State Transmission charges (PGCIL)	258.73	266.16	266.16

Sr. No	Particulars	FY 2014-15		
		Order dt. June 12, 2014	CSPDCL Petition	Approved After True-Up
3	Inter-State Transmission charges (Other Charges)	0.00	63.05	63.05
4	Intra-State Transmission Charges	765.64	679.37	679.37
5	SLDC Charges	14.15	19.06	19.06
Sub-total Power Purchase Expenses		6375.65	7367.04	7801.17
6	Employee Expenses	852.91	683.39	637.97
7	Administrative and General Expenses		121.38	121.43
8	Repair and Maintenance charges		124.63	123.65
9	Pension & Gratuity Payment	186.75	186.75	187.19
Sub-total Operation & Maintenance Expenses		1039.66	1116.15	1070.24
8	Interest and finance charges	39.15	106.14	102.79
9	Interest on Consumer Security Deposits	105.63	83.70	83.70
10	Interest on Working Capital Requirement	0.00	0.00	0.00
Sub-total Interest and Finance Expenses		144.78	189.84	186.49
11	Depreciation	77.71	152.77	120.83
12	Return on Equity	152.66	234.98	187.02
13	Income tax	0.00	0.00	0.00
13	Provision for Bad debts	67.72	0.00	0.00
14	Prior Period Expenses		5.32	0.09
Sub-total Other Expenses		298.09	393.06	307.94
A	Total Expenses	7858.18	9066.09	9365.84
15	Non Tariff Income	234.83	210.19	208.27
16	Income on Excess Consumer Security Deposits	63.28	0.00	34.06
17	STOA Charges	125.00	58.53	58.53
B	Total Non Tariff Income	423.11	268.72	300.87
18	Licensee's Share in Gain/(Loss) on account of reduction in distribution losses		61.67	0.00
19	Licensee's Share in Gain/(Loss) on account of O&M Expenses		0.00	(33.71)
C	Aggregate Revenue Requirement	7435.07	8859.05	9031.26

Note: (1) This power purchase expenses includes total amount paid against FCA, i.e., Rs. 180.88 Crore paid to CSPGCL and Rs. 228.25 Crore paid to Central Generating Stations.

(2)* - Power Purchase Cost is higher than that submitted by CSPDCL, as revenue from sale of surplus energy has been considered under revenue, rather than reduction of power purchase expenses.

8.1.17 Revenue from sale of power

CSPDCL's submission

CSPDCL submitted the total revenue for FY 2014-15 as Rs. 7092.34 Crore.

Commission's View

The revenue from sale of power for FY 2014-15 has been considered as Rs. 7092.95 Crore based on the audited accounts and as per the reconciliation of revenue submitted by CSPDCL, in the true up for FY 2014-15.

In the Tariff Order dated June 12, 2014, CSPDCL was directed to sell the projected surplus quantum of 6557 MU at the rate of Rs. 3.65/kWh in FY 2014-15. Further, in the Order on the Review Petition filed by CSPDCL, it was clarified that CSPDCL can sell power at any rate provided that the overall average rate of sale of surplus power is at least Rs. 3.65/kWh. However, CSPDCL in its Petition has considered rate of sale of surplus power as Rs. 3.35/kWh due to decline in market rates. CSPDCL had filed an appeal against the Commission's directive before the Hon'ble ATE. Since the matter is sub-judice, Rs. 3.65/kWh has been considered as the rate of sale of surplus power of 1297.65 MU, in FY 2014-15.

The total revenue from sale of power considered in the true-up for FY 2014-15 is shown in the table below:

Table 8.1-20: Approved Revenue for FY 2014-15
(Rs. Crore)

Particulars	CSPDCL Petition	Approved after true up
Revenue from sale of power	7092.34	7092.95
Revenue from sale of surplus power	*	473.64
Total Revenue	7092.34	7566.59

Note: * - considered towards reduction in power purchase cost

8.1.18 Revenue Gap/(Surplus)

CSPDCL's submission

CSPDCL submitted the Revenue Gap for FY 2014-15 as Rs. 1766.70 Crore, based on the projected ARR and revenue from sale of power.

Commission's View

In the Order dated June 12, 2014, the net surplus of Rs. 428.53 Crore had been approved for CSPGCL and CSPTCL for the previous years, which was considered for adjusting the ARR of CSPDCL for FY 2014-15. Also, the revenue gap of Rs. 758.74 Crore had been approved for CSPDCL for the previous years, which was considered

while approving the ARR of CSPDCL for FY 2014-15. It is observed that CSPDCL has not considered the said amounts in its computation of Revenue Gap for FY 2014-15.

The summary of standalone Revenue Gap/(Surplus) approved after true up for CSPDCL for FY 2014-15, is shown in the Table below:

**Table 8.1-21: Approved Revenue Gap/ (Surplus) for FY 2014-15
(Rs. Crore)**

Particulars	CSPDCL Petition	Approved after true-up
Aggregate Revenue Requirement	8859.05	9031.26
Adjustment of Surplus of CSPGCL and CSPTCL		(428.53)
Previous year Gap/(Surplus) of CSPDCL carried forward		758.74
Subsidy from Govt. of Chhattisgarh		(465.00)
Net Aggregate Revenue Requirement	8859.05	8896.47
Revenue	7092.34	7566.59**
Revenue Gap / (Surplus)	1766.70	1329.87

Note: ** This amount includes Rs. 412.55 Crore revenue realized from retail consumers against VCA charges.

Based on the approved numbers, the Revenue Gap for CSPDCL after true up for FY 2014-15, works out to Rs. 1329.87 crore, as against the Revenue Gap of Rs. 1766.70 crore submitted by CSPDCL in its Petition. After applying the carrying cost for 2 years, i.e., from mid-point of FY 2014-15 to mid-point of FY 2016-17 on this Revenue Gap of Rs. 1329.87 Crore, the total amount that is required to be factored in the revenue requirement of CSPDCL for FY 2016-17 works out to Rs. 1717.63 crore.

9 ARR FOR MYT CONTROL PERIOD FROM FY 2016-17 TO FY 2020-21 FOR CSPGCL AND GENERATION TARIFF FOR THE MYT CONTROL PERIOD

9.1 BACKGROUND

The present Petition is for determination of ARR and Generation Tariff for the MYT Control Period from FY 2016-17 to FY 2020-21 in accordance with the MYT Regulations, 2015.

9.2 NORMS OF OPERATION FOR CSPGCL GENERATING STATIONS

The norms of operation for the conventional generation plants of CSPGCL were specified in the MYT Regulations, 2015 issued for the MYT Control Period. CSPGCL in its Petition has submitted the plant-wise operational parameters for MYT Control Period. The plant wise operational parameters as claimed and as considered by are as under:

9.2.1 Impact of ESP Augmentation

CSPGCL's Submission

In compliance of the directives of the CPCB to achieve stack emission of 50 mg /Nm³, CSPGCL has planned for augmentation of the ESPs of 120 MW units of KTPS and all the Units of HTPS. The Commission has accorded in-principle approval for this augmentation work. The tender for the ESP work has been floated and the schedule and period of shutdown and partial outage may change depending upon feedback from the bidders on finalization of the tender. During the work, shutdown and partial loading will be inevitable. As per Regulations, all factors on account of change in law are pass through. Such eventuality was not considered in the Regulations and as such, relaxation on this account needs to be accounted for while deciding the performance parameters. CSPGCL requested the Commission to approve relaxed norms of operation by exercising its inherent powers under Regulations 83 (power to relax) and 85 (power to remove difficulty).

In the present petition, the norms as per Regulations have been submitted, without prejudice to CSPGCL's right to plead relaxation in subsequent true ups if such performance deteriorates due to coal shortage.

Commission's Views

CSPGCL was asked to justify the estimated shutdown of 45 days for ESP augmentation. In reply, CSPGCL submitted that ESP augmentation is very challenging, involving thorough design alterations and structural changes. Normally, such works are undertaken during the package based complete Renovation and Modernisation of units, which requires minimum outage of 180 days. CSPGCL in the interest of beneficiaries has attempted towards very ambitious target of outage period of 45 days in the tender document. CSPGCL craved leave for submission of actual outages at time of true-up.

In-principle clearance has been granted for ESP augmentation for KTPS and HTPS. The actual impact of such execution of ESP augmentation schemes on operational parameters would require to be quantified, after the execution of the scheme during the Control Period. Hence, at this stage, the Commission has considered the relaxation in operational norms on account of ESP augmentation for KTPS and HTPS, which has been discussed in subsequent sections. The CSPGCL, at time of Mid Term review, shall submit the exact outage period and its impact on operational norms of KTPS and HTPS.

9.2.2 KTPS- Korba East

CSPGCL's Submission

CSPGCL submitted that as per Regulation 39.6 of MYT Regulations, 2015, the operational norms for KTPS shall be decided by the Commission at the time of determination of MYT Tariff.

The retirement of the 50 MW Units during the Control Period has become inevitable due to change in law and statutory requirements. Accordingly, effective capacity of the plant will reduce. At the fag end of its life, KTPS requires relaxed performance parameters. Performance data of immediate past supports the contention for consideration of relaxed norms. The Indexed Average for the past five years may be considered for analyzing the past performance data. CSPGCL has considered slightly higher Auxiliary Consumption for PH-III (in comparison to 3 year average) because after closure of PH-II units, the common services will be fully loaded to PH-III only and hence, percentage sharing will increase. CSPGCL submitted the following Norms of Operation for KTPS for the Control Period:

Table 9-1: Operational Norms for KTPS as submitted by CSPGCL

Sr. No.	Particulars	UoM	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	Effective Capacity	MW	402.50	327.50	252.50	240.00	240.00
2	PAF for PH-II	%	60%	60%	60%	60%	60%
3	PAF for PH-III	%	70%	70%	70%	70%	70%
4	Auxiliary Consumption for PH-II	%	14%	14%	14%	14%	14%
5	Auxiliary Consumption for PH-III	%	12%	12%	12%	12%	12%
6	Specific Oil Consumption (for PH-II and PH-III)	ml/kWh	2.00	2.00	2.00	2.00	2.00
7	Station Heat Rate for PH-II	kcal/kWh	3450	3450	3450	3450	3450
8	Station Heat Rate for PH-III	kcal/kWh	3250	3250	3250	3250	3250
9	Transit Loss	%	1.15%	1.15%	1.15%	1.15%	1.15%

Commission's Views

In MYT Order dated July 12, 2013 the operational norms were determined for KTPS for the second Control Period based on the recommendations of CPRI. CSPGCL has proposed the retirement of 50 MW Units and sought separate operational norms for Phase II and Phase III. In reply to the query, CSPGCL clarified that norms for KTPS Phase II were indicated only for record purposes, and in case the closure plan is deferred. Additional capitalisation for KTPS was approved during the Control Period and improvement in performance of KTPS was expected. CSPGCL, while proposing the PAF norms for this Control Period has considered the past performance of the

KTPS. Further, the implementation of ESP augmentation scheme for KTPS would also affect the availability of the plant. In view of the above, as regards the PAF, the Commission accepted the norms proposed by CSPGCL and for the remaining operational norms, the norms as approved in second Control Period for KTPS based on CPRI recommendations, have been considered as shown in the following Table:

Table 9-2: Approved Operational Norms for KTPS

Sr. No.	Particulars	UoM	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	PAF for Phase II	%	60%	60%	60%	60%	60%
2	PAF for Phase III	%	70%	70%	70%	70%	70%
3	Auxiliary Consumption	%	11.25%	11.25%	11.25%	11.25%	11.25%
4	Specific Oil Consumption	ml/kWh	2.00	2.00	2.00	2.00	2.00
5	Station Heat Rate	kcal/kWh	3110	3110	3110	3110	3110
6	Transit Loss	%	1.15%	1.15%	1.15%	1.15%	1.15%

Note: For capacity charge billing weighted average NAPAF of PH II and PH III shall be considered. For calculation of additional charge as specified in Regulation 41.5 of MYT Regulation 2015, NAPLF shall be equal to weighted average NAPAF.

9.2.3 HTPS

CSPGCL's Submission

CSPGCL submitted that it has considered the relaxed norms due to statutory compliance of ESP augmentation. Except for this period, CSPGCL has considered the norms of operation for HTPS based on CSERC MYT Regulations, 2015. Accordingly, CSPGCL submitted the norms of operation for HTPS for Control Period as under:

Table 9-3: Operational Norms for HTPS as submitted by CSPGCL

Sr. No.	Particulars	UoM	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	PAF	%	83.00%	74.38%	74.38%	83.00%	83.00%
2	Auxiliary Consumption	%	9.70%	10.00%	10.00%	9.70%	9.70%
3	Specific Oil Consumption	ml/kWh	0.80	1.20	1.20	0.80	0.80
4	Station Heat Rate	kCal/kWh	2650	2700	2700	2650	2650
5	Transit Loss	%	0.20%	0.20%	0.20%	0.20%	0.20%

Commission's Views

The operational norms for HTPS for the Control Period have been approved in accordance with Regulation 39 of MYT Regulations, 2015. However, as per the proposal for outage of the plant for installing ESP and other capital works, relaxation of norms of PAF and Secondary Fuel Oil Consumption on account of ESP augmentation has been broadly accepted for FY 2017-18 and FY 2018-19. If CSPGCL does not adhere to the schedule for the approved capital investment and planned outage for FY 2017-18 and FY 2018-19, then relaxed norms shall not be

permitted for trueing up. As far as CSPGCL's prayer for allowing impact of outage on norms of operation is concerned, the relaxation in norms shall be decided at the time of true-up in accordance with the provisions in IEGC under the heading "Technical minimum schedule for operation of CGS and ISGS". The operational norms as approved for HTPS are given in the following table:

Table 9-4: Operational Norms for HTPS

Sr. No.	Particulars	UoM	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	PAF	%	83.00%	74.38%	74.38%	83.00%	83.00%
2	Auxiliary Consumption	%	9.70%	9.70%	9.70%	9.70%	9.70%
3	Specific Oil Consumption	ml/kWh	0.80	1.00	1.00	0.80	0.80
4	Station Heat Rate	kcal/kWh	2650	2650	2650	2650	2650
5	Transit Loss	%	0.20%	0.20%	0.20%	0.20%	0.20%

9.2.4 DSPM TPS

CSPGCL's Submission

CSPGCL submitted the norms of operation for DSPM for the Control Period in accordance with CSERC MYT Regulations, 2015. As regards transit loss, CSPGCL has considered DSM as non-pit head plant in view of the Ministry of Environmental and Forest Notification and Statement of reasons of MYT Regulations published by CERC. Accordingly, the norms of Operation for DSM for Control Period submitted by CSPGCL are as under:

Table 9-5: Operational Norms for DSPM as submitted by CSPGCL

Sr. No.	Particulars	UoM	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	PAF	%	85.00%	85.00%	85.00%	85.00%	85.00%
2	Auxiliary Consumption	%	9.00%	9.00%	9.00%	9.00%	9.00%
3	Specific Oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.50
4	Station Heat Rate	kcal/kWh	2500	2500	2500	2500	2500
5	Transit Loss	%	0.80%	0.80%	0.80%	0.80%	0.80%

Commission's Views

The operational norms for DSPM have been approved in accordance with Regulation 39 of MYT Regulations, 2015. As regards the transit loss, DSPM has been considered as pit head station in previous Control Period.

CSPGCL has filed Appeal No. 222 of 2015 on this issue before the Hon'ble APTEL against the Order dated May 23, 2015 for True-up for FY 2013-14. Since, the matter is sub-judice before Hon'ble APTEL; DSPM has been considered as a pit head station and accordingly transit loss has been approved. The decision of the Hon'ble Tribunal in this appeal shall be applicable for deciding the transit loss for this Control Period

also and the norms specified in this order shall be revisited. The operational norms for DSPM as approved for the Control Period are shown in the following Table:

Table 9-6: Approved Operational Norms for DSPM

Sr. No.	Particulars	UoM	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	PAF	%	85.00%	85.00%	85.00%	85.00%	85.00%
2	Auxiliary Consumption	%	9.00%	9.00%	9.00%	9.00%	9.00%
3	Specific Oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.50
4	Station Heat Rate	kCal/kWh	2500	2500	2500	2500	2500
5	Transit Loss	%	0.20%	0.20%	0.20%	0.20%	0.20%

9.2.5 Korba West Extension TPP (KWTPP)

CSPGCL's Submission

CSPGCL submitted the norms of operation for KWTPP for the Control Period in accordance with MYT Regulations, 2015. CERC in its CERC (Terms and Conditions of Tariff) Regulations, 2014 has allowed NAPAF of 83% for recovery of fixed charges in case of coal shortages. CSPGCL requested the Commission to relax the NAPAF norms on account of coal shortage, if situation so warrants, at the time of True up.

Further, the order for equipments for KWTPP was placed in FY 2008-09, which were also submitted to the Commission. At that point of time, the auxiliary consumption considered in the GTP, i.e., 6%, was better than the prevailing norm. After commissioning of the plant and all its sub-systems, limiting auxiliary consumption to 5.25%, as specified in MYT Regulations, 2015, may have practical limitations. Similarly, reduction of Station Heat Rate from 2424 kcal/kWh to 2375 kcal/kWh may not be feasible. CSPGCL has made computations in accordance with MYT Regulations, 2015.

The norms of Operation for KWTPP for the Control Period are submitted as under:

Table 9-7: Operational Norms for KWTPP as submitted by CSPGCL

Sr. No.	Particulars	UoM	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	PAF	%	85.00%	85.00%	85.00%	85.00%	85.00%
2	Auxiliary Consumption	%	5.25%	5.25%	5.25%	5.25%	5.25%
3	Specific Oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.50
4	Station Heat Rate	kCal/kWh	2375	2375	2375	2375	2375
5	Transit Loss	%	0.20%	0.20%	0.20%	0.20%	0.20%

Commission's Views

The operational norms for KWTPP have been considered in accordance with Regulation 39 of CSERC MYT Regulations, 2015, as shown in the following Table:

Table 9-8: Approved Operational Norms for KWTPP

Sr. No.	Particulars	UoM	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	PAF	%	85.00%	85.00%	85.00%	85.00%	85.00%
2	Auxiliary Consumption	%	5.25%	5.25%	5.25%	5.25%	5.25%
3	Specific Oil Consumption	ml/kWh	0.50	0.50	0.50	0.50	0.50
4	Station Heat Rate	kCal/kWh	2375	2375	2375	2375	2375
5	Transit Loss	%	0.20%	0.20%	0.20%	0.20%	0.20%

9.2.6 Hasdeo Bango

CSPGCL has submitted the norms of operation for Hasdeo Bango in accordance with MYT Regulations, 2015, as under:

Table 9-9: Operational Norms for Hasdeo Bango as submitted by CSPGCL

Sr. No.	Particulars	UoM	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	Gross Generation	MU	274.00	274.00	274.00	274.00	274.00
2	Auxiliary Consumption	%	1.00%	1.00%	1.00%	1.00%	1.00%

Commission's Views

CSPGCL has submitted the gross generation of 274MU, which is equal to the design energy of the plant approved for the second Control Period. The same has been accepted. The auxiliary consumption for Hasdeo Bango has been considered in accordance with Regulation 40 of MYT Regulations, 2015. The norms of operation for Hasdeo Bango as approved for the Control Period are as under:

Table 9-10: Approved Operational Norms for Hasdeo Bango

Sr. No.	Particulars	UoM	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	Gross Generation	MU	274.00	274.00	274.00	274.00	274.00
2	Auxiliary Consumption	%	1.00%	1.00%	1.00%	1.00%	1.00%

9.3 GENERATION FROM CSPGCL GENERATING STATIONS

CSPGCL's submission

CSPGCL has projected gross and net generation for the Control Period for thermal and hydro stations based on installed capacity and projected NAPAF and auxiliary consumption.

Commission's Views

The generation for the Control Period has been approved on the basis of installed capacity, approved NAPAF/PLF and normative auxiliary consumption. The station-wise gross generation and net generation for each year of the Control Period approved is summarised in the following Table:

Table 9-11: Approved Gross Generation and Net Generation

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Gross Generation (MU)					
KTPS	2325.78	1931.58	1537.38	1475.71	1471.68
HTPS	6107.47	5472.94	5472.94	6124.20	6107.47
DSPM	3723.00	3723.00	3723.00	3733.20	3723.00
KWTTP	3723.00	3723.00	3723.00	3733.20	3723.00
Hasdeo Bango	274.00	274.00	274.00	274.00	274.00
Net Generation (MU)					
KTPS	2064.13	1714.28	1364.42	1309.69	1306.12
HTPS	5515.05	4942.06	4942.06	5530.16	5515.05
DSPM	3387.93	3387.93	3387.93	3397.21	3387.93
KWTTP	3527.54	3527.54	3527.54	3537.21	3527.54
Hasdeo Bango	271.26	271.26	271.26	271.26	271.26

9.4 ENERGY CHARGES

9.4.1 GCV and Price of Fuel

CSPGCL's Submission

CSPGCL submitted that as per Regulation 41.6 of the MYT Regulations, 2015, energy charges include Primary fuel (Coal) cost and Secondary fuel (Oil) Cost. CSPGCL has considered the landed cost incurred on secondary fuel oil based on actual weighted average landed price of fuel oil during preceding three months, i.e., July, Aug and Sep 2015, as per the provisions of Regulation 41.8 of the MYT Regulations, 2015 for respective Generating Plant for computation of Secondary fuel cost. Similarly, actual weighted average landed price of coal with normative transit and handling losses for last three months has been considered for computation of the coal cost. The bimonthly increase in the primary fuel cost will be recovered by CSPGCL as per the Fuel Cost Adjustment mechanism detailed in Regulation 41.11 of the MYT Regulations, 2015.

Commission's Views

For computation of variable cost, the Price and GCV of Fuel as considered by CSPGCL in the Petition has been considered. The landed price of primary fuel, i.e., coal, for various stations considered by the Commission is summarised in the following Table:

Table 9-12: Landed Cost of Coal considered by the Commission

	Month	Unit	KTPS			HTPS		
			Jul-15	Aug-15	Sep-15	Jul-15	Aug-15	Sep-15
a	Quantity of Coal supplied by Coal Company	(MMT)	0.17	0.18	0.17	0.61	0.48	0.55
b	Adjustment (+/-) in quantity supplied made	(MMT)	-	-	-	-	-	-
c	Coal supplied by Coal Company (a+b)	(MMT)	0.17	0.18	0.17	0.61	0.48	0.55
D	Normative Transit & Handling Losses	%	1.15%	1.15%	1.15%	0.20%	0.20%	0.20%
E	Normative Transit & Handling Losses (cXd)	(MMT)	0.00	0.00	0.00	0.00	0.00	0.00

F	Net Coal / Lignite Supplied (c-e)	(MMT)	0.16	0.18	0.17	0.61	0.48	0.55
G	Amount charged by the Coal / Lignite Company	(Rs.)	20,00,09,634	22,48,84,823	21,13,96,753	73,43,20,979.72	58,79,91,954.48	66,93,58,796.40
h	Adjustment (+/-) in amount charged made by Coal / Lignite Company	(Rs.)	-	-	-	-	-	-
I	Net amount charged by Coal Company (g+h)	(Rs.)	20,00,09,634.00	20,00,09,634.00	20,00,09,634.00	73,43,20,979.72	58,79,91,954.48	66,93,58,796.40
J	Rate of Coal for the period charged by Coal Company = $(i/(f*10-6))$	Rs./MT	1,221.80	1,094.06	1,164.61	1,210.78	1,215.79	1,216.36
K	Rate of Bonus payable to Coal Company	Rs./MT	-	-	-	-	-	-
L	Net rate of coal payable to coal company (j+k)	Rs./MT	1,221.80	1,094.06	1,164.61	1,210.78	1,215.79	1,216.36
	Transportation charges	(Rs.)	2,81,93,564.00	3,18,20,190.00	3,22,23,637.00	4,35,56,285.00	4,12,67,278.00	4,76,32,100.00
M	Transportation charge per ton	Rs./MT	172.23	174.06	187.63	71.82	85.33	86.56
N	Landed price of Coal per MT	Rs./MT	1,394.03	1,268.12	1,352.24	1,282.60	1,301.11	1,302.92
O	Weighted Average Price of Coal	Rs./MT	1,405.59			1294.87		

	Month	Unit	DSPM			KWTPP		
			Jul-15	Aug-15	Sep-15	Jul-15	Aug-15	Sep-15
A	Quantity of Coal supplied by Coal Company	(MMT)	0.26	0.20	0.15	0.61	0.48	0.55
B	Adjustment (+/-) in quantity supplied made	(MMT)	-	-	-	-	-	-
C	Coal supplied by Coal Company (a+b)	(MMT)	0.26	0.20	0.15	0.61	0.48	0.55
D	Normative Transit & Handling Losses	%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
E	Normative Transit & Handling Losses (cXd)	(MMT)	0.00	0.00	0.00	0.00	0.00	0.00
F	Net Coal / Lignite Supplied (c-e)	(MMT)	0.26	0.20	0.15	0.61	0.48	0.55
G	Amount charged by the Coal / Lignite Company	(Rs.)	32,15,13,816.26	23,97,43,035.99	18,69,38,102.23	73,43,20,979.72	58,79,91,954.48	66,93,58,796.40
h	Adjustment (+/-) in amount charged made by Coal / Lignite Company	(Rs.)	-	-	-	-	-	-
I	Net amount charged by Coal Company (g+h)	(Rs.)	32,15,13,816.26	23,97,43,035.99	18,69,38,102.23	73,43,20,979.72	58,79,91,954.48	66,93,58,796.40
J	Rate of Coal for the period charged by Coal Company = $(i/(f*10-6))$	Rs./MT	1,227.78	1,226.03	1,237.05	1,210.78	1,215.79	1,216.36
K	Rate of Bonus payable to Coal Company	Rs./MT	-	-	-	-	-	-
L	Net rate of coal payable to coal company (j+k)	Rs./MT	1,227.78	1,226.03	1,237.05	1,210.78	1,215.79	1,216.36
	Transportation charges	(Rs.)	7,79,79,630.00	5,70,97,944.00	4,51,58,738.00	4,35,56,285.00	4,12,67,278.00	4,76,32,100.00
M	Transportation charge per ton	Rs./MT	297.78	291.99	298.83	71.82	85.33	86.56
N	Landed price of Coal per MT	Rs./MT	1,525.56	1,518.02	1,535.88	1,282.60	1,301.11	1,302.92
O	Weighted Average Price of Coal	Rs./MT	1525.70			1294.87		

9.4.2 Variable Cost and Energy Charges

CSPGCL's Submission

CSPGCL has computed fuel cost based on norms of operation submitted in the Petition and GCV and Price of Fuel considered in the Petition.

Commission's Views

As regards the computation of energy charges, MYT Regulations, 2015 specifies as under:

"41.6. The energy charge shall cover the fuel cost (primary fuel as well as secondary fuel), and shall be payable by every beneficiary for the total energy scheduled to be supplied to such beneficiary during the calendar month on ex-power plant basis, at the energy charge rate of the month. Total Energy charge payable to the generating company for a month shall be:

(Energy charge rate in Rs./kWh) x {Scheduled energy (ex-bus) for the month in kWh.}

Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined up to three decimal places in accordance with the following formulae for coal based stations:

ECR: $\left[\frac{(GHR - SFC \times CVSF) \times LPPF}{CVPF} \right] + SFC \times LPSFi \times \frac{100}{(100 - AUX)}$

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = Gross calorific value of primary fuel as fired, in kCal per kg, per litre or per standard cubic meter, as applicable.

CVSF = Calorific value of Secondary fuel, in kCal per ml

ECR = Energy charge rate, in Rupees per kWh sent out.

GHR = Gross Station Heat Rate, in kCal per kWh.

LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic meter, as applicable, during the month.

SFC = Specific fuel oil consumption, in ml per kWh.

LPSFi = Weighted Average Landed Price of Secondary Fuel in Rs./ml considered initially

41.7. Though Secondary fuel cost shall be part of variable cost but shall not be part of Variable Cost Adjustment (VCA) formula. The impact on account of secondary fuel oil cost shall be taken care of at the time of true up.

41.8. Initially, the landed cost incurred by the generating company on secondary fuel oil shall be taken based on actual weighted average price of the three preceding months and in the absence of landed costs

for the three preceding months, latest procurement price for the generating station, before the start of the year.

41.9. The secondary fuel oil expenses shall be subject to fuel cost adjustment at the end of the each year of tariff period, at the time of true up,

41.10. The landed cost of fuel for the month shall include price of fuel corresponding to the grade and quality of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by conveyer / rail / road or any other means, and, for the purpose of computation of energy charge, and in case of coal shall be arrived at after considering normative transit and handling losses as specified in Regulation 39.7.

41.11. The bi-monthly increase in the primary fuel cost shall be recovered as per the Fuel Cost Adjustment mechanism as per Regulation 67 of this Regulations.”

The variable cost for each generating station has been computed for each year of the Control Period by considering the norms of operation and GCV and Price of Fuel as approved.

The Fuel cost approved in this Order shall not be the same during the Control Period and will change every year of the Control Period. The increase in primary fuel cost shall be recovered by CSPGCL as per Fuel Cost Adjustment specified in Regulation 67 of MYT Regulations, 2015. For the purpose of computation of Fuel Cost Adjustment as per the prevailing Order of the Commission, the power purchase rate from CGS stations, base rate and CV of coal for CSPGCL stations, on which deviation is derived, shall be with reference to values considered in this Order.

The summary of Generating Station-wise cost of Primary Fuel, Secondary Fuel and energy charges as submitted by CSPGCL and as approved are shown in the following table:

Table 9-13: Variable Cost for KTPS for the Control Period

Sl. No.	Particulars	Units	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
			Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
1	Rated Capacity - PH II	MW	162.50	162.50	87.50	87.50	12.50	12.50	0.00	0.00	0.00	0.00
	Rated Capacity - PH III	MW	240.00	240.00	240.00	240.00	240.00	240.00	240.00	240.00	240.00	240.00
2	Target Availability (NAPAF)- PH II	%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%
	Target Availability (NAPAF)- PH III	%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
3	Generation at Normative PAF - PH II	MU	854.10	854.10	459.90	459.90	65.70	65.70	0.00	0.00	0.00	0.00
	Generation at Normative PAF -PH III	MU	1,471.68	1,471.68	1,471.68	1,471.68	1,471.68	1,471.68	1,475.71	1,475.71	1,471.68	1,471.68
4	Gross Station Heat Rate (SHR)- PH II	Kcal/kWh	3,450	3,110	3,450	3,110	3,450	3,110	3,450	3,110	3,450	3,110
	Gross Station Heat Rate (SHR)-PH III	Kcal/kWh	3,250	3,110	3,250	3,110	3,250	3,110	3,250	3,110	3,250	3,110
5	Specific Fuel Oil Consumption	ml/kWh	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
6	Calorific Value of Secondary Fuel	kCal/L	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
7	Weighted Average Landed Price of Primary Fuel	Rs./MT	1405.59	1405.74	1405.59	1,405.74	1405.59	1,405.74	1405.59	1,405.74	1405.59	1,405.74
8	Weighted Average Landed Price of Secondary Fuel	Rs./kL	32,262	32,262	32,262	32,262	32,262	32,262	32,262	32,262	32,262	32,262
9	Weighted Average Landed Price (for WC)	Rs./kL		29,578		29,578		29,578		29,578		29,578
10	Gross Calorific Value of Primary Fuel	kCal/Kg	2,967	2,967	2,967	2,967	2,967	2,967	2,967	2,967	2,967	2,967
11	Normative Auxiliary Consumption (%)	%										
	PH II	%	14.00%	11.25%	14.00%	11.25%	14.00%	11.25%	14.00%	11.25%	14.00%	11.25%
	PH III	%	12.00%	11.25%	12.00%	11.25%	12.00%	11.25%	12.00%	11.25%	12.00%	11.25%
12	Net Generation											
	PH II	MU	734.53	758.01	395.51	408.16	56.50	58.31				
	PH III	MU	1295.08	1306.12	1295.08	1306.12	1295.08	1306.12	1298.63	1309.69	1295.08	1306.12
13	Overall Heat	G Cal	77,29,605	72,33,176	63,69,615	60,07,214	50,09,625	47,81,252	47,96,064	45,89,464	47,82,960	45,76,925
14	Heat from Oil	G Cal	46,516	46,516	38,632	38,632	30,748	30,748	29,514	29,514	29,434	29,434
15	Heat from Coal	G Cal	76,83,089	71,86,660	63,30,983	59,68,582	49,78,877	47,50,504	47,66,550	45,59,950	47,53,526	45,47,491
16	Projected Oil Consumption	kL	4,652	4,652	3,863	3,863	3,075	3,075	2,951	2,951	2,943	2,943
17	Projected Coal Consumption	MT	25,89,514	24,22,198	21,33,800	20,11,656	16,78,085	16,01,114	16,06,522	15,36,889	16,02,132	15,32,690
18	Specific Coal Consumption											
	PH II	kg/kWh	1.16	1.04	1.16	1.04	1.16	1.04	1.16	1.04	1.16	1.04
	PH III	kg/kWh	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
19	Coal Cost	Rs. Crore	363.98	340.50	299.92	282.79	235.87	225.07	225.81	216.05	225.19	215.46
20	Oil Cost	Rs. Crore	15.01	15.01	12.46	12.46	9.92	9.92	9.52	9.52	9.50	9.50
21	Oil Cost(for WC)	Rs. Crore	13.76	13.76	11.43	11.43	9.09	9.09	8.73	8.73	8.71	8.71
22	Total Fuel Cost	Rs. Crore	378.99	355.50	312.39	295.25	245.79	234.99	235.33	225.57	234.69	224.95
23	Energy Charges	Rs./kWh	1.87	1.72	1.85	1.72	1.82	1.72	1.81	1.72	1.81	1.72

Table 9-14: Variable Cost for HTPS for the Control Period

Sl. No.	Particulars	Units	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
			Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
1	Rated Capacity	MW	840	840	840	840	840	840	840	840	840	840
2	Target Availability (PLF)	%	83.00%	83.00%	74.38%	74.38%	74.38%	74.38%	83.00%	83.00%	83.00%	83.00%
3	Units of Generation at Normative PLF	MU	6,107	6,107	5,473	5,473	5,473	5,473	6,124	6,124	6,107	6,107
4	Gross Station Heat Rate (SHR)	Kcal/k Wh	2,650	2,650	2,700	2,650	2,700	2,650	2,650	2,650	2,650	2,650
5	Specific Fuel Oil Consumption (SFC)	ml/kWh	0.80	0.80	1.20	1.00	1.20	1.00	0.80	0.80	0.80	0.80
6	Calorific Value of Secondary Fuel (CVSF)	Kcal/L	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
7	Weighted Average Landed Price of Primary Fuel (LPPF)	Rs./MT	1295	1295	1295	1295	1295	1295	1295	1295	1295	1295
8	Weighted Average Landed Price of Secondary Fuel	Rs./KL	38,919	38,919	38919	38,919	38919	38,919	38919	38,919	38919	38,919
9	Weighted Average Landed Price (for WC)	Rs./KL	30,096	30,096	30,096	30,096	30,096	30,096	30,096	30,096	30,096	30,096
10	Gross Calorific Value of Primary Fuel (CVPF)	Kcal/Kg	3,356	3,356	3356	3,356	3356	3,356	3356	3,356	3356	3,356
11	Normative Auxiliary Consumption (%)	%	9.70%	9.70%	10.00%	9.70%	10.00%	9.70%	9.70%	9.70%	9.70%	9.70%
12	Overall Heat	G Cal	16184801	16,184,801	14776927	1,45,03,280	14776927	1,45,03,280	16229143	16,229,143	16184801	16,184,801
13	Heat from Oil	G Cal	48,860	48,860	65,675	54,729	65,675	54,729	48,994	48,994	48,860	48,860
14	Heat from Coal	G Cal	16135941	16,135,941	14711252	1,44,48,551	14711252	1,44,48,551	16180149	16,180,149	16135941	16,135,941
15	Transit Losses	%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
16	Projected Oil Consumption	kL	4,886	4,886	6,568	5,473	6,568	5,473	4,899	4,899	4,886	4,886
17	Projected Coal Consumption	MT	4808087	4,808,087	4383567	43,05,289	4383567	43,05,289	4821260	4,821,260	4808087	4,808,087
18	Specific Coal Consumption	kg/kWh	0.79	0.79	0.80	0.79	0.80	0.79	0.79	0.79	0.79	0.79
19	Coal Cost	Rs. Crore	622.59	622.59	567.62	557.48	567.62	557.48	624.29	624.29	622.59	622.59
20	Oil Cost	Rs. Crore	19.02	19.02	25.56	21.30	25.56	21.30	19.07	19.07	19.02	19.02

Sl. No.	Particulars	Units	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
			Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
21	Oil Cost (for WC)	Rs. Crore	14.70	14.70	19.77	16.47	19.77	16.47	14.74	14.74	14.70	14.70
22	Total Fuel Cost	Rs. Crore	641.60	641.60	593.18	578.78	593.18	578.78	643.36	643.36	641.60	641.60
23	Energy Charges	Rs./kW h	1.16	1.16	1.20	1.17	1.20	1.17	1.16	1.16	1.16	1.16

Table 9-15: Variable Cost for DSPM for Control Period

Sl. No.	Particulars	Units	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
			Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
1	Rated Capacity	MW	500	500	500	500	500	500	500	500	500	500
2	Target Availability (PLF)	%	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
3	Units of Generation at Normative PLF	MU	3,723	3,723	3,723	3,723	3,723	3,723	3,733	3,733	3,723	3,723
4	Gross Station Heat Rate (SHR)	Kcal/Kwh	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
5	Specific Fuel Oil Consumption (SFC)	ml/Kwh	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
6	Calorific Value of Secondary Fuel (CVSF)	Kcal/L	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
7	Weighted Average Landed Price of Primary Fuel (LPPF)	Rs./MT	1534.93	1525.70	1534.93	1525.70	1534.93	1525.70	1534.93	1525.70	1534.93	1525.70
8	Weighted Average Landed Price of Secondary Fuel	Rs./KL	32,270	32,270	32,270	32269.96	32,270	32269.96	32,270	32269.96	32,270	32269.96
9	Weighted Average Landed Price (for WC)	Rs./KL	29,082	29,082	29,082	29,082	29,082	29,082	29,082	29,082	29,082	29,082
10	Gross Calorific Value of Primary Fuel (CVPF)	Kcal/Kg	3,280.29	3,280.29	3,280.29	3280.29	3,280.29	3280.29	3,280.29	3280.29	3,280.29	3280.29
11	Normative Auxiliary Consumption (%)	%	9.00%	9.00%	9.00%	0.09	9.00%	0.09	9.00%	0.09	9.00%	0.09
12	Overall Heat	G Cal	9,307,500	9,307,500	9,307,500	9,307,500	9,307,500	9,307,500	9,333,000	9,333,000	9,307,500	9,307,500
13	Heat from Oil	G Cal	18,615	18,615	18,615	18,615	18,615	18,615	18,666	18,666	18,615	18,615
14	Heat from Coal	G Cal	9,288,885	9,288,885	9,288,885	9,288,885	9,288,885	9,288,885	9,314,334	9,314,334	9,288,885	9,288,885
15	Projected Oil Consumption	kl	1,862	1,862	1,862	1,862	1,862	1,862	1,867	1,867	1,862	1,862

Sl. No.	Particulars	Units	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
			Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
16	Projected Coal Consumption	MT	2,831,727	2,831,727	2,831,727	2,831,727	2,831,727	2,831,727	2,839,485	2,839,485	2,831,727	2,831,727
17	Specific Coal Consumption	kg/kWh	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
18	Coal Cost	Rs. Crore	434.65	432.04	434.65	432.04	434.65	432.04	435.84	433.22	434.65	432.04
19	Oil Cost	Rs. Crore	6.01	6.01	6.01	6.01	6.01	6.01	6.02	6.02	6.01	6.01
20	Oil Cost (for WC)	Rs. Crore	5.41	5.41	5.41	5.41	5.41	5.41	5.43	5.43	5.41	5.41
21	Total Fuel Cost	Rs. Crore	440.66	438.04	440.66	438.04	440.66	438.04	441.87	439.24	440.66	438.04
22	Energy Charges	Rs./kWh	1.30	1.29	1.30	1.29	1.30	1.29	1.30	1.29	1.30	1.29

Table 9-16: Variable Cost for KWTPP for Control Period

Sl. No.	Particulars	Units	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
			Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
1	Rated Capacity	MW	500	500	500	500	500	500	500	500	500	500
2	Availability (PLF)	%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%
3	Units of Generation at Normative PLF	MU	3,723	3,723	3,723	3,723	3,723	3,723	3,733	3,733	3,723	3,723
4	Gross Station Heat Rate (GHR)	Kcal/Kwh	2,375	2,375	2,375	2,375	2,375	2,375	2,375	2,375	2,375	2,375
5	Specific Fuel Oil Consumption (SFC)	ml/Kwh	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
6	Calorific Value of Secondary Fuel (CVSF)	Kcal/L	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
7	Weighted Average Landed Price of Primary Fuel (LPPF)	Rs./MT	1295	1295	1295	1295	1295	1295	1295	1295	1295	1295
8	Weighted Average Landed Price of Secondary Fuel	Rs./KL	38,919	38,919	38,919	38,919	38,919	38,919	38,919	38,919	38,919	38,919
9	Weighted Average Landed Price (for WC)	Rs./KL	30,096	30,096	30,096	30,096	30,096	30,096	30,096	30,096	30,096	30,096
10	Gross Calorific Value of Primary Fuel (CVPF)	kCal/kg	3,356	3,356	3,356	3,356	3,356	3,356	3,356	3,356	3,356	3,356
11	Auxiliary Consumption	%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%	5.25%
12	Transit Losses	%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%
13	Overall Heat Requirement	G Cal	8,842,125	8,842,125	8,842,125	8,842,125	8,842,125	8,842,125	8,866,350	8,866,350	8,842,125	8,842,125

Sl. No.	Particulars	Units	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
			Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
14	Heat from Oil	G Cal	18,615	18,615	18,615	18,615	18,615	18,615	18,666	18,666	18,615	18,615
15	Heat from Coal	G Cal	8,823,510	8,823,510	8,823,510	8,823,510	8,823,510	8,823,510	8,847,684	8,847,684	8,823,510	8,823,510
16	Oil Consumption	kl	1,862	1,862	1,862	1,862	1,862	1,862	1,867	1,867	1,862	1,862
17	Coal Consumption	MT	2,629,175	2,629,175	2,629,175	2,629,175	2,629,175	2,629,175	2,636,378	2,636,378	2,629,175	2,629,175
18	Specific Coal Consumption	kg/kWh	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
19	Coal Cost	Rs. Crore	340.44	340.44	340.44	340.44	340.44	340.44	341.38	341.38	340.44	340.44
20	Oil Cost	Rs. Crore	7.24	7.24	7.24	7.24	7.24	7.24	7.26	7.26	7.24	7.24
21	Oil cost for WC	Rs. Crore	5.60	5.60	5.60	5.60	5.60	5.60	5.62	5.62	5.60	5.60
22	Fuel Cost	Rs. Crore	347.69	347.69	347.69	347.69	347.69	347.69	348.64	348.64	347.69	347.69
23	Energy Charges	Rs./kWh	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99

9.5 ANNUAL FIXED CHARGES

Regulations 34 and 35 of the MYT Regulations, 2015 specify the components of Tariff and Annual Fixed Charges for Generation Stations as under:

“34. COMPONENTS OF TARIFF

34.1 The tariff for supply of electricity from a thermal generating station shall comprise two parts, namely, capacity charge (for recovery of annual fixed cost consisting of the components specified in Regulation 35) and energy charge (for recovery of fuel cost).

34.2. The tariff for supply of electricity from a hydro generating station shall comprise composite capacity charge and energy charge to be derived in the manner specified in Regulation 42, (consisting of the components referred in Regulation 35).

35. ANNUAL FIXED CHARGES

35.1 The annual fixed cost (AFC) of a generating station shall consist of the following components:

- (a) Return on equity;*
- (b) Interest and finance charges;*
- (c) Depreciation;*
- (d) Interest on working capital;*
- (e) Operation and maintenance expenses;*

Less:

- (f) Non Tariff Income*

NOTE:

Non-Tariff Income as specified in the Regulation 0, shall be subtracted from the sum of above (a to e) to arrive at AFC.

The SLDC charges shall be recovered in accordance with fees and charges determined in accordance with provisions of Chapter 8 of these regulations.

Pension & Gratuity Fund Contribution shall be recoverable in equal monthly installments as maybe determined by the Commission in the Tariff order.

The Statutory Taxes and Duties shall be recoverable on reimbursement basis, as per actual.

Provided that Depreciation, Interest and finance charges on Loan Capital, Interest on Working Capital and Return on Equity for Thermal and Hydro Generating Stations shall be allowed in accordance with the provisions specified in Chapter 3 of these Regulations.”

The Annual Fixed Charges for CSPGCL Generation Stations has been accordingly considered as under:

9.5.1 Capital Cost and Additional Capitalisation

CSPGCL’s submission

CSPGCL submitted that the opening GFA for FY 2016-17 for all generating stations has been computed by addition of closing GFA approved in True-up for FY 2014-15

and the additional capitalisation approved for FY 2015-16. The additional capitalisation for FY 2016-17 onwards has been considered as submitted in the Capital Investment Plan Petition filed separately. As regards KWTPP, the Commission has granted leave for additional capitalisation beyond cut-off date for construction of coal bunker at SECL end and this work is expected to be completed by SECL in FY 2017-18. Accordingly, part of approved capital cost has been considered for deferred capitalisation.

Commission's Views

The additional capitalisation for CSPGCL generating stations for FY 2016-17 to FY 2020-21 has been considered in accordance with the Capital Investment Plan approved vide Order dated March 16, 2016 in Case No. 5 of 2016 (M). Further, in case of KWTPP in revised capital cost order dated September 22, 2015, leave was granted for capitalisation related to external CHP beyond the cut-off date. CSPGCL has submitted value of the same as Rs. 53.58 crore in FY 2017-18 and the same has been accepted. Regarding minor works getting spill over, CSPGCL is allowed to submit the detail of such work in true up of respective year. The additional capitalisation approved is shown in the table as under:

Table 9-17: Approved Additional Capitalisation

Rs. Crore

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	7.00	47.00	0.00	1.20	0.00
2	HTPS	11.30	227.58	114.85	66.25	51.34
3	DSPM	3.96	0.75	9.10	2.00	2.60
4	KWTPP	0.00	53.58	1.00	3.00	1.80
5	Hasdeo Bango	0.00	0.00	0.00	0.00	0.00
6	Total Additional Capitalisation	22.26	328.91	124.95	72.45	55.74

Further, while scrutinising the Capital Investment Plan submitted by CSPGCL, it was observed that some of the expenses proposed as additional capitalisation are of the nature of R&M expenses. Hence, such expenses have been identified separately for KTPS and HTPS. As these expenses are essential for continual operation of the plant, such expenses have been approved as part of ARR, over and above the normative O&M expenses allowed for the Control Period. However, if the additional R&M approved is not spent for the scheme against which it has been approved, the same shall be disallowed at the time of true-up.

Table 9-18: Approved Additional R&M Expenses

Rs. Crore

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	0.42	1.00	0.00	0.00	0.00
2	HTPS	1.47	31.26	3.26	0.52	18.32
3	Total Additional R&M Expenses	1.89	32.66	3.26	0.52	18.32

9.5.2 Means of Finance

CSPCGCL has considered the debt:equity ratio of 70:30 for the additional capitalisation proposed for the Control Period in accordance with Regulation 17 of the MYT Regulations, 2015. The Commission accepts the same and has approved the debt:equity ratio of 70:30 for the additional capitalisation approved for the Control Period.

9.5.3 Depreciation

CSPGCL's submission

Depreciation for KTPS has been computed by applying the principle of 'balance depreciable value' divided by 'balance useful life', after considering scheduled closure of 50 MW Units and completion of useful life of 120 MW Units in FY 2020-21. Further, depreciation for HTPS and Hasdeo Bango has been spread over balance useful life. Further, depreciation for DSPM and KWTPP has been computed as per Regulation 24.4 of MYT Regulations, 2015, by applying the schedule rates specified in the Regulations.

The relevant provision specified in Regulations at clause 24.4 of MYT Regulations, 2015, is as under:

“Provided that in those cases where the capital investment plan has been approved by the Commission and the depreciation rates as provided in these Regulations are insufficient for the repayment of loan, the rate of depreciation shall be decided by the Commission at the time of issuance of tariff order, subject to prudence check.”

Repayment of 90% loan in 60 quarterly equated instalments is not feasible through depreciation to be charged at 5.17% and at the same time, up to latest true up, the actual repayment is lower than the accumulated depreciation. Meanwhile, loan drawal date has also been extended. Attempts to refinance / renegotiate the loan are also in advanced stage. The repayment schedules and yearly obligations may change on finalization of renegotiation/refinance/loan drawal. In view of the above, in accordance with the above-referred proviso, the applicable depreciation rate may change. CSPGCL submitted that it would make additional submissions at the time of true up based on the circumstances. The depreciation submitted for the Control Period is as under:

Table 9-19: Depreciation for Control Period as submitted by CSPGCL

Rs. Crore

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	57.71	57.87	35.62	42.84	53.84
2	HTPS	23.65	49.79	67.70	77.21	87.81
3	DSPM	128.53	128.69	128.98	129.29	129.42
4	KWTPP	189.68	191.07	192.48	192.58	192.71
5	Hasdeo Bango	3.04	3.04	3.04	3.04	3.04

Commission's Views

Regulation 24 of MYT Regulations, 2015 specifies as under:

“24. DEPRECIATION

24.1. The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission:

Provided that the capital cost shall not include funds from grant or consumer contribution or deposit works received for funding of fixed asset as specified in Regulation 21.

24.2. The salvage value of the asset except for IT equipments and software used for SLDC business shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

Provided that, the salvage value for IT equipments and Software shall be considered as NIL and 100% value of the assets shall be considered depreciable.

24.3. Land other than the land held under lease and the land for reservoir in case of hydro generating station and the land for ash-bund for thermal power stations shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

24.4. Depreciation shall be calculated annually based on Straight Line Method and at rates as specified in Appendix-I to these regulations for the assets of the generating station, transmission system, distribution system and SLDC:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 15 years from date of commercial operation shall be spread over the balance useful life of the assets:

In case of the existing projects, the balance depreciable value as on 01.04.2016 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.03.2016 from the gross depreciable value of the assets.

Provided that in those cases where the capital investment plan has been approved by the Commission and the depreciation rates as provided in these Regulations are insufficient for the repayment of loan, the rate of depreciation shall be decided by the Commission at the time of issuance of tariff order, subject to prudence check.

... ..

24.6. Depreciation shall be chargeable from the first year of commercial operation. The depreciation shall be computed on the average asset base during the year:

Provided for the new generating station or unit, the depreciation shall be charged on pro-rata basis during the year the asset has been declared under commercial operation. For subsequent years, the depreciation shall be computed on the average asset base during the year.”

The closing GFA for FY 2014-15 as approved in true up section of this Order has been considered as the opening GFA for FY 2015-16. For FY 2015-16, the additional Capitalisation of Rs. 3.76 Crore, Rs. 14.25 Crore, Rs. 1.54 Crore, Rs. 274.40 Crore and Rs. 2.65 Crore has been considered for KTPS, HTPS, DSPM, KWTPP and Hasdeo Bango, respectively, as approved for FY 2015-16 in the MYT Order. Further, additional capitalisation as approved in above Section has been considered during each year of the MYT Control Period. In accordance with Regulation 24.4 of MYT Regulations, 2015, the depreciation has been computed annually based on Straight Line Method and at the rates as specified in the MYT Regulations, 2015 on the average asset base during the year.

For KTPS, CSPGCL has computed the depreciation over the balance useful life of Units by considering the anticipated closure of 50 MW units. Unit 3 is proposed to be retired in June 2016, Unit 1 in March 2017, Unit 2 in December 2017 and Unit 4 in June 2018. It was noted that after refurbishment of Units of PH II of KTPS, the COD of last Unit was declared on 2004. However, if the COD of the last unit of the plant as a whole is considered then the same was in FY 2005-06. Considering life extension of 15 years from the COD, the retirement of the plant would have been in FY 2020-21. It appears that CSPGCL has proposed early retirement of 50 MW Units, as compared to the extended life envisaged after the Life Extension. Though the plant is operating and is capable to supply electricity, but under the present circumstances, owing to the environmental norms, some of the units of the power plant has to be retired prematurely. If the life extension is considered as 15 years, the depreciation cost can be recovered up to year 2020-21. Due to the compulsorily retirement of the unit, depreciation cost cannot be recovered after the retirement. It is because of this reason CSPGCL has requested to pass on the entire balance depreciation cost, up to June 2018. If the CSPGCL's request is considered, the fixed cost component for this plant would increase. Balancing the interest of the company and the stakeholders, the Commission is of the view that since, the Life Extension has been allowed; the depreciation would be computed considering the life extension of 15 years. However, the post retirement balance depreciation cost is being spread over the current MYT control period. The depreciation for KTPS as approved is given in the following Table:

Table 9-20: Approved Depreciation for KTPS

Rs. Crore

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	Effective Capacity (MW)	402.50	327.50	252.50	240.00	240.00
2	Opening GFA	671.63	621.39	552.60	426.05	406.16
3	Addition of GFA	7.00	47.00	0.00	1.20	0.00
4	Closing GFA for the year	678.63	725.63	725.63	726.83	726.83
5	Accumulated depreciation	363.59	413.02	473.03	533.04	593.59
6	Balanced Depreciable value	247.17	240.04	180.03	121.10	60.55
7	Balance useful life	5.00	4.00	3.00	2.00	1.00
8	Depreciation	49.43	60.01	60.01	60.55	60.55

For HTPS, in Order dated June 12, 2014 a methodology has been adopted, wherein the balance depreciable value of original capital cost of the Asset is depreciated over balance useful life of assets, i.e., up to FY 2015-16 and for the additional capitalisation after 2010, the depreciation on average GFA and depreciation rate based on scheduled depreciation rate of 5.38% has been considered. The depreciation has been computed in a similar way as mentioned in the depreciation section of this Order for FY 2014-15.

The depreciation for DSPM and KWTPP has been considered as per Regulation 24 of MYT Regulations, 2015, with average depreciation rate of 5.50% and 5.17%, respectively.

For Hasdeo Bango, cumulative depreciation as on March 31, 2016 has been deducted from the depreciable value of asset and depreciation is estimated on the remaining depreciable value of the asset over the remaining life of the Plant of 14 years.

The depreciation as approved is given in the following Table:

Table 9-21: Approved Depreciation for Control Period

Rs. Crore						
Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	49.43	60.01	60.01	60.55	60.55
2	HTPS	18.95	25.38	34.59	39.46	42.63
3	DSPM	128.53	128.66	128.93	129.23	129.36
4	KWTPP	189.68	191.07	192.48	192.58	192.71
5	Hasdeo Bango	2.65	2.65	2.65	2.65	2.65

9.5.4 Return on Equity

CSPGCL's Submission

CSPGCL has computed the opening equity by considering the closing equity as trued-up for FY 2014-15 and addition of equity for FY 2015-16 approved in past Tariff Order. The normative equity addition for FY 2016-17 onwards has been considered based on additional capitalisation submitted in Capital Investment Plan. The Return on Equity for the Control Period has been computed as per Regulation 22, on pre-tax basis at base rate of 15.5% grossed up with MAT rate of 21.34% on permissible equity. Return on Equity submitted for Control Period is as under:

Table 9-22: Return on Equity for Control Period as submitted by CSPGCL

Rs. Crore

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	38.38	33.21	26.58	25.66	26.24
2	HTPS	71.39	79.51	91.94	98.83	103.11
3	DSPM	137.14	137.31	137.63	137.96	138.09
4	KWTPP	115.64	116.17	116.73	116.85	116.99
5	Hasdeo Bango	7.61	7.79	7.79	7.79	7.79

Commission's Views

Regulation 22 of the MYT Regulations, 2015 specifies as under:

“22. RETURN ON EQUITY

22.1 Generation, Transmission and SLDC: Return on equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 17. Return on equity shall be computed on pre-tax basis at the base rate of 15.5% to be grossed up as per Regulation 22.3 of these Regulations.

... ..

22.3. The rate of return on equity for each year of the control period shall be computed by grossing up the base rate with the prevailing MAT rate of the base year:

Provided that return on equity with respect to the actual tax rate applicable to the generating company or the transmission licensee or distribution licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the Control Period shall be trued up separately for each year of the Control period. In case, no tax is payable during the financial year, the tax rate for the purpose of truing up shall be taken as nil.

Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

where, 't' is the applicable tax rate in accordance with regulation 22.3 of these regulations.

Provided that if there is a loss incurred by the generating company or the transmission licensee or distribution licensee or SLDC, as the case may be, in the previous year and based on the prudence check made by the Commission, the Minimum Alternate Tax may not be considered in such a case while determining the return on equity.”

The closing equity for FY 2014-15 as approved in this Order has been considered as the opening equity for FY 2015-16. The equity towards the additional capitalisation for FY 2015-16 has been added to arrive at closing equity for FY 2015-16, which has been considered as the opening equity for FY 2016-17. The equity addition for each year of the Control Period has been considered on normative basis as 30% of additional capitalisation approved in the Capital Investment Plan for CSPGCL.

Further, return of 15.5% has been considered for the MYT Control Period on the average permissible equity base during the year as per MYT Regulations, 2015. As mentioned during the true-up for FY 2014-15, CSPGCL has not paid any Income Tax for FY 2014-15. Hence, the rate of RoE has not been grossed up with the MAT rate, and the RoE rate of 15.50% has been considered for the purpose of approving RoE for the Control Period. In case CSPGCL actually pays Income Tax for any year of the Control Period, then the rate of RoE shall be appropriately grossed up at the time of truing up for that year.

For KTPS, the return on equity has been computed by considering the net effective capacity for the year after proposed retirement of 50 MW Units.

Accordingly, the return on equity has been approved for CSPGCL generating Stations for the Control Period, as under:

Table 9-23: Approved Return on Equity for the Control Period

Rs. Crore

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
KTPS					
Opening normative equity for the year	208.08	210.18	224.28	224.28	224.64
Closing normative equity for the year	210.18	224.28	224.28	224.64	224.64
Average Normative equity for the year	209.13	217.23	224.28	224.46	224.64
Effective capacity (MW) for the year	402.50	327.50	252.50	240.00	240.00
Effective average normative equity for the year	191.31	161.69	128.71	122.43	122.53
Rate of Return (%)	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	29.65	25.06	19.95	18.98	18.99
HTPS					
Opening normative equity for the year	360.29	363.68	431.95	466.41	486.28
Closing normative equity for the year	363.68	431.95	466.41	486.28	501.69
Average Normative equity for the year	361.98	397.82	449.18	476.35	493.98
Rate of Return (%)	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	56.11	61.66	69.62	73.83	76.57
DSPM					
Opening normative equity for the year	695.35	696.54	696.76	699.49	700.09
Closing normative equity for the year	696.54	696.76	699.49	700.09	700.87
Average Normative equity for the year	695.94	696.65	698.13	699.79	700.48
Rate of Return (%)	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	107.87	107.98	108.21	108.47	108.57
KWTPP					
Opening normative equity for the year	586.85	586.85	592.21	592.31	592.61
Closing normative equity for the year	586.85	592.21	592.31	592.61	592.79
Average Normative equity for the year	586.85	589.53	592.26	592.46	592.70
Rate of Return (%)	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	90.96	91.38	91.80	91.83	91.87
Hasdeo Bango					
Opening normative equity for the year	37.72	37.72	37.72	37.72	37.72
Closing normative equity for the year	37.72	37.72	37.72	37.72	37.72
Average Normative equity for the year	37.72	37.72	37.72	37.72	37.72
Rate of Return (%)	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	5.85	5.85	5.85	5.85	5.85

9.5.5 Interest and Finance Charges

CSPGCL's Submission

CSPGCL has computed the opening loan balance considering the closing loan balances based on true-up for FY 2014-15 and addition of normative loan for FY 2015-16 approved in past Tariff Order. The normative loan addition from FY 2016-17 onwards has been considered based on additional capitalisation submitted in Capital Investment Plan. CSPGCL computed interest and finance charges on loan capital as per Regulation 23 of MYT Regulations, 2015 for the Control Period as under:

Table 9-24: Interest and Finance Charges submitted by CSPGCL

Rs. Crore

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	1.71	-	-	-	-
2	HTPS	10.55	18.04	29.22	30.45	26.52
3	DSPM	84.77	69.26	53.95	38.60	22.95
4	KWTTP	331.34	309.73	287.98	263.13	238.31
5	Hasdeo Bango	1.40	1.28	0.89	0.51	0.12

Commission's Views

Regulation 23 of MYT Regulations, 2015 specifies the method of computation of interest and finance charges for loan capital. The closing normative loan for FY 2014-15 has been considered as approved in the true-up for FY 2014-15, as the opening normative loan for FY 2015-16. For FY 2015-16, the normative loan towards the additional capitalisation for FY 2015-16 has been added, to arrive at closing normative loan for FY 2015-16, which has been considered as the opening normative loan for FY 2016-17. The loan addition for each year of the Control Period has been considered on normative basis as 70% of additional capitalisation approved in the Capital Investment Plan for CSPGCL.

The repayment during the year has been considered equivalent to the approved depreciation for the year under consideration.

As per Regulation 23.5 of MYT Regulations, 2015, the rate of interest shall be weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of year. CSPGCL has estimated the actual loan as on April 1, 2016 based on the actual loan portfolio and actual repayment and computed the weighted average rate of interest. The weighted average rate of interest computed on the basis of estimated actual loan portfolio as on April 1, 2016 for each generating station has been accepted.

The interest on loan capital has been computed on the normative average loan of the year by applying weighted average rate of interest. Any finance charges has not been considered, however, the same will be considered at time of Mid Term Review based on actual values. Accordingly, the approved Interest and finance charges on loan capital for CSPGCL generating Stations for the Control Period, as under:

Table 9-25: Approved Interest and Finance Charges for the Control Period

Rs. Crore

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
KTPS					
Opening normative loan for the year	99.58	55.04	27.93	-	-
Closing normative loan for the year	55.04	27.93	-	-	-
Average Normative loan for the year	77.31	41.49	13.97	11.21	-
Weighted average rate of interest (%)	12.78%	12.78%	12.86%	12.98%	13.15%
Interest expenses for the period	9.88	5.30	1.80	-	-

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
HTPS					
Opening normative loan for the year	99.46	88.42	222.34	268.15	275.06
Closing normative loan for the year	88.42	222.34	268.15	275.06	268.37
Average Normative loan for the year	93.94	155.38	245.24	271.60	271.72
Weighted average rate of interest (%)	12.57%	12.58%	12.61%	12.64%	12.68%
Interest expenses for the period	11.80	19.55	30.91	34.32	34.46
DSPM					
Opening normative loan for the year	754.88	629.12	500.99	378.43	250.60
Closing normative loan for the year	629.12	500.99	378.43	250.60	123.06
Average Normative loan for the year	692.00	565.06	439.71	314.52	186.83
Weighted average rate of interest (%)	12.25%	12.25%	12.25%	12.25%	12.25%
Interest expenses for the period	84.77	69.22	53.86	38.53	22.89
KWTPP					
Opening normative loan for the year	2,643.63	2,453.95	2311.10	2,119.52	1,929.04
Closing normative loan for the year	2,453.95	2,311.10	2,119.52	1,929.04	1,737.96
Average Normative loan for the year	2,548.79	2,382.52	2,215.31	2,024.28	1,833.50
Weighted average rate of interest (%)	13.00%	13.00%	13.00%	13.00%	13.00%
Interest expenses for the period	331.34	309.73	287.99	263.16	238.36
Hasdeo Bango					
Opening normative loan for the year	10.38	7.75	5.12	2.48	0.00
Closing normative loan for the year	7.75	5.12	2.48	0.00	0.00
Average Normative loan for the year	9.07	6.43	3.80	1.24	0.00
Weighted average rate of interest (%)	12.75%	12.75%	12.75%	12.75%	0.00
Interest expenses for the period	1.16	0.82	0.48	0.16	0.00

9.5.6 Operation & Maintenance Expenses

CSPGCL's Submission

CSPGCL submitted the O&M Expenses for existing generating stations as per Regulation 38.5 of MYT Regulations, 2015. O&M expenses for generating stations, except KWTPP, have been worked out based on actual Employee expenses, A&G expenses and R&M expenses approved by the Commission in previous true up Orders. Employee expenses have been normalized by last five years weighted average of CPI, and A&G expenses and R&M expenses by last five years weighted average of WPI, to compute the value for base year FY 2015-16. Based on the same O&M expenses have been projected. At present, in accordance to the report of wage advisory committee, impact of Wage Revision (Interim Relief) of the CSPGCL employees has been considered at 15%.

For projecting O&M Expenses for KWTPP, CSPGCL has considered 90% of the normative O&M expenses as specified in the CERC Tariff Regulations for the year 2010-11. The same has been escalated by weighted average escalation of CPI:WPI as considered by the Commission in the previous True up Orders. The average rate of

escalation has been applied for projecting the O&M expenses for FY 2015-16 onwards. The impact of Wage Revision (Interim Relief) impact has been considered at 15% in FY 2016-17 and employee share taken at 43% of O&M based on DSPM average trend. O&M expenses projected by CSPGCL for the Control Period are as under:

Table 9-26: O&M Expenses for Control Period as submitted by CSPGCL
Rs. Crore

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	258.23	242.22	219.67	203.32	220.50
2	HTPS	331.56	358.99	388.74	421.00	455.97
3	DSPM	165.99	179.00	193.06	208.24	224.64
4	KWTPP	102.03	110.15	118.92	128.38	138.60
5	Hasdeo Bango	14.32	15.53	16.85	18.28	19.83

Commission's Views

Regulations 38.5.1 (c), (d), (e) and (f) of MYT Regulations, 2015 specify as under:

“38.5. Operation And Maintenance Expenses

38.5.1 Thermal Generating Station:

... ..

Employee Cost

(c) The employee cost, excluding pension fund contribution, impact of pay revision arrears and any other expense of non-recurring nature, for the base year i.e. FY 2015-16, shall be derived on the basis of the normalized average of the actual employee expenses excluding pension fund contribution, impact of pay revision arrears and any other expense of non-recurring nature, available in the accounts for the previous five (5) years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission.

(d) The normalization shall be done by applying last five year average increase in consumer price Index (CPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 2014-15, shall then be used to project base year value for FY 2015-16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expense (excluding impact of pension fund contribution and pay revision and any other expense of non-recurring nature, if any) for each year of the control period.

At the time of true up; the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period.

Provided further that impact of pay revision (including arrears) and pension fund contribution shall be allowed on actual during the true-

up as per accounts, subject to prudence check and any other factor considered appropriate by the Commission.

A&G Expenses and R&M Expenses

(e) The administrative and general expenses (excluding water charges) and repair and maintenance expenses, for the base year i.e. FY 2015-16 shall be derived on the basis of the normalized average of the actual administrative and general expenses (excluding water charges) and repair and maintenance expenses, respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission. Any other expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years.

(f) The normalization shall be done by applying last five year average increase in Wholesale Price Index (WPI) on year to year basis. The average of normalized net present value for FY2010-11 to FY 2014-15, shall then be used to project base year value for FY 2015-16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the administrative and general expense and repair and maintenance expenses for each year of the control period.

At the time of true up, the administrative and general expenses and repair and maintenance expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period.

Provided that water charges shall be pass-through in tariff on reimbursement basis.”

Similarly, Regulation 38.5.2 (c), (d), (e) and (f) of the MYT Regulations, 2015 specify the principles for estimation of the O&M expenses of the existing hydro generation stations.

The O&M expenses for the Control Period from FY 2016-17 to FY 2020-21 have been estimated on the basis of methodology specified in the MYT Regulations, 2015.

The data published by the Reserve Bank of India has been relied upon to compute average increase in CPI and WPI over five years from FY 2010-11 to FY 2014-15. The summary of the yearly inflation and the average inflation considered for projecting the O&M expenses is shown in the following Table:

Table 9.5-27: Computation of Interest Rate for Projections (%)

Particulars	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	Average of 5 years increase
CPI-IW (%)	10.45%	8.39%	10.44%	9.68%	6.29%	9.05%
WPI-AC (%)	9.56%	8.94%	7.35%	5.98%	2%	6.77%

Note: CPI-IW: Consumer Price Index - Industrial Workers

WPI-AC: Wholesale Price Index - All Commodities

The MYT regulations requires that the actual expenses incurred and admitted in the true up orders for the past five years i.e. from FY 2010-11 to FY 2014-15 has to be considered. Hence, net actual employee expenses for FY 2010-11 to FY 2013-14 (excluding Pension & Gratuity contribution and impact of pay revision) have been normalised up to FY 2014-15 by escalating net expenses of each year by average increase in CPI for past five years, i.e., 9.05%.

The average of the net present value in FY 2014-15 of the employee expenses of FY 2010-11 to FY 2014-15 has then been escalated at the same rate of CPI increase, i.e., 9.05%, for deriving the base employee expenses for FY 2015-16. The employee expenses for each year of the MYT Control Period from FY 2016-17 to FY 2020-21 have been projected by escalating the base value for FY 2015-16 at the same rate of CPI increase, i.e., 9.05%.

The MYT regulations require that actual net A&G expenses and R&M expenses incurred and admitted in the true up orders for the past five years i.e. from FY 2010-11 to FY 2014-15 have to be considered. Hence, net actual A&G expenses and R&M expenses for FY 2010-11 to FY 2013-14 (excluding expenses of non-recurring nature) have been normalised up to FY 2014-15 by escalating net expenses of each year by average increase in WPI for past five years, i.e., 6.77%.

For FY 2014-15, the net A&G expenses and R&M expenses approved in true-up order has been considered, which is discussed in Chapter 5 of this order. The average of the net present value in FY 2014-15 of the A&G expenses and R&M expenses of FY 2010-11 to FY 2014-15 has then been escalated at the same rate of WPI increase, i.e., 6.77%, for deriving the base A&G expenses and R&M expenses for FY 2015-16. The A&G expenses and R&M expenses for each year of the MYT Control Period from FY 2016-17 to FY 2020-21 have been projected by escalating the base value for FY 2015-16 at the same rate of WPI increase, i.e., 6.77%.

For KTPS, CSPGCL has projected O&M expenses after taking into account the proposed retirement of 50 MW Units. It has considered the reduction in Employee expenses from 5% in FY 2016-17 to 40% at the end of the Control Period. Similarly, the reduction in R&M expenses and A&G expenses has been considered up to 50% and 20% respectively, at the end of the Control Period. The methodology proposed by CSPGCL has been in-principle accepted and accordingly projected O&M expenses for the Control Period have been reduced.

For the Units/generating stations commissioned after April 1, 2010, Regulation 38.5.1.1 of MYT Regulations, 2015 specifies the norm for O&M Expenses, as reproduced below:

“38.5.1.1 The O&M expenses for the base year i.e. FY 2015-16, for the units / stations coming into commercial operation after 01.04.2010, shall be considered as under:-

a) The normative O&M expenses as specified in the Central Electricity Regulatory

Commission (Terms and Conditions of Tariff) Regulation 2009 for the FY 2010-11 and shall be admissible at the rate of 90% of the value

allowed by CERC for the respective year.

Such normative value shall be exclusive of water taxes payable to the State government which shall be pass through to the beneficiary on actual basis. However, except for pension fund liabilities, normative value, so derived, shall be considered inclusive of a) expenses incurred to meet head office or holding company expenses.

b) The adjusted value for FY 2010-11, as arrived above, shall be escalated by the actual inflation at a weighted average of 60:40 of CPI:WPI ratio, respectively on year to year basis till FY 2014- 15.

c) For projecting the normative value for FY 2015-16 and onwards, average inflation of last five years (i.e. FY 2010-11 to FY 2014-15) shall be applied.

Provided, at the time of true up, the normative O&M cost shall be readjusted to take into account the effect of actual inflation for that period.

Provided, further that impact of pay revision (including arrears), if any, shall be considered separately during the true-up as per accounts, subject to prudence check and any other factor considered appropriate by the Commission.

Accordingly, the O&M Expenses have been computed for KWTPP. The average inflation of last five years has been computed as 8.14% and normative value of FY 2015-16 has been escalated by such inflation factor to arrive at normative value for each year of the Control Period.

As per the MYT Regulations, 2015, the water charges will be pass through on reimbursement basis and the impact of pay revision (including arrears) will be allowed on actual during the true-up as per the audited/un-audited accounts, subject to the prudence check and any other factor considered appropriate.

Further, the normative O&M expenses will be readjusted to take into account the effect of actual inflation for that period.

The summary of the O&M expenses as approved for the Control Period is summarised in the following Table:

Table 9-28: Approved O&M Expenses for the Control Period

Rs. Crore

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
KTPS					
Employee Expenses	159.94	155.23	139.40	130.30	142.09
R&M Expenses	63.47	52.71	48.24	42.92	45.82
A&G Expenses	10.82	10.98	11.10	10.54	11.25
Total O&M Expenses	234.23	218.92	198.74	183.75	199.16

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
HTPS					
Employee Expenses	190.52	207.76	226.55	247.05	269.41
R&M Expenses	96.50	103.03	110.00	117.44	125.39
A&G Expenses	15.95	17.03	18.18	19.41	20.72
Total O&M Expenses	302.97	327.81	354.74	383.91	415.52
DSPM					
Employee Expenses	67.81	73.95	80.64	87.94	95.89
R&M Expenses	76.52	81.70	87.23	93.13	99.43
A&G Expenses	11.48	12.26	13.09	13.97	14.92
Total O&M Expenses	155.81	167.90	180.95	195.04	210.24
KWTPP					
Total O&M Expenses	97.03	104.92	113.45	122.68	132.67
Hasdeo Bango					
Employee Expenses	9.26	10.10	11.01	12.01	13.09
R&M Expenses	2.14	2.28	2.44	2.60	2.78
A&G Expenses	1.54	1.64	1.75	1.87	1.99
Total O&M Expenses	12.93	14.02	15.20	16.48	17.87

In addition to the above O&M expenses, the Commission has separately considered the impact of Wage Revision (Interim Relief) for the Control Period. The impact of Wage Revision (Interim Relief) for the Control Period has been computed by applying the escalation factor of 9.05% to the actual impact of Wage Revision (Interim Relief) considered in the Wage Revision (Interim Relief) for FY 2014-15. The Impact of Wage Revision (Interim Relief) approved by the Commission is given in the following Table:

Table 9-29: Approved Impact of Wage Revision (Interim Relief)
Rs. Crore

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	9.61	10.48	11.43	12.46	13.59
2	HTPS	24.81	27.06	29.51	32.18	35.09
3	DSPM	4.19	4.57	4.98	5.43	5.92
4	KWTPP	2.68	2.92	3.18	3.47	3.78
5	Hasdeo Bango	0.99	1.08	1.17	1.28	1.40

As the impact of wage revision is passed through in the Regulations, the employee cost shall be trued-up at actuals subject to prudence check, and shall not be subject to sharing of gains and losses.

9.5.7 Interest on Working Capital

CSPGCL's Submission

CSPGCL has computed the Interest on Working Capital as per Regulation 25 of MYT Regulations, 2015. The rate of interest has been considered as Base Rate of State

Bank of India as on September 30, 2015 plus 350 basis points. The Interest on Working Capital submitted for Control Period is as under:

Table 9-30: Interest on Working Capital as submitted by CSPGCL

Rs. Crore

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	18.73	16.21	13.63	12.81	13.46
2	HTPS	27.92	28.30	29.78	32.16	33.43
3	DSPM	23.85	24.24	24.68	25.20	25.68
4	KWTPP	19.80	19.98	20.19	20.39	20.59
5	Hasdeo Bango	0.57	0.60	0.64	0.67	0.71

Commission's Views

The interest on working capital has been computed for the Control Period in accordance with Regulation 25 of the MYT Regulations, 2015.

In Order dated May 23, 2015 for True-up for FY 2013-14, DSPM has been considered as a pithead station. CSPGCL has filed an Appeal against this issue before Hon'ble APTEL in Appeal No. 222 of 2015. Since, the matter is sub-judice before Hon'ble APTEL, for computation of interest on working capital; DSPM has been considered as a pithead station.

The cost of coal for one month for pit-head generating stations (KTPS, HTPS, DSPM and KWTPP), Cost of secondary fuel oil for two months, Operation and Maintenance expenses for one month, maintenance spares as 40% of the R&M expenses and receivables equivalent to one month has been considered for computing the working capital requirement for thermal generating stations. For Hasdeo Bango, one month O&M expenses, Maintenance Spares at 40% of R&M expenses and receivable equivalent to one month has been considered for computing the working capital requirement.

The interest rate of 13.20% (SBI Base Rate of 9.70% as on April 1, 2015 plus 350 basis points) has been considered, for computing the Interest on Working Capital. The Interest on working capital as approved for the Control Period is as under:

Table 9-31: Approved Interest on Working Capital

Rs. Crore

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
KTPS					
Cost of Coal	28.37	23.57	18.76	18.00	17.95
Cost of Main Secondary Fuel Oil	2.29	1.90	1.52	1.45	1.45
O & M Expenses	19.52	18.24	16.56	15.31	16.60
Maintenance Spares	25.39	21.08	19.29	17.17	18.33
Receivables	62.14	56.20	48.94	47.11	48.88
Total working capital requirement	137.72	121.00	105.07	99.05	103.21
Rate of Interest (%)	13.20%	13.20%	13.20%	13.20%	13.20%
Interest on Working Capital	18.18	15.97	13.87	13.07	13.62

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
HTPS					
Cost of Coal	51.88	46.46	46.46	52.02	51.88
Cost of Main Secondary Fuel Oil	2.45	2.75	2.75	2.46	2.45
O & M Expenses	25.25	27.32	29.56	31.99	34.63
Maintenance Spares	38.60	41.21	44.00	46.98	50.16
Receivables	93.23	94.67	97.55	106.96	112.16
Total working capital requirement	211.41	212.40	220.32	240.41	251.28
Rate of Interest (%)	13.20%	13.20%	13.20%	13.20%	13.20%
Interest on Working Capital	27.91	28.04	29.08	31.73	33.17
DSPM					
Cost of Coal	54.00	54.00	54.00	54.15	54.00
Cost of Main Secondary Fuel Oil	0.90	0.90	0.90	0.90	0.90
O & M Expenses	12.98	13.99	15.08	16.25	17.52
Maintenance Spares	30.61	32.68	34.89	37.25	39.77
Receivables	78.49	78.29	78.22	78.36	78.34
Total working capital requirement	176.99	179.87	183.10	186.92	190.54
Rate of Interest (%)	13.20%	13.20%	13.20%	13.20%	13.20%
Interest on Working Capital	23.36	23.74	24.17	24.67	25.15
KWTPP					
Cost of Coal	28.37	28.37	28.37	28.45	28.37
Cost of Main Secondary Fuel Oil	0.93	0.93	0.93	0.94	0.93
O & M Expenses	8.09	8.74	9.45	10.22	11.06
Maintenance Spares	5.73	6.19	6.70	7.24	7.83
Receivables	90.06	89.12	88.24	87.10	85.87
Total working capital requirement	133.17	133.45	133.69	133.95	134.06
Rate of Interest (%)	13.20%	13.20%	13.20%	13.20%	13.20%
Interest on Working Capital	17.58	17.60	17.65	17.68	17.70
Hasdeo Bango					
O & M Expenses	1.08	1.17	1.27	1.37	1.49
Maintenance Spares	0.86	0.91	0.97	1.04	1.11
Receivables	2.28	2.37	2.48	2.60	2.75
Total working capital requirement	4.21	4.45	4.72	5.02	5.35
Rate of Interest (%)	13.20%	13.20%	13.20%	13.20%	13.20%
Interest on Working Capital	0.56	0.59	0.62	0.66	0.71

9.5.8 Contribution to Pension and Gratuity

CSPGCL's Submission

CSPGCL submitted that Regulation 32 of the MYT Regulations, 2015 specifies that the contribution to the fund shall be decided by the Commission on the basis of actuarial analysis, expected pension outflow and availability of fund with the Pension trust at time of determination of MYT/ARR for each year of the Control Period. Accordingly, CSPGCL submitted the copy of latest Actuarial Valuation Report for period upto March 31, 2015, which contained the projected pension outflow, details of fund available and unfunded liability. However, it does not include the impact of pay revision.

Commission's Views

Regulation 32 of the MYT Regulations, 2015 specifies as under:

“32. PENSION FUND

For meeting up the past unfunded liabilities of erstwhile CSEB/State Power Companies employees appointed before 1.1.2004, a pension and gratuity trust has been created and funding to the same has been allowed in the past Tariff Orders of the Commission. The contribution to the fund shall be decided by the Commission on the basis of actuarial analysis, expected pension outflow for the State Power Companies and availability of fund with the Pension trust at the time of determination of MYT / ARR for each year of the control period. However, the actual outflow towards the pension payment shall not be allowed in the O&M expenses covered in these Regulations for the Control Period. The pension outflow shall be met by the Pension trust. The pension fund contribution so determined by the Commission shall be recoverable in the same manner as specified in relevant chapters. Provided till the time SLDC is part of STU, SLDC's share out of the STU contribution shall be decided on pro-rata basis. For the purpose of ratio determination, the employee strength as on 1st April of the preceding year shall be considered.”(emphasis added)

The Companies have submitted that there is a shortfall in the contribution to the consolidated P&G Fund on account of following reasons, and that there is a need to increase the P&G contribution appropriately.

- a) The Chhattisgarh Govt. in FY 2013-14 had increased the retirement age of government employees from 60 years to 62 years. On account of such increase, the retirement of employees got pushed forward by 2 years and those who were due to retire earlier will retire in FY 2016-17. Therefore, the pension liability of the companies will increase.
- b) The State Power Companies has granted interim relief for its employees. Accordingly the gratuity amount has increased.
- c) The Wage Revision (Interim Relief) of employees of State Power Companies are also due which may also have an additional impact on contribution to P&G fund.

In accordance with the provisions of the regulation, by taking in to account the above aspects and on the basis of actuarial analysis, expected pension outflow for the State Power Companies and availability of fund with the Pension trust, the cumulative P&G contribution of CSPGCL, CSPTCL, CSLDC, and CSPDCL for FY 2016-17, works out as Rs. 480 crore. By considering an increase of 9.05% every year i.e. average CPI rate recorded for past five years, P&G contribution for subsequent years will be Rs. 523.44 crore, Rs. 570.81 crore, Rs. 622.47 crore, and Rs. 678.80 crore in FY 2017-18, FY 2018-19, FY 2019-20, and FY 2020-21, respectively.

The above amounts have been allocated to CSPGCL, CSPTCL, CSLDC, and CSPDCL in the same ratio as approved in previous order. The approved amount of

P&G contribution of CSPDCL, CSPGCL, CSPTCL, and CSLDC for the purpose of ARR computations, is shown in the Table below:

Table 9.5-32: P&G Contribution for Companies for the Control Period (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
CSPGCL	130.83	142.67	155.58	169.66	185.01
CSPTCL	49.16	53.61	58.47	63.75	69.52
CSLDC	1.21	1.32	1.43	1.56	1.71
CSPDCL	298.80	325.83	355.31	387.47	422.51
TOTAL	480.00	523.43	570.79	622.44	678.76

The P&G contribution of CSPGCL has been further allocated to each Generating Station in the ratio of sanctioned posts as submitted by CSPGCL, as shown in the Table below:

Table 9.5-33: Station-wise P&G Contribution for the Control Period (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
KTPS	46.39	50.59	55.17	60.16	65.60
HTPS	48.03	52.37	57.11	62.28	67.92
DSPM TPS	7.89	8.60	9.38	10.23	11.16
KWTTP	7.77	8.47	9.24	10.08	10.99
HPS Bango	3.21	3.50	3.81	4.16	4.53
Marwa	17.54	19.13	20.86	22.75	24.81
Total CSPGCL	130.83	142.67	155.58	169.66	185.01

Note:- It pertinent to note that the 50 MW units of KTPS plant are likely to be retired in this control period. The approved amount towards P&G contribution of the company after the retirement of units of KTPS shall be reallocated after the approval of the Commission.

9.5.9 Non-tariff Income

CSPGCL's Submission

CSPGCL has considered Non-Tariff Income for the Control Period based on last five years average and escalated at the average WPI rate, as shown in the Table below:

Table 9-34: Non-Tariff Income as submitted by CSPGCL

Rs. Crore

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	7.61	8.12	8.67	9.26	9.89
2	HTPS	14.90	15.91	16.98	18.13	19.36
3	DSPM	8.63	9.21	9.84	10.50	11.21
4	KWTPP	4.32	4.61	4.92	5.26	5.61
5	Hasdeo Bango	0.00	0.00	0.00	0.00	0.00

Commission's Views

The Non-Tariff Income has been considered in a manner similar to the A&G expenses and R&M expenses. The average of normalised net present value has been considered for FY 2010-11 to FY 2014-15, by considering the escalation factor equal to last five years average of WPI i.e., 6.77%. The Non-Tariff Income as approved is given in the Table below:

Table 9-35: Approved Non-Tariff Income

Rs. Crore

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	7.61	8.12	8.67	9.26	9.89
2	HTPS	14.90	15.91	16.98	18.13	19.36
3	DSPM	8.63	9.21	9.84	10.50	11.21
4	KWTPP	4.05	4.32	4.61	4.92	5.26
5	HasdeoBango	0.00	0.00	0.00	0.00	0.00

9.5.10 Statutory and other Charges for Control Period**CSPGCL's Submission**

CSPGCL submitted that it incurs statutory charges in the course of its operations. The payment of CSERC fee is a one-time payment and as per Regulations, it is a pass through. The statutory charges or any other kind of imposition(s) whatsoever imposed/charged by any Government (Central/State) and/or any other local body/ authority/ regulatory authority in relation to generation of electricity (including auxiliary consumption) including water, transmission of electricity, environmental protection, sale or on supply of power/ energy and/ or in respect of any of its installations associated with Generating Stations and/ or on associated system are a pass through to the beneficiary.

It is further submitted that the Corporate Social Responsibility (CSR) provisions have been introduced in the new Companies Act, 2013. As per Section 135 of the Companies Act, 2013, Companies with a specified net worth or turnover or net profit are required to mandatorily spend 2 percent of their average net profit towards specified CSR activities. At present no such claim has been incorporated, however leave is craved for pass through of such expenses in case any such liability arises on account of statutory provisions in the Companies Act.

Commission's Views

As regard the applicability of the statutory charges, CSERC MYT Regulations, 2015 specifies as under:

1. Regulation 35.1 specifies that the Statutory Taxes and Duties shall be recoverable on reimbursement basis, as per actual.
2. Further, Regulation 38.5.1(f) specifies that water charges shall be pass through in tariff on reimbursement basis.

In view of the above Regulations, Statutory charges such as duty & cess (if any), water charges, SLDC charges etc shall be recoverable from CSPDCL on reimbursement basis, as per actual. Similarly, the expenses incurred by CSPGCL for start-up power, shall be billed to CSPDCL separately in the same manner as statutory and other charges, and shall be reimbursed by CSPDCL.

As regards charges towards CSR activities, the Companies have to incur the same from their net profits, and the same cannot be passed through to the consumers.

9.5.11 Approved ARR for the Control Period

Based on various components of expense and income discussed above, the station-wise summary of ARR for the Control Period from FY 2016-17 to FY 2020-21 is given in the following Tables. The Contribution to Pension and Gratuity has not been considered as part of Annual Fixed Cost, however, the same shall be billed and allowed separately.

Table 9-36: Approved Annual Revenue Requirement for KTPS

Sr. No.	Particulars	Rs. Crore									
		FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
		Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
1	Annual Capacity (Fixed) Charges										
1.1	Depreciation	57.71	49.43	57.87	60.01	35.62	60.01	42.84	60.55	53.84	60.55
1.2	Interest on Loan and Finance charges	1.71	9.88	-	5.30	-	1.80	-	-	-	-
1.3	Return on Equity	38.38	29.65	33.21	25.06	26.58	19.95	25.66	18.98	26.24	18.99
1.4	Interest on Working Capital	18.73	18.18	16.21	15.97	13.63	13.87	12.81	13.07	13.46	13.62
1.5	O & M Expenses	258.23	234.23	242.22	218.92	219.67	198.74	203.32	183.75	220.50	199.16
1.6	Impact of wage revision (Interim Relief)		9.61		10.48		11.43		12.46		13.59
1.7	Additional R&M Expenses (booked as Capitalisation by CSPGCL)	0.00	0.42	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
1.8	Less - Non Tariff Income	7.61	7.61	8.12	8.12	8.67	8.67	9.26	9.26	9.89	9.89
1.9	Total Annual Capacity (Fixed) Charges	367.17	343.80	341.39	328.62	286.84	297.12	275.37	279.56	304.15	296.03
2.1	Cost of Coal	363.98	340.50	299.92	282.79	235.87	225.07	225.81	216.05	225.19	215.46
2.2	Cost of Oil	15.01	15.01	12.46	12.46	9.92	9.92	9.52	9.52	9.50	9.50
2.3	Total Energy Charges	378.99	355.50	312.39	295.25	245.79	234.99	235.33	225.57	234.69	224.95
3	Contribution to P&G Fund	16.48	46.39	17.30	50.59	18.20	55.17	19.19	60.16	20.28	65.60
4	Aggregate Revenue Requirement	746.16	745.70	653.77	674.46	532.63	587.29	510.71	565.29	538.84	586.59

Table 9-37: Approved Annual Revenue Requirement for HTPS

Rs. Crore

Sr. No.	Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
		Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
1	Annual Capacity (Fixed) Charges										
1.1	Depreciation	23.65	18.95	49.79	25.38	67.70	34.59	77.21	39.46	87.81	42.63
1.2	Interest on Loan and Finance charges	10.55	11.80	18.04	19.55	29.22	30.91	30.45	34.32	26.52	34.46
1.3	Return on Equity	71.39	56.11	79.51	61.66	91.94	69.62	98.83	73.83	103.11	76.57
1.4	Interest on Working Capital	28.56	27.90	28.97	28.03	30.49	29.08	32.90	31.73	34.22	33.16
1.5	O & M Expenses	331.56	302.97	358.99	327.81	388.74	354.74	421.00	383.91	455.97	415.52
1.6	Impact of Wage Revision (Interim Relief)		24.81		27.06		29.51		32.18		35.09
1.7	R&M Expenses booked as Capitalisation	0.00	1.47	0.00	31.26	0.00	3.26	0.00	0.52	0.00	18.32
1.8	Less - Non Tariff Income	14.90	14.90	15.91	15.91	16.98	16.98	18.13	18.13	19.36	19.36
1.9	Total Annual Capacity (Fixed) Charges	450.81	429.12	519.39	504.86	591.11	534.73	642.26	577.82	688.27	636.40
2.1	Cost of Coal	622.59	622.59	567.62	557.48	567.62	557.48	624.29	624.29	622.59	622.59
2.2	Cost of Oil	19.02	19.02	25.56	21.30	25.56	21.30	19.07	19.07	19.02	19.02
2.3	Total Energy Charges	641.60	641.60	593.18	578.78	593.18	578.78	643.36	643.36	641.60	641.60
3	Contribution to P&G Fund	57.67	48.03	60.54	52.37	63.68	57.11	67.14	62.28	70.96	67.92
4	Aggregate Revenue Requirement	1,149.48	1,118.76	1,173.11	1,136.01	1,247.66	1,170.62	1,352.76	1,283.47	1,400.83	1,345.92

Table 9-38: Approved Annual Revenue Requirement for DSPM

Rs. Crore

Sr. No.	Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
		Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
1	Annual Capacity (Fixed) Charges										
1.1	Depreciation	128.53	128.53	128.69	128.66	128.98	128.93	129.29	129.23	129.42	129.36
1.2	Interest on Loan and Finance charges	84.77	84.77	69.26	69.22	53.95	53.86	38.60	38.53	22.95	22.89
1.3	Return on Equity	137.14	107.87	137.31	107.98	137.63	108.21	137.96	108.47	138.09	108.57
1.4	Interest on Working Capital	23.85	23.36	24.24	23.74	24.68	24.17	25.20	24.67	25.68	25.15
1.5	O & M Expenses		155.81		167.90		180.95		195.04		210.24
1.6	Impact of Wage Revision (Interim Relief)	165.99	4.19	179.00	4.57	193.06	4.98	208.24	5.43	224.64	5.92
1.7	R&M Expenses booked as Capitalisation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.8	Less - Non Tariff Income	8.63	8.63	9.21	9.21	9.84	9.84	10.50	10.50	11.21	11.21
1.9	Total Annual Capacity (Fixed) Charges	531.65	495.91	529.29	492.86	528.46	491.27	528.78	490.87	529.57	490.92
2.1	Cost of Coal	434.65	432.04	434.65	432.04	434.65	432.04	435.84	433.22	434.65	432.04
2.2	Cost of Oil	6.01	6.01	6.01	6.01	6.01	6.01	6.02	6.02	6.01	6.01
2.3	Total Energy Charges	440.66	438.04	440.66	438.04	440.66	438.04	441.87	439.24	440.66	438.04
3	Contribution to P&G Fund	34.33	7.89	36.04	8.60	37.91	9.38	39.97	10.23	42.23	11.16
4	Aggregate Revenue Requirement	1006.64	941.84	1005.99	939.51	1007.03	938.70	1010.62	940.35	1012.46	940.12

Table 9-39: Approved Annual Revenue Requirement for KWTPP

Sr. No.	Particulars	Rs. Crore									
		FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
		Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
1	Annual Capacity (Fixed) Charges										
1.1	Depreciation	189.68	189.68	191.07	191.07	192.48	192.48	192.58	192.58	192.71	192.71
1.2	Interest on Loan and Finance charges	331.34	331.34	309.73	309.73	287.98	287.99	263.13	263.16	238.31	238.36
1.3	Return on Equity	115.64	90.96	116.17	91.38	116.73	91.80	116.85	91.83	116.99	91.87
1.4	Interest on Working Capital	19.80	17.58	19.98	17.60	20.19	17.65	20.39	17.68	20.59	17.70
1.5	O & M Expenses	102.03	97.03	110.15	104.92	118.92	113.45	128.38	122.68	138.60	132.67
1.6	Impact of Wage Revision (Interim Relief)		2.68		2.92		3.18		3.47		3.78
1.7	R&M Expenses booked as Capitalisation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.8	Less - Non Tariff Income	4.32	4.05	4.61	4.32	4.92	4.61	5.26	4.92	5.61	5.26
1.9	Total Annual Capacity (Fixed) Charges	754.18	725.22	742.48	713.29	731.36	701.94	716.08	686.48	701.58	671.82
2.1	Cost of Coal	340.44	340.44	340.44	340.44	340.44	340.44	341.38	341.38	340.44	340.44
2.2	Cost of Oil	7.24	7.24	7.24	7.24	7.24	7.24	7.26	7.26	7.24	7.24
2.3	Total Energy Charges	347.69	347.69	347.69	347.69	347.69	347.69	348.64	348.64	347.69	347.69
3	Contribution to P&G Fund	34.33	7.77	36.04	8.47	37.91	9.24	39.97	10.08	42.23	10.99
4	Aggregate Revenue Requirement	1101.87	1080.68	1090.17	1069.46	1079.05	1058.87	1064.72	1045.20	1049.27	1030.50

Table 9-40: Approved Annual Revenue Requirement for Hasdeo Bango

Rs. Crore

Sr. No.	Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
		Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
1	Annual Capacity (Fixed) Charges										
1.1	Depreciation	3.04	2.65	3.04	2.65	3.04	2.65	3.04	2.65	3.04	2.65
1.2	Interest on Loan and Finance charges	1.40	1.15	1.28	0.82	0.89	0.48	0.51	0.15	0.12	-
1.3	Return on Equity	7.61	5.85	7.79	5.85	7.79	5.85	7.79	5.85	7.79	5.85
1.4	Interest on Working Capital	0.57	0.56	0.60	0.59	0.64	0.62	0.67	0.66	0.71	0.71
1.5	O & M Expenses	14.32	12.93	15.53	14.02	16.85	15.20	18.28	16.48	19.83	17.87
1.6	Impact of Wage Revision (Interim Relief)		0.99		1.08		1.17		1.28		1.40
1.7	R&M Expenses booked as Capitalisation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.8	Less - Non Tariff Income	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.9	Total Annual Capacity (Fixed) Charges	26.94	24.13	28.24	25.00	29.20	25.96	30.28	27.06	31.49	28.47
2	Contribution to P&G Fund	-	3.21	-	3.50	-	3.81	-	4.16	-	4.53
3	Total Annual Charges	26.94	27.33	28.24	28.49	29.20	29.78	30.28	31.23	31.49	33.00

9.6 PROVISIONAL TARIFF FOR MARWA TPS

CSPGCL has filed petition for approval of provisional tariff for FY 2016-17. CSPDCL in its tariff petition has also estimated power availability from Marwa TPS. In view of this, the power purchase and availability from this power plant has been projected for FY 2016-17. For computing the provisional tariff, data submitted by CSPGCL in the petition for determination of tariff has been provisionally considered.

Based on the data submitted by CSPGCL, the provisional tariff has been considered as Rs. 3.90 per kWh (comprising of energy charge of Rs.1.20 per kWh for the purpose of computing FCA charges). However, the final tariff will be based on the capital cost approved by the Commission after due regulatory process. Further, the above tariff of Rs. 3.90 per kWh does not include charges such as Water Charges, Pension & Gratuity Contribution, FCA, Start up power charges, SLDC Charges, taxes and duties if any and other incidental charges, which shall be billed separately as pass through component.

The billing of power supply by Marwa TPS project shall be single part tariff @ Rs. 3.90 per kWh on scheduled energy. However, deviations from the schedule shall be governed by the deviation settlement mechanism applicable for existing thermal plants of CSPGCL.

For the calculation and recovery of FCA charges, CSPGCL shall use base data as given in the Table below:

Sl. No.	Particulars	Units	Value
1.	Gross Station Heat Rate (GHR)	Kcal/Kwh	2,378
2.	Specific Fuel Oil Consumption (SFC)	ml/Kwh	0.50
3.	Calorific Value of Secondary Fuel (CVSF)	Kcal/L	10,000
4.	Weighted Average Landed Price of Primary Fuel (LPPF)	Rs./MT	1,535
5.	Weighted Average Landed Price of Secondary Fuel	Rs./KL	32,270
6.	Gross Calorific Value of Primary Fuel (CVPF)	kCal/kg	3,280.29
7.	Auxiliary Consumption	%	5.25%
8.	Energy Charges Rate (ECR)	Rs./kWh	1.20

9.7 BILLING FOR CONTROL PERIOD

It is stipulated that the recovery of fixed cost shall be through station-wise capacity charges in accordance with the formulae specified in Regulation 41.1, 41.2 and 41.3 of MYT Regulations, 2015; while recovery of energy charges shall be through the station-wise energy charge rate (*in Rs/kWh*) in accordance with the formulae specified in Regulation 41.6 of the MYT Regulations, 2015. It may be apposite to note that AFC does not comprise of contribution to P&G Fund, SLDC charges, water charges and other statutory charges. CSPGCL shall raise the amount approved towards

contribution to P&G Fund in twelve equal monthly instalments in its monthly bill raised for power supply to the CSPDCL. SLDC charges, water charges, start up power and other statutory charges shall be claimed on reimbursement basis. The impact on account of APTEL judgment in Appeal No. 308 of 2013, shall be claimed as mentioned in chapter 4 of this order. Further in case of thermal stations, the bi-monthly increase in the primary fuel cost for the MYT control period FY 2016-17 to FY 2020-21 shall be recovered as per the Fuel Cost Adjustment mechanism specified in Regulation 67 of the MYT Regulations, 2015. As per Regulation 67.3 of the MYT Regulations, 2015, CSPGCL shall compute the CHFC for each thermal generating stations separately for each month and convey the bi-monthly amount to CSPDCL for payment as part of Fuel Cost Adjustment by 30th of the month following the last date of the bi-monthly period. For example, the CHFC for the month April and May shall be conveyed by 30 June, and for June and July by 30 August, and so on. CHFC shall be computed for existing thermal generating stations of CSPGCL, i.e., KTPS, HTPS, DSPM and KWTPP and new generating Stations or Units to be commissioned during the Control Period. The variation in secondary fuel oil GCV and Cost shall be considered at time of truing up for the respective year. The amount of CHFC (in Rupees) payable by CSPDCL shall be paid in two equal monthly instalments. For the bi-monthly period April and May, CSPGCL shall raise the bill for CHFC for bi-monthly period in two equal monthly instalments in the month of August and September. Bills for bi-monthly period June and July, CSPGCL shall raise the bill for CHFC for bi-monthly period in two equal monthly instalments in the month of October and November. Similar schedule shall be followed for payment of CHFC for other bi-monthly period in the financial year. The format for calculation of FCA charges are enclosed as **Annexure 3**

The due FCA charges of CSPGCL for the period October 2015 to March 2016 shall be claimed by CSPGCL and shall be paid by CSPDCL from the month of April 2016 to September 2016.

In view of the above, Station-wise Annual Fixed Cost approved for each thermal generating station for each year of the Control Period is summarised in the Table below:

Table 9-41: Approved Annual Fixed Cost

Rs. Crore

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	343.82	328.62	297.12	279.56	296.03
2	HTPS	429.12	504.86	534.73	577.82	636.40
3	DSPM	495.91	492.86	491.27	490.87	490.92
4	KWTPP	725.22	713.29	701.94	686.48	671.

The Contribution to Pension & Gratuity approved by the Commission shall be separately billed by CSPCGL. The approved Contribution to Pension and Gratuity is summarised in the Tables below:

Table 9-42: Approved Contribution to Pension and Gratuity

Rs. Crore

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	46.39	50.59	55.17	60.16	65.60
2	HTPS	48.03	52.37	57.11	62.28	67.92
3	DSPM	7.89	8.60	9.38	10.23	11.16
4	KWTPP	7.77	8.47	9.24	10.08	10.99
5	Hasdeo Bango	3.21	3.50	3.81	4.16	4.53
6	Marwa	17.54	19.13	20.86	22.75	24.81
7	Total	130.83	142.67	155.58	169.66	185.01

The Station-wise approved energy charge rate for each year of the Control Period is summarised in the Table below:

Table 9-43: Energy Charge Rate as approved by the Commission

Rs./kWh

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	KTPS	1.722	1.722	1.722	1.722	1.722
2	HTPS	1.163	1.171	1.171	1.163	1.163
3	DSPM	1.293	1.293	1.293	1.293	1.293
4	KWTPP	0.986	0.986	0.986	0.986	0.986

Regulation 42.1 of the MYT Regulations, 2015 specifies that tariff for hydro power plant shall be single part tariff. Accordingly, the approved tariff for Hasdeo Bango for the Control Period, excluding P&G contribution and statutory charges such as water charges is summarised in the following Table:

Table 9-44: Approved Tariff for Hasdeo Bango

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
1	Approved AFC	24.13	25.00	25.97	27.07	28.47
2	Approved Net Generation	271.26	271.26	271.26	271.26	271.26
3	Approved Tariff for Hasdeo Bango	0.890	0.922	0.957	0.998	1.049

10 AGGREGATE REVENUE REQUIREMENT AND TRANSMISSION TARIFF FOR CSPTCL FOR THE PERIOD FROM FY 2016-17 TO FY 2020-21

10.1 BACKGROUND

The MYT Regulations, 2015 notified on September 9, 2015 is applicable for determination of annual charges for the MYT Control Period from April 1, 2016 to March 31, 2021. CSPTCL has submitted details of its projected expenses likely to be incurred in the MYT Control Period under various heads, viz., O&M expenses, depreciation, interest on loans, interest on working capital, etc., as per the Regulations and the Formats prescribed by the Commission. The petition submitted has been scrutinised before approving the expenditure for each of the above items and Aggregate Revenue Requirement (ARR) of CSPTCL for the MYT Control Period from FY 2016-17 to FY 2020-21, in the following sections.

10.2 TRANSMISSION LOSSES

CSPTCL's Submission

CSPTCL has submitted that the Commission has not specified any transmission loss reduction trajectory for respective years of the MYT Control Period from FY 2016-17 to FY 2020-21 in the MYT Regulations, 2015.

CSPTCL further submitted that in the MYT Regulations, 2012, the Commission had provided a loss reduction trajectory according to which CSPTCL was supposed to reduce losses by 0.10% every year. However, considering the vastness of the existing transmission network in the State and the anticipated addition of almost equivalent network during the MYT Control Period, it would not be possible to reduce the losses by 0.10% every year from FY 2016-17 to FY 2020-21.

CSPTCL has accordingly proposed 0.04% reduction in transmission losses for each year during the MYT Control Period. CSPTCL has considered transmission loss of 4.20 % as approved in tariff order dated May 23, 2015 for FY 2015-16 as the base value for projecting the transmission loss trajectory for the MYT Control Period from FY 2016-17 to FY 2020-21. The transmission loss trajectory as submitted by CSPTCL is shown in the Table below:

Table 110.2.2-1: Transmission Loss trajectory as submitted by CSPTCL

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21
Transmission Losses (%)	4.16%	4.12%	4.08%	4.04%	4.00%

Commission's View

The actual transmission loss reported by CSPTCL for FY 2014-15 is 3.22%. The Commission is of the view that when the actual transmission loss is 3.22% in FY 2014-15, it would not be appropriate to set the transmission loss reduction trajectory for the Control Period from FY 2016-17 to FY 2020-21 by considering the base loss level as 4.20%, as proposed by CSPTCL. At the same time, as the loss levels are reasonable, it may not be appropriate to direct further reduction of the transmission

losses. Hence, the transmission losses as 3.22% has been considered for each year of the Control Period from FY 2016-17 to FY 2020-21.

10.3 AGGREGATE REVENUE REQUIREMENT

10.3.1 Operation and Maintenance Expenses

CSPTCL's Submission

CSPTCL submitted that it has computed Operation and Maintenance (O&M) expenses for the Control Period from FY 2016-17 to FY 2020-21 in accordance with Regulation 47.5 of the MYT Regulations, 2015.

In accordance with the MYT Regulations, 2015, Employee Expenses, A&G Expenses, and R&M Expenses for the base year FY 2015-16 have been derived on the basis of the normalized average of the actual Employee Expenses, A&G Expenses, and R&M Expenses for the five years immediately preceding FY 2015-16. Employee expenses have been normalized based on average Consumer Price Index (CPI) increase for the past five years. A&G and R&M expenses have been normalized based on average Wholesale Price Index (WPI) increase for the past five years.

CSPTCL submitted that the Employee Expenses, A&G Expenses, and R&M Expenses so derived for FY 2015-16 after normalization, have been escalated by the same inflation rate, i.e., average CPI increase of past five years for Employee Expenses, and average WPI increase of past five years for A&G expenses and R&M expenses, to project the O&M expenses for each year of the Control Period from FY 2016-17 to FY 2020-21.

CSPTCL submitted that there was an interim wage relief impact as per Wage Advisory Committee Report dated January 29, 2015 to the tune of 15%. Total arrears on account of Wage Revision (Interim Relief) were to be passed on to employees in 15 equal instalments effective from January 1, 2014. Out of this, 7.5% of the interim relief has already been passed in FY 2014-15. The balance 7.5% will be accounted for in FY 2015-16. Therefore, CSPTCL has included the impact of Wage Revision (Interim Relief) in calculating the base year employee expense by escalating the normalized as well as actual employee expense of FY 2014-15 by average inflation rate (CPI) along with an escalation of the balance of 7.50%. The average of normalized net present value of FY 2015-16 has also been escalated by average inflation rate (CPI) to estimate the employee expenses for the Control Period.

CSPTCL submitted that as on March 31, 2015, total sanctioned strength of different class of employees exclusive of CSPTCL is 3307 out of which 1806 are currently working and balance 1501 are envisaged to be filled in coming Financial Years.

CSPTCL submitted that based on the Capital Investment Plan submitted to the Commission, substantial investment is projected during the third Control Period and going by the growth in infrastructure, the prevalent norms of calculation of R&M expenses based on WPI increase will not be sufficient. The other State Electricity Regulatory Commissions (SERCs) such as JERC and HPERC have linked R&M expenses to Gross Fixed Assets (GFA). Therefore, CSPTCL has requested the Commission to link R&M expenses to GFA in future.

The O&M expenses submitted by CSPTCL for the MYT Control Period from FY 2016-17 to FY 2020-21 are shown in the Table below:

Table 10.3-1: O&M Expenses as submitted by CSPTCL (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Employee Expenses	198.33	216.28	235.84	257.18	280.45
A&G Expenses	31.28	33.40	35.66	38.07	40.64
R&M Expenses	29.87	31.89	34.05	36.35	38.81
Total O&M Expenses	259.48	281.57	305.55	331.60	359.90

Commission's View

Regulation 47.5 of the MYT Regulations, 2015 specifies as under:

"

- a) *Operation and Maintenance (O&M) expenses for transmission licensee/STU shall include:*
 - I. *Employee Costs;*
 - II. *Administrative and General expenses;*
 - III. *Repairs and Maintenance expenses*
- b) *The Commission shall stipulate a separate trajectory for each of the components of O&M expenses, viz., employee cost, R&M expense and A&G expense for the Control Period.*

Employee Cost

- c) *The employee cost, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 16, shall be derived on the basis of the normalized average of the actual employee expenses excluding pension fund contribution and impact of pay revision arrears available in the accounts for the previous five (5) years immediately preceding the base year FY 16, subject to prudence check by the Commission. Any other expense of nonrecurring nature shall also be excluded while determining normalized average for the previous five (5) years.*
- d) *The normalization shall be done by applying last five year average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 15, shall then be used to project base year value for FY 16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expense (excluding impact of pension fund contribution and pay revision, if any) for each year of the Control Period.*

At the time of true up, the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period.

Provided further that impact of pay revision (including arrears) and pension fund contribution shall be allowed on actual during the true-up as per accounts, subject to prudence check and any other factor considered appropriate by the Commission.

A&G Expenses and R&M Expenses

- e) The administrative and general expenses and repair and maintenance expenses, for the base year i.e. FY 16, shall be derived on the basis of the normalized average of the actual administrative and general expenses and repair and maintenance expenses, respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 16, subject to prudence check by the Commission. Any expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years.*
- f) The normalization shall be done by applying last five year average increase in Wholesale Price Index (WPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 15, shall then be used to project base year value for FY 16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the administrative and general expense and repair and maintenance expenses for each year of the Control Period.*

At the time of true up, the administrative and general expenses and repair and maintenance expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period.

- g) The additional O&M Expenses on account of new transmission lines/substations commissioned after March 31, 2016 shall be allowed by the Commission subject to prudence check at the time of truing up exercise."*

The O&M expenses for the Control Period from FY 2016-17 to FY 2020-21 have been estimated on the basis of methodology specified in the MYT Regulations, 2015.

The data published by the Reserve Bank of India has been relied upon to compute average increase in CPI and WPI over five years from FY 2010-11 to FY 2014-15. The summary of the yearly inflation and the average inflation considered for projecting the O&M expenses is shown in the following Table:

Table 10.3-2: Computation of Interest Rate for Projections (%)

Particulars	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	Average of 5 years increase
CPI-IW (%)	10.45%	8.39%	10.44%	9.68%	6.29%	9.05%
WPI-AC (%)	9.56%	8.94%	7.35%	5.98%	2%	6.77%

Note: CPI-IW: Consumer Price Index - Industrial Workers

WPI-AC: Wholesale Price Index - All Commodities

The MYT regulations require that the actual expenses incurred and admitted in the true up orders for the past five years, i.e., from FY 2010-11 to FY 2014-15 has to be considered. Hence, net actual employee expenses for FY 2010-11 to FY 2013-14 (excluding Pension & Gratuity contribution and impact of pay revision) have been normalised up to FY 2014-15 by escalating net expenses of each year by average increase in CPI for past five years, i.e., 9.05%.

In FY 2014-15, there was an impact of Wage Revision (Interim Relief). In reply to specific query, CSPTCL submitted the report of Wage Advisory Committee. For FY 2014-15, the Commission has considered the actual employee expenses incurred by CSPTCL excluding Rs. 9.88 Crore paid due to Wage Revision (Interim Relief). The average of the net present value in FY 2014-15 of the employee expenses of FY 2010-11 to FY 2014-15 has then been escalated at the same rate of CPI increase, i.e., 9.05%, for deriving the base employee expenses for FY 2015-16. The employee expenses for each year of the MYT Control Period from FY 2016-17 to FY 2020-21 have been projected by escalating the base value for FY 2015-16 at the same rate of CPI increase, i.e., 9.05%. The impact of Rs. 9.88 Crore, on account of Wage Revision (Interim Relief) for FY 2014-15, has been considered as a separate line entry. Even though at the time of true up, the impact of Wage Revision (Interim Relief) has been excluded, as payment against the same has been made in FY 2015-16. However, for projection purposes Rs. 9.88 Crore has been considered and escalated at the same rate of CPI increase i.e. 9.05%, from FY 2014-15 up to FY 2020-21, to factor in the increase in salary levels on account of Wage Revision (Interim Relief). The difference between the actual amount paid on account of Wage Revision (Interim Relief) and the projected amount in this Order, will be passed through at the time of true up. As the impact of wage revision is passed through in the Regulations, the employee cost shall be trued-up at actuals subject to prudence check, and shall not be subject to sharing of gains and losses.

The MYT regulations require that actual net A&G expenses and R&M expenses incurred and admitted in the true up orders for the past five years, i.e., from FY 2010-11 to FY 2014-15 have to be considered. Hence, net actual A&G expenses and R&M expenses for FY 2010-11 to FY 2013-14 (excluding expenses of non-recurring nature) have been normalised up to FY 2014-15 by escalating net expenses of each year by average increase in WPI for past five years, i.e., 6.77%.

For FY 2014-15, the net A&G expenses and R&M expenses have been considered as approved in true-up order, which is discussed in Chapter 6 of this order. The average of the net present value in FY 2014-15 of the A&G expenses and R&M expenses of FY 2010-11 to FY 2014-15 has then been escalated at the same rate of WPI increase, i.e., 6.77%, for deriving the base A&G expenses and R&M expenses for FY 2015-16. The A&G expenses and R&M expenses for each year of the MYT Control Period from FY 2016-17 to FY 2020-21 have been projected by escalating the base value for FY 2015-16 at the same rate of WPI increase, i.e., 6.77%.

The normative Employee expenses, A&G expenses and R&M expenses as approved for the Control Period from FY 2016-17 to FY 2020-21 is shown in the Tables below:

Table 10.3-3: Computation of Employee expenses for the Control Period

Particulars	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Employee Expenses Excluding P&G	89.33	102.34	112.54	117.11	143.54						
Normalised FY 2010-11 value to FY 2014-15 Net Present Value	89.33	97.41	106.22	115.84	126.32						
Normalised FY 2011-12 value to FY 2014-15 Net Present Value		102.34	111.59	121.69	132.70						
Normalised FY 2012-13 value to FY 2014-15 Net Present Value			112.54	122.72	133.82						
Normalised FY 2013-14 value to FY 2014-15 Net Present Value				117.51	127.71						
Normalised FY 2014-15 value					133.66						
Average of NPV of 5 FYs used for projection for FY 2014-15					130.84						
Average CPI for past 5 years					9.05%						
Projected Employee Expenses for FY 2015-16						142.68					
Normative Employee Expenses for the Control Period							155.59	169.67	185.02	201.76	220.02
Wage Revision (Interim Relief) Impact							11.75	12.81	13.97	15.24	16.61

Table 10.3-4: Computation of A&G expenses for the Control Period

Particulars	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
A&G Expenses	15.03	22.37	17.84	31.04	26.78						
Normalised FY 2010-11 value to FY 2014-15 Net Present Value	15.03	16.05	17.13	18.29	19.53						
Normalised FY 2011-12 value to FY 2014-15 Net Present Value		22.37	23.88	25.50	27.23						
Normalised FY 2012-13 value to FY 2014-15 Net Present Value			17.84	19.05	20.34						
Normalised FY 2013-14 value to FY 2014-15 Net Present Value				31.04	33.14						
Normalised FY 2014-15 value					26.78						
Average of NPV of 5 FYs used for projection for FY 2014-15					25.40						
Average WPI for past 5 years					6.77%						
Projected A&G Expenses for FY 2015-16						27.12					
Normative A&G Expenses for the Control Period							28.96	30.92	33.01	35.24	37.63

Table 10.3-5: Computation of R&M expenses for the Control Period

Particulars	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
R&M Expenses	23.37	26.31	20.51	25.27	17.45						
Normalised FY 2010-11 value to FY 2014-15 Net Present Value	23.37	24.95	26.64	28.44	30.37						
Normalised FY 2011-12 value to FY 2014-15 Net Present Value		26.31	28.09	29.99	32.02						
Normalised FY 2012-13 value to FY 2014-15 Net Present Value			20.51	21.90	23.38						
Normalised FY 2013-14 value to FY 2014-15 Net Present Value				25.27	26.98						
Normalised FY 2014-15 value					17.45						
Average of NPV of 5 FYs used for projection for FY 15					26.04						
Average WPI for past 5 years					6.77%						
Projected R&M Expenses for FY 2015-16						27.80					
Normative R&M Expenses for the Control Period							29.68	31.69	33.84	36.12	38.57

The summary of O&M expenses as approved for the Control Period is shown in the Table below:

Table 10.3-6: Approved O&M expenses (Rs. Cr.)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	CSPTCL	Approved	CSPTCL	Approved	CSPTCL	Approved	CSPTCL	Approved	CSPTCL	Approved
Employee Expenses	198.33	155.59	216.28	169.67	235.84	185.02	257.18	201.76	280.45	220.02
A&G Expenses	31.28	28.96	33.40	30.92	35.66	33.01	38.07	35.24	40.64	37.63
R&M Expenses	29.87	29.68	31.89	31.69	34.05	33.84	36.35	36.12	38.81	38.57
Total O&M Expenses	259.48	214.23	281.57	232.27	305.55	251.86	331.60	273.13	359.90	296.21
Wage Revision (Interim Relief) impact	-	11.75	-	12.81	-	13.97	-	15.24	-	16.61

10.3.2 Contribution to Pension & Gratuity (P&G)

CSPTCL's Submission

CSPTCL in its Petition submitted that it has projected the annual outflow of the Pension and Gratuity contribution (P&G) as per the latest Actuarial Valuation Report. Based on the said Report, CSPTCL has considered 10% escalation on annual basis on the approved P&G contribution for FY 2015-16 to arrive at the P&G Contribution for the MYT Control Period from FY 2016-17 to FY 2020-21.

The P&G Contribution submitted by CSPTCL for the Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 10.3-7: P&G Contribution as submitted by CSPTCL (in Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
P&G (net of CSLDC)	39.44	43.48	47.72	52.49	57.74

Commission's Views

Regulation 32 of the MYT Regulations, 2015 specifies as under:

“32. PENSION FUND

For meeting up the past unfunded liabilities of erstwhile CSEB/State Power Companies employees appointed before 1.1.2004, a pension and gratuity trust has been created and funding to the same has been allowed in the past Tariff Orders of the Commission. The contribution to the fund shall be decided by the Commission on the basis of actuarial analysis, expected pension outflow for the State Power Companies and availability of fund with the Pension trust at the time of determination of MYT / ARR for each year of the control period. However, the actual outflow towards the pension payment shall not be allowed in the O&M expenses covered in these Regulations for the Control Period. The pension outflow shall be met by the Pension trust. The pension fund contribution so determined by the Commission shall be recoverable in the same manner as specified in relevant chapters. Provided till the time SLDC is part of STU, SLDC's share out of the STU contribution shall be decided on pro-rata basis. For the purpose of ratio determination, the employee strength as on 1st April of the preceding year shall be considered.”(emphasis added)

The Companies have submitted that there is a shortfall in the contribution to the consolidated P&G Fund on account of following reasons, and that there is a need to increase the P&G contribution appropriately.

- a) The Chhattisgarh Govt. in FY 2013-14 had increased the retirement age of government employees from 60 years to 62 years. On account of such increase, the retirement of employees got pushed forward by 2 years and those who were

due to retire earlier will retire in FY 2016-17. Therefore, the pension liability of the companies will increase.

- b) The State Power Companies has granted interim relief for its employees. Accordingly the gratuity amount has increased.
- c) The Wage Revision (Interim Relief) of employees of State Power Companies are also due which may also have an additional impact on contribution to P&G fund.

In accordance with the provisions of the Regulation, by taking in to account the above aspects and on the basis of actuarial analysis, expected pension outflow for the State Power Companies and availability of fund with the Pension trust, the cumulative P&G contribution of CSPGCL, CSPTCL, CSLDC, and CSPDCL for FY 2016-17, works out as Rs. 480 crore. By considering an increase of 9.05% every year i.e. average CPI rate recorded for past five years, P&G contribution for subsequent years will be Rs. 523.44 crore, Rs. 570.81 crore, Rs. 622.47 crore, and Rs. 678.80 crore in FY 2017-18, FY 2018-19, FY 2019-20, and FY 2020-21, respectively.

The above amounts have been allocated to CSPGCL, CSPTCL, CSLDC, and CSPDCL in the same ratio as approved in previous order. The approved amount of P&G contribution of CSPDCL, CSPGCL, CSPTCL, and CSLDC for the purpose of ARR computations, is shown in the Table below:

Table 10.3-8: P&G Contribution for Companies for the Control Period (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
CSPGCL	130.83	142.67	155.58	169.66	185.01
CSPTCL	49.16	53.61	58.47	63.75	69.52
CSLDC	1.21	1.32	1.43	1.56	1.71
CSPDCL	298.80	325.83	355.31	387.47	422.51
TOTAL	480.00	523.43	570.79	622.44	678.76

10.3.3 Gross Fixed Assets

CSPTCL's submission

CSPTCL submitted that the capital structure for the MYT Control Period from FY 2016-17 to FY 2020-21 has been determined based on the methodology approved in MYT Order dated July 12, 2013 for the Control Period from FY 2013-14 to FY 2015-16. Accordingly, CSPTCL has segregated the capital structure for the Gross Fixed Assets (GFA) into consumer contribution, debt and equity.

CSPTCL submitted that it has considered closing GFA and CWIP of FY 2015-16 as the opening GFA and CWIP of FY 2016-17. Addition to the GFA has been done as proposed in the Capital Investment Plan for the third Control Period.

CSPTCL submitted that Debt:Equity ratio of 80:20 has been considered for total asset addition in FY 2015-16, and thereafter, it has been considered at 70:30 of total asset addition from FY 2016-17 to FY 2020-21. Consumer Contribution for the MYT Control Period has been considered as zero.

The Capital Structure as submitted by CSPTCL for the new MYT Control Period from FY 2016-17 to FY 2020-21 has been shown in the table below:

Table 10.3-9: Capital Structure as submitted by CSPTCL (Rs. Crore)

Sr. No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
A	Gross Fixed Assets (GFA)					
1	Opening GFA	3,792.05	4,331.19	5,602.54	6,233.99	6,468.70
2	Opening CWIP	502	979.34	619.92	887.03	1,360.95
3	Opening Capex	4,294.06	5,310.54	6,222.47	7,121.03	7,829.66
4	Capitalisation during the Year	539.14	1,271.35	631.45	234.71	889.7
5	Closing GFA	4,331.19	5,602.54	6,233.99	6,468.70	7,358.40
6	Closing CWIP	979.34	619.92	887.03	1,360.95	1,045.18
7	Closing Capex	5,310.54	6,222.47	7,121.03	7,829.66	8,403.59
B	Grants & Consumer Contribution					
1	Opening Grant and Contribution	101.56	101.56	101.56	101.56	101.56
2	Consumer Contribution/Grants during the Year	-	-	-	-	-
3	Closing Consumer Contribution	101.56	101.56	101.56	101.56	101.56
4	Consumer Contribution in Opening GFA	46.06	46.06	46.06	46.06	46.06
5	Consumer Contribution in Closing GFA	46.06	46.06	46.06	46.06	46.06
C	Loan borrowed					
1	Opening Borrowed Loan	2,273.87	2,985.41	3,623.76	4,252.75	4,748.79
2	Loan Borrowed during the Year	711.54	638.35	628.99	496.04	401.75
3	Closing Borrowed Loan	2,985.41	3,623.76	4,252.75	4,748.79	5,150.54
4	Borrowed Loan in Opening GFA	2,432.37	2,809.76	3,699.71	4,141.72	4,306.02
5	Borrowed Loan in Closing GFA	2,809.76	3,699.71	4,141.72	4,306.02	4,928.81
D	Equity					
1	Opening Gross Equity	1,918.63	2,223.57	2,497.15	2,766.72	2,979.31
2	Equity addition during the Year	304.94	273.58	269.57	212.59	172.18
3	Closing Gross Equity	2,223.57	2,497.15	2,766.72	2,979.31	3,151.49

Sr. No	Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
4	Gross Equity in Opening GFA	1,313.63	1,475.37	1,856.78	2,046.21	2,116.63
5	Gross Equity in Closing GFA	1,475.37	1,856.78	2,046.21	2,116.63	2,383.54
6	Average Gross Equity during the year	1,394.50	1,666.08	1,951.50	2,081.42	2,250.08
E	Permissible Equity					
1	Permissible Equity in Opening GFA	936.5	1,098.25	1,479.65	1,669.09	1,739.50
2	Permissible Equity in Closing GFA	1,098.25	1,479.65	1,669.09	1,739.50	2,006.41
3	Average Gross Permissible Equity during the year	1,017.38	1,288.95	1,574.37	1,704.29	1,872.95
F	Normative loan					
1	Opening Normative Loan	377.13	377.13	377.13	377.13	377.13
2	Closing Normative Loan	377.13	377.13	377.13	377.13	377.13
3	Average Normative Loan	377.13	377.13	377.13	377.13	377.13

Commission's View

The closing GFA for CSPTCL for FY 2014-15, as approved in the true-up for FY 2014-15 in Chapter 6 of this Order, has been considered as the opening GFA for FY 2015-16. Capitalisation for FY 2015-16 as approved in the MYT Order dated July 12, 2013 has been added to arrive at the closing GFA for FY 2015-16.

The closing GFA of FY 2015-16 has been considered as the opening GFA for FY 2016-17. Similarly, for each year of the Control Period, closing balance of the previous year has been considered as the opening balance for the next year. The capitalisation approved in the Order dated March 26, 2016 in Petition No. 101 of 2015, on the Capital Investment Plan for the Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 10.3-10: Capitalisation Estimated
(Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Capitalisation	867.41	1138.75	562.95	155.21	324.70

It has been observed that CSPTCL could not capitalise the as per the approval granted in previous capital investment plan. Considering this aspect, in order to avoid higher front loading in the tariff, the additional capitalisation for each year of the Control

period has been taken as 50% of the capitalisation as approved in the Capital Investment Plan for FY 2016-17 to FY 2020-21. However, the actual Capitalisation achieved by CSPTCL shall be considered at the time of true-up for the respective year.

Such 50% of capitalisation approved in the Capital Investment Plan for FY 2016-17 to FY 2020-21 has been added to the opening GFA of the respective years, to arrive at the closing GFA for each year of the Control Period.

The opening and closing GFA considered for each year of the Control Period, as well as the funding pattern for the capitalisation is given in the Table below:

Table 10.3-11: Approved Capital Structure (Rs. Crore)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21
Opening GFA	3666.31	4100.02	4669.39	4950.87	5028.47
Capitalisation during the year	433.71	569.38	281.48	77.61	162.35
Closing GFA	4100.02	4669.39	4950.87	5028.47	5190.82
Consumer Contribution & Grants added during the Control Period	0.00	0.00	0.00	0.00	0.00
Debt addition (70%)	303.59	398.56	197.03	54.32	113.65
Permissible Equity Addition (30%)	130.11	170.81	84.44	23.28	48.70

10.3.4 Interest on loan

CSPTCL's submission

CSPTCL submitted that it has computed Interest on Loan as per Regulation 23 of the MYT Regulations, 2015. It has considered closing loan balance for FY 2014-15 (as available in audited accounts) as the opening loan balance for FY 2015-16. The debt component of GFA addition in FY 2015-16 and thereon has been considered as the loan addition during the year for the MYT Control Period. The allowable depreciation for the respective Financial Years under the MYT Control Period has been considered as the normative repayment for that particular Financial Year in the Control Period. The actual weighted average interest rate of 12.17% as calculated for FY 2014-15 has been considered for computation of interest expenses.

The Interest on Loan as submitted by CSPTCL for the MYT Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 10.3-12: Interest on Loan as submitted by CSPTCL (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Borrowed Loan in Opening GFA	2,432.37	2,809.76	3,699.71	4,141.72	4,306.02
Opening Normative Loan	377.13	377.13	377.13	377.13	377.13
Total Opening Gross Loan	2,809.49	3,186.89	4,076.84	4,518.85	4,683.15
Repayment till previous year	937.98	1,133.33	1,376.22	1,669.09	1,984.69
Total Opening Net Loan	1,871.51	2,053.56	2,700.61	2,849.77	2,698.46
Repayment during the period	195.35	242.89	292.86	315.61	345.13
Additional Capitalization of Borrowed Loan during the year	377.40	889.95	442.02	164.30	622.79
Addition/(Reduction) in Normative Loan during the year	-	-	-	-	-
Total Closing Net Loan	2,053.56	2,700.61	2,849.77	2,698.46	2,976.11
Average Loan during the year	1,962.54	2,377.09	2,775.19	2,774.11	2,837.28
Weighted Average Interest Rate	12.17%	12.17%	12.17%	12.17%	12.17%
Interest Expenses	238.86	289.32	337.77	337.64	345.33

Commission's View

Regulation 23 of MYT Regulations, 2015 specifies as under:

“23.1. The loans arrived at in the manner indicated in Regulation 17 shall be considered as gross normative loan for calculation of interest on loan.

23.2. The normative loan outstanding as on 01.04.2016 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.03.2016 from the gross normative loan.

23.3. The repayment for the year of the tariff period shall be deemed to be equal to the depreciation allowed for that year.

23.4. Notwithstanding any moratorium period availed by the generating company or the licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

23.5. The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project;

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the licensee, as the case may

be, does not have actual loan, then the weighted average rate of interest of the generating company or the licensee as a whole shall be considered:

Provided further, in case of new generating station or the licensee commencing its operation after the date of effectiveness of these Regulations, and which don't have actual loan portfolio, the rate of interest shall be considered on normative basis and shall be equal to the Base rate of State Bank of India plus 200 basis points as on the date on which the generating station or a unit thereof or the transmission system or the distribution licensee, as the case may be, is declared under commercial operation.

23.6. The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

23.7. The above interest computation shall exclude interest on loan amount, normative or otherwise, to the extent of capital cost funded by consumer contribution, grants or deposit works carried out by transmission licensee or distribution licensee or generating company, as the case may be.

23.8. The generating company or CSLDC or the licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the STU or the transmission licensee, as the case may be, in the ratio of 2:1.

Provided in case of CSLDC, this provision shall be applicable only to those intra-State entities who are availing long-term services of CSLDC.”

To compute Interest on Loan, the closing normative loan of FY 2015-16 has been considered as the opening normative loan for FY 2016-17. Similarly, for each year of the Control Period, the closing normative loan for previous year has been considered as the opening normative loan for that year.

Out of the total approved capitalisation, debt component has been considered as 70% of the approved amount to compute the increase in normative loans which is as shown in the Table 10.3-11. Repayment of normative loan for each year has been considered equal to the depreciation allowed for that year. The rate of interest has been computed in accordance with Regulation 23.5, i.e., as weighted average rate of interest on the basis of the actual loan portfolio at the beginning of each year applicable to the project. As per CSPTCL's audited accounts, its loan portfolio as on March 31, 2015, has the following actual loans:

- a) PFC Loan at interest rate of 12.25%
- b) NABARD Loan at interest rate of 11%
- c) State Govt. Loan at interest rate of 8.90%

The weighted average rate of interest works out to 12.20%. The interest on loan as approved for the Control Period is shown in the Table below:

Table 10.3-13: Approved Interest on Loan (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Total Opening Net Loan	1782.12	1904.69	2096.21	2065.85	1883.44
Repayment during the period	181.03	207.05	227.39	236.73	242.07
Additional Capitalization of Borrowed Loan during the year	303.59	398.56	197.03	54.32	113.65
Total Closing Net Loan	1904.69	2096.21	2065.85	1883.44	1755.02
Average Loan during the year	1843.41	2000.45	2081.03	1974.65	1819.23
Weighted Average Interest Rate	12.20%	12.20%	12.20%	12.20%	12.20%
Interest Expenses	224.90	244.06	253.89	240.92	221.95

10.3.5 Depreciation**CSPTCL's submission**

CSPTCL submitted that depreciation for the MYT Control Period has been calculated in accordance with Regulation 24 of the MYT Regulations, 2015. Depreciation as submitted by CSPTCL for the MYT Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 10.3-14: Depreciation as submitted by CSPTCL (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening GFA	3,792.05	4,331.19	5,602.54	6,233.99	6,468.70
Add: Additional capitalization during the year	539.14	1,271.35	631.45	234.71	889.70
GFA at the end of the year	4,331.19	5,602.54	6,233.99	6,468.70	7,358.40
Average GFA for the year	4,061.62	4,966.87	5,918.27	6,351.35	6,913.55
Depreciation Rate	5.25%	5.25%	5.25%	5.25%	5.25%
Depreciation @ rates as per applicable Regulation	213.32	260.86	310.83	333.58	363.10
Opening consumer contribution	28.86	28.86	28.86	28.86	28.86
Addition: consumer contribution during the year	-	-	-	-	-
Closing consumer contribution	28.86	28.86	28.86	28.86	28.86
Average consumer contribution	28.86	28.86	28.86	28.86	28.86
Less: Depreciation on consumer contribution on live assets	1.52	1.52	1.52	1.52	1.52
Less: Depreciation on fully depreciated Assets	16.45	16.45	16.45	16.45	16.45
Net Depreciation	195.35	242.89	292.86	315.61	345.13

Commission's View

Regulation 24 of MYT Regulations, 2015 specifies as under:

“24.1 The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission:

Provided that the capital cost shall not include funds from grant or consumer contribution or deposit works received for funding of fixed asset as specified in Regulation 21.

24.2 The salvage value of the asset except for IT equipment's and software used for CSLDC business shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

Provided that, the salvage value for IT equipment's and Software shall be considered as NIL and 100% value of the assets shall be considered depreciable.

24.3 Land other than the land held under lease and the land for reservoir in case of hydro generating station and the land for ash-bund for thermal power stations shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

24.4 Depreciation shall be calculated annually based on Straight Line Method and at rates as specified in Appendix-I to these regulations for the assets of the generating station, transmission system, distribution system and CSLDC:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 15 years from date of commercial operation shall be spread over the balance useful life of the assets;

In case of the existing projects, the balance depreciable value as on 01.04.2016 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.03.2016 from the gross depreciable value of the assets.

Provided that in those cases where the capital investment plan has been approved by the Commission and the depreciation rates as provided in these Regulations are insufficient for the repayment of loan, the rate of depreciation shall be decided by the Commission at the time of issuance of tariff order, subject to prudence check.

24.5 Till the separate CSLDC Company is notified by the State Government, the depreciation shall be calculated as applicable for the STU under this Regulations;

Provided further the balance depreciable value as on the date of transfer shall be worked out by deducting the cumulative depreciation from the gross depreciable value of the assets appearing in the books of accounts of the CSLDC for the CSLDC as on the date of transfer.

24.6 Depreciation shall be chargeable from the first year of commercial operation. The depreciation shall be computed on the average asset base during the year:

Provided for the new generating station or unit, the depreciation shall be charged on pro rata basis during the year the asset has been declared under commercial operation. For subsequent years, the

depreciation shall be computed on the average asset base during the year”

Depreciation for the Control Period from FY 2016-17 to FY 2020-21 has been calculated in accordance with the above mentioned Regulations, on the average GFA during the year. The depreciation has been computed considering the weighted average depreciation rate of 5.25%, as submitted by CSPTCL. For deducting depreciation related to consumer contribution on live assets, the closing value approved in the final true-up of FY 2014-15, i.e. Rs. 58.09 Crore has been considered for the entire Control Period. Further, the depreciation on fully depreciated assets has been deducted based on the revised data submitted by CSPTCL in reply to the data gaps, for each year of the Control Period.

The depreciation approved for the Control Period is shown in the Table below:

Table 10.3-15: Approved Depreciation (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening GFA	3666.31	4100.02	4669.39	4950.87	5028.47
Additional capitalization during the year	433.71	569.38	281.48	77.61	162.35
GFA at the end of the year	4100.02	4669.39	4950.87	5028.47	5190.82
Average GFA for the year	3883.16	4384.70	4810.13	4989.67	5109.65
Depreciation Rate	5.25%	5.25%	5.25%	5.25%	5.25%
Depreciation @ specified rates	203.87	230.20	252.53	261.96	268.26
Opening consumer contribution	46.06	46.06	46.06	46.06	46.06
Additional consumer contribution during the year	-	-	-	-	-
Closing consumer contribution	46.06	46.06	46.06	46.06	46.06
Average consumer contribution	46.06	46.06	46.06	46.06	46.06
Less: Depreciation on consumer contribution on live assets	2.42	2.42	2.42	2.42	2.42
Less: Depreciation on fully depreciated Assets	19.79	20.10	22.09	22.18	23.14
Net Depreciation	181.66	207.68	228.02	237.36	242.70

10.3.6 Interest on working capital

CSPTCL's submission

CSPTCL submitted that it has calculated Interest on Working Capital (IoWC) in accordance with Regulation 25.1 (c) of the MYT Regulations, 2015.

CSPTCL submitted that it has considered one month of the projected O&M Expenses, maintenance spares at 40% of the projected R&M expenses, and receivables equivalent to one month of fixed cost for computing the working capital requirement, and interest rate of 13.20% (SBI Base Rate of 9.70% as on September 30, 2015 plus 350 basis points) for computing the Interest on Working Capital for the MYT Control Period.

Interest on Working Capital as submitted by CSPTCL for the MYT Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 10.3-16: Interest on Working Capital as submitted by CSPTCL

(Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
O&M Expenses	21.62	23.46	25.46	27.63	29.99
Maintenance Spares	11.95	12.76	13.62	14.54	15.53
Receivables	77.07	92.04	107.47	114.15	122.94
Total WC requirement	110.65	128.26	146.55	156.33	168.46
Rate of Interest on Working Capital	13.20%	13.20%	13.20%	13.20%	13.20%
Interest on Working Capital	14.61	16.93	19.34	20.64	22.24

Commission's View

Regulation 25.1 (c) of the MYT Regulations, 2015 specifies as under:

"25.1. The working capital shall cover:

(c) In case of Transmission business:

- i. Operation and maintenance expenses for one (1) month; plus*
- ii. Maintenance spares @ 40% of repair and maintenance expenses specified in Regulation 47.5; plus*
- iii. Receivables equivalent to one (1) month of fixed cost.*
- iv. Less: Amount, if any, held as security deposits from Transmission System users.*

8.41 Further, the MYT Regulations, 2015 states that:

25.4. "Interest on working capital shall be allowed at a rate equal to the Base rate of State Bank of India as on 30th September of the financial year in which the Petition is filed plus 350 basis points. At the time of true up, the interest rate shall be adjusted as per the actual rate prevailing on 1st April of the financial year for which true up exercise has been undertaken."

25.5. Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee or the distribution licensee or CSLDC has not taken loan for working capital from any outside agency."

The Interest on Working Capital has been calculated in accordance with the above-said Regulations. The interest rate of 13.20% has been considered, which is the Base Rate of State Bank of India as on September 30, 2015 plus 350 basis points, for computing the Interest on Working Capital for the entire Control Period. The Interest on Working Capital approved for the Control Period is shown in the Table below:

Table 10.3-17: Approved Interest on Working Capital (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
O&M for 1 month	17.85	19.36	20.99	22.76	24.68
Maintenance Spares @ 40% of R&M	11.87	12.68	13.53	14.45	15.43
1 month Receivable	68.62	76.40	82.79	85.55	87.45
Total Working Capital requirement	98.35	108.43	117.31	122.76	127.56
Rate of Interest on Working Capital	13.20%	13.20%	13.20%	13.20%	13.20%
Net Interest on Working Capital	12.98	14.31	15.49	16.20	16.84

10.3.7 Return on equity

CSPTCL's submission

CSPTCL submitted that it has calculated Return on Equity (RoE) in accordance with Regulation 22 of the MYT Regulations, 2015.

CSPTCL submitted that it has grossed up the allowed rate of return of 15.5% with the MAT rate of 20.9605% based on the formula prescribed in the MYT Regulations, 2015. Hence, RoE has been computed on the grossed up rate of return of 19.61%.

The Return on Equity as submitted by CSPTCL for the MYT Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 10.3-18: Return on Equity as submitted by CSPTCL (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Permissible Equity in Opening GFA	936.51	1,098.25	1,479.65	1,669.09	1,739.50
Permissible Equity in Closing GFA	1,098.25	1,479.65	1,669.09	1,739.50	2,006.41
Average Gross Permissible Equity during the year	1,017.38	1,288.95	1,574.37	1,704.29	1,872.95

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Rate of Return on Equity	19.61%	19.61%	19.61%	19.61%	19.61%
Return on Equity	199.51	252.77	308.74	334.22	367.29

Commission's View

Regulation 22 of the MYT Regulations, 2015 specifies as under:

“22.1. Generation, Transmission and CSLDC: Return on equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 17. Return on equity shall be computed on pre-tax basis at the base rate of 15.50% to be grossed up as per Regulation 22.3 of these Regulations.

22.3. The rate of return on equity for each year of the Control Period shall be computed by grossing up the base rate with the prevailing MAT rate of the base year: Provided that return on equity with respect to the actual tax rate applicable to the generating company or the transmission licensee or distribution licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the Control Period shall be trued up separately for each year of the Control Period. In case, no tax is payable during the financial year, the tax rate for the purpose of truing up shall be taken as nil.

Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where, ‘t’ is the applicable tax rate in accordance with regulation 22.3 of these regulations.

Provided that if there is a loss incurred by the generating company or the transmission licensee or distribution licensee or CSLDC, as the case may be, in the previous year and based on the prudence check made by the Commission, the Minimum Alternate Tax may not be considered in such a case while determining the return on equity.”

The Return on Equity for the Control Period has been computed by considering equity addition as 30% of the approved capitalisation for the purposes of tariff. As mentioned in the true-up chapter for FY 2014-15, CSPTCL has not paid any Income Tax for FY 2014-15. Hence, the rate of RoE has not been grossed up with the MAT rate, and the RoE rate of 15.50% has been considered for the purpose of approving RoE for the Control Period. In case CSPTCL actually pays Income Tax for any year of the Control Period, then the rate of RoE shall be appropriately grossed up at the time of truing up for that year.

The Return on Equity approved for the Control Period is shown in the Table below:

Table 10.3-19: Approved Return on Equity (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Permissible Equity in Opening GFA	911.36	1041.47	1212.28	1296.73	1320.01
Permissible Equity in Closing GFA	1041.47	1212.28	1296.73	1320.01	1368.71
Average Gross Permissible Equity during the year	976.42	1126.88	1254.51	1308.37	1344.36
Rate of Return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	151.34	174.67	194.45	202.80	208.38

10.3.8 Non-Tariff Income**CSPTCL's submission**

CSPTCL submitted that it has projected Non-Tariff Income for the MYT Control Period on the basis of audited accounts for FY 2014-15, excluding delayed payment surcharge considering it as non-recurring income with the assumption that in future LTOA/STOA/MTOA consumers would be paying without any delay. The Non-Tariff Income submitted by CSPTCL for the MYT Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 10.3-20: Non-Tariff Income as submitted by CSPTCL (Rs. Cr.)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21
Non-Tariff Income	22.35	22.35	22.35	22.35	22.35

Commission's view

The Non-Tariff Income for the MYT Control Period has been considered at the same level as that approved for FY 2014-15 after final true-up, as elaborated in Chapter 6 of this Order. The Non-Tariff Income as approved is given in the following Table:

Table 10.3-21: Estimated Non-Tariff Income (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Non-Tariff Income	22.35	22.35	22.35	22.35	22.35

10.3.9 Aggregate Revenue Requirement

The summary of the ARR for the Control Period from FY 2016-17 to FY 2020-21 as approved is shown in the Table below:

Table 10.3-22: Approved ARR for FY 2016-17 to FY 2020-21 (Rs. Cr.)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	CSPTCL	Approved	CSPTCL	Approved	CSPTCL	Approved	CSPTCL	Approved	CSPTCL	Approved
Employee Expenses		155.59		169.67		185.02		201.76		220.02
Wage Revision (Interim Relief) Impact	198.33	11.75	216.28	12.81	235.84	13.97	257.18	15.24	280.45	16.61
A&G Expenses	31.28	28.96	33.40	30.92	35.66	33.01	38.07	35.24	40.64	37.63
R&M Expenses	29.87	29.68	31.89	31.69	34.05	33.84	36.35	36.12	38.81	38.57
Pension & Gratuity Contribution	39.44	49.16	43.38	53.61	47.72	58.47	52.49	63.75	57.74	69.52
Depreciation	195.35	181.66	242.89	207.68	292.86	228.02	315.61	237.36	345.13	242.70
Interest on Loan	238.86	224.71	289.32	243.79	337.77	253.55	337.64	240.49	345.33	221.45
Interest on Working capital	14.61	12.98	16.93	14.31	19.34	15.49	20.64	16.20	22.24	16.84
Total	747.73	694.49	874.08	764.49	1,003.24	821.36	1,057.98	846.17	1,130.35	863.34
Return on Equity	199.51	151.34	252.77	174.67	308.74	194.45	334.22	202.80	367.29	208.38
Less: Non-Tariff Income	22.35	22.35	22.35	22.35	22.35	22.35	22.35	22.35	22.35	22.35
Net ARR	924.89	823.49	1,104.50	916.80	1,289.63	993.46	1,369.84	1026.62	1,475.29	1049.36

10.3.10 Annual Transmission Charges

CSPTCL's Submission

CSPTCL submitted that it has projected Annual Transmission Charges in accordance with Regulation 45.1 and 45.2 of the MYT Regulations, 2015. Therefore, net ARR projected for each year under the Control Period has been proposed as the Annual Transmission Charges for that particular year.

Commission's View

Regulation 45.1 and 45.2 of MYT Regulations, 2015 specifies as under:

“45.1. Annual Transmission Charges for each year of the Control Period: The Annual Transmission Charges for each financial year of the Control Period shall provide for the recovery of the Aggregate Revenue Requirement of the transmission licensee / STU for the respective financial year of the Control Period, reduced by the amount of Non-Tariff Income and income from other business, as approved by the Commission:

45.2. The Annual Transmission Charges of the transmission licensee shall be determined by the Commission on the basis of an application for determination of Aggregate Revenue Requirement made by the transmission licensee in accordance with Chapter- 2 of these Regulations.”

As per the MYT Regulations, 2015, the annual transmission charges (fixed cost) shall be recovered from the users of CSPTCL's system on a monthly basis as per the methodology specified in the CSERC Open Access Regulations. According to the CSERC (Connectivity and Intra-State Open Access) Regulations, 2011, the basis of sharing monthly transmission charge shall be the maximum demand in MW served by the CSPTCL's system in the previous financial year.

The maximum demand in the State in FY 2015-16 was 4262 MW. For estimating the energy input or energy to be handled by CSPTCL's system for FY 2016-17, the load factor of 85% on maximum demand met in FY 2015-16 has been considered. This corresponds to 31735 MU. Accordingly, it is estimated that 31735 MU may be handled by CSPTCL's system in FY 2016-17. Accordingly, the Transmission charges (for long term and medium term open access customer) and Short-term Open Access (STOA) Charges for FY 2016-17 has been determined and are shown in the Table below:

**Table 10.3-23: Approved Transmission Charges for FY 2016-17
(Rs. Crore)**

Particulars	FY 2016-17
ARR (AFC) for FY 2016-17 (Rs. Cr.)	823.49
Gap/(Surplus) of FY 2014-15 with carrying cost up to FY 2016-17	(0.36)
Impact due to compliance of APTEL Judgment in Appeal No. 308 of 2013	90.27
Total Annual Transmission Charges to be billed	913.39
Monthly Transmission Charges to be billed (Rs. Cr./Month)	76.12
Short-term Transmission Charges to be billed (Rs./kWh)	0.288

10.3.11 Incentive/Penalty Calculation

- A. As per Clause 51 of the MYT Regulations, 2015, target availability of transmission system has to be specified for the control period for incentive/penalty payable/levied to a transmission licensee.
- B. Annual target availability factor for incentive/penalty consideration shall be 99% for entire MYT Control Period from FY 2016-17 to FY 2020-21:
Provided further that no incentive/penalty shall be payable for availability beyond 99.75%:
- C. The transmission licensee shall be entitled to incentive/penalty on achieving the annual availability beyond/lower than the target availability in accordance with the following formula:
$$\text{Incentive/Penalty} = \text{Annual Fixed Charges for that year} \times (\text{Annual availability achieved} - \text{Target availability}) / \text{Target availability}$$
- D. Incentive/Penalty shall be shared equally (50:50) between the transmission licensee and beneficiaries.

11 CSLDC CHARGES FOR THE MYT CONTROL PERIOD FROM FY 2016-17 TO FY 2020-21

11.1 ANNUAL CSLDC CHARGES

11.1.1 Components of Annual CSLDC Charges

Regulation 74 of the MYT Regulations, 2015 specifies as under:

“74. Components of annual charges: The annual charges shall consist of the following components, namely:-

- (a) Return on equity;*
- (b) Interest on loan capital;*
- (c) Depreciation;*
- (d) Operation and maintenance expenses;*
- (e) Interest on working capital;*
- (f) Contribution to Pension fund.”*

11.1.2 Operation & Maintenance Expenses

CSLDC's Submissions

CSLDC submitted that it has computed O&M expenses for the Control Period from FY 2016-17 to FY 2020-21 in accordance with Regulation 74.5 of the MYT Regulations, 2015.

In accordance with the MYT Regulations, 2015, Employee Expenses, A&G Expenses, and R&M Expenses for the base year FY 2015-16 have been derived on the basis of the normalized average of the actual Employee Expenses, A&G Expenses, and R&M Expenses for the five years immediately preceding FY 2015-16. Employee expenses have been normalized based on average Consumer Price Index (CPI) increase for the past five years. A&G and R&M expenses have been normalized based on average Wholesale Price Index (WPI) increase for the past five years.

CSLDC submitted that the Employee Expenses, A&G Expenses, and R&M Expenses so derived for FY 2015-16 after normalization, have been escalated by the same inflation rate, i.e., average CPI increase of past five years for Employee Expenses, and average WPI increase of past five years for A&G expenses and R&M expenses, to project the O&M expenses for each year of the Control Period from FY 2016-17 to FY 2020-21.

CSLDC submitted that there was an interim wage relief impact as per Wage Advisory Committee Report dated January 29, 2015 to the tune of 15%. Total arrears on account of Wage Revision (Interim Relief) were to be passed on to employees in 15 equal instalments effective from January 1, 2014. Out of this, 7.5% of the interim relief has already been passed in FY 2014-15. The balance 7.50% will be accounted for in FY 2015-16. Therefore, CSLDC has included the impact of Wage Revision (Interim Relief) in calculating the base year employee expense by escalating the normalized as well as actual employee expense of FY 2014-15 by average inflation rate (CPI) along with an escalation of the balance of 7.50%. The average of

normalized net present value of FY 2015-16 has also been escalated by average inflation rate (CPI) to estimate the employee expenses for the Control Period.

The O&M expenses submitted by CSLDC for the MYT Control Period from FY 2016-17 to FY 2020-21 are shown in the Table below:

Table 11.1-1: O&M Expenses as submitted by CSLDC (in Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Employee Expenses	7.12	7.76	8.46	9.23	10.06
A&G Expenses	1.69	1.80	1.92	2.05	2.19
R&M Expenses	1.16	1.23	1.32	1.41	1.50
Total O&M Expenses	9.96	10.79	11.70	12.69	13.76

Further, CSLDC submitted that in light of the Commission's Order on the Capital Investment Plan of CSLDC for the second Control Period from FY 2013-14 to FY 2015-16, few items of expenditure need to be covered under R&M expenses in the Control Period from FY 2016-17 to FY 2020-21. CSLDC requested the Commission to allow the tentative expenditure as shown in the Table below, in addition to the normative R&M expenses based on actuals:

**Table 11.1-2: Additional R&M Expenses as submitted by CSLDC
(in Rs. Crore)**

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21
SCADA Equipment for main & back-up SLDC	1.39	1.39	1.39	1.39	1.39
Master Communication for SLDC	3.74	3.74	3.74	3.74	3.74
Unified Real Time Dynamic State Measurement (URTDMS)	0.90	0.90	0.90	0.90	0.90
Total	6.03	6.03	6.03	6.03	6.03

Commission's View

The O&M expenses for the Control Period from FY 2016-17 to FY 2020-21 have been approved based on the methodology prescribed in Regulation 74.5 of the MYT Regulations, 2015. The yearly inflation rates and the average inflation rate considered for projecting the O&M expenses is shown in the following Table:

Table 11.1-3: Computation of Inflation Rate for Projections (%)

Particulars	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	Average of 5 years increase
CPI- IW (%)	10.45%	8.39%	10.44%	9.68%	6.29%	9.05%
WPI- AC (%)	9.56%	8.94%	7.35%	5.98%	2%	6.77%

Actual net employee expenses for the past five years, i.e., from FY 2010-11 to FY 2014-15 have been considered as per the True-up Orders for the respective five years, in accordance with the MYT Regulations, 2015, which require the actual expenses as per the audited accounts to be considered, subject to prudence check. As the employee expenses from FY 2010-11 to FY 2014-15 have already been finalised in respective true up orders, therefore the trued up values of employee expenses have been considered in this order for projection purposes. Net actual employee expenses for FY 2010-11 to FY 2013-14 (excluding Pension & Gratuity contribution and impact of pay revision) have been normalised up to FY 2014-15 by escalating net expenses of each year by average increase in CPI for past five years, i.e., 9.05%.

In FY 2014-15, there was an impact of Wage Revision (Interim Relief). In reply to specific query, CSLDC submitted the report of Wage Advisory Committee. For FY 2014-15, the actual employee expenses incurred by CSLDC excluding Rs. 0.26 Crore paid due to Wage Revision (Interim Relief) has been considered, as approved in truing up section of this order. The average of the net present value in FY 2014-15 of the employee expenses of FY 2010-11 to FY 2014-15 has then been escalated at the same rate of CPI increase, i.e., 9.05%, for deriving the base employee expenses for FY 2015-16. The employee expenses for each year of the MYT Control Period from FY 2016-17 to FY 2020-21 have been projected by escalating the base value for FY 2015-16 at the same rate of CPI increase, i.e., 9.05%.

The impact of Rs. 0.26 Crore, on account of Wage Revision (Interim Relief) for FY 2014-15, has been considered as a separate line entry. Even though at the time of true up, the impact of Wage Revision (Interim Relief) has been excluded, as payment against the same has been made in FY 2015-16. However, for projection purposes Rs. 0.26 Crore has been considered and escalated at the same rate of CPI increase i.e. 9.05%, from FY 2014-15 up to FY 2020-21, to factor in the increase in salary levels on account of Wage Revision (Interim Relief). The difference between the actual amount paid on account of Wage Revision (Interim Relief) and the projected amount in this Order, will be passed through at the time of true up. As the impact of wage revision is passed through in the Regulations, the employee cost shall be trued-up at actuals subject to prudence check, and shall not be subject to sharing of gains and losses.

Actual net A&G expenses and R&M expenses for the past five years, i.e., from FY 2010-11 to FY 2014-15 have been considered as per the respective True-up Orders, in accordance with the MYT Regulations, which require the actual expenses as per the audited accounts to be considered, subject to prudence check. As the A&G expenses and R&M expenses from FY 2010-11 to FY 2014-15 have already been finalised in respective true up orders, therefore the trued up values of A&G expenses and R&M expenses have been considered in this order for projection purposes. Net actual A&G expenses and R&M expenses for FY 2010-11 to FY 2013-14 (excluding expenses of non-recurring nature) have been normalised up to FY 2014-15 by escalating net expenses of each year by average increase in WPI for past five years, i.e., 6.77%.

For FY 2014-15, the Commission has considered the net A&G expenses and R&M expenses approved after true-up, as discussed in Chapter 7 of this Order. The average of the net present value in FY 2014-15 of the A&G expenses and R&M expenses of

FY 2010-11 to FY 2014-15 has then been escalated at the same rate of WPI increase, i.e., 6.77%, for deriving the base A&G expenses and R&M expenses for FY 2015-16. The A&G expenses and R&M expenses for each year of the MYT Control Period from FY 2016-17 to FY 2020-21 have been projected by escalating the base value for FY 2015-16 at the same rate of WPI increase, i.e., 6.77%.

The normative Employee expenses, A&G expenses and R&M expenses approved by the Commission for the Control Period from FY 2016-17 to FY 2020-21 is shown in the Tables below:

Table 11.1-4: Computation of Employee Expenses for the Control Period (Rs. Crore)

Particulars	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Employee Expenses Excluding P&G	3.25	4.31	4.49	4.78	5.54						
Normalised FY 2010-11 value to FY 2014-15 Net Present Value	3.25	3.54	3.86	4.21	4.60						
Normalised FY 2011-12 value to FY 2014-15 Net Present Value		4.31	4.70	5.13	5.59						
Normalised FY 2012-13 value to FY 2014-15 Net Present Value			4.49	4.90	5.34						
Normalised FY 2013-14 value to FY 2014-15 Net Present Value				4.78	5.21						
Normalised FY 2014-15 value					5.28						
Average of NPV of 5 FYs used for projection for FY 2014-15					5.20						
Average CPI for past 5 years					9.05%						
Projected Employee Expenses for FY 2015-16						5.67					
Normative Employee Expenses for the Control Period							6.19	6.75	7.36	8.02	8.75
Wage Revision (Interim Relief) Impact							0.31	0.34	0.37	0.40	0.44

Table 11.1-5: Computation of A&G Expenses for the Control Period (Rs. Crore)

Particulars	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
A&G Expenses	1.15	0.74	0.90	1.05	0.53						
Normalised FY 2010-11 value to FY 2014-15 Net Present Value	1.15	1.23	1.31	1.40	1.49						
Normalised FY 2011-12 value to FY 2014-15 Net Present Value		0.74	0.79	0.84	0.90						
Normalised FY 2012-13 value to FY 2014-15 Net Present Value			0.90	0.96	1.03						
Normalised FY 2013-14 value to FY 2014-15 Net Present Value				1.05	1.12						
Normalised FY 2014-15 value					0.53						
Average of NPV of 5 FYs used for projection for FY 2014-15					1.01						
Average WPI for past 5 years					6.77%						
Projected A&G Expenses for FY 2015-16						1.08					
Normative A&G Expenses for the Control Period							1.16	1.23	1.32	1.41	1.50

Table 11.1-6: Computation of R&M Expenses for the Control Period (Rs. Crore)

Particulars	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
R&M Expenses	0.39	1.28	0.46	1.18	3.54						
Normalised FY 2010-11 value to FY 2014-15 Net Present Value	0.39	0.42	0.44	0.47	0.51						
Normalised FY 2011-12 value to FY 2014-15 Net Present Value		1.28	1.37	1.46	1.56						
Normalised FY 2012-13 value to FY 2014-15 Net Present Value			0.46	0.49	0.53						
Normalised FY 2013-14 value to FY 2014-15 Net Present Value				1.18	1.26						
Normalised FY 2014-15 value to FY 2014-15 Net Present Value					3.54						
Average of NPV of 5 FYs used for projection for FY 2014-15					1.48						
Average WPI for past 5 years					6.77%						
Projected R&M Expenses for FY 2015-16						1.58					
Normative R&M Expenses for the Control Period							1.69	1.80	1.92	2.05	2.19

The summary of O&M expenses as approved for the Control Period is shown in the Table below:

Table 11.1-7: O&M expenses approved by the Commission (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	CSLDC	Approved	CSLDC	Approved	CSLDC	Approved	CSLDC	Approved	CSLDC	Approved
Employee Expenses	7.12	6.19	7.76	6.75	8.46	7.36	9.23	8.02	10.06	8.75
A&G Expenses	1.16	1.16	1.23	1.23	1.32	1.32	1.41	1.41	1.50	1.50
R&M Expenses	1.69	1.69	1.80	1.80	1.92	1.92	2.05	2.05	2.19	2.19
Total O&M Expenses	9.96	9.04	10.79	9.78	11.70	10.60	12.69	11.48	13.76	12.44
Wage Revision (Interim Relief) Impact	-	0.31	-	0.34	-	0.37	-	0.40	-	0.44

CSLDC has requested for allowing additional R&M expenses on actual but it does not appear proper to permit such expenses at this stage. However, CSLDC may approach the Commission for necessary relief at the time of true-up for the respective year by submitting adequate justification for any additional R&M expenses incurred over and above the normative R&M expenses approved in this Order.

11.1.3 Contribution to Pension & Gratuity (P&G)

CSLDC's Submissions

CSLDC, in its Petition, submitted that it has projected the annual outflow of Pension and Gratuity (P&G) contribution as per the latest Actuarial Valuation Report. Based on the said Report, it has considered 10% escalation on annual basis on the approved P&G contribution for FY 2015-16 to arrive at the P&G Contribution for the MYT Control Period from FY 2016-17 to FY 2020-21.

The P&G Contribution submitted by CSLDC for the Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 11.1-8: P&G Contribution as submitted by CSLDC (in Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
P&G Contribution	0.97	1.06	1.17	1.29	1.42

Commission's Views

Regulation 32 of the MYT Regulations, 2015 specifies as under:

“32. PENSION FUND

For meeting up the past unfunded liabilities of erstwhile CSEB/State Power Companies employees appointed before 1.1.2004, a pension and gratuity trust has been created and funding to the same has been allowed in the past Tariff Orders of the Commission. The contribution to the fund shall be decided by the Commission on the basis of actuarial analysis, expected pension outflow for the State Power Companies and availability of fund with the Pension trust at the time of determination of MYT / ARR for each year of the control period. However, the actual outflow towards the pension payment shall not be allowed in the O&M expenses covered in these Regulations for the Control Period. The pension outflow shall be met by the Pension trust. The pension fund contribution so determined by the Commission shall be recoverable in the same manner as specified in relevant chapters. Provided till the time SLDC is part of STU, SLDC's share out of the STU contribution shall be decided on pro-rata basis. For the purpose of ratio determination, the employee strength as on 1st April of the preceding year shall be considered.” (emphasis added)

The Companies have submitted that there is a shortfall in the contribution to the consolidated P&G Fund on account of following reasons, and that there is a need to increase the P&G contribution appropriately.

- d) The Chhattisgarh Govt. in FY 2013-14 had increased the retirement age of government employees from 60 years to 62 years. On account of such increase, the retirement of employees got pushed forward by 2 years and those who were due to retire earlier will retire in FY 2016-17. Therefore, the pension liability of the companies will increase.
- e) The State Power Companies has granted interim relief for its employees. Accordingly the gratuity amount has increased.
- f) The Wage Revision (Interim Relief) of employees of State Power Companies are also due which may also have an additional impact on contribution to P&G fund.

In accordance with the provisions of the regulation, by taking in to account the above aspects and on the basis of actuarial analysis, expected pension outflow for the State Power Companies and availability of fund with the Pension trust, the cumulative P&G contribution of CSPGCL, CSPTCL, CSLDC, and CSPDCL for FY 2016-17, works out as Rs. 480 crore. By considering an increase of 9.05% every year i.e. average CPI rate recorded for past five years, P&G contribution for subsequent years will be Rs. 523.44 crore, Rs. 570.81 crore, Rs. 622.47 crore, and Rs. 678.80 crore in FY 2017-18, FY 2018-19, FY 2019-20, and FY 2020-21, respectively.

The above amounts have been allocated to CSPGCL, CSPTCL, CSLDC, and CSPDCL in the same ratio as approved in previous order. The approved amount of P&G contribution of CSPDCL, CSPGCL, CSPTCL, and CSLDC for the purpose of ARR computations, is shown in the Table below:

Table 11.1-9: P&G Contribution for Companies for the Control Period (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
CSPGCL	130.83	142.67	155.58	169.66	185.01
CSPTCL	49.16	53.61	58.47	63.75	69.52
CSLDC	1.21	1.32	1.43	1.56	1.71
CSPDCL	298.80	325.83	355.31	387.47	422.51
TOTAL	480.00	523.43	570.79	622.44	678.76

11.1.4 Gross Fixed Assets

CSLDC's Submissions

CSLDC submitted that the closing GFA of FY 2015-16 has been considered as the opening GFA for FY 2016-17. Additional capitalisation for any year is based on the Capital Investment Plan submitted to the Commission. Closing CWIP of Rs. 1.02 Crore in FY 2015-16 has been considered as opening CWIP for FY 2016-17 and closing capital expenditure of Rs. 18.01 Crore in FY 2015-16 has been considered opening capital expenditure from FY 2016-17 onwards.

CSLDC submitted that the GFA addition of Rs. 0.85 Crore, Rs. 2.53 Crore, Rs. 2.48 Crore and Rs. 1.43 Crore has been considered for FY 2016-17 to FY 2020-21 based on schedule and plan submitted in CIP Petition.

Commission's View

The closing GFA for CSLDC for FY 2014-15, as approved after true-up for FY 2014-15 in Chapter 7 of this Order, has been considered as the opening GFA for FY 2015-16. The closing GFA of FY 2015-16 has been considered as the opening GFA for FY 2016-17. Similarly, for each year of the Control Period, closing balance of the previous year has been considered as the opening balance for the next year. GFA addition of Rs.2.65 Crore, Rs. 1.95 Crore, Rs. 1.93 Crore, Rs. 0.45 Crore, and Rs. 0.06 Crore has been considered for FY 2016-17, FY 2017-18, FY 2018-19, FY 2019-20, and FY 2020-21, respectively, as approved in its Order dated 28 March, 2016 in Petition No. 102 of 2015 on the CIP Petition of CSLDC.

The opening and closing GFA as approved for each year of the Control Period is given in the Table below:

Table 11.1-10: Approved Capital Structure (Rs. Crore)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21
Opening GFA	16.58	19.23	21.18	23.11	23.56
Capitalisation during the year	3.15	2.45	1.80	0.95	0.06
Closing GFA	19.73	21.68	22.98	23.43	22.99

11.1.5 Means of Finance

CSLDC's Submissions

CSLDC submitted that the projected capital expenditure during the Control Period is proposed to be funded through three different sources, i.e., Equity, SLDC Development Fund (SLDC DF) and Power System Development Fund (PSDF), as shown in the Table below:

Table 11.1-11: Means of Finance as submitted by CSLDC

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21	Total
Equity	26.03%	16.44%	24.14%	29.73%	31.25%	23.34%
CSLDC DF	46.58%	49.32%	50.00%	29.73%	6.25%	45.13%
PSDF	27.40%	34.25%	25.86%	40/54%	62.50%	31.53%
Total	100%	100%	100%	100%	100%	100%

Commission's View

The closing equity and closing loan balance for FY 2015-16 has been considered as the opening equity and opening loan balance for FY 2016-17. The funding for the capitalisation for the period from FY 2016-17 to FY 2020-21 has been considered as per the capitalisation approved in the Capital Investment Plan in Order dated 28 March, 2016 in Petition No. 102 of 2015, as shown in the Table below:

Table 11.1-12: Approved Means of Finance**(Rs. Cr.)**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Capitalisation approved	3.15	2.45	1.80	0.95	0.06
Equity	0.95	0.15	0.10	0.15	0.05
CSLDC DF	1.70	1.80	1.20	0.30	0.01
PSDF	0.50	0.50	0.50	0.50	0.00

It has to be noted that as per the SLDC Regulations, 2012, the amount under CSLDC DF is to be considered as equity, while the amount received under PSDF is a grant, and has no repayment or interest obligations. Hence, the normative debt:equity ratio has to be considered after reducing the amount of capitalisation funded by PSDF. The equity contribution works out to higher than the limit of 30%, hence, the equity contribution has been considered as 30%, and the excess equity invested in the capitalisation has been considered as normative loan. Thus, the funding pattern considered for the additional capitalisation during the Control Period is shown in the Table below:

Table 11.1-13: Approved Additional Equity & Loan**(Rs. Cr.)**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Capitalisation approved	3.15	2.45	1.80	0.95	0.06
Equity	0.80	0.59	0.39	0.14	0.02
Normative Debt	1.86	1.37	0.91	0.32	0.04
Grant (PSDF)	0.50	0.50	0.50	0.50	0.00

11.1.6 Interest on Loan

CSLDC's Submissions

CSLDC submitted that it has computed Interest on Loan as per Regulation 23 of the MYT Regulations, 2015. It has considered closing loan balance for FY 2014-15 as the opening loan balance for FY 2015-16. The debt component of GFA addition in FY 2015-16 and thereon has been considered as the loan addition during the year for MYT Control Period. The allowable depreciation for the respective Financial Years under the MYT Control Period has been considered as the normative repayment for that particular Financial Year in the Control Period. The actual weighted average interest rate of 12.17% as calculated for FY 2014-15 has been considered for computation of interest expenses.

The Interest on Loan as submitted by CSLDC for the MYT Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 11.1-14: Interest on Loan as submitted by CSLDC (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Total Opening Net Loan	7.37	7.36	8.15	8.95	9.27
Repayment during the period	1.04	1.15	1.30	1.45	1.55
Loan Addition during the year	1.02	1.94	2.10	1.76	1.01
Total Closing Net Loan	7.36	8.15	8.95	9.27	8.73
Average Loan during the year	7.36	7.75	8.55	9.11	9.00
Weighted Average Interest Rate	12.17%	12.17%	12.17%	12.17%	12.17%
Interest Expenses	0.90	0.94	1.04	1.11	1.09

Commission's View

The interest on loan has been calculated in accordance with Regulation 23 of the MYT Regulations, 2015.

To compute Interest on Loan, the closing normative loan of FY 2015-16 has been considered as the opening normative loan for FY 2016-17. Similarly, for each year of the Control Period, the closing normative loan for previous year has been considered as the opening normative loan for that year.

Normative repayment for each year has been considered equal to the depreciation allowed for that year. The actual weighted average interest rate of 12.20% as calculated for CSPTCL in FY 2014-15 has been considered for computation of interest expenses. Interest on loan as approved is shown in the Table below:

Table 11.1-15: Approved Interest on Loans**(Rs. Crore)**

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21
Total Opening Net Loan	5.72	6.63	6.94	6.70	5.83
Repayment during the period	0.94	1.06	1.15	1.19	1.21
Loan Addition during the year	1.86	1.37	0.91	0.32	0.04
Total Closing Net Loan	6.63	6.94	6.70	5.83	4.66
Average Loan during the year	6.18	6.79	6.82	6.26	5.24
Weighted Average Interest Rate	12.20%	12.20%	12.20%	12.20%	12.20%
Interest Expenses	0.75	0.83	0.83	0.76	0.64

11.1.7 Depreciation

CSLDC's Submissions

CSLDC submitted that depreciation for the MYT Control Period has been calculated in accordance with Regulation 24 of the MYT Regulations, 2015.

CSLDC submitted that its asset base comprises of SCADA system, computer terminals, equipment, building, etc. The asset base of CSLDC has been identified from the accounts of CSPTCL by the Asset Segregation Committee and the same has been considered in its computations. As CSLDC is not operating as a separate company, it has considered depreciation as applicable to CSPTCL in accordance with Regulation 24.5 of the MYT Regulations, 2015. Depreciation as submitted by CSLDC for the MYT Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 11.1-16: Depreciation as submitted by CSLDC (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening GFA	19.03	20.49	23.26	26.26	28.78
Additional capitalisation during the year	1.46	2.77	3.00	2.52	1.44
GFA at the end of the year	20.49	23.26	26.26	28.78	30.23
Average GFA for the year	19.76	21.88	24.76	27.52	29.50
Depreciation Rate	5.25%	5.25%	5.25%	5.25%	5.25%
Total Depreciation	1.04	1.15	1.30	1.45	1.55

Commission's View

Depreciation for the Control Period from FY 2016-17 to FY 2020-21 has been calculated in accordance with Regulation 24 of the CSERC MYT Regulations, 2015, on the average GFA during the year. The closing GFA after truing-up of FY 2014-15 has been considered as the opening GFA for FY 2015-16. The opening and closing GFA for each year of the Control Period have been considered as shown in Table 11.1-11 above. For the purpose of calculating depreciation, the additional capitalisation funded by grants (PSDF) has not been considered. The depreciation has been computed considering the weighted average depreciation rate of 5.25%. The depreciation as approved for the Control Period is shown in the Table below:

Table 11.1-17: Approved depreciation**(Rs. Crore)**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening GFA	16.58	19.23	21.18	22.48	22.93
Capitalisation during the year*	2.65	1.95	1.30	0.45	0.06
Closing GFA	19.23	21.18	22.48	22.93	22.99
Average GFA for the year	17.91	20.21	21.83	22.71	22.96
Depreciation Rate	5.25%	5.25%	5.25%	5.25%	5.25%
Total Depreciation	0.94	1.06	1.15	1.19	1.21

Note: * excluding grant funded assets

11.1.8 Interest on Working Capital

CSLDC's Submissions

CSLDC submitted that it has calculated Interest on Working Capital (IoWC) as per Regulation 25.1 (f) of MYT Regulations, 2015.

CSLDC submitted that it has considered one month of the projected O&M Expenses, maintenance spares at 40% of the projected R&M expenses, and receivables equivalent to one month of system operating charges and market operation charges for computing the working capital requirement, and interest rate of 13.20% (SBI Base Rate of 9.70% as on September 30, 2015 plus 350 basis points) for computing the Interest on Working Capital for the MYT Control Period.

Interest on Working Capital as submitted by CSLDC for the MYT Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 11.1-18: Interest on Working Capital as submitted by CSLDC (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
O&M Expenses	0.59	0.65	0.71	0.77	0.84
Maintenance Spares	0.67	0.72	0.77	0.82	0.88
Receivables	1.11	1.22	1.34	1.46	1.58
Total WC requirement	2.38	2.58	2.81	3.05	3.30
Rate of Interest on WC	13.20%	13.20%	13.20%	13.20%	13.20%
Interest on Working Capital	0.31	0.34	0.37	0.40	0.44

Commission's View

Regulation 25.1 (f) of the MYT Regulations, 2015 specifies as under:

"25.1. The working capital shall cover:

(f) In case of Transmission business:

i. Operation and maintenance expenses for one (1) month; plus

ii. Maintenance spares @ 40% of repair and maintenance expenses specified in Regulation 74.5; plus

iii. Receivables equivalent to one (1) month of system operation charges and market operation charges

...

25.4. "Interest on working capital shall be allowed at a rate equal to the Base rate of State Bank of India as on 30th September of the financial year in which the Petition is filed plus 350 basis points. At the time of true up, the interest rate shall be adjusted as per the actual rate prevailing on 1st April of the financial year for which truing up exercise has been undertaken."

25.5. Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee or the distribution licensee or CSLDC has not taken loan for working capital from any outside agency."

The Interest on Working Capital has been computed in accordance with the above Regulations. One month of the approved O&M Expenses, maintenance spares at 40% of the approved R&M expenses and receivables equivalent to one month of system operation charges and market operation charges have been considered for computing the working capital requirement. Interest rate of 13.20%, which is the Base Rate of State Bank of India as on September 30, 2015 plus 350 basis points, has been considered for computing the Interest on Working Capital for the entire Control Period.

Interest on Working Capital as approved for the Control Period is shown in the Table below:

Table 11.1-19: Approved Interest on Working Capital (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
O&M expenses for 1 month	0.78	0.84	0.91	0.99	1.07
Maintenance Spares @40% of R&M expenses	0.67	0.72	0.77	0.82	0.88
1 month of Receivables	1.03	1.14	1.23	1.32	1.41
Total WC requirement	2.49	2.70	2.92	3.13	3.36
Rate of Interest on WC	13.20%	13.20%	13.20%	13.20%	13.20%
Net Interest on Working Capital	0.33	0.36	0.38	0.41	0.44

11.1.9 Return on Equity

CSLDC's Submissions

CSLDC submitted that it has calculated Return on Equity (RoE) in accordance with Regulation 22 of the MYT Regulations, 2015.

CSLDC submitted that it has grossed up the allowed rate of return of 15.5% with the MAT rate of 20.9605% based on the formula specified in the MYT Regulations, 2015. Hence, RoE has been computed on the grossed up rate of return of 19.61%.

The Return on Equity as submitted by CSLDC for the MYT Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 11.1-20: Return on Equity as submitted by CSLDC (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Permissible Equity in Opening GFA	6.11	6.54	7.38	8.28	9.03
Permissible Equity in Closing GFA	6.54	7.38	8.28	9.03	9.46
Average Gross Permissible Equity during the year	6.32	6.96	7.83	8.65	9.25
Rate of Return on Equity	19.61%	19.61%	19.61%	19.61%	19.61%
Return on Equity	1.24	1.36	1.53	1.70	1.81

Commission's View

The Return on Equity for the Control Period has been computed in accordance with Regulation 22 of the MYT Regulations, 2015, and considering the means of finance approved in the Capital Investment Plan of CSLDC, as stated earlier. As mentioned during the true-up for FY 2014-15, CSLDC (CSPTCL) has not paid any Income Tax for FY 2014-15. Hence, rate of RoE has not been grossed up with the MAT rate, and the RoE rate of 15.50% has been considered for the purpose of approving RoE for the Control Period. In case CSLDC (CSPTCL) actually pays Income Tax for any year of the Control Period, then the rate of RoE shall be appropriately grossed up at the time of truing up for that year.

The approved Return on Equity for the Control Period is shown in the Table below:

Table 11.1-21: Approved Return on Equity (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Permissible Equity in Opening GFA	5.37	6.17	6.75	7.14	7.28
Permissible Equity in Closing GFA	6.17	6.75	7.14	7.28	7.29
Average Gross Permissible Equity during the year	5.77	6.46	6.95	7.21	7.28
Rate of Return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	0.89	1.00	1.08	1.12	1.13

11.1.10 Non-Tariff Income

CSLDC's Submissions

CSLDC submitted that it has claimed Non-Tariff Income at the same level as that considered in the true-up for FY 2014-15.

Commission's View

The Non-Tariff Income for the MYT Control Period has been considered at the same level as approved for FY 2014-15 after final true-up, as elaborated in truing up section of this Order. The Non-Tariff Income as approved is given in the following Table:

Table 11.1-22: Approved Non-Tariff Income (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Total Non-Tariff Income	1.05	1.05	1.05	1.05	1.05

11.1.11 Aggregate Revenue Requirement

The summary of the approved ARR for the Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 11.1-23: ARR for FY 2016-17 to FY 2020-21 as approved (Rs. Cr.)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	CSLDC	Approved	CSLDC	Approved	CSLDC	Approved	CSLDC	Approved	CSLDC	Approved
Employee Expenses		6.19		6.75		7.36		8.02		8.75
Wage Revision (Interim Relief) Impact	7.12	0.31	7.76	0.34	8.46	0.37	9.23	0.40	10.06	0.44
A&G expenses	1.16	1.16	1.23	1.23	1.32	1.32	1.41	1.41	1.50	1.50
R&M Expenses	1.69	1.69	1.80	1.80	1.92	1.92	2.05	2.05	2.19	2.19
Pension & Gratuity Contribution	0.97	1.21	1.06	1.32	1.17	1.43	1.29	1.56	1.42	1.71
Depreciation	1.04	0.94	1.15	1.06	1.30	1.15	1.45	1.19	1.55	1.21
Interest on Loan	0.90	0.75	0.94	0.83	1.04	0.83	1.11	0.76	1.09	0.64
Interest on Working capital	0.31	0.33	0.34	0.36	0.37	0.38	0.40	0.41	0.44	0.44
Total	13.17	12.57	14.29	13.69	15.59	14.76	16.93	15.81	18.25	16.88
Return on Equity	1.24	0.89	1.36	1.00	1.53	1.08	1.70	1.12	1.81	1.13
Less: Non-Tariff Income	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Net ARR	13.36	12.41	14.61	13.64	16.07	14.79	17.58	15.88	19.02	16.96

11.1.12 CSLDC Fees and Charges

CSLDC has considered the allocation and apportionment of annual SLDC Charges to system operation function and market operation function in accordance with Regulation 75.2 of the MYT Regulations, 2015. Therefore, net ARR projected for each year under the Control Period has been proposed as the total SDLC Charges for that particular year.

Commission's View

Regulation 75.2 of the MYT Regulations, 2015 specifies as under:

*"75.2. Allocation and apportionment of components of annual charges to system operation function and market operation function:
(a) Annual charges towards State system operation function shall comprise 80% of the annual charges.
(b) Annual charges towards intra-State market operation function shall comprise the balance 20% of annual charges.
(c) The ratio of allocation of annual charges to system operation charges and market operation charges may be reviewed and decided by the Commission from time to time."*

In accordance with the above Regulations, 80% of the annual SLDC Charges determined above for each year of the Control Period have been allocated to system operation charges, and 20% of the annual SLDC Charges determined above for each year of the Control Period have been allocated to intra-State market operation charges, as shown in the Table below:

Table 11.1-24: Approved SLDC Charges (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
System Operation Charges	9.93	10.91	11.83	12.70	13.57
Intra-State Market Operation Charges	2.48	2.73	2.96	3.18	3.39
Total SLDC Charges	12.41	13.64	14.79	15.88	16.96

12 ARR OF CSPDCL FOR MYT CONTROL PERIOD FROM FY 2016-17 TO 2020-21

12.1 BACKGROUND

CSPDCL submitted the projected ARR for the MYT Control Period from FY 2016-17 to FY 2020-21 under various heads, viz., Sales, Power Purchase expenses, O&M expenses, depreciation, interest on loans, interest on working capital, etc., as per the MYT Regulations, 2015 and the formats prescribed by the Commission. The Commission has carried out prudence check for approval of each of the above expenditure heads and ARR of CSPDCL for the MYT Control Period from FY 2016-17 to FY 2020-21, in the following sections.

12.2 SALES PROJECTIONS

CSPDCL's Submission

CSPDCL submitted that in the MYT Regulations, 2015, sales mix and quantum of sales are considered as uncontrollable.

CSPDCL submitted that for projecting the category-wise energy sales for FY 2016-17 to FY 2020-21, it has considered the past growth trends in each consumer category. Any outlier observed in the growth rates over the period of past 5 years for LV and HV has been discounted and excluded while projecting energy sales for FY 2016-17 to FY 2020-21.

CSDPCL submitted that Compounded Annual Growth Rates (CAGR) of sales were computed from the past figures for each category, corresponding to different lengths of time in the past six years for LV and HV respectively, along with the year on year growth. The 5-year/4-year/3-year/2-year CAGR and Year-on-Year (YoY) growth in sales have been computed for each LV, HV and EHV category.

CSPDCL submitted that subject to the specific characteristics of each consumer category, either a particular CAGR or the YoY growth rates have been chosen as the basis of sales projection for that category. In cases where the past sales data shows a declining trend, nil growth has been considered, while assumed growth rates have been considered for categories where no consistent trend in growth is seen.

CSPDCL submit that the sales forecast for HV categories for the MYT Control Period is based on the 5-year CAGR. CSPDCL has also considered the information related to new applications/additional load requests (significant ones) while projecting the sales for the MYT Control Period. Further, in the voltage segment inclusive of 33 kV and 11 kV, there is impact of recession.

CSPDCL submitted that for making projections of sales, connected load, and number of consumers, the actual sales for FY 2014-15 for each consumer category have been considered as the base. The selected growth rate has been applied over the actual sales for FY 2014-15 to project the category-wise sales for FY 2015-16; and for projections for FY 2016-17, the selected growth rate has been applied on the projected sales of FY 2015-16, and thereon.

CSPDCL submitted that for projection of sales, connected load, and number of consumers for sub-categories/consumption slabs of any consumer category, it has used the ratio of sales in the sub-category/consumption slab to total sales of the category in FY 2014-15. Further, the actual sales, connected load and number of consumers have been shown for the old categories/sub-categories approved in the Tariff Order dated July 12, 2013 whereas for projecting sales, connected load and number of consumers, CSPDCL has re-grouped the same as per the categories approved in the latest Tariff Order dated May 23, 2015.

Commission's View

In order to ensure more realistic projection of the category-wise sales for the Control Period, CSPDCL was asked to submit the actual category-wise sales for the first 9 months of FY 2015-16, i.e., from April 2015 to December 2015, which was submitted by CSPDCL. The category-wise sales in the last 3 months of FY 2015-16, i.e., from January 2016 to March 2016, have been estimated to estimate the total category-wise sales for FY 2015-16. This estimated sales for FY 2015-16 has been considered as the base value, and the 5-year/4-year/3-year/2-year CAGR and Year-on-Year (YoY) growth in sales has been computed for each LV, HV and EHV category. The most appropriate growth rate has been considered for projecting the category-wise sales for the Control Period from FY 2016-17 to FY 2020-21. For instance, for categories where a clear and consistent trend in sales is seen, the 5-year CAGR reflecting the longer-term trend has been considered for projecting the sales for the Control Period. In cases where there is no clear trend visible, the shorter-term trend has been considered.

For projection of sales for sub-categories/consumption slabs of any consumer category, the ratio of sales in the sub-category/consumption slab to total sales of the category in FY 2015-16 has been applied to the sales projected for the category for the respective year.

The sales projected by CSPDCL for each consumer category and the sales approved by the Commission for each consumer category is elaborated in the sections below.

12.2.1 LV-1: Domestic Consumers including BPL consumers

CSPDCL's Submission

CSPDCL submitted that it has recorded a 5-year CAGR of 11.47% and the same has been considered for projecting the sales for the MYT Control Period.

Commission's View

The actual sales to domestic consumers have increased at a CAGR of 12.09% over the last five years, 11.81% over the last four years, 10.62% over the last three years, 10.95% over the last two years, and 7.73% on YoY basis. In view of the consistent growth trend, the 5-year CAGR of 12.09% has been considered over the estimated sales of FY 2015-16, for projecting the sales for the MYT Control Period.

12.2.2 LV-2.1: Non Domestic Consumers

CSPDCL's Submission

CSPDCL submitted that it has recorded a 5-year CAGR of 11.67% and the same has been considered for projecting the sales for the MYT Control Period.

Commission's View

The actual sales to non-domestic category have increased at a CAGR of 9.29% over the last five years, 8.80% over the last four years, 7.53% over the last three years, 6.56% over the last two years and 7.75% on YoY basis. In view of the consistent growth trend, the 5-year CAGR of 9.29% has been considered over the estimated sales of FY 2015-16, for projecting the sales for the MYT Control Period.

12.2.3 LV-2.2: Non Domestic Consumers (Demand Based Tariff)

CSPDCL's Submission

CSPDCL submitted that for the Non-domestic (Demand based tariff) category, it has considered the same growth rate of 11.67% as considered for Non-Domestic Consumers, for projecting the sales for the MYT Control Period.

Commission's View

The actual sales to non-domestic (demand based tariff) category have increased steeply at a CAGR of 72.54% over the last five years, 52.05% over the last four years, 43.38% over the last three years, 48.24% over the last two years, and 54.05% on YoY basis. In view of the consistent growth trend, the 4-year CAGR of 52.05% has been considered over the estimated sales of FY 2015-16, for projecting the sales for the MYT Control Period.

12.2.4 LV 3: Agriculture Consumers

CSPDCL's Submission

CSPDCL submitted that there was a sudden increase in the sales to this category in FY 2011-12 on account of increase in metering of agriculture consumers and weather conditions. Therefore, an increase on the sales of FY 2011-12 based on the past trends would be inappropriate. Hence, CSPDCL has considered the 5-Year CAGR of 9.84% to project sales for the MYT Control Period.

Commission's View

The actual sales to agriculture category have increased at a CAGR of 15.29% over the last five years, 11.82% over the last four years, 13.06% over the last three years, 20.78% over the last two years and 21.04% on YoY basis. It is observed that the estimated sales in FY 2015-16, at 3259 MU, is significantly higher than the approved sales of 2732 MU for FY 2015-16, and the actual sales of 2693 MU in FY 2014-15. This steep increase could be on account of weather conditions and depletion of water levels. Hence, the growth rate of 9.84% projected by CSPDCL has been considered for projecting the sales to this category for the Control Period.

12.2.5 LV 4: Agriculture Allied Services

CSPDCL's Submission

CSPDCL submitted that it has considered the 5-year CAGR of 13.21% for projecting sales for this category for the MYT Control Period.

Commission's views

The rate of growth in sales to this category is showing a declining trend, as the actual sales to this category have increased at a CAGR of 9.09% over the last five years, 7.27% over the last four years, 2.30% over the last three years, 4.02% over the last two years and 1.34% on YoY basis.

Therefore, the 3-year CAGR of 2.30% has been considered as being representative of the growth trend, and has been used for projecting sales for the Control Period.

12.2.6 LV 5: LT Industry

CSPDCL's Submission

CSPDCL submitted that the growth rate in LT industrial category has been estimated for each sub-category and assumed equivalent to the 5-year CAGR on the basis of smooth trend observed over past five years.

Commission's Views

The actual sales of the Flour Mills and power looms sub-category (up to 15 HP) have shown a consistent declining trend, as the CAGR is -2.95% over the last five years, -4.57% over the last four years, -6.36% over the last three years, -5.66% over the last two years, and -7.79% on YoY basis. Similarly, actual sales to Other Industries up to 25 HP has also shown a consistent declining trend, as the 5-year, 4-year, 3-year, 2-year CAGR and YoY growth rates are -0.68%, -1.34%, -1.45%, -0.90% and -2.19%, respectively. For Other Industries above 25 HP and up to 100 HP also, the actual sales have shown a consistent declining trend, as the 5-year, 4-year, 3-year, 2-year CAGR and YoY growth rates are -2.16%, -3.97%, -3.50%, -8.33% and -13.12%, respectively.

Hence, the 5-year CAGR of -2.95%, -0.68%, and -2.16% have been considered for the Flour Mills and power looms, Other Industries up to 25 HP, and Other Industries above 25 HP and up to 100 HP sub-categories, respectively, as being representative of the growth trend, and have been used for projecting sales for the Control Period.

The rate of growth in sales to LV 5.3: demand based tariff for contract demand above 15 kW to 75 kW sub-category is showing a declining trend, as the actual sales to this category have increased at a CAGR of 14.19% over the last five years, 10.74% over the last four years, 10.55% over the last three years, 4.42% over the last two years, and -0.36% on YoY basis.

Therefore, the 2-year CAGR of 4.42% has been considered as being representative of the growth trend, and has been used for projecting sales for the Control Period for this sub-category.

12.2.7 LV 6: Public Utilities

CSPDCL's Submission

CSPDCL submitted that the sales to Public Utilities category comprising street lights and public water works have shown a smooth trend over the past years. Therefore, the 5-year CAGR of 14.44% has been considered for projecting the growth in sales for the MYT Control Period.

Commission's Views

The rate of growth in sales to this category is showing a declining trend, as the actual sales to this category have increased at a CAGR of 10.62% over the last five years, 9.60% over the last four years, 4.62% over the last three years, 1.67% over the last two years, and -2.90% on YoY basis.

Therefore, the 3-year CAGR of 4.62% has been considered as being representative of the growth trend, and has been used for projecting sales for the Control Period for this category.

12.2.8 LV 7: Temporary

CSPDCL's Submission

CSPDCL submitted that it has considered notional increase of 10% annually for projecting the sales to the temporary supply category due to non-availability of past 5 year data to make projections.

Commission's Views

The actual sales to this category have increased at a CAGR of 34.36% over the last five years, 35.73% over the last four years, 17.03% over the last three years, 27.05% over the last two years, and 5.11% on YoY basis, which shows an inconsistent trend of growth. Therefore, the 3-year CAGR of 17.03% has been considered for projecting sales for the Control Period for this category.

12.2.9 HV 1: Steel Industries

CSPDCL's Submission

CSPDCL submitted that it has considered 5% growth rate for projecting the sales to the Steel Industries category.

Commission's Views

The actual sales to this category have increased at a CAGR of 1.25% over the last five years, 2.96% over the last four years, 6.34% over the last three years, 11.14% over the last two years, and 10.45% on YoY basis. A spurt in sales growth has been observed for steel industries in the recent years, therefore, for making a realistic estimation, the 2-year CAGR of 11.14% has been considered for projecting the sales for the MYT Control Period.

12.2.10 HV 2: Mines, Cement, Other Industries & General Purpose Non-Industries

CSPDCL's Submission

CSPDCL submitted that earlier this category comprised three different categories namely, Mines & Cement Industry, General Purpose Non-Industrial, and Other HT Industry category, which were merged in the Tariff Order dated May 23, 2015. Since the data available for past years are for individual categories, therefore, projections have been made for each of the categories separately and then summed up.

CSPDCL submitted that it has projected the sales to Mines & Cement Industries based on 3-year CAGR of 7.55%, Other HT Industries based on 3-year CAGR of 3.02%, and General Purpose Non-Industrial category based on 3-year CAGR of 14.13%.

Commission's Views

For the purpose of projecting sales, past year sales data of Mines & Cement Industry, General Purpose Non-Industrial, and Other HT Industries category have been added and the CAGR has been computed for the combined sales quantum. The actual sales to this combined category have increased at a CAGR of 10.00% over the last five years, 8.49% over the last four years, 7.03% over the last three years, 5.32% over the last two years, and 11.33% on YoY basis. Therefore, the 5-year CAGR of 10.00% has been considered for projecting sales for the Control Period for this category.

12.2.11 HV 3: Low Load Factor Industries

CSPDCL's Submission

CSPDCL submitted that it has considered 5-year CAGR of 25.49% for projecting sales to this category for the MYT Control Period.

Commission's Views

The actual sales to this category have shown a consistent declining trend, as the CAGR is -3.19% over the last five years, -3.60% over the last four years, -4.67% over the last three years, -16.85% over the last two years, and -71.01% on YoY basis. Therefore, no growth in sales has been projected over the MYT Control Period for this category.

12.2.12 HV 4: Residential, Irrigation & Agriculture Allied Activities

CSPDCL's Submission

CSPDCL submitted that in the Tariff Order May 23, 2015, the Commission merged three categories, viz., Residential, Irrigation and Agriculture Allied Activities. Since the data available for past years are for individual categories, therefore, projections have been made for each of the categories separately and then summed up.

CSPDCL submitted that it has considered a notional CAGR of 3% for Residential category, 5-year CAGR of 8.69% for Irrigation and year-on-year CAGR of 30.89% for Agriculture Allied Activities.

Commission's Views

For the purpose of projecting sales, past year sales data of Residential, Irrigation, and Agriculture allied category have been added and the CAGR has been computed for the combined sales quantum. The actual sales to this combined category have increased at a CAGR of -2.65% over the last five years, -2.89% over the last four years, -0.15% over the last three years, 1.01% over the last two years, and 7.47% on YoY basis. Thus, the sales to this category have started increasing over the recent years. Therefore, the 2-year CAGR of 1.01% has been considered for projecting sales for the Control Period for this category.

12.2.13 HV 5: Public Water Works

CSPDCL's Submission

CSPDCL submitted that it has used 5-year CAGR to project sales for this category for the MYT Control Period.

Commission's Views

The rate of growth in sales to this category is showing a declining trend, as the actual sales to this category have increased at a CAGR of 7.65% over the last five years, 6.71% over the last four years, 5.75% over the last three years, 4.54% over the last two years, and 3.28% on YoY basis.

Therefore, the 3-year CAGR of 5.75% has been considered as being representative of the growth trend, and has been used for projecting sales for the Control Period for this category.

12.2.14 HV 6: Start-up Power Tariff

CSPDCL's Submission

CSPDCL submitted that it has used 5-year CAGR to project sales for this category for the MYT Control Period.

Commission's Views

The actual sales to this category have increased at a CAGR of -7.53% over the last five years, -28.12% over the last four years, -18.52% over the last three years, 6.37% over the last two years, and 20.33% on YoY basis. It is observed that sales growth for this category is not adhering to any specific trend, therefore, no growth has been considered in sales for Start-up Power tariff.

12.2.15 HV 7: Industries related to manufacturing of equipment for power generation from renewable energy sources

CSPDCL's Submission

CSPDCL submitted that it has used a normal increase of 10% to project sales for this category for the MYT Control Period.

Commission's Views

The growth rate proposed by CSPDCL has been accepted for projecting the sales to this category for the MYT Control Period, in the absence of past trends, and very small consumption of this category.

12.2.16EHV 1: Railway Traction

CSPDCL's Submission

CSPDCL submitted that it has used 5-year CAGR of 4.11% for projection of sales for Railways for the MYT Control Period.

Commission's Views

The actual sales to this category have increased at a CAGR of 2.56% over the last five years, 2.69% over the last four years, -0.83% over the last three years, 2.36% over the last two years, and 1.29% on YoY basis.

In this regard, the Commission asked CSPDCL regarding the impact of the CERC Order granting deemed licensee status to the Indian Railways on the sales, power purchase cost, ARR and tariff structure proposed in the Petition. Reply submitted by CSPDCL is as under:

“CSPDCL submitted that the aforesaid order issued by CERC applies for treatment of Railways as Deemed Licensee under Electricity Act, 2003 and to consider Railways as a separate regional entity for the purpose of scheduling and energy accounting in terms of deviation settlement as and when it is connected to the Inter-State Transmission System (ISTS). After getting connected to ISTS, the drawal point shall be treated as single entity for the purpose of scheduling. Further, the entire group of Traction Sub-Station (TSS) situated in the State and connected directly to ISTS shall be treated as “One fragmented control area” for the purpose of scheduling. However, neither of the TSS situated in the area of supply of CSPDCL are presently connected to ISTS, hence, application of the aforesaid order to this case may not arise, and hence, it is not likely to have any impact on CSPDCL's sales to Railways.”

In view of the clarification submitted by CSPDCL and the existing facts and circumstances, the 5-year CAGR of 2.56% has been considered as being representative of the growth trend, and has been used for projecting sales for the Control Period for this category.

12.2.17 EHV 2: Heavy Industries & Other consumers

CSPDCL's Submission

CSPDCL submitted that in the Tariff Order May 23, 2015, the Commission merged the categories of Heavy Industries and Other EHV consumers. Since the data available for past years are for individual categories, therefore, projections have been made for each of the categories separately and then summed up. CSPDCL submitted that it has considered 5-year CAGR of 11.06% and 6.32% for projecting sales for Heavy Industries and Other EHV consumers' category, respectively.

Commission's Views

For the purpose of projecting sales, past year sales data of Heavy Industries and Other EHV consumer category have been added and the CAGR has been computed for the combined sales quantum. The actual sales to this combined category have increased at

a CAGR of 7.08% over the last five years, 8.75% over the last four years, 9.36% over the last three years, 7.89% over the last two years, and -20.70% on YoY basis. Therefore, the 5-year CAGR of 7.08% has been considered for projecting sales for the Control Period for this category.

12.2.18 EHV 3: Steel Industries

CSPDCL's Submission

CSPDCL submitted that it has considered CAGR of 5% for projecting sales for this category for the MYT Control Period.

Commission's Views

The actual sales to this category have increased at a CAGR of 3.71% over the last five years, 15.08% over the last four years, 11.14% over the last three years, 13.36% over the last two years, and -0.07% on YoY basis. Therefore, the 5-year CAGR of 3.71% has been considered for projecting sales for the Control Period for this category.

12.2.19 Overall Sales

The summary of the category-wise sales approved for the MYT Control Period is shown in the Table below:

Table 12.2-1: Estimated Sales for the MYT Control Period from FY 2016-17 to FY 2020-21 (MU)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	CSPDCL	CSERC	CSPDCL	CSERC	CSPDCL	CSERC	CSPDCL	CSERC	CSPDCL	CSERC
LV Category	11274.81	11226.63	12501.92	12441.18	13869.84	13803.51	15395.21	15334.90	17096.73	17061.15
LV 1: Domestic Including BPL	5490.78	5336.04	6120.77	5981.29	6823.05	6704.56	7605.91	7515.30	8478.59	8424.07
LV 2: Non Domestic (Normal Tariff)	944.55	891.93	1054.81	974.80	1177.94	1065.36	1315.45	1164.35	1469.00	1272.52
LV 2.1: Non Domestic (Demand Based Tariff)	17.96	33.74	20.06	51.31	22.4	78.01	25.02	118.62	27.94	180.37
LV 3: Agriculture – Metered	3248.63	3579.83	3568.30	3932.09	3919.42	4319.00	4305.09	4743.99	4728.71	5210.80
LV 4: Agriculture - Allied Activities	20.85	16.87	23.61	17.26	26.73	17.65	30.26	18.06	34.25	18.47
LV 5: LT Industry	600.19	489.91	650.87	492.25	711.61	495.09	784.36	498.45	871.51	502.32
LV 6: Public Utilities	370.53	287.36	424.05	300.62	485.3	314.49	555.4	329.01	635.63	344.19
LV 7: Temporary	581.31	590.96	639.44	691.58	703.38	809.33	773.72	947.13	851.09	1108.39
HV Category	5908.30	6046.85	6353.24	6660.59	6853.50	7340.16	7419.38	8092.67	8063.55	8925.99
HV 1: Steel Industries	3401.51	3787.25	3571.58	4209.24	3750.16	4678.25	3937.67	5199.51	4134.55	5778.86
HV 2: Mines, Cement, Other & General Purpose Non Industries	1768.53	1854.56	1916.83	2040.09	2081.65	2244.17	2265.09	2468.67	2469.53	2715.63
HV 3: Low Load Factor Industries	394.04	72.55	494.49	72.55	620.53	72.55	778.71	72.55	977.21	72.55
HV 4: Residential, Irrigation & Agriculture Allied Activities	246.69	229.88	265.88	232.19	289.21	234.53	317.89	236.89	353.52	239.27
HV 5: Public Water Works	67.36	68.21	73.21	72.13	79.57	76.27	86.48	80.65	93.99	85.29
HV 6: Start up Power Tariff	29.55	33.24	30.56	33.24	31.61	33.24	32.7	33.24	33.82	33.24
HV 7: Industries related to manufacturing of equipment for RE power generation	0.63	1.16	0.7	1.16	0.77	1.16	0.84	1.16	0.93	1.16
EHV Category	3198.23	2557.77	3444.69	2689.56	3713.30	2829.31	4006.24	2977.56	4325.94	3134.87
EHV 1: Railway Traction	938.74	899.74	977.3	922.78	1017.44	946.41	1059.24	970.64	1102.74	995.50
EHV 2: Heavy Industries	1986.07	1401.02	2180.31	1500.24	2394.41	1606.48	2630.49	1720.25	2890.86	1842.07
EHV 3: Steel Industries	273.41	257.01	287.08	266.54	301.44	276.42	316.51	286.67	332.34	297.30
Total	20381.34	19831.25	22299.85	21791.33	24436.64	23972.99	26820.83	26405.14	29486.22	29122.01

12.2.20 Re-categorised HV and EHV Sales

As elaborated in the Tariff Philosophy Chapter subsequently, for the MYT Control Period, the Commission has completely re-categorised the existing EHV and HV categories into different HV categories based on purpose of use, and has created sub-categories within each HV category for different voltage levels, viz., 220 kV, 132 kV, 33 kV, and 11 kV. The category-wise sales approved for the revised categories are shown in the Table below:

Table 12.2-2: Estimated Sales for revised HV Categories for MYT Control Period from FY 2016-17 to FY 2020-21

		(MU)				
Particulars		FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
HV 1	Railway Traction	899.74	922.78	946.41	970.64	995.50
HV 2	Mines (Coal & Others)					
	220 kV	65.33	71.46	78.21	85.64	93.83
	132 kV	393.64	430.55	471.20	515.98	565.32
	33 kV	93.43	102.19	111.83	122.46	134.17
HV 3	Other Industry & General Purpose Non-Industrial					
	220 kV	87.41	95.61	104.63	114.58	125.53
	132 kV	852.07	931.95	1,019.95	1,116.88	1,223.68
	33 kV	1574.84	1722.49	1,885.13	2,064.28	2,261.68
HV 4	Steel Industries					
	220 kV	132.23	144.62	158.28	173.32	189.90
	132 kV	302.91	331.32	362.60	397.06	435.03
	33 kV	3758.85	4111.37	4499.55	4927.17	5398.34
	11 kV	28.40	31.07	34.00	37.23	40.79
HV 5	Low Load Factor Industries	72.55	79.35	86.84	95.10	104.19
HV 6	Irrigation, Agriculture Allied Services, and PWW	66.88	73.15	80.06	87.67	96.05
HV 7	Residential Purpose	239.92	262.41	287.19	314.48	344.55
HV 8	Start up power Tariff	35.35	38.67	42.32	46.34	50.77
HV 9	Industries related to renewable power tariff	1.16	1.27	1.39	1.52	1.67
HV 10	Information Technology Industry					
Total HV Sales		8604.71	9350.15	10169.48	11070.24	12060.87

12.3 INTER-STATE TRANSMISSION LOSSES

CSPDCL's Submission

CSPDCL has considered actual weighted average transmission loss of last 52 weeks of the Western Region from WRLDC website, and requested the Commission to consider the inter-State transmission losses as 3.77%.

Commission's Views

The inter-State transmission losses have been considered as 3.77%, as proposed by CSPDCL, for the purpose of computing the energy available to CSPDCL from its inter-State generation sources.

12.4 INTRA-STATE TRANSMISSION LOSSES

CSPDCL's Submission

CSPDCL has considered the intra-transmission loss based on the trajectory of 0.04% loss reduction every year, proposed by CSPTCL in its MYT Petition for the Control Period.

Commission's Views

The intra-State transmission losses have been considered as 3.22% for each year of the MYT Control Period, as considered for CSPTCL in this Order, for the purpose of computing the energy requirement for retail sale of CSPDCL and surplus energy availability for inter-State sale.

12.5 ENERGY LOSSES & ENERGY BALANCE

CSPDCL's Submission

CSPDCL has considered the distribution losses in accordance with the trajectory specified in the MYT Regulations, 2015 for the Control Period. Accordingly, the Energy Balance has been submitted by CSPDCL, considering energy requirement at the transmission periphery as 24785 MU, 26791MU, 29009 MU, 31466 MU, and 34194 MU, for FY 2016-17, FY 2017-18, FY 2018-19, FY 2019-20, and FY 2020-21, respectively.

Commission's Views

The energy losses at 33 kV and below voltage level have been considered in accordance with the trajectory specified in the MYT Regulations, 2015 for each year of the MYT Control Period. Hence, for the purpose of computing the energy requirement for retail sale of CSPDCL and surplus energy availability for inter-state sale, the energy losses 33 KV and below voltage level have been considered as 22.0%, 21.0%, 20.0%, 19.0%, and 18.0% for FY 2016-17, FY 2017-18, FY 2018-19, FY 2019-20, and FY 2020-21, respectively.

Further, under the tri-partite Memorandum of Understanding (MoU) signed between Government of India, Government of Chhattisgarh, and CSPDCL under the Ujwal DISCOM Assurance Yojana (UDAY) on January 25, 2016, the distribution losses have been agreed at significantly lower levels. Hence, the Commission may revisit the energy losses at 33 kV and below voltage level reduction trajectory for the subsequent years of the Control Period. The salient features of the UDAY Scheme for Chhattisgarh are given in **Annexure 4**.

The estimated Energy Balance and Energy Requirement of CSPDCL for each year of the Control Period are given in the Table below:

Table 12.5-1: Estimated Energy Balance & Energy Requirement for the MYT Control Period from FY 2016-17 to FY 2020-21

Particulars	Legend	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
		CSPDCL	CSERC	CSPDCL	CSERC	CSPDCL	CSERC	CSPDCL	CSERC	CSPDCL	CSERC
LV Sales	A	11275	11227	12502	12441	13870	13804	15395	15335	17097	17061.15
HV Sales (11 KV & 33 KV)	B	5908	5871	6353	6422	6854	7028	7419	7696	8064	8432
Sub Total	C=A+B	17183	17098	18855	18863	20723	20832	22815	23031	25160	25493
Energy Loss below 33 kV (in %)	D	22.00%	22.00%	21.00%	21.00%	20.00%	20.00%	19.00%	19.00%	18.00%	18.00%
Gross Energy requirement at 33 kV Level	E=C/(1-D)	22030	21921	23867	23877	25904	26040	28166	28433	30683	31089
Energy Loss below 33 kV (in MU)	F=E-C	4847	4823	5012	5014	5181	5208	5352	5402	5523	5596
Less: Direct Input to distribution at 33 kV Level	G	1474	1474	1625	1625	1792	1792	1977	1977	2183	2183
Net Energy Input required at Distribution Periphery at 33 kV Level	H=E-G	20555	20446	22242	22252	24112	24247	26189	26456	28500	28906
Sales to HV consumers (132KV&220KV)	I	3198	2733	3445	2928	3713	3141	4006	3374	4326	3629
Net energy requirement at Distribution periphery	J=H+I	23754	23180	25687	25180	27825	27389	30195	29830	32826	32535
Distribution loss including EHV Sales	K	19.21%	19.56%	18.35%	18.71%	17.49%	17.85%	16.63%	16.98%	15.78%	16.12%
Intra-State Transmission loss (in %)	L	4.16%	3.22%	4.12%	3.22%	4.08%	3.22%	4.04%	3.22%	4.00%	3.22%
Intra-State Transmission loss (in MU)	M	1031	771	1104	838	1184	911	1271	992	1368	1082
Net energy requirement at Transmission periphery	N=J+M	24785	23951	26791	26018	29009	28300	31466	30823	34194	33618

12.6 POWER PURCHASE EXPENSES

CSPDCL's Submission

CSPDCL submitted that it had broadly categorised the sources of energy into State-Owned Generation, i.e., Generation from CSPGCL, Allocation (firm and non-firm) from Central Generating Stations (CGS), Captive Power Plants (CPPs), Independent Power Producers (IPPs), Biomass, and Solar Power Plants and Short-Term/UI/Bilateral purchases, etc. CSPDCL further submitted that new Central and State Generating Plants are scheduled to commence generation during the MYT Control Period and projected the available generation from these sources based on the expected commissioning date.

CSPDCL has projected the purchase of power from various sources as detailed below.

12.6.1 Existing Central Generating Stations

CSPDCL submitted that it has firm allocation of power from Central Generating Stations like Korba Super Thermal Power Station (STPS), Vindhyachal Thermal Power Station, Sipat Super Thermal Power Station, Kahalgaon Super Thermal Power Station, Mauda Super Thermal Power Station and Tarapur Atomic Power Stations to meet its energy requirement.

The power purchase cost mainly comprises fixed charges and energy charges for two-part tariff stations, i.e., NTPC, NPCL and others. CSPDCL has considered the approved average power purchase cost as approved by the Commission in the Tariff Order dated 23 May, 2015 and has escalated by a nominal rate of 5% Y-o-Y for the MYT Control Period.

CSPDCL has estimated the gross energy availability from the existing stations based on the allocated capacity and the average Plant Load Factor (PLF) for the past five years, i.e., from FY 2010-11 to FY 2014-15 and the same has been considered throughout for the MYT Control Period for calculating the gross energy availability for the State. For Mauda, CSPDCL has estimated PLF as 80%, in the absence of past PLF data as latest PLF are way below its normative PLF.

12.6.2 New Central Generating Stations

CSPDCL submitted the expected commissioning date of upcoming Central Generation Stations, as well as the generation capacity and capacity allocated to CSPDCL.

CSPDCL estimated the gross energy availability from the new stations based on the allocated capacity and considering 85% PLF. CSPDCL, for estimating the power purchase cost from FY 2016-17 to FY 2020-21 for these stations, has considered the average power purchase cost as Rs 3.50/kWh (except Kakrapar Atomic Station, which is based on last approved Tariff Order with 5% escalation Y-o-Y) and has escalated the same by a nominal rate of 5% Y-o-Y for the MYT Control Period.

12.6.3 Old State Generating Stations

CSPDCL submitted that it mainly relies on the power from State Generating Stations, i.e., CSPGCL stations. Currently, it has allocation of 2424 MW from CSPGCL.

CSPGCL is planning to phase out Korba East Phase 1 (50 MW*4) from FY 2016-17 onwards till FY 2018-19. Accordingly, CSPDCL has taken effect of the same while projecting the power purchase from CSPGCL.

CSPDCL has considered the approved average power purchase cost as approved by the Commission in the Tariff Order dated 23 May, 2015, and escalated the same by a nominal rate of 5% Y-o-Y for the MYT Control Period.

The projection for quantum of energy for the MYT Control Period from each State Generating Station is based on actual PLF. For State Hydro and co-generation plant of CSPGCL, CSPDCL has considered the latest Tariff Order of the Commission and data made available by CSPGCL for the MYT Control Period.

12.6.4 New State Generating Stations

CSPDCL submitted the expected commissioning date of the upcoming Unit I and Unit II of Marwa generating stations of 500 MW each as February 2016 and March 2016, respectively. CSPDCL further submitted that it will use power from Marwa for the State's consumers only for FY 2016-17 and thereafter, directly sell to Telangana for rest of the MYT Control Period under back-to-back arrangement. Further, a trading margin of Rs 0.07/kWh has been considered for CSPDCL on sale to Telangana from Marwa as per CERC (Fixation of Trading Margin) Regulations, 2010 from FY 2017-18 to FY 2020-21.

While estimating the energy availability from FY 2016-17 to FY 2020-21 from Marwa, CSPDCL has considered 100 % allocation and PLF of 85%.

For estimating the cost of purchase from Marwa, CSPDCL has considered the adhoc tariff approved by the Commission in the Tariff Order dated 23 May, 2015 for FY 2015-16 and assumed the same rate for the entire Control Period.

12.6.5 Power Purchase from Renewable Sources

CSPDCL submitted that the Commission in its CSERC (Renewable Purchase Obligation and REC Framework Implementation) Regulations, 2013 has specified a trajectory for RPO compliance till FY 2015-16. As the RPO trajectory from FY 2016-17 is yet to be specified by the Commission, CSPDCL has considered the same percentage of total consumption for meeting RPO from FY 2016-17 onwards for the MYT Control Period, viz., 1% from solar, 3.75% from biomass, and 2.50% from other RE sources.

CSPDCL submitted that power purchase from Solar has been estimated at the cost of Rs 6.50/kWh for the entire Control Period, whereas power purchase from Bio Mass and Other RE has been estimated @ Rs 5.50/kWh and Rs 5.00/kWh, respectively, in FY 2016-17 with an escalation of 5% in future years of the Control Period.

12.6.6 Concessional Power Purchase & Short-term Power Purchase

CSPDCL has projected purchase from concessional power purchase sources equivalent to 40 MW capacity as per current availability @ Rs 1.90/kWh and Rs 2.00/kWh during the entire MYT Control Period.

Considering the demand supply gap for each year, CSPDCL has projected power to be procured from short-term sources at the rate of Rs. 3.50 per kWh for the MYT Control Period.

12.6.7 Transmission – Inter, Intra & CSLDC Charges

CSPDCL has calculated the transmission charges payable to PGCIL for use of transmission facilities enabling power drawal from the Western and Eastern Region, as per prevailing CERC Regulations and as per latest CERC Order dated 28 September, 2015.

CSPDCL has considered the intra-State transmission charges as per latest details provided by CSPTCL for the MYT Control Period. The inter-State Other Charges have been projected based on the actuals available in the accounts of FY 2014-15. CSLDC charges have been projected as per latest details provided by CSLDC for the MYT Control Period.

12.6.8 Inter-State Sale

CSPDCL submitted that for FY 2016-17, out of the total projected inter-State sale of 7775.90 MU, the share of Marwa would be in surplus state. It is estimated that the said quantum would be sold at Rs 4.40/kWh, i.e., the same rate that CSPDCL is supplying power to Kerala. The balance power would be sold at a margin of additional Rs 0.10/kWh of gross power purchase in FY 2016-17. From FY 2017-18, Marwa would be directly sold to Telangana under a back-to-back arrangement with a trading margin of Rs 0.07/kWh, and the balance surplus power from FY 2017-18 to FY 2020-21 would be sold at a gross margin of additional Rs 0.10/kWh of gross power purchase cost.

Commission's Views

CSPDCL's submissions and assumptions were analysed in detail and additional information was asked on the same. The power purchase expenses have been estimated based on the energy requirement assessed above. CSPDCL's projections of quantum of power available from different sources and the rate of purchase from different sources were accepted, with the following modifications:

- a) The actual rates of power purchase for different sources of power in the first 9 months of FY 2015-16, i.e., April to December 2015, have been considered as the base rate of power purchase in FY 2016-17.
- b) No escalation has been considered on the above rates, as the variation in rates will be adjusted through the FCA and VCA mechanism.
- c) The rate of power purchase from different generating stations of CSPGCL has been considered as approved in this Order for the MYT Control Period.
- d) The inter-State transmission charges payable to PGCIL have been accepted as projected by CSPDCL for FY 2016-17. Though CSPDCL has projected a steep increase in the inter-State transmission charges from FY 2016-17 to FY 2017-18, no increase has been considered for the subsequent years of the Control Period, as the amount for FY 2016-17 is itself much higher than the actual

amount paid in FY 2014-15. In case the actual amount paid to PGCIL in FY 2015-16 is actually high, then the Commission shall review the charges allowed for the respective year, at the time of tariff determination for each subsequent year of the Control Period.

- e) The intra-State transmission charges have been considered based on the ARR of CSPTCL approved in this Order for the MYT Control Period.
- f) The Other Charges projected by CSPDCL have not been considered, as the same are included in the intra-State and inter-State transmission charges.
- g) The SLDC charges have been considered based on the ARR of CSLDC approved in this Order for the MYT Control Period.
- h) Marwa Unit I and Unit II are expected to achieve COD during FY 2016-17, however, it is unlikely that these Units will be available for the entire year at 85% PLF. Hence, considering the circumstances and facts available, it is assumed that the energy generated from the station may be such that it is equivalent to one 500 MW Unit operating at 85% PLF.
- i) Power generated from Marwa is considered as being sold inter-State at the rate of Rs. 4.40 per kWh in FY 2016-17 and considered as being sold to Telangana from FY 2017-18 onwards, at a trading margin of 7 paise/kWh. The statutory and other charges such as water charges, SLDC charges, start up power charges, P&G fund contribution, duty and cess if any, of Marwa Power Station shall be recovered separately from the buyer.
- j) The RPO Regulations for the Control Period are yet to be specified. In the interim, additional 0.50% solar RPO obligation has been considered, over and above the existing RPO obligations, for each year of the Control Period. Depending on the RPO Regulations for the Control Period, the RPO obligations from FY 2017-18 onwards will be modified in the subsequent Tariff Orders.
- k) Provisions have been made for purchasing renewable power and adequate amount has been approved for this purpose in this tariff order. CSPDCL should adhere to the mandate for RPO and if there is any short fall in availability of Long Term power from renewable, remaining renewable energy requirement should be met through purchase of RECs out of the balance amount available after purchasing the available quantum of RE Power.
- l) The rate of power purchase from Marwa has been considered as Rs. 3.90 per kWh, as elaborated in the relevant Chapter of this Order.
- m) The rate for purchase of short-term power has been considered as Rs. 3.00 per kWh, based on the actual power purchase rates for the first 9 months of FY 2015-16.
- n) The revenue from sale of surplus energy has been considered separately, and has not been shown as a reduction of power purchase costs, for better clarity.

The estimated quantum and cost of power purchase from different sources of power for each year of the Control Period are given in the Tables below:

Table 12.6-1: Estimated Power Purchase Cost for FY 2016-17 (Rs. Crore)

Sl.	Particulars	CSPDCL Petition			CSERC Estimation		
		Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)	Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)
A	Purchase from Central Generating Stations						
1	N.T.P.C.	8291.86	2449.95	2.95	8173.08	2346.01	2.87
2	N.T.P.C. - SAIL	322.76	152.17	4.71	311.41	133.42	4.28
3	N.P.C. Limited	304.66	98.85	3.24	309.25	88.62	2.87
4	Others	13.88	1.46	1.05	13.88	2.08	1.50
	Sub Total A	8933.15	2702.42	3.03	8807.62	2570.13	2.92
B	Purchase from Thermal and Hydel State Generating Stations						
5	CSPGCL	21809.23	5846.11	2.68	18212.68	5132.72	2.82
	Sub Total B	21809.23	5846.11	2.68	18212.68	5132.72	2.82
C	Purchase from Traders, conventional fuel based CGPs and IPPs, and others sources						
6	Traders/Others	0.00	0.00	0.00	0.00	0.00	0.00
7	CPPs/IPP				0.00	0.00	0.00
8	Concessional Power	2154.96	410.39	1.90	2154.96	410.39	1.90
	Sub Total C	2154.96	410.39	1.90	2154.96	410.39	1.90
D	Purchase from Renewable Sources						
9	Biomass	898.74	494.31	5.50	898.74	494.31	5.50
10	Solar	252.28	163.98	6.50	252.28	163.98	6.50
11	Other RE (Hydel) (Private)	323.16	161.58	5.00	320.15	160.07	5.00
12	Biomass of CSPGCL	-	-	-	47.30	25.64	5.42
13	SHP of CSPGCL	-	-	-	49.62	19.87	4.00
	Sub Total D	1474.18	819.87	5.56	1568.09	863.87	5.51
E	Transmission & Other Charges						
12	Inter-State Transmission Charges		341.63			341.63	

Sl.	Particulars	CSPDCL Petition			CSERC Estimation		
		Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)	Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)
13	Intra-State Transmission Charges		924.89			823.49	
14	Transmission - Other Charges		63.05			0.00	
15	SLDC Charges		13.30			12.41	
	Sub Total C		1342.88			1267.43	
F	Gross Power Purchase Cost	34371.52	11121.66	3.24	30743.35	10154.65	3.33
G	Revenue from sale of surplus power	7775.91	3338.74	4.29	5318.27	2149.08	4.04

Table 12.6-2: Estimated Power Purchase Cost for FY 2017-18 (Rs. Crore)

Sl.	Particulars	CSPDCL Petition			Approved		
		Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)	Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)
A	Purchase from Central Generating Stations						
1	N.T.P.C.	13069.42	4297.38	3.29	13069.42	3963.68	3.03
2	N.T.P.C. - SAIL	322.76	159.78	4.95	322.76	131.20	4.06
3	N.P.C. Limited	786.61	267.98	3.41	786.61	225.41	2.87
4	Others	13.88	1.53	1.10	13.88	2.08	1.50
	Sub Total A	14192.67	4726.67	3.33	14192.67	4322.37	3.05
B	Purchase from Thermal and Hydel State Generating Stations						
5	CSPGCL	13778.02	3569.52	2.59	13778.02	3090.35	2.24
	Sub Total B	13778.02	3569.52	2.59	13778.02	3090.35	2.24
C	Purchase from Traders, conventional fuel based CGPs and IPPs, and others sources						
6	Traders/Others	591.25	206.94	3.50	585.76	205.01	3.50
7	CPPs/IPP				0.00	0.00	0.00
8	Concessional Power	2154.96	410.39	1.90	2154.96	410.39	1.90
	Sub Total C	2746.21	617.33	2.25	2740.72	615.4	2.25

Sl.	Particulars	CSPDCL Petition			Approved		
		Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)	Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)
D	Purchase from Renewable Sources						
9	Biomass	976.90	564.16	5.78	976.90	537.29	5.50
10	Solar	273.12	177.53	6.50	273.12	177.53	6.50
11	Other RE (Hydel) (Private)	375.14	196.95	5.25	372.25	186.13	5.00
12	Biomass of CSPGCL	47.30	28.27	5.98	47.30	25.64	5.42
13	SHP of CSPGCL	49.62	21.91	4.42	49.62	19.87	4.00
	Sub Total D	1722.08	988.82	5.74	1719.19	946.46	5.51
C	Transmission & Other Charges						
12	Inter-State Transmission Charges		548.35			341.63	
13	Intra-State Transmission Charges		1104.50			916.80	
14	Transmission - Other Charges		63.05			0.00	
15	SLDC Charges		14.47			13.64	
	Sub Total C		1730.36			1272.07	
	Gross Power Purchase Cost	32438.99	11632.69	3.59	32430.60	10246.65	3.16
16	Less: Trading Income from Sale to Telangana		48.99			48.99	
D	Net Power Purchase Cost	32438.99	11583.70	3.57	32430.60	10197.66	3.14
E	Revenue from sale of surplus power	3488.28	1287.17	3.69	4252.31	1424.52	3.35

Table 12.6-3: Approved Power Purchase Cost for FY 2018-19 (Rs. Crore)

Sl.	Particulars	CSPDCL Petition			Approved		
		Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)	Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)
A	Purchase from Central Generating Stations						
1	N.T.P.C.	14354.53	4984.53	3.47	14354.53	4413.46	3.07
2	N.T.P.C. - SAIL	322.76	167.76	5.20	322.76	131.20	4.06
3	N.P.C. Limited	787.94	281.85	3.58	787.94	225.79	2.87
4	Others	13.88	1.61	1.16	13.88	2.08	1.50
	Sub Total A	15479.11	5435.75	3.51	15479.11	4772.54	3.08
B	Purchase from Thermal and Hydel State Generating Stations						
5	CSPGCL	13439.01	3649.89	2.72	13439.01	3755.22	2.79
	Sub Total B	13439.01	3649.89	2.72	13439.01	3755.22	2.79
C	Purchase from Traders, conventional fuel based CGPs and IPPs, and others sources						
6	Traders/Others	1256.45	439.76	3.50	1245.28	435.85	3.50
7	CPPs/IPP						
8	Concessional Power	2154.96	410.39	1.90	2154.96	410.39	1.90
	Sub Total C	3411.41	850.15	2.49	3400.24	846.24	2.49
D	Purchase from Renewable Sources						
9	Biomass	1063.35	644.79	6.06	1063.35	584.84	5.50
10	Solar	296.17	192.51	6.50	296.17	192.51	6.50
11	Other RE(Hydel) (Private)	432.65	238.50	5.51	429.89	214.94	5.00
12	Biomass of CSPGCL	47.30	29.68	6.27	47.30	25.64	5.42
13	SHP of CSPGCL	49.62	23.01	4.64	49.62	19.87	4.00
	Sub Total D	1889.09	1128.49	5.97	1886.33	1037.8	5.50
E	Transmission & Other Charges						
12	Inter-State Transmission Charges		616.69			341.63	
13	Intra-State Transmission Charges		1289.63			993.46	

Sl.	Particulars	CSPDCL Petition			Approved		
		Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)	Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)
14	Transmission - Other Charges		63.05			0.00	
15	SLDC Charges		15.90			14.79	
	Sub Total E		1985.27			1349.88	
	Gross Power Purchase Cost	34218.62	13049.55	3.81	34204.70	11761.68	3.44
16	Less: Trading Income from Sale to Telangana		48.99			48.99	
F	Net Power Purchase Cost	34218.62	13000.55	3.80	34204.70	11712.69	3.42
G	Revenue from sale of surplus power	2834.15	1109.17	3.91	3529.08	1182.24	3.35

Table 12.6-4: Approved Power Purchase Cost for FY 2019-20 (Rs. Crore)

Sl.	Particulars	CSPDCL MYT Petition			Approved		
		Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)	Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)
A	Purchase from Central Generating Stations						
1	N.T.P.C.	14354.53	5233.76	3.65	14393.86	4422.93	3.07
2	N.T.P.C. – SAIL	322.76	176.15	5.46	323.65	131.42	4.06
3	N.P.C. Limited	787.94	295.94	3.76	790.10	226.41	2.87
4	Others	183.12	60.92	3.33	183.16	61.32	3.35
	Sub Total A	15648.36	5766.78	3.69	15690.76	4842.07	3.09
B	Purchase from Thermal and Hydel State Generating Stations						
5	CSPGCL	13996.86	3948.88	2.94	14034.46	3838.32	2.73
	Sub Total B	13996.86	3948.88	2.94	14034.46	3838.32	2.73
C	Purchase from Traders, conventional fuel based CGPs and IPPs, and others sources						
6	Traders/Others	1742.31	609.81	3.50	1727.54	604.64	3.50
7	CPPs/IPP						

Sl.	Particulars	CSPDCL MYT Petition			Approved		
		Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)	Quantum (in MU)	Amount (in Rs. Crore)	Per unit Rate (Rs/kWh)
8	Concessional Power	2154.96	410.39	1.90	2160.86	411.51	1.90
	Sub Total C	3897.27	1020.2	2.62	3888.4	1016.15	2.61
D	Purchase from Renewable Sources						
9	Biomass	1159.16	738.03	6.37	1159.16	637.54	5.50
10	Solar	321.72	209.12	6.50	321.72	209.12	6.50
11	Other RE(Hydel) (Private)	496.39	287.32	5.79	493.76	246.88	5.00
12	Biomass of CSPGCL	47.3	31.16	6.59	47.3	25.64	5.42
13	SHP of CSPGCL	49.62	24.16	4.87	49.62	19.87	4.00
	Sub Total D	2074.19	1289.79	6.22	2071.56	1139.05	5.50
E	Transmission & Other Charges						
12	Inter-State Transmission Charges		622.27			341.63	
13	Intra-State Transmission Charges		1369.84			1026.62	
14	Transmission - Other Charges		63.05			0.00	
15	SLDC Charges		17.40			15.88	
	Sub Total E		2072.57			1384.13	
	Gross Power Purchase Cost	35616.68	14098.21	3.96	35685.21	12219.73	3.42
16	Less: Trading Income from Sale to Telangana		48.99			49.13	
F	Net Power Purchase Cost	35616.68	14049.21	3.94	35685.21	12170.60	3.41
G	Revenue from sale of surplus power	1583.22	642.52	4.06	2293.82	768.43	3.35

Table 12.6-5: Approved Power Purchase Cost for FY 2020-21 (Rs. Crore)

Sl .	Particulars	CSPDCL MYT Petition			Approved		
		Quantum (in MU)	Amount (in Rs. Crore)	Rate per unit (Rs/kWh)	Quantum (in MU)	Amount (in Rs. Crore)	Rate per unit (Rs/kWh)
A	Purchase from Central Generating Stations						
1	N.T.P.C.	14354.53	5495.45	3.83	14354.53	4413.46	3.07
2	N.T.P.C. - SAIL	322.76	184.96	5.73	322.76	131.20	4.06
3	N.P.C. Limited	787.94	310.74	3.94	787.94	225.79	2.87
4	Others	305.27	108.86	3.57	305.27	104.07	3.41
	Sub Total A	15770.50	6100.00	3.87	15770.50	4874.53	3.09
B	Purchase from Thermal and Hydel State Generating Stations						
5	CSPGCL	13996.86	4146.32	2.96	13996.86	3907.48	2.79
	Sub Total B	13996.86	4146.32	2.96	13996.86	3907.48	2.79
C	Purchase from Traders, conventional fuel based CGPs and IPPs, and others sources						
6	Traders/Others	3152.00	1103.20	3.50	3126.59	1094.31	3.50
7	CPPs/IPP						
8	Concessional Power	2154.96	410.39	1.90	2154.96	410.39	1.90
	Sub Total C	5306.96	1513.59	2.85	5281.55	1504.7	2.85
D	Purchase from Renewable Sources						
9	Biomass	1265.54	846.05	6.69	1265.54	696.05	5.50
10	Solar	350.09	227.56	6.50	350.09	227.56	6.50
11	Other RE(Hydel) (Private)	567.19	344.71	6.08	564.68	282.34	5.00
12	Biomass of CSPGCL	47.3	32.72	6.92	47.3	25.64	5.42
13	SHP of CSPGCL	49.62	25.36	5.11	49.62	19.87	4.00

Sl .	Particulars	CSPDCL MYT Petition			Approved		
		Quantum (in MU)	Amount (in Rs. Crore)	Rate per unit (Rs/kWh)	Quantum (in MU)	Amount (in Rs. Crore)	Rate per unit (Rs/kWh)
	Sub Total D	2279.74	1476.4	6.48	2277.23	1251.46	5.50
E	Transmission & Other Charges						
12	Inter-State Transmission Charges		627.85			341.63	
13	Intra-State Transmission Charges		1475.29			1049.36	
14	Transmission - Other Charges		63.05			0.00	
15	SLDC Charges		18.84			16.96	
	Sub Total E		2185.03			1407.95	
	Gross Power Purchase Cost	37354.06	15421.35	4.13	37326.15	12946.12	3.47
16	Less: Trading Income from Sale to Telangana		48.99			48.99	
F	Net Power Purchase Cost	37354.06	15372.36	4.12	37326.15	12897.12	3.46
G	Revenue from sale of surplus power	382.67	161.81	4.23	931.15	311.94	3.35

12.6.9 Operation & Maintenance Expenses

CSPDCL's Submission

CSPDCL submitted that it has computed the Operation and Maintenance (O&M) expenses, comprising employee expenses, A&G expenses, and Repair & Maintenance (R&M) expenses for the Control Period from FY 2016-17 to FY 2020-21, in accordance with Regulation 57.4 of the MYT Regulations, 2015.

In accordance with the Regulations, Employee expenses, A&G expenses, and R&M expenses for the base year FY 2015-16 have been derived on the basis of the

normalized net present value of the actual Employee expenses, A&G expenses and R&M expenses for the previous five years immediately preceding the base year FY 2015-16. Employee expenses, excluding pension and gratuity fund contribution and pay revision arrears, have been normalized based on average Consumer Price Index (CPI) increase for past five years on year on year basis. A&G expenses and R&M expenses have been normalized based on average Wholesale Price Index (WPI) increase for past five years on year on year basis.

CSPDCL submitted that the base year numbers of Employee, A&G and R&M expenses so derived after normalization have been escalated by the same inflation rate, i.e., average CPI of past five years for Employee expenses and average WPI of past five years for A&G and R&M expenses, to project the O&M expenses for each year of the Control Period from FY 2016-17 to FY 2020-21.

CSPDCL submitted that there was an interim wage relief impact as per Wage Advisory Committee Report dated January 29, 2015 to the tune of 15%. Total arrears on account of Wage Revision (Interim Relief) were to be passed on to employees in 15 equal instalments effective from January 1, 2014. Out of this, 7.5% of the interim relief has already been passed in FY 2014-15. The balance 7.50% will be accounted in FY 2015-16. Therefore, CSPDCL has included the impact of Wage Revision (Interim Relief) in calculating the base year employee expense by escalating the normalized as well as actual employee expense of FY 2014-15 by average inflation rate (CPI) along with an escalation of the balance of 7.50%. The average of normalized net present value of FY 2015-16 has also been escalated by average inflation rate (CPI) along with an escalation of the balance of 7.50% to estimate the employee expense for the Control Period.

The O&M expenses projected by CSPDCL for the MYT Control Period from FY 2016-17 to FY 2020-21 are shown in the Table below:

Table 12.6-6: O&M Expenses as submitted by CSPDCL (in Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Employee Expenses	806.52	879.49	959.07	1045.85	1140.48
A&G Expenses	139.48	148.81	158.87	169.63	181.10
R&M Expenses	126.17	134.71	143.82	153.56	163.95
Total O&M Expenses	1072.17	1163.01	1261.76	1369.04	1485.53

Commission's Views

Regulation 57.4 of the MYT Regulations, 2015 specifies as under:

"a) Operation and Maintenance (O&M) expenses for the distribution licensee shall include:

- I. Employee costs;*
- II. Administrative and General expenses;*
- III. Repairs and Maintenance expenses*

- b) *The Commission shall stipulate a separate trajectory for each of the components of O&M expenses viz., employee cost, R&M expense and A&G expense for the Control Period.*

Employee Cost

- c) *The employee cost, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2015-16, shall be derived on the basis of the normalized average of the actual employee expenses, excluding pension fund contribution and impact of pay revision arrears, available in the accounts for the previous five (5) years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission. Any other expense of non-recurring nature shall also be excluded while determining normalized average for the previous five (5) years.*
- d) *The normalization shall be done by applying last five year average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 2014-15, shall then be used to project base year value for FY 2015-16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expense (excluding impact of pension fund contribution and pay revision, if any) for each year of the Control Period.*

At the time of true up, the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period.

Provided further that impact of pay revision (including arrears) and pension fund contribution shall be allowed on actual during the true-up as per accounts, subject to prudence check and any other factor considered appropriate by the Commission.

A&G Expenses and R&M Expenses

- e) *The administrative and general expenses and repair and maintenance expenses, for the base year i.e. FY 2015-16, shall be derived on the basis of the normalized average of the actual administrative and general expenses and repair and maintenance expenses, respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission. Any expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years.*
- f) *The normalization shall be done by applying last five year average increase in Wholesale Price Index (WPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 2014-15, shall then be used to project base year value for FY 2015-16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the administrative and general expense and repair and maintenance expenses for each year of the Control Period.*

At the time of true up, the administrative and general expenses and repair and maintenance expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period.

- g) *The additional O&M Expenses on account of new lines/ substations commissioned after March 31, 2016 shall be allowed by the Commission subject to prudence check at the time of truing up exercise."*

The O&M expenses for the Control Period from FY 2016-17 to FY 2020-21 have been estimated on the basis of methodology specified in the MYT Regulations, 2015.

The data published by the Reserve Bank of India has been relied upon to compute average increase in CPI and WPI over five years from FY 2010-11 to FY 2014-15. The summary of the yearly inflation and the average inflation considered for projecting the O&M expenses is shown in the following Table:

Table 12.6-7: Computation of Interest Rate for Projections (%)

Particulars	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	Average of 5 years increase
CPI-IW (%)	10.45%	8.39%	10.44%	9.68%	6.29%	9.05%
WPI-AC (%)	9.56%	8.94%	7.35%	5.98%	2%	6.77%

Note: CPI-IW: Consumer Price Index - Industrial Workers

WPI-AC: Wholesale Price Index - All Commodities

The MYT Regulations requires that the actual expenses incurred and admitted in the true up orders for the past five years, i.e., from FY 2010-11 to FY 2014-15 have to be considered. Hence, net actual employee expenses for FY 2010-11 to FY 2013-14 (excluding Pension & Gratuity contribution and impact of pay revision) have been normalised up to FY 2014-15 by escalating net expenses of each year by average increase in CPI for past five years, i.e., 9.05%.

In FY 2014-15, there was an impact of Wage Revision (Interim Relief). In reply to specific query, CSPDCL submitted the report of Wage Advisory Committee. For FY 2014-15, the Commission has considered the actual employee expenses incurred by CSPDCL excluding Rs. 45.42 Crore paid due to Wage Revision (Interim Relief). The average of the net present value in FY 2014-15 of the employee expenses of FY 2010-11 to FY 2014-15 has then been escalated at the same rate of CPI increase, i.e., 9.05%, for deriving the base employee expenses for FY 2015-16. The employee expenses for each year of the MYT Control Period from FY 2016-17 to FY 2020-21 have been projected by escalating the base value for FY 2015-16 at the same rate of CPI increase, i.e., 9.05%. The impact of Rs. 45.42 Crore, on account of Wage Revision (Interim Relief) for FY 2014-15, has been considered as a separate line entry. At the time of true up for FY 2014-15, the impact of Wage Revision (Interim Relief) has been excluded, as payment against the same has been made in FY 2015-16. However, for projection purposes, Rs. 45.42 Crore has been considered and escalated at the same rate of CPI increase, i.e., 9.05%, from FY 2014-15 up to FY 2020-21, to factor in the increase in salary levels on account of Wage Revision (Interim Relief). The difference between the actual amount paid on account of Wage Revision (Interim Relief) and the amount projected in this Order will be passed through at the time of true up. As the impact of wage revision is passed through in the

Regulations, the employee cost shall be trued-up at actuals subject to prudence check, and shall not be subject to sharing of gains and losses.

The MYT Regulations require that actual net A&G expenses and R&M expenses incurred and admitted in the true up orders for the past five years, i.e., from FY 2010-11 to FY 2014-15 have to be considered. Hence, net actual A&G expenses and R&M expenses for FY 2010-11 to FY 2013-14 (excluding expenses of non-recurring nature) have been normalised up to FY 2014-15 by escalating net expenses of each year by average increase in WPI for past five years, i.e., 6.77%.

For FY 2014-15, the Commission has considered the net A&G expenses and R&M expenses approved in true-up order, which is discussed in Chapter 6 of this order. The average of the net present value in FY 2014-15 of the A&G expenses and R&M expenses of FY 2010-11 to FY 2014-15 has then been escalated at the same rate of WPI increase, i.e., 6.77%, for deriving the base A&G expenses and R&M expenses for FY 2015-16. The A&G expenses and R&M expenses for each year of the MYT Control Period from FY 2016-17 to FY 2020-21 have been projected by escalating the base value for FY 2015-16 at the same rate of WPI increase, i.e., 6.77%.

The normative Employee expenses, A&G expenses and R&M expenses as approved for the Control Period from FY 2016-17 to FY 2020-21 are shown in the Tables below:

Table 12.6-8: Approved Employee Expenses for the Control Period (Rs. Crore)

Particulars	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
Employee Expenses Excluding P&G	473.54	498.65	538.97	561.76							
Normalised FY 2010-11 value to FY 2014-15 NPV	473.53	477.13	520.30	567.38	618.72						
Normalised FY 2011-12 value to FY 2014-15 NPV		498.65	543.77	592.97	646.62						
Normalised FY 2012-13 value to FY 2014-15 NPV			538.97	587.74	640.92						
Normalised FY 2013-14 value to FY 2014-15 NPV				561.76	612.59						
Normalised FY 2014-15 value					637.97						
Average of NPV of 5 FYs used for projection for FY 2015-16					631.36						
Average CPI for past 5 years					9.05%						
Projected Employee Expenses for FY 2015-16						688.49					
Employee Expenses for Control Period							750.78	818.72	892.80	973.58	1061.67
Wage Revision (Interim Relief) Impact							54.01	58.90	64.23	70.04	76.38

Table 12.6-9: Approved A&G expenses for the Control Period (Rs. Crore)

Particulars	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
A&G Expenses	79.85	91.96	104.96	128.97							
Normalised FY 2010-11 value to FY 2014-15 NPV	79.85	85.25	91.02	97.18	103.76						
Normalised FY 2011-12 value to FY 2014-15 NPV		91.96	98.18	104.83	111.92						
Normalised FY 2012-13 value to FY 2014-15 NPV			104.96	112.06	119.64						
Normalised FY 2013-14 value to FY 2014-15 NPV				128.97	137.70						
Normalised FY 2014-15 value					121.43						
Average of NPV of 5 FYs used for projection for FY 2015-16					118.89						
Average WPI for past 5 years					6.77%						
Projected A&G Expenses for FY 2015-16						126.93					
A&G Expenses for Control Period							135.52	144.69	154.48	164.94	176.10

Table 12.6-10: Approved R&M expenses for the Control Period (Rs. Crore)

Particulars	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21
R&M Expenses	85.80	86.05	95.83	96.80							
Normalised FY 2010-11 value to FY 2014-15 NPV	85.80	91.61	97.80	104.42	111.49						
Normalised FY 2011-12 value to FY 2014-15 NPV		86.05	91.87	98.09	104.73						
Normalised FY 2012-13 value to FY 2014-15 NPV			95.83	102.31	109.24						
Normalised FY 2013-14 value to FY 2014-15 NPV				96.80	103.35						
Normalised FY 2014-15 value					123.65						
Average of NPV of 5 FYs used for projection for FY 2015-16					110.49						
Average WPI for past 5 years					6.77%						
Projected R&M Expenses for FY 2015-16						117.97					
R&M Expenses for Control Period							125.95	134.47	143.57	153.29	163.66

The summary of O&M expenses approved for the Control Period is shown in the Table below:

Table 12.6-11: Approved O&M expenses (Rs. Crore)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	CSPDCL	Approved	CSPDCL	Approved	CSPDCL	Approved	CSPDCL	Approved	CSPDCL	Approved
Employee Expenses	806.52	750.78	879.49	818.72	959.07	892.80	1045.85	973.58	1140.48	1061.67
A&G Expenses	139.48	135.52	148.81	144.69	158.87	154.48	169.63	164.94	181.10	176.10
R&M Expenses	126.17	125.95	134.71	134.47	143.82	143.57	153.56	153.29	163.95	163.66
Total O&M Expenses	1072.17	1012.26	1163.01	1097.88	1261.76	1190.85	1369.04	1291.80	1485.53	1401.42
Wage Revision (Interim Relief) Impact		54.01		58.90		64.23		70.04		76.38

12.6.10 Contribution to Pension & Gratuity (P&G)

CSPDCL's submission

CSPDCL submitted that a 10% annual escalation on the approved P&G contribution for FY 2015-16 has been considered to project the P&G Contribution for the MYT Control Period from FY 2016-17 to FY 2020-21.

The P&G Contribution projected by CSPDCL for the Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 12.6-12: P&G Contribution as submitted by CSPDCL (in Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
P&G	239.66	263.32	289.98	318.98	350.88

Commission's Views

Regulation 32 of the MYT Regulations, 2015 specifies as under:

"32. PENSION FUND

For meeting up the past unfunded liabilities of erstwhile CSEB/State Power Companies employees appointed before 1.1.2004, a pension and gratuity trust has been created and funding to the same has been allowed in the past Tariff Orders of the Commission. The contribution to the fund shall be decided by the Commission on the basis of actuarial analysis, expected pension outflow for the State Power Companies and availability of fund with the Pension trust at the time of determination of MYT / ARR for each year of the control period. However, the actual outflow towards the pension payment shall not be allowed in the O&M expenses covered in these Regulations for the Control Period. The pension outflow shall be met by the Pension trust. The pension fund contribution so determined by the Commission shall be recoverable in the same manner as specified in relevant chapters. Provided till the time SLDC is part of STU, SLDC's share out of the STU contribution shall be decided on pro-rata basis. For the purpose of ratio determination, the employee strength as on 1st April of the preceding year shall be considered." **(emphasis added)**

The Companies have submitted that there is a shortfall in the contribution to the consolidated P&G Fund on account of following reasons, and that there is a need to increase the P&G contribution appropriately.

- a) The Chhattisgarh Govt. in FY 2013-14 had increased the retirement age of government employees from 60 years to 62 years. On account of such increase, the retirement of employees got pushed forward by 2 years and those who were due to retire earlier will retire in FY 2016-17. Therefore, the pension liability of the companies will increase.

- b) The State Power Companies has granted interim relief for its employees. Accordingly the gratuity amount has increased.
- c) The Wage Revision (Interim Relief) of employees of State Power Companies are also due which may also have an additional impact on contribution to P&G fund.

In accordance with the provisions of the regulation, by taking in to account the above aspects and on the basis of actuarial analysis, expected pension outflow for the State Power Companies and availability of fund with the Pension trust, the cumulative P&G contribution of CSPGCL, CSPTCL, CSLDC, and CSPDCL for FY 2016-17, works out as Rs. 480 crore. By considering an increase of 9.05% every year i.e. average CPI rate recorded for past five years, P&G contribution for subsequent years will be Rs. 523.44 crore, Rs. 570.81 crore, Rs. 622.47 crore, and Rs. 678.80 crore in FY 2017-18, FY 2018-19, FY 2019-20, and FY 2020-21, respectively.

The above amounts have been allocated to CSPGCL, CSPTCL, CSLDC, and CSPDCL in the same ratio as approved in previous order. The approved amount of P&G contribution of CSPDCL, CSPGCL, CSPTCL, and CSLDC for the purpose of ARR computations, is shown in the Table below:

**Table 12.6-13: P&G Contribution for Companies for the Control Period
(Rs. Cr.)**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
CSPGCL	130.83	142.67	155.58	169.66	185.01
CSPTCL	49.16	53.61	58.47	63.75	69.52
CSLDC	1.21	1.32	1.43	1.56	1.71
CSPDCL	298.80	325.83	355.31	387.47	422.51
TOTAL	480.00	523.43	570.79	622.44	678.76

12.6.11 Gross Fixed Assets

CSPDCL's Submission

CSPDCL submitted that the capital structure for the Control Period from FY 2016-17 to FY 2020-21 has been determined based on the methodology approved by the Commission in the Tariff Order dated July 12, 2013:

- a) The closing GFA of FY 2014-15 has been considered as opening GFA for FY 2015-16 and addition in FY 2015-16 has been considered as approved by the Commission in Tariff Order dated May 23, 2015.
- b) Closing CWIP of Rs. 2019.43 Crore in FY 2014-15 has been considered as opening CWIP for FY 2015-16.
- c) Loan addition has been considered as per approved methodology.
- d) Addition in consumer contribution has been considered nil for FY 2015-16, Rs.185.23 Crore for FY 2016-17, Rs.167.08 Crore for FY 2017-18, Rs.144.99 Crore for FY 2018-19 and nil for FY 2019-20 and FY 2020-21, respectively.
- e) Equity addition has been considered as per approved methodology.

GFA addition of Rs. 686.24 Crore, Rs.760.79 Crore, Rs.685.72 Crore, Rs.434.44 Crore and Rs.313.81 Crore has been considered for FY 2016-17 to FY 2020-21 based on schedule and plan submitted in the Capital Investment Plan Petition.

Table 12.6-14: Capital Structure as submitted by CSPDCL (Rs. Cr.)

Sr. No.	Particulars	FY 17	FY 18	FY 19	FY 20	FY 21
A	Gross Fixed Assets (GFA)					
1	Opening GFA	5530.83	6217.08	6977.87	7663.59	8098.03
2	Opening CWIP	2152.43	2256.25	2243.70	2216.90	2120.70
3	Opening Capex	7683.26	8473.32	9221.57	9880.49	10218.73
4	Capitalisation during the Year	686.24	760.79	685.72	434.44	313.81
5	Closing GFA	6217.08	6977.87	7663.59	8098.03	8411.84
6	Closing CWIP	2256.25	2243.70	2216.90	2120.90	2110.23
7	Closing Capex	8473.32	9221.57	9880.49	10218.73	10522.07
B	grants & Consumer Contribution					
1	Opening Grant and Contribution	2268.35	2453.58	2620.66	2765.65	2765.65
2	Consumer Contribution/Grants during the Year	185.23	167.08	144.99	0.00	0.00
3	Closing Consumer Contribution	2453.88	2620.66	2765.65	2765.65	2765.65
4	Consumer Contribution in Opening GFA	1632.88	1800.25	1983.03	2145.12	2191.69
5	Consumer Contribution in Closing GFA	1800.25	1983.03	2145.12	2191.69	2210.99
C	loan borrowed					
1	Opening Borrowed Loan	2364.50	2859.60	3324.50	3722.76	3884.41
2	Loan Borrowed during the Year	495.10	464.90	398.26	161.65	131.76
3	Closing Borrowed Loan	2859.60	3324.50	3722.76	3884.41	4016.17
4	Borrowed Loan in Opening GFA	1702.10	2098.16	2515.61	2887.48	3078.28
5	Borrowed Loan in Closing GFA	2098.16	2515.61	2887.48	3078.28	3210.72
D	equity					
1	Opening Gross Equity	3050.41	3160.14	3276.41	3392.08	3568.67
2	Equity addition during the Year	109.73	116.27	115.67	176.59	171.58
3	Closing Gross Equity	3160.14	3276.41	3392.08	3568.67	3740.25

Sr. No.	Particulars	FY 17	FY 18	FY 19	FY 20	FY 21
4	Gross Equity in Opening GFA	2195.86	2318.67	2479.23	2631.00	2828.06
5	Gross Equity in Closing GFA	2318.67	2479.23	2631.00	2828.06	2990.14
6	Average Gross Equity during the year	2257.26	2398.95	2555.11	2729.53	2909.10
E	permissible equity					
1	Permissible Equity in Opening GFA	1686.31	1892.18	2120.42	2326.14	2456.47
2	Permissible Equity in Closing GFA	1892.18	2120.42	2326.14	2456.47	2550.61
3	Average Gross Permissible Equity during the year	1789.25	2006.30	2223.28	2391.30	2503.54
F	Normative loan					
1	Opening Normative Loan	509.55	426.49	358.81	304.86	371.60
2	Closing Normative Loan	426.49	358.81	304.86	371.60	439.52
3	Average Normative Loan	468.02	392.65	331.83	338.23	405.56

Commission's View

The closing GFA for CSPDCL for FY 2014-15, as approved in the true-up for FY 2014-15 in Chapter 8 of this Order, has been considered as the opening GFA for FY 2015-16. Capitalisation for FY 2015-16 as approved in the MYT Order dated July 12, 2013 has been added to arrive at the closing GFA for FY 2015-16.

The closing GFA of FY 2015-16 has been considered as the opening GFA for FY 2016-17. Similarly, for each year of the Control Period, closing balance of the previous year has been considered as the opening balance for the next year. The capitalisation approved in the Order dated March 26, 2016 in Petition No. 100 of 2015, on the Capital Investment Plan for the Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 12.6-15: Approved Capitalisation in the Capital Investment Plan

(Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Capitalisation	1579.17	2064.21	1289.90	671.50	668.25

The opening and closing GFA considered for each year of the Control Period, as well as the funding pattern for the capitalisation is given in the Table below:

Table 12.6-16: Capital Structure approved by the Commission (Rs. Crore)

Sr. No	Particulars	FY 17	FY 18	FY 19	FY 20	FY 21
A	Gross Fixed Assets (GFA)					
1	Opening GFA	5530.83	6217.08	6977.87	7663.59	8098.03
2	Opening CWIP	2152.43	2256.25	2243.70	2216.90	2120.70
3	Opening Capex	7683.26	8473.32	9221.57	9880.49	10218.73
4	Capitalisation during the Year	686.24	760.79	685.72	434.44	313.81
5	Closing GFA	6217.08	6977.87	7663.59	8098.03	8411.84
6	Closing CWIP	2256.25	2243.70	2216.90	2120.90	2110.23
7	Closing Capex	8473.32	9221.57	9880.49	10218.73	10522.07
B	grants & Consumer Contribution					
1	Opening Grant and Contribution	2268.35	2453.58	2620.66	2765.65	2765.65
2	Consumer Contribution/Grants during the Year	185.23	167.08	144.99	0.00	0.00
3	Closing Consumer Contribution	2453.88	2620.66	2765.65	2765.65	2765.65
4	Consumer Contribution in Opening GFA	1632.88	1800.25	1983.03	2145.12	2191.69
5	Consumer Contribution in Closing GFA	1800.25	1983.03	2145.12	2191.69	2210.99
C	loan borrowed					
1	Opening Borrowed Loan	2364.50	2859.60	3324.50	3722.76	3884.41
2	Loan Borrowed during the Year	495.10	464.90	398.26	161.65	131.76
3	Closing Borrowed Loan	2859.60	3324.50	3722.76	3884.41	4016.17
4	Borrowed Loan in Opening GFA	1702.10	2098.16	2515.61	2887.48	3078.28
5	Borrowed Loan in Closing GFA	2098.16	2515.61	2887.48	3078.28	3210.72
D	equity					
1	Opening Gross Equity	3050.41	3160.14	3276.41	3392.08	3568.67
2	Equity addition during the Year	109.73	116.27	115.67	176.59	171.58
3	Closing Gross Equity	3160.14	3276.41	3392.08	3568.67	3740.25
4	Gross Equity in Opening GFA	2195.86	2318.67	2479.23	2631.00	2828.06
5	Gross Equity in Closing GFA	2318.67	2479.23	2631.00	2828.06	2990.14
6	Average Gross Equity during the year	2257.26	2398.95	2555.11	2729.53	2909.10

Sr. No	Particulars	FY 17	FY 18	FY 19	FY 20	FY 21
E	permissible equity					
1	Permissible Equity in Opening GFA	1686.31	1892.18	2120.42	2326.14	2456.47
2	Permissible Equity in Closing GFA	1892.18	2120.42	2326.14	2456.47	2550.61
3	Average Gross Permissible Equity during the year	1789.25	2006.30	2223.28	2391.30	2503.54
F	Normative loan					
1	Opening Normative Loan	509.55	426.49	358.81	304.86	371.60
2	Closing Normative Loan	426.49	358.81	304.86	371.60	439.52
3	Average Normative Loan	468.02	392.65	331.83	338.23	405.56

12.6.12 Interest on Loan

CSPDCL's submission

CSPDCL submitted that it has computed Interest on Loan as per Regulation 23 of the MYT Regulations, 2015. It has considered closing loan balance for FY 2014-15 (as available in audited accounts) as the opening loan balance for FY 2015-16. The debt component of GFA addition in FY 2015-16 and thereon has been considered as the loan addition during the year for new MYT Control Period. The allowable depreciation for the respective Financial Years under the MYT Control Period has been considered as the normative repayment for that particular Financial Year in the Control Period. The actual weighted average interest rate of 8.24% for FY 2014-15 has been considered for computation of interest expenses.

The Interest on Loan as submitted by CSPDCL for the MYT Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 12.6-17: Interest on Loan as submitted by CSPDCL (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Borrowed Loan in Opening GFA	1702.10	2098.16	2515.61	2887.48	3078.28
Opening Normative Loan	509.55	426.49	358.81	304.86	371.60
Total Opening Gross Loan	2211.64	2524.65	2874.42	3192.34	3449.87
Repayment till previous year	662.04	856.91	1080.40	1332.67	1608.70
Total Opening Net Loan	1549.60	1667.74	1794.02	1859.66	1841.17
Repayment during the period	194.87	223.49	252.27	276.03	293.75

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Additional Capitalization of Borrowed Loan during the year	396.06	417.46	371.86	190.80	132.44
Addition/(Reduction) in Normative Loan during the year	-83.06	-67.68	-53.95	66.74	67.93
Total Closing Net Loan	1667.74	1794.02	1859.66	1841.17	1747.79
Average Loan during the year	1608.67	1730.88	1826.84	1850.42	1794.48
Weighted Average Interest Rate	8.24%	8.24%	8.24%	8.24%	8.24%
Interest Expense for the Period	132.52	142.59	150.50	152.44	147.83

Commission's View

Regulation 23 of the MYT Regulations, 2015 specifies as under:

“23.1. The loans arrived at in the manner indicated in Regulation 17 shall be considered as gross normative loan for calculation of interest on loan.

23.2. The normative loan outstanding as on 01.04.2016 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.03.2016 from the gross normative loan.

23.3. The repayment for the year of the tariff period shall be deemed to be equal to the depreciation allowed for that year.

23.4. Notwithstanding any moratorium period availed by the generating company or the licensee, as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.

23.5. The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project;

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the licensee, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the licensee as a whole shall be considered:

Provided further, in case of new generating station or the licensee commencing its operation after the date of effectiveness of these Regulations, and which don't have actual loan portfolio, the rate of interest shall be

considered on normative basis and shall be equal to the Base rate of State Bank of India plus 200 basis points as on the date on which the generating station or a unit thereof or the transmission system or the distribution licensee, as the case may be, is declared under commercial operation.

23.6. The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

23.7. The above interest computation shall exclude interest on loan amount, normative or otherwise, to the extent of capital cost funded by consumer contribution, grants or deposit works carried out by transmission licensee or distribution licensee or generating company, as the case may be.

23.8. The generating company or SLDC or the licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the STU or the transmission licensee, as the case may be, in the ratio of 2:1.

Provided in case of SLDC, this provision shall be applicable only to those intra-State entities who are availing long-term services of SLDC.”

To compute Interest on Loan, the closing normative loan of FY 2015-16 has been considered as the opening normative loan for FY 2016-17. Similarly, for each year of the Control Period, the closing normative loan for previous year has been considered as the opening normative loan for that year.

The debt component has been considered based on the approved capital structure as shown in Table 12.4-12. Repayment of normative loan for each year has been considered equal to the depreciation allowed for that year. The rate of interest has been computed in accordance with Regulation 23.5, i.e., as weighted average rate of interest on the basis of the actual loan portfolio at the beginning of each year, and has been considered as 8.24%. The interest on loan as approved for the Control Period is shown in the Table below:

Table 12.6-18: Approved Interest on Loan (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Total Opening Net Loan	1510.10	1812.27	2094.00	2166.41	2027.65
Repayment during the period	142.56	154.69	189.94	213.98	222.64
Additional Loan during the year	444.73	436.42	262.35	75.23	70.03
Total Closing Net Loan	1812.27	2094.00	2166.41	2027.65	1875.04
Average Loan during the year	1661.19	1953.14	2130.21	2097.03	1951.35
Weighted Average Interest Rate	8.24%	8.24%	8.24%	8.24%	8.24%
Interest Expenses for the Period	136.85	160.90	175.49	172.76	160.75

Further, under the tri-partite Memorandum of Understanding (MoU) signed between Government of India, Government of Chhattisgarh, and CSPDCL under the Ujwal DISCOM Assurance Yojana (UDAY) on January 25, 2016, the Government of Chhattisgarh shall take over 50% of the outstanding debt of CSPDCL as on September 30, 2015 in FY 2015-16, and 25% of the outstanding debt in FY 2016-17 on priority basis, which shall be treated as a Grant. CSPDCL submitted that the effect of the UDAY Scheme on the performance of CSPDCL is linked to its implementation, and hence, the Commission may consider the impact of UDAY Scheme at the time of truing up for FY 2015-16 or mid-term review under the MYT Regulations, 2015.

The Commission is of the view that when CSPDCL has signed the MoU and the Government of Chhattisgarh has agreed to take over the debts by replacing them with Grants, the impact of the same should be factored in at the time of tariff determination itself, rather than at the time of truing up. The replacement of the debt by Government Grants has the following two impacts, viz.:

- a) Reduction in the depreciation expenses allowable, as depreciation is not allowed on grant funded assets
- b) Reduction in the interest expenses due to reduction in the outstanding debt component, which is offset to some extent on account of the lower repayment of loan considered, as the depreciation is considered equal to normative repayment of loan.

The impact of replacement of 75% of the debt in two tranches, viz., 50% in FY 2015-16 and 25% in FY 2016-17 on the interest expenses for each year of the MYT Control Period, is given in the Table below:

Table 12.6-19: Impact of UDAY on Interest on Loan (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Normal Interest Expenses	136.85	160.90	175.49	172.76	160.75
Interest Expenses under UDAY Scheme	64.18	77.38	96.39	98.09	90.51
Impact on Interest due to UDAY Scheme	(72.67)	(83.52)	(79.10)	(74.67)	(70.24)

The deviations due to implementation issues, if any, shall be considered at the time of truing up.

12.6.13 Depreciation

CSPDCL's submission

CSPDCL submitted that depreciation for the MYT Control Period has been calculated in accordance with Regulation 24 of the MYT Regulations, 2015. Depreciation projected by CSPDCL for the MYT Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 12.6-20: Depreciation as submitted by CSPDCL (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening GFA	5530.83	6217.08	6977.87	7663.59	8098.03
Add: Additional capitalization during the year	686.24	760.79	685.72	434.44	313.81
GFA at the end of the year	6217.08	6977.87	7663.59	8098.03	8411.84
Average GFA for the year	5873.96	6597.47	7320.73	7880.81	8254.94
Depreciation Rate	4.88%	4.92%	4.95%	4.97%	4.99%
Depreciation @ scheduled rates	286.62	324.63	362.63	392.05	411.71
Less: Depreciation on consumer contribution on live assets	76.58	85.84	94.95	100.55	102.45
Less: Depreciation on fully depreciated Assets	15.17	15.30	15.40	15.47	15.51
Net Depreciation	194.87	223.49	252.27	276.03	293.75

Commission's View

Regulation 24 of the MYT Regulations, 2015 specifies as under:

“24.1 The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission:

Provided that the capital cost shall not include funds from grant or consumer contribution or deposit works received for funding of fixed asset as specified in Regulation 21.

24.2 The salvage value of the asset except for IT equipment's and software used for SLDC business shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

Provided that, the salvage value for IT equipment's and Software shall be considered as NIL and 100% value of the assets shall be considered depreciable.

24.3 Land other than the land held under lease and the land for reservoir in case of hydro generating station and the land for ash-bund for thermal power stations shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

24.4 Depreciation shall be calculated annually based on Straight Line Method and at rates as specified in Appendix-I to these regulations for the assets of the generating station, transmission system, distribution system and SLDC:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 15 years from date of commercial operation shall be spread over the balance useful life of the assets;

In case of the existing projects, the balance depreciable value as on 01.04.2016 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.03.2016 from the gross depreciable value of the assets.

Provided that in those cases where the capital investment plan has been approved by the Commission and the depreciation rates as provided in these Regulations are insufficient for the repayment of loan, the rate of depreciation shall be decided by the Commission at the time of issuance of tariff order, subject to prudence check.

24.5 Till the separate SLDC Company is notified by the State Government, the depreciation shall be calculated as applicable for the STU under this Regulations;

Provided further the balance depreciable value as on the date of transfer shall be worked out by deducting the cumulative depreciation from the gross depreciable value of the assets appearing in the books of accounts of the SLDC for the SLDC as on the date of transfer.

24.6 Depreciation shall be chargeable from the first year of commercial operation. The depreciation shall be computed on the average asset base during the year:

Provided for the new generating station or unit, the depreciation shall be charged on pro rata basis during the year the asset has been declared under commercial operation. For subsequent years, the depreciation shall be computed on the average asset base during the year”

Depreciation for the Control Period from FY 2016-17 to FY 2020-21 has been calculated in accordance with the above mentioned Regulations, on the average GFA during the year. The depreciation has been computed considering the weighted average depreciation rate of 4.95%.

The depreciation related to consumer contribution on live assets has been deducted based on the projected increase in consumer contribution during the Control Period. Further, the depreciation on fully depreciated assets has been considered equal to the depreciation approved for FY 2014-15.

The depreciation approved for the MYT Control Period is shown in the Table below:

Table 12.6-21: Approved Depreciation (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening GFA	5530.83	7110.00	9174.21	10464.11	11135.61
Add: Additional capitalization during the year	1579.17	2064.21	1289.90	671.50	668.25
GFA at the end of the year	7110.00	9174.21	10464.11	11135.61	11803.86
Average GFA for the year	6320.42	8142.11	9819.16	10799.86	11469.74
Depreciation Rate	4.95%	4.95%	4.95%	4.95%	4.95%
Depreciation @ scheduled rates	312.81	402.97	485.97	534.51	567.66
Less: Depreciation on consumer contribution on live assets	153.31	231.34	279.09	303.58	328.08
Less: Depreciation on fully depreciated Assets	16.94	16.94	16.94	16.94	16.94
Net Depreciation	142.56	154.69	189.94	213.98	222.64

In accordance with the approach elaborated in the Section on Interest Expenses, the impact of replacement of 75% of the debt by Grants in two tranches, viz., 50% in FY 2015-16 and 25% in FY 2016-17 under the UDAY Scheme on the depreciation expenses for each year of the MYT Control Period, is given in the Table below:

Table 12.6-22: Impact of UDAY on Depreciation (Rs. Crore)

Particulars	FY 17	FY 18	FY 19	FY 20	FY 21
Normal Depreciation	142.56	154.69	189.94	213.98	222.64
Depreciation under UDAY Scheme	97.79	100.96	136.22	160.26	168.91
Impact on Depreciation due to UDAY Scheme	(44.77)	(53.72)	(53.72)	(53.72)	(53.72)

The deviations due to implementation issues, if any, shall be considered at the time of truing up.

12.6.14 Interest on Working Capital

CSPDCL's Submission

CSPDCL submitted that it has calculated Interest on Working Capital (IoWC) in accordance with Regulation 25.1 (e) of the MYT Regulations, 2015.

CSPDCL submitted that it has considered one month of the projected O&M Expenses, maintenance spares at 40% of the approved R&M expenses, and receivables equivalent to one month of revenue from sale of electricity for computing the working capital requirement, and interest rate of 13.20% (SBI Base Rate of 9.70% as on September 30, 2015 plus 350 basis points) for computing the Interest on Working Capital for the MYT Control Period.

Interest on Working Capital as submitted by CSPDCL for the MYT Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 12.6-23: Interest on Working Capital as submitted by CSPDCL (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
O&M Expenses	89.34	96.92	105.15	114.09	123.79
Maintenance Spares	50.47	53.88	57.53	61.42	65.58
Receivables	1078.35	1024.34	1172.60	1313.52	1477.64
Total WC requirement	1218.15	1175.14	1335.28	1489.03	1667.01
Less: Consumer Security Deposit	1352.80	1488.08	1636.89	1800.58	1980.64
Net Working Capital requirement	0.00	0.00	0.00	0.00	0.00
Rate of Interest	13.20%	13.20%	13.20%	13.20%	13.20%
Net Interest on Working Capital	0.00	0.00	0.00	0.00	0.00

Commission's View

Regulation 25.1 (e) of the MYT Regulations, 2015 specifies as under:

"25.1. The working capital shall cover:

(e) In case of Retail Supply of Electricity:

i. Operation and maintenance expenses for one month; plus

ii. Maintenance spares @ 40% of repair and maintenance expenses specified in Regulation 66.6; plus

iii. Receivables equivalent to one (1) month of the revenue from sale of electricity at the prevailing tariffs

iv. Less: Amount held as security deposits deposit (cash) from consumers.

...

25.4. "Interest on working capital shall be allowed at a rate equal to the Base rate of State Bank of India as on 30th September of the financial year in which the Petition is filed plus 350 basis points. At the time of true up, the interest rate shall be adjusted as per the actual rate prevailing on 1st April of the financial year for which truing up exercise has been undertaken.

25.5. Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee or

the distribution licensee or SLDC has not taken loan for working capital from any outside agency.”

The Interest on Working Capital has been calculated in accordance with the above-said Regulations. The interest rate of 13.20% has been considered, which is the Base Rate of State Bank of India as on September 30, 2015, plus 350 basis points, for computing the Interest on Working Capital for the entire Control Period. The Interest on Working Capital approved for the Control Period is shown in the Table below:

Table 12.6-24: Approved Interest on Working Capital (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
O&M Expenses	88.86	96.40	104.59	113.49	123.15
Maintenance Spares	50.38	53.79	57.43	61.31	65.46
Receivables	977.09	981.75	1121.84	1171.35	1242.30
Total WC requirement	1116.33	1131.94	1283.85	1346.15	1430.91
Less: Consumer Security Deposit	1352.80	1488.08	1636.89	1800.58	1980.64
Net Working Capital requirement	0.00	0.00	0.00	0.00	0.00
Rate of Interest	13.20%	13.20%	13.20%	13.20%	13.20%
Net Interest on Working Capital	0.00	0.00	0.00	0.00	0.00

12.6.15 Interest on Consumer Security Deposit

CSPDCL's Submission

CSPDCL submitted that it has taken closing balance of FY 2015-16 as opening balance for FY 2016-17 and calculated the interest on security deposit for the MYT Control Period, as shown in the Table below:

**Table 12.6-25: Interest on Consumer Security as submitted by CSPDCL
(Rs. Cr.)**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening Security Deposit	1288.39	1417.22	1558.95	1714.84	1886.32
Addition during the year	128.84	141.72	155.89	171.48	188.63
Closing Security Deposit	1417.22	1558.95	1714.84	1886.32	2074.96
Interest Rate	9.00%	9.00%	9.00%	9.00%	9.00%
Interest on Security Deposit	115.95	127.55	140.31	154.34	169.77

Commission's Views

The Interest on Consumer Security Deposit has been calculated in accordance with the MYT Regulations, 2015. The prevailing RBI Bank Rate of 7% has been considered for computing the interest, as shown in the Table below:

Table 12.6-26: Approved Interest on Consumer Security Deposit (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Opening Security Deposit	1288.39	1417.22	1558.95	1714.84	1886.32
Addition during the year	128.84	141.72	155.89	171.48	188.63
Closing Security Deposit	1417.22	1558.95	1714.84	1886.32	2074.96
Interest Rate	7.00%	7.00%	7.00%	7.00%	7.00%
Interest on Security Deposit	90.19	99.21	109.13	120.04	132.04

12.6.16 Return on Equity

CSPDCL's submission

CSPDCL has considered provision for bad and doubtful debts as 1% of the revenue from sale of electricity.

Commission's View

Regulation 66.8 of the MYT Regulations, 2015 specifies as under:

"A provision of maximum 1% revenue of retail supply business shall be allowed. The same shall be subject to true up on aggregate basis at the end of control period on actual basis and prudence check made by the Commission."

Thus, CSPDCL may be allowed 1% of the projected revenue from sale of power, towards provision for bad and doubtful debts. However, it is noted that CSPDCL has not made any such actual provision in FY 2014-15, as seen in the true-up for FY 2014-15. Against this background, it is felt that it may not be advisable to consider such provisioning upfront in the MYT Order. Hence, the Commission has not considered any provisioning for bad and doubtful debts for the Control Period. However, in case CSPDCL actually provides for bad and doubtful debts for any year of the Control Period, the same shall be allowed at the time of truing up, subject to prudence check, in accordance with the MYT Regulations, 2015.

12.6.17 Return on Equity

CSPDCL's submission

CSPDCL submitted that it has calculated Return on Equity (RoE) in accordance with Regulation 22 of the MYT Regulations, 2015. The Return on Equity as submitted by CSPDCL for the new MYT Control Period from FY 2016-17 to FY 2020-21 has been shown in the Table below:

Table 12.6-27: Return on Equity as submitted by CSPDCL (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Permissible Equity in Opening GFA	1686.31	1892.18	2120.42	2326.14	2456.47
Permissible Equity in Closing GFA	1892.18	2120.42	2326.14	2456.47	2550.61
Average Gross Permissible Equity during the year	1789.25	2006.30	2223.28	2391.30	2503.54
Rate of Return on Equity	16.00%	16.00%	16.00%	16.00%	16.00%
Return on Equity	286.28	321.01	355.72	382.61	400.57

Commission's View

Regulation 22 of the MYT Regulations, 2015 specifies as under:

“22.1. Generation, Transmission and SLDC: Return on equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 17. Return on equity shall be computed on pre-tax basis at the base rate of 15.50% to be grossed up as per Regulation 22.3 of these Regulations.

22.3. The rate of return on equity for each year of the Control Period shall be computed by grossing up the base rate with the prevailing MAT rate of the base year: Provided that return on equity with respect to the actual tax rate applicable to the generating company or the transmission licensee or distribution licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the Control Period shall be trued up separately for each year of the Control Period. In case, no tax is payable during the financial year, the tax rate for the purpose of truing up shall be taken as nil.

Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where, ‘t’ is the applicable tax rate in accordance with regulation 22.3 of these regulations.

Provided that if there is a loss incurred by the generating company or the transmission licensee or distribution licensee or SLDC, as the case may be, in the previous year and based on the prudence check made by the Commission, the Minimum Alternate Tax may not be considered in such a case while determining the return on equity.”

The Return on Equity for the Control Period has been computed by considering equity addition as shown in Table 12.6-16 As mentioned in the true-up chapter for FY 2014-15, CSPDCL has not paid any Income Tax for FY 2014-15. Hence, the rate of RoE has not been grossed up with the MAT rate, and the RoE rate of 15.50% has been

considered for the purpose of approving RoE for the Control Period. In case CSPDCL actually pays Income Tax for any year of the Control Period, then the rate of RoE shall be appropriately grossed up at the time of truing up for that year.

The Return on Equity approved for the Control Period is shown in the Table below:

Table 12.6-28: Approved Return on Equity (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Permissible Equity in Opening GFA	1334.71	1382.76	1433.85	1496.72	1598.00
Permissible Equity in Closing GFA	1382.76	1433.85	1496.72	1598.00	1701.22
Average Gross Permissible Equity during the year	1358.74	1408.31	1465.29	1547.36	1649.61
Rate of Return on Equity	16.00%	16.00%	16.00%	16.00%	16.00%
Return on Equity	217.40	225.33	234.45	247.58	263.94

12.6.18 Non-Tariff Income

CSPDCL's Submission

CSPDCL submitted that for projecting Non-Tariff Income for the MYT Control Period, it has escalated the actual values from audited accounts of FY 2014-15 by 10% year-on-year. Non-Tariff Income projected by CSPDCL for FY 2016-17 to FY 2020-21 is given in the Table below:

Table 12.6-29: Non-Tariff Income as submitted by CSPDCL (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Total Non-Tariff Income	325.15	357.66	393.43	432.77	476.05

Commission's View

The Commission has accepted the income from Short-term Open Access (STOA) charges as projected by CSPDCL. The non-tariff income from other sources has been escalated by 10% as projected by CSPDCL.

Further, the average Consumer Security Deposit available with CSPDCL in each year of the Control Period is higher than the working capital requirement for that year. The MYT Regulations, 2015 specify that in case of retail supply of electricity, the working capital requirement shall be calculated by reducing the amount held as security deposits in cash from the consumers. As the Consumer Security Deposit is used to meet the working capital requirement, it follows that if there is excess Consumer Security Deposit with respect to the working capital requirement, the same shall earn

interest in the same manner, as incurred by the working capital requirement. Hence, as the Consumer Security Deposit amount is more than the normative working capital requirement, in accordance with the philosophy adopted by the Commission in the previous Tariff Order, the Commission has considered the interest on the excess Consumer Security Deposit for each year of the Control Period, i.e., difference between Consumer Security Deposit and Working Capital Requirement, under the Non-Tariff Income for the respective year of the Control Period. The interest has been computed @13.20%, i.e., the rate of interest considered for IoWC, as shown in the Table below:

Table 12.6-30: Approved Interest on Excess Consumer Security Deposit (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Consumer Security Deposit	1352.80	1488.08	1636.89	1800.58	1980.64
Total WC requirement	1116.33	1131.94	1283.85	1346.15	1430.91
Excess Consumer Security Deposit	236.48	356.15	353.04	454.43	549.73
Rate of Interest	13.20%	13.20%	13.20%	13.20%	13.20%
Interest on Excess CSD	31.21	47.01	46.60	59.99	72.56

In line with the approach adopted in previous Orders, the Commission has not considered the income from Delayed Payment Surcharge as Non-Tariff Income.

The approved Non-Tariff Income for the MYT Control Period is shown in the Table below:

Table 12.6-31: Approved Non-Tariff Income (Rs. Cr.)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Non-Tariff Income	252.01	277.21	304.93	335.43	368.97
Interest on Excess CSD	31.21	47.01	46.60	59.99	72.56
STOA Charges	70.82	77.90	85.69	94.26	103.69
Total Non-Tariff Income	354.05	402.13	437.23	489.68	545.22

12.7 AGGREGATE REVENUE REQUIREMENT FOR FY 2016-17 TO FY 2020-21

The summary of the approved ARR for CSPDCL for the Control Period from FY 2016-17 to FY 2020-21 is shown in the Table below:

Table 12.7-1: Approved ARR for CSPDCL for the Control Period from FY 2016-17 to FY 2020-21 (Rs. Crore)

	Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
		CSPDCL	Approved	CSPDCL	Approved	CSPDCL	Approved	CSPDCL	Approved	CSPDCL	Approved
Sl.	Power Purchase Expenses	9,778.78	8977.11	9,853.33	8,925.59	11,015.28	10,362.81	11,976.65	10,786.47	13,187.33	11489.17
1	Inter-State Transmission charges (PGCIL)	341.63	341.63	548.35	341.63	616.69	341.63	622.27	341.63	627.85	341.63
2	Inter-State Transmission charges (Other Charges)	63.05	-	63.05	-	63.05	-	63.05	-	63.05	0.00
3	Intra-State Transmission Charges	924.89	823.49	1,104.50	916.80	1,289.63	993.46	1,369.84	1,026.21	1,475.29	1049.02
4	SLDC Charges	13.30	12.41	14.47	13.64	15.90	14.79	17.40	15.88	18.84	16.96
5	Sub-total Power Purchase Expenses	11,121.66	10,154.65	11,583.70	10,197.66	13,000.55	11,712.69	14,049.21	12,170.60	15,372.36	12,897.12
6	Employee Expenses	806.52	750.78	879.49	818.72	959.07	892.80	1,045.85	973.58	1,140.48	1,061.67
7	Impact of Wage Revision (Interim Relief)		54.01		58.90		64.23		70.04		76.38
8	Administrative and General Expenses	139.38	135.52	148.81	144.69	158.87	154.48	169.63	164.94	181.10	176.10
9	Repair and Maintenance charges	126.17	125.95	134.71	134.47	143.82	143.57	153.56	153.29	163.95	163.66
10	Pension & Gratuity Payment	239.66	298.80	263.62	325.83	289.98	355.31	318.98	387.47	350.88	422.51
11	Interest and finance charges	132.52	136.85	142.59	160.90	150.50	175.49	152.44	172.76	147.83	160.75

	Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
		CSPDCL	Approved	CSPDCL	Approved	CSPDCL	Approved	CSPDCL	Approved	CSPDCL	Approved
12	Interest on Consumer Security Deposits	115.95	90.19	127.55	99.21	140.31	109.13	154.34	120.04	169.77	132.04
13	Interest on Working Capital Requirement	-	-	-	-	-	-	-	-	-	-
14	Depreciation	194.87	142.56	223.49	154.69	252.27	189.94	276.03	213.98	293.75	222.64
15	Impact of UDAY Scheme on Depreciation & Interest		(117.44)		(137.24)		(132.82)		(128.39)		(123.97)
16	Return on Equity	286.28	217.40	321.01	225.33	355.72	234.45	382.61	247.58	400.57	263.94
17	Income tax	-	-	-	-	-	-	-	-	-	-
18	Provision for Bad debts	102.30	0.00	111.89	0.00	122.69	0.00	134.92	0.00	148.81	0.00
19	Total Expenses	13,265.31	11,989.27	13,936.86	12,183.15	15,573.80	13,899.26	16,837.56	14,545.87	18,369.49	15,452.84
20	Non Tariff Income	254.33	252.01	279.76	277.21	307.74	304.93	338.51	335.43	372.36	368.97
21	Income on Excess CSD		32.21		47.01		46.60		59.99		72.56
22	STOA Charges	70.82	70.82	77.90	77.90	85.69	85.69	94.26	94.26	103.69	103.69
23	Total Non Tariff Income	325.15	355.05	357.66	402.13	393.43	437.23	432.77	489.68	476.05	545.22
24	Aggregate Revenue Requirement	12,940.16	11,634.22	13,579.20	11,781.02	15,180.37	13,462.04	16,404.79	14,056.19	17,893.44	14,907.62

12.8 REVENUE FROM SALE

CSPDCL's Submission

CSPDCL submitted that the Revenue from Sale of Power from FY 2016-17 to FY 2020-21 has been calculated based on the tariff approved by the Commission in the Tariff Order dated 23 May, 2015 and the projected sales to each category.

Commission's View

The revenue from sale of power at the prevailing tariffs has been computed by considering the tariff approved by the Commission in the Tariff Order dated 23 May, 2015 and the sales approved to each category in this Order.

The revenue from sale of power for FY 2016-17 works out to Rs. 10358.66 crore, and the revenue from sale of surplus power outside the State works out to Rs. 2149.08 crore, as mentioned earlier. Thus, the total revenue in FY 2016-17 based on prevailing retail tariff and revenue from surplus sale works out to Rs. 12507.74 crore.

12.9 STAND-ALONE REVENUE GAP/(SURPLUS) FOR FY 2016-17

CSPDCL's Submission

CSPDCL submitted that there would be a Revenue Surplus of Rs. 628.91crore in FY 2016-17 on a standalone basis.

Commission's View

The Revenue Surplus worked out by the Commission for FY 2016-17 is given in the Table below:

Table 12.9-1: Standalone Revenue Gap/(Surplus) for FY 2016-17
(Rs. Crore)

Particulars	Petition	Approved
Aggregate Revenue Requirement*	12940.16	11634.22
Revenue from sale of power at existing tariff	10230.00	10358.66
Revenue from sale of surplus power	3338.74	2149.08
Standalone Revenue Gap/(Surplus) for FY 2016-17	(628.91)	(873.52)

Note: * Excluding Revenue from Sale of Surplus Power, which has been considered under Revenue

The standalone revenue surplus of CSPDCL for FY 2016-17 has been combined with the revenue gap/(surplus) of CSPGCL, CSLDC, and CSPDCL after truing up for FY 2014-15 and the impact of the APTEL Order in Appeal No. 308 of 2013, along with carrying cost, as discussed earlier. The computation of cumulative revenue gap/(surplus) for FY 2016-17 and the treatment of the same is discussed in the next Chapter.

13 CUMULATIVE REVENUE GAP/(SURPLUS) FOR FY 2016-17 AND RETAIL TARIFF PHILOSOPHY

13.1 CUMULATIVE REVENUE GAP/(SURPLUS) FOR FY 2016-17 AND RECOVERY

CSPDCL's Submission

CSPDCL submitted that before proceeding to the cumulative Surplus / (Deficit), there is a need to re-visit the Capital Restructuring as approved including percentage allocation in the Tariff Order dated 12 July 2013. Due to the impact of the APTEL Judgment, there would be change in allocation of surplus as determined by the Commission in said Tariff Order. As a result, the revised deficit/(surplus) along with revised capital restructuring with approved percentage allocation works out to Rs. (1764.24) crore, of which CSPDCL's share is 31.74%, i.e., Rs. (559.97) crore, instead of Rs. (596.84) crore approved in the MYT Order dated 12 July 2013.

CSPDCL submitted the total cumulative deficit/(surplus) till FY 2016-17, as Rs. 2027.83 crore, including standalone CSPDCL deficit, APTEL impact, and carrying cost

CSPDCL estimated an average increase of 19.82% to recover the cumulative Revenue Gap/(Surplus) of Rs. 2027.83 Crore till FY 2016-17, including the carrying cost and APTEL impact. CSPDCL submitted that the category-wise determination of tariff is the prerogative of the Commission under the provisions of the Electricity Act, 2003, and therefore, requested the Commission to consider a uniform tariff increase across all categories to bridge the approved Revenue Gap subject to the compliance of the Tariff Policy.

Commission's View

CSPDCL, in its Petition, has sought approval for cumulative deficit of Rs. 2028 Crore for FY 2016-17. However, this cumulative deficit was understated as CSPDCL had not considered the impact of the revenue gap of CSPTCL, CSPGCL, and CSLDC on account of final true-up for FY 2014-15, as well as the impact of the APTEL Judgment for CSPTCL, CSPGCL, and CSLDC. The Commission directed CSPDCL to include the cumulative deficit the impact of the revenue gap of CSPTCL, CSPGCL, and CSLDC in the ARR of CSPDCL, as the final revenue gap and tariff have to be designed for recovery of all these amounts. CSPDCL submitted the revised revenue gap till FY 2016-17 including APTEL impact as Rs. 2793 crore. The revenue gap of Rs. 2793 crore claimed by CSPDCL is too an understatement. The actual impact computed from the submissions on account of truing of FY 2014-15 for CSPGCL, CSPTCL, CSLDC and CSPDCL and impact due to Hon'ble APTEL judgment for these power companies is Rs. 4434.48 Crore.

As elaborated earlier, the impact of the Hon'ble APTEL Judgment is very high, of which the impact of the reversal of the interest on excess Consumer Security Deposit alone contributes Rs. 1130.80 crore. Passing on the entire impact resulting due to Hon'ble APTEL Judgment in one year would result in a steep tariff hike. Hence, the Commission at this stage has considered only Rs. 370 crore (Rs. 50.69 crore considered for CSPTCL, Rs. 169.84 crore for CSPGCL and Rs. 149.47 crore for

CSPDCL) against the Hon'ble APTEL impact related to notional interest on excess Consumer Security Deposit along with carrying cost in the ARR of CSPDCL for FY 2016-17, and the balance amount of has been carried forward to the next two years, viz., FY 2017-18 and FY 2018-19. Thus, the total amount of Regulatory Asset carried forward to FY 2017-18 and FY 2018-19 is Rs. 760.80 crore.

Further, the State Government has made a provision of subsidy of Rs. 350 Crore to bridge a part of the revenue gap for FY 2016-17. Hence, the same has been considered to reduce the cumulative Revenue Gap for FY 2016-17.

Further, due to the change in the FCA and VCA recovery mechanism for the new MYT control period, the Commission has considered the balance estimated FCA amount of Rs. 203 crore of FY 2015-16 (October 2015 to March 2016) that is yet to be recovered, to the ARR of FY 2016-17, so that there is no incidence of VCA in the first month itself. Subsequently, depending on the movement of fuel and power purchase prices, the FCA and VCA will be recovered as specified in the MYT Regulations, 2015.

As the FCA amount pertaining to generation stations for the period October 2015 to March 2016 has been considered as an expense in the ARR of FY 2016-17, the CSPDCL should pay the amount claimed by CSPGCL towards FCA for the above stated months in the months of April to September 2016.

Thus, the approved cumulative Revenue Gap/(Surplus) for FY 2016-17, after considering the impact of true-up for CSPGCL, CSPTCL, CSLDC, and CSPDCL for FY 2014-15, part of the APTEL Impact, Review Orders of CSPTCL and CSPGCL, Carrying Costs, Balance FCA to be recovered, and Regulatory Assets created, is shown in the Table below:

Table 13.1-1: Cumulative Revenue Gap/(Surplus) to be recovered through retail tariffs in FY 2016-17

(Rs. Crore)	
Particulars	Approved
ARR of CSPDCL for FY 2016-17	11634.22
Balance FCA to be recovered	202.55
Impact of truing up of FY 2014-15, review petition and APTEL Judgment with carrying cost up to FY 2016-17 for CSPGCL	514.30
Impact of truing up of FY 2014-15, review petition and APTEL Judgment with carrying cost up to FY 2016-17 for CSPTCL	89.90
Impact of truing up of FY 2014-15 and APTEL Judgment with carrying cost up to FY 2016-17 for CSLDC	0.54
Impact of truing up of FY 2014-15 and APTEL Judgment with carrying cost up to FY 2016-17 for CSPDCL	2799.56
Total ARR of CSPDCL for FY 2016-17	15241.07
Less: State Government Subsidy	350.00

Particulars	Approved
Less: Revenue from sale of surplus power	2149.08
Net ARR of CSPDCL for FY 2016-17	12741.99
Less: Regulatory Asset for CSPDCL	760.80
ARR of CSPDCL to be recovered in FY 2016-17	11981.20
Revenue from existing tariff	10358.66
Additional revenue required to meet the recoverable ARR in FY 2016-17	1622.54

Thus, the approved amount of cumulative Revenue Gap to be recovered through the revised tariffs in FY 2016-17 is Rs. 1622.54 crore.

As regards CSPDCL's proposal for considering a uniform tariff increase for all consumer categories, the Commission is of the view that the same is not in consonance with the requirements of the EA 2003, APTEL Judgments, and Tariff Policy, which require the cross-subsidies to be gradually reduced over the years such that the tariffs for all categories are within the band of $\pm 20\%$ of ACOS. Hence, the tariffs for all consumer categories have been increased in such a manner that the cross-subsidies are reduced gradually, and the tariffs for most of the consumer categories is within the band of $\pm 20\%$ of Average Cost of Supply, as stipulated by the Tariff Policy notified by the Government of India.

13.2 TARIFF PHILOSOPHY FOR FY 2016-17

13.2.1 Average Cost of Supply

The ACOS approved for FY 2016-17 works out to Rs. 6.04 per kWh as shown in the Table below:

Table 13.2-1: Approved ACOS for FY 2016-17

Particulars	Commission
Net Revenue Requirement from sale of electricity to consumers (Rs. Crore)	11981.15
Sales (MU)	19831
Adjusted Average Cost of Supply (Rs/kWh)	6.04

As regards tariff determination on the basis of Voltage-wise Cost of Supply (VCOS), the Commission had asked CSPDCL to submit the calculations. CSPDCL submitted the calculation of VCOS for FY 2013-14. However, the same is based on several assumptions, and the Commission feels that in the absence of a realistic assessment of the voltage-wise losses, the determination of VCOS may lead to incorrect conclusions. However, the APTEL has directed that the tariffs and cross-subsidies have to be determined keeping in view the VCOS, while ensuring that the tariffs are within $\pm 20\%$ of ACOS. Further, there is no denying that the cost of supply at higher voltages, i.e., 220 kV, 132 kV, etc., will be lower than the cost of supply at lower

voltages, i.e., LT, 11 kV, etc., on account of the lower distribution losses at higher voltages and non-utilisation of the assets at lower voltages for supplying electricity to the consumers at higher voltages.

Hence, in this Order, the Commission has determined the category-wise tariffs on the basis of ACOS, while at the same time moving towards the philosophy that the tariffs for the consumers taking supply at higher voltages is lower than that for consumers taking supply at higher voltages. However, due to historical reasons, this objective cannot be achieved immediately, and hence, a gradual movement has been initiated in this Order.

13.2.2 Rationalisation of Tariff Categories

HT Industries

As the first step towards moving towards tariffs determined on the basis of VCOS, the existing EHV and HV tariff categories have been rationalised by creating different HV categories based on purpose of use, and sub-categories have been created within each HV category for different voltage levels, viz., 220 kV, 132 kV, 33 kV, and 11 kV. The revised HV categories are as under:

- i. HV 1: Railway Traction
- ii. HV 2: Mines (Coal & Others)
 - e. 220 kV
 - a. 132 kV
 - b. 33 kV
 - c. 11 kV
- iii. HV 3: Other Industry & General Purpose Non-Industrial
 - a. 220 kV
 - b. 132 kV
 - c. 33 kV
 - d. 11 kV
- iv. HV 4: Steel Industry
 - a. 220 kV
 - b. 132 kV
 - c. 33 kV
 - d. 11 kV
- v. HV 5: Low Load Factor Industries
 - a. 33 kV
 - b. 11 kV
- vi. HV 6: Irrigation, Agriculture Allied Activities & Public water Works
- vii. HV 7: Residential
- viii. HV 8: Start-up Power Tariff
- ix. HV 9: Industries related to manufacturing of equipment for power generation from renewable energy sources
- x. HV 10: Information Technology Industries

LT Categories

LV-1: Domestic

In continuation of the principle adopted by the Commission in its Tariff Order dated March 31, 2011, there shall be no separate category for BPL consumers. All domestic consumers including BPL card holders shall be provided a domestic connection. Each BPL card holder will be eligible for the subsidy, if any, given by the State Govt. (subject to the condition of fulfilling the eligibility criteria specified by the State Government). The consumers in the BPL category shall be charged for their consumption over and above the subsidised units at a rate determined for domestic consumers in this order. The tariff for all consumption slabs of LV-1 category has been revised. In LV-1 domestic category, the Commission has split the consumption slab of 0-200 units by introducing two new consumption slabs, i.e., 0-40 units per month and 41-200 units per month, as under:

Slab 1: 0-40 units;

Slab 2: 41-200 units;

Slab 3: 201-600 units; and

Slab 4: more than 600 units.

The tariff for 0-40 units per month has been increased at a lower rate. However, due to the telescopic nature of the tariff structure for domestic category, all the consumers in the domestic category including consumers having higher consumption will benefit from the lower tariff in the lower consumption slabs.

LV-2: Non-Domestic

The tariff for all consumption slabs of LV-2 category has been revised. The option for demand based tariff for non-domestic category will continue.

LV-3: Agriculture

The tariff for agricultural consumers has been revised.

The agricultural consumers should be given the due benefit of the subsidy, if any, made available to them by the Govt. of Chhattisgarh from time to time.

LV-4: Agriculture allied activities

The tariff for all sub-categories of agricultural allied category has been revised.

The option for demand based tariff for agriculture allied activities category will continue.

LV-5: LT Industries

In order to give impetus to LT industries located in rural areas, a rebate of 5% in energy charges for consumers specified under tariff LV-5 shall be allowed for industries located in rural areas notified by Government of Chhattisgarh. The tariff for this category as whole has been kept below average cost of supply.

LV-6: Public Utilities

The tariff for the Public Utilities category has been revised.

LV-7: Information Technology Industries

In order to facilitate Information Technology Industries in the State, tariff for this category has been kept below the Average Cost of Supply.

LT Temporary Supply

The tariff for temporary supply is maintained at one and a half times the tariff for the respective categories with permanent connection. However, in case of excess drawal of power than contracted, the billing as per provision of excess supply as in case of permanent connection shall also be applicable.

All LT installations which have welding transformers are required to install suitable capacitor(s) so as to ensure power factor of not less than 85%. Consumers not complying with the above shall have to pay surcharge of 75 (seventy-five) paisa per unit on the entire monthly consumption, provided the load of the welding transformer(s) exceeds 25% of the total connected load of connection

13.2.3 Category-specific Changes

The category-specific changes approved for FY 2016-17 are elaborated below:

- i. Agricultural consumers having additional connections, i.e., more than one pump in their name, shall be entitled for concession of 10% on energy charge for the consumption recorded on additional pump(s).
- ii. The Applicability of LV-5 Industry category has been elaborated as under:
"These tariffs are applicable to power, light and fan for industries such as flour mills, hullers, grinders for grinding masala, power looms, rice mills, dall-mills, oil mills, ice factories, cold storage plants, ice candies, terracotta, handloom, handicraft, agro-processing units, minor forest produce, laboratories of engineering colleges, ITIs and polytechnics and industrial institutions, aluminium based factory, bakery/biscuit industries, bottling plant, cable/insulation industries, Cement Based Factory, Chemical Plant, Coal Based Industries, Conductor Wire Industries, Cutting & Polishing Of Marble, Fabrication Workshop, Food Processing Industry, Forest Product Based Factory, GI Wire Industries, Glass Industries, Hot Mixing Plant, It Based Industries, Mineral Based Factory, Plastic Industries, Plywood Factory, Pulverize

Industries, Rolling Mill, Saw Mill, Stone Crusher, Toy Industries, Wire Drawing / Steel Industries, Wire Product, workshops and fabrication shop, etc."

- iii. In order to give impetus to LT industries located in rural areas, a rebate of 5% in energy charges for consumers specified under tariff LV-5 shall be allowed for industries located in rural areas notified by Government of Chhattisgarh.
- iv. The Applicability of LV-6 Public Utilities category has been elaborated as under
"This tariff is applicable to colonies developed by Chhattisgarh State Housing Board and public utilities such as water supply schemes, sewage treatment plants and sewage pumping installations, crematorium, traffic signals and lighting of public streets including public parks and archaeological and other monuments when requisition for supply is made by Public Health Engineering Department, local bodies, Gram Panchayats or any organization made responsible by the Government to maintain these services"
- v. HV-5: Low Load Factor Industries category was introduced earlier considering the fact that few consumers are not utilising the network to the maximum allotted capacity but are required to pay full fixed charges. That is why Demand Charges are has been kept at 50% as compared to other categories, as they are single shift and supposed to use the network in single shift i.e. only 12 hours a day.
- vi. The Applicability of HV-6: Irrigation & Agriculture Allied Activities, Public Water Works category has been extended to the following consumers:
"This tariff shall be applicable for Chhattisgarh State Housing Board and agriculture pump connections, irrigation pumps of lift irrigation schemes of State Government or its agencies/co-operative societies, including colonies developed by including energy used for lighting pump house."
- vii. In order to provide relief to agricultural consumers, the Commission has decided that for Temporary Agricultural pump connections, the Fixed charge and energy charge shall be billed at the normal tariff applicable for LV 3 category.
- viii. In order to bring clarity, the definition determination of Maximum Demand for LV categories has been reworded as under:
"The maximum demand means the highest load measured by sliding window principle of measurement in average kVA or average kW as the case may be at the point of supply of a consumer during any consecutive period of 30 minutes during the billing period"
- ix. **VCA Charges:**
As the new Control Period is to commence from April 1, 2016 and also the VCA formula has been revised and shall be governed according to MYT Regulations, 2015, it is felt that the VCA charges to be recovered for the period October 1, 2015 to March 31, 2016 be merged and accordingly provisions for recovery have been made in the new retail tariff design. Therefore, VCA charges to be recovered from retail consumers for previous year's consumption for the period October 1, 2015 to March 31, 2016 shall not be billed to retail consumers.

Variable Cost Adjustment (VCA) charge on consumption from April 1, 2016 as

per the formula and conditions specified in the MYT Regulations, 2015 shall be levied in addition to energy charge on all the LV and HV categories including temporary supply.

However, from the date of applicability of this Order, the base values for computation of VCA for succeeding period shall be revised in accordance to this Order.

- x. A rebate of 10% in energy charges for new railway traction projects shall be allowed for a period of five years from the date of connection for such new projects for which Agreements for availing supply from the Licensee are finalised during FY 2016-17.

xi. **Load Factor Rebate for HV 4 Steel category:**

The HV 4: Steel category consumers shall be eligible for load factor rebate on energy charges, as under:

Monthly Load Factor (LF)	Rebate
If monthly Load Factor is between 65% and below 70% on contract demand	5% rebate on normal energy charges on entire energy consumption.
If monthly Load Factor is 70% and above on contract demand	10% rebate on normal energy charges on entire energy consumption.

For the purpose of calculation of load factor, hours of load restriction enforced by CSPDCL/CSPTCL shall be excluded.

Provided that in case the monthly Load Factor is 64.99% or below, then no Load Factor Rebate shall be payable in that month.

Provided that in case the monthly Load Factor is 69.99% or below, then Load Factor Rebate of 5% shall be payable in that month.

Provided further that the Load Factor Rebate shall not be payable in the month in which the Maximum Recorded Demand exceeds the Contract Demand.

Provided also that the monthly Load Factor shall be rounded off to the lowest integer.

- xii. The tariff applicable to HV 9: Industries related to manufacturing of equipment for power generation from renewable energy sources, and HV 10: Information Technology Industries has been kept at 75% of ACOS, to further encourage the growth of these industries in the State.
- xiii. In order to bring clarity, the definition of Maximum Demand for HV categories has been reworded as under:

"The maximum demand means the highest load measured by sliding window principle of measurement in average kVA at the point of supply of a consumer during any consecutive period of 15 minutes during the billing period"

13.2.4 Wheeling Charges

CSPDCL Submission

CSPDCL has proposed an allocation matrix for wheeling charges and retail supply, wherein the entire power purchase expenses including transmission charges, interest on CSD, and non-tariff income has been considered as part of the retail supply business, along with 50% of the employee expenses, 70% of the A&G expenses, 10% of the R&M expenses, 50% of pension payment, 10% of interest expenses, 10% of depreciation, 10% of RoE, and 90% of the interest on working capital.

CSPDCL has accordingly proposed the Wheeling Charges as under:

Table 13.2-2: Wheeling Charges Proposed by CSPDCL for FY 2016-17

Particulars	Commission
Total Energy Input to 33 kV distribution system (MU)	22030
Distribution Cost for Wires Business (Rs. Crore)	1230.76
Distribution Cost for 33 kV voltage level (Rs. Crore)	430.77
Wheeling Charges for 33 kV voltage level (Rs/kWh)	0.20

Commission's Views

The Wheeling Charges have been computed by considering the Wires cost as the total ARR less the power purchase expenses and the interest on consumer security deposit, and by considering the distribution cost for 33 kV voltage level as 35% of the total cost. The total energy input at 33 kV has been considered as 21921 MU based on the approved Energy Balance for FY 2016-17.

For long-term, medium-term and short-term open access customers, Wheeling Charges shall be Rs. 279/MWh (or Rs. 0.279 per kWh) for the energy computed as per the provisions made in Regulation 33 of the CSERC (Connectivity and Intra State Open access) Regulations, 2011 and its subsequent amendment(s)/revision, if any, at 100% load factor for wheeling. The same charges shall be applicable for both collective and bilateral transaction at the point of injection.

Distribution losses shall be applicable at the rate of 6% for the energy scheduled for distribution at the point or points of injection at 33 kV side of 33/11 kV sub-station.

13.2.5 REVENUE AT APPROVED TARIFF

Existing tariff will be applicable with effect from April 1, 2016, for the consumers of the State for FY 2016-17.

Table 13.2-3: Revenue in FY 2016-17 at Tariffs approved by the Commission

Consumer Category		Revenue (Rs. Crore)
A	LV	5778.77
1	Domestic including BPL	2568.12
2	Non Domestic (Normal Tariff & Demand Based Tariff)	754.06
4	Agriculture – Metered & Allied Activities	1623.76
6	LT Industry	280.20
7	Public Utilities	151.89
8	Temporary	400.73
B	HV	
1	HV1: Railway Traction	583.47
2	HV2: Mines (Coals & others)	372.83
3	HV3: Other Industry & General Purpose Industry	2004.36
4	HV4: Steel Industries	2900.60
5	Others	341.12
	Total Revenue from LV and HV categories	11981.15

13.2.6 CROSS SUBSIDY

An element of cross-subsidy is inherent in the present and revised tariff structure. The tariffs of different consumer categories in relation to the Average Cost of Supply (Rs. 6.04 per kWh) is such that the tariffs for some categories of consumers are higher than the ACOS while the tariffs for others are lower than the ACOS. The Commission has reduced the cross-subsidy in this Order, and ensured that the tariffs are within +-20% of the ACOS for most of the categories, as shown in the Table below.

Table 13.2-4: Cross Subsidy with existing and approved Tariff (Rs./kWh)

Consumer Category		Approved in Tariff Order for FY 2015-16		Approved in Tariff Order for FY 2016-17	
		ABR (Rs./kWh)	ABR/ACOS (%)	ABR (Rs./kWh)	ABR/ACOS (%)
LV	Domestic	4.12	81%	4.81	80%
	Non Domestic	7.26	142%	8.19	136%
	Agriculture	3.41	67%	4.51	75%
	LT Industry	6.22	122%	5.72	95%
	Public Utilities	4.37	86%	5.29	88%

Consumer Category		Approved in Tariff Order for FY 2015-16	Approved in Tariff Order for FY 2016-17	
HV	HV1: Railway Traction	As categorisation has been changed, previous tariff orders values are not available.	6.48	107%
	HV2: Mines (Coals & others)		6.75	112%
	HV3: Other Industry & General Purpose Industry		7.97	132%
	HV4: Steel Industries		6.87	114%

The Average Billing Rate (ABR) considered in the above Table is based on the actual average billing rate for representative sample of consumers from each category, as analysed based on actual category-wise billing data submitted by CSPDCL for FY 2015-16.

13.2.7 CROSS-SUBSIDY SURCHARGE

The Commission has determined the Cross-Subsidy Surcharge to be paid by the open access consumers, in accordance with CSERC (Connectivity and Intra-State Open Access) Regulations, 2011 as under:

For open access consumers procuring power from renewable energy based power generating plant, the Cross-Subsidy Surcharge payable shall be 50% of the Cross Subsidy Surcharge determined for that year.

The approved Cross-Subsidy Surcharge is as under:

- For 220 kV/132 kV consumers Rs. 1.16 per kWh (which is 90% of the computed value of Rs. 1.29 per kWh).
- For 33 kV consumers Rs. 1.21 per kWh (which is 90% of the computed value of Rs. 1.34 per kWh).

The approved Tariff Schedule for FY 2016-17 is given in Chapter 14.

The Order will be applicable from 1st April, 2016 and will remain in force till 31.03.2017 or till the issue of next Tariff Order, whichever is later. The Commission directs the Companies to take appropriate steps to implement the Tariff Order.

14 TARIFF SCHEDULE FOR FY 2016-17

14.1 TARIFF SCHEDULE FOR LOW VOLTAGE (LV) CONSUMERS

This tariff schedule is applicable to all LV consumers as follows:

- Single-phase, 230 Volts up to a maximum connected load of 3 kW, and
- Three-phase, 400 volts for maximum demand up to 75 kW in case of demand based tariff or for maximum contracted load of 100 HP in case of other tariff, as applicable.

14.1.1 LV-1: Domestic

Applicability

This tariff is applicable to domestic light and fan and power used for all domestic appliances, in residential premises, orphanages, homes for old/physically challenged people and homes for destitute; dharamshalas; student hostels; working women's hostels; ashrams; schools and hospitals (including X-rays, etc.) run by charitable trusts; Government hospitals/dispensaries, (excluding private clinics and nursing homes); Government Schools; farm houses; mosques; temples; churches, gurudwaras; religious and spiritual institutions; water works and street lights in private colonies and cooperative societies; common facilities such as lighting in staircase, lifts, fire-fighting in multi-storied housing complex, light and fan in khalihan, kothar, byra where agriculture produce is kept, post office at residence of a villager; residential premises of professionals such as advocates, doctors, artists, consultants, weavers, bidi makers, beauticians, stitching and embroidery workers including their chambers; public toilets; fractional HP motors used for Shailchak by Kumhars in their residences.

Tariff:

Category of Consumers	Units Slab	Fixed Charge (Rupees per kWh)	Energy Charge (Rs. per kWh)	Minimum Fixed Charge
LV-1: Domestic				
Domestic including BPL Consumers	0 -40 units	2.35	1.25	Single Phase Rs. 40/- p.m.
	41-200 units	2.40	1.30	
	201 - 600 units	3.20	2.00	Three phase Rs. 120/- p.m.
	601 and above units	4.75	2.50	

Notes:

- Only those domestic consumers who hold BPL Card issued by the State Government will be considered as BPL domestic consumer. BPL Card holders shall be entitled for subsidy for 40 units as per State Government Order, and their consumption shall be billed as per tariff LV-1.

- ii. All BPL domestic categories of consumers shall be billed as per meter reading. All the new BPL domestic connections shall be served with meter only.
- iii. If a portion of the dwelling is used for the conduct of any business other than those stipulated above, the entire consumption shall be billed under Non-domestic tariff LV-2.

14.1.2 LV-2: Non-Domestic

Applicability

This tariff is applicable to light and fan and power to shops, showrooms, business houses, offices, educational institutions (except those included in LV-1 and LV-5), public buildings, town halls, clubs, gymnasium and health clubs, meeting halls, places of public entertainment, circus, hotels, cinemas, railway stations, private clinics and nursing homes including X-rays plant, diagnostic centres, pathological labs, carpenters and furniture makers, juice centres, hoardings and advertisement services, public libraries and reading rooms, typing institutes, internet cafes, STD/ISD PCO's, FAX/photocopy shops, tailoring shops, photographers and colour labs, laundries, cycle shops, compressors for filling air, toy making industry, nickel plating on small scale, restaurants, eating establishments, Government circuit houses/rest houses, guest houses, marriage gardens, farmhouses being used for commercial purposes, book binders, offset printers, bakery shop, banks, parlours, printing press, computer centre, petrol pumps and service stations, HV industrial consumers seeking separate independent LV connection in the same premises of HV industrial connection and other consumers not covered under any other category of LV consumers.

Tariff:

Category of Consumers	Units Slab	Fixed Charge (Rs per kWh of Contracted load/Demand)	Energy Charge (Rs. per kWh)
LV-2.1:Non-Domestic	0 – 100 units	Rs. 75 per kW per month up to 3 kW and Rs. 125 per kW per month above 3 kW	5.10
	101 - 500 units		6.10
	501 and above units		7.40
LV-2.2: Non-Domestic Demand Based Tariff (for Contract demand of 15 to 75 kW)		Demand Charges- Rs 240/kW/month on billing demand	6.75

Note:

- i. Fixed charges for LV-2.1 are non-telescopic. For example, if connected load is 5 kW then monthly fixed charges shall be Rs. 625 per month;
- ii. The tariff LV-2.2 will be optional.
- iii. Fixed Charges of LV-2.1 and Demand Charge on contract demand of tariff LV-2.2 is a monthly minimum charge, whether any energy is consumed during the month or not.

14.1.3 LV-3: L.V. Agriculture

Applicability

This tariff is applicable to agricultural pumps/tube wells used for irrigation (including drip and sprinkler system) for crops, nursery, horticulture crops (growing vegetables and fruits), floriculture (growing flowers), growing of herbs/medicinal plants and mushroom, jatropha plantation, chaff cutters, thresher, winnowing machines, sugarcane crushers used on agricultural land, lift irrigation pumps/tube wells of State Government or its agencies; water drawn by agriculture pumps used by labour, cattle, and farm houses in the premises of agriculture farms for drinking purposes only and packaging of agriculture produce at farm, khalihan etc.

Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)
LV-3: L.V. Agriculture	Rs. 80/HP/month	4.10

One 40W incandescent bulb or CFL/LED of wattage not exceeding 20W is permitted at or near the motor pump set in the power circuit.

Notes:

- All new connections of above 3 HP shall be served only after installation of capacitor of specified rating to maintain power factor of 0.85 and above.
- All pump connections of above 3 HP load not provided with capacitors of specified rating and who do not maintain power factor of 0.85 and above, shall be required to pay surcharge of 35 paise per unit.
- Fixed Charge is monthly minimum charge whether any energy is consumed or not during the month.
- A person having additional connections, i.e., more than one pump in his name, then that person shall be entitled for concession of 10% on energy charge for the consumption recorded on additional pump(s).

14.1.4 LV- 4: L.V. Agriculture Allied Activities

Applicability

This tariff is applicable to pump/tube well connections, other equipment and light and fan for tree plantation, fisheries, hatcheries, poultry farms, dairy, cattle breeding farms, sericulture, tissue culture, aquaculture laboratories, and milk chilling plant.

Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)
LV-4.1: Up to 100 HP or 75 kW	Rs. 130 per HP per month or Rs 175 per kW per month	5.10
LV-4.2: Demand based tariff for contract demand of 15 to 75 kW	Rs. 250 per kW per month on billing demand	5.00

Note:

- i. All connections shall be required to maintain average monthly power factor of 0.85 by providing capacitors of suitable rating, failing which they shall be required to pay surcharge of 35 paise per unit.
- ii. For tariff LV-4.1, Fixed Charge is monthly minimum charge and for tariff LV-4.2 Demand Charge on contract demand is monthly minimum charge, whether any energy is consumed during the month or not.

14.1.5 LV-5: L.V. Industry**Applicability**

These tariffs are applicable to power, light and fan for industries such as flour mills, hullers, grinders for grinding masala, power looms, rice mills, dall-mills, oil mills, ice factories, cold storage plants, ice candies, terracotta, handloom, handicraft, agro-processing units, minor forest produce, laboratories of engineering colleges, ITIs and polytechnics and industrial institutions, aluminium based factory, bakery/biscuit industries, bottling plant, cable/insulation industries, Cement Based Factory, Chemical Plant, Coal Based Industries, Conductor Wire Industries, Cutting & Polishing Of Marble, Fabrication Workshop, Food Processing Industry, Forest Product Based Factory, GI Wire Industries, Glass Industries, Hot Mixing Plant, It Based Industries, Mineral Based Factory, Plastic Industries, Plywood Factory, Pulverize Industries, Rolling Mill, Saw Mill, Stone Crusher, Toy Industries, Wire Drawing / Steel Industries, Wire Product, workshops and fabrication shop, etc.

Tariff:

		Fixed Charge	Energy Charge (Rs. per kWh)
LV-5: L.V. Industry			
5.1	Flour mills, Hullers, power looms, grinders for grinding masalas, terracotta, handloom, handicraft, agro-processing units, minor forest produce up to 15 HP	Rs 100/HP/month	3.50
5.2	Other Industries		
5.2.1	Up to 25 HP	Rs 120/HP/month	4.50
5.2.2	Above 25 HP up to 100 HP	Rs 175/HP/month	5.10
5.3	Demand based Tariff- for Contract Demand of 15 kW to 75kW	Demand charges- Rs. 250/kW/month on billing demand	5.30

Notes:

- i. Demand based tariff LV-5.3 is applicable for maximum contracted demand from 15 kW to 75 kW.
- ii. For tariff LV-5.1 and LV-5.2, Fixed Charge is monthly minimum charge and

for tariff LV-5.3, the Demand Charge on contract demand is a monthly minimum charge whether any energy is consumed during the month or not.

- iii. In order to give impetus for LV industries located in rural areas, a rebate of 5% in energy charges for consumers specified under this tariff category shall be allowed for LV industries located in rural areas notified by Government of Chhattisgarh.

14.1.6 LV-6: Public Utilities

Applicability

This tariff is applicable to colonies developed by Chhattisgarh State Housing Board and public utilities such as water supply schemes, sewage treatment plants and sewage pumping installations, crematorium, traffic signals and lighting of public streets including public parks and archaeological and other monuments when requisition for supply is made by Public Health Engineering Department, local bodies, Gram Panchayats or any organization made responsible by the Government to maintain these services.

Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)
LV-6: Public utilities	Rs. 130/HP/month or Rs. 175/kW/month	5.10

Note:

Fixed Charge is monthly minimum charge whether any energy is consumed during the month or not.

14.1.7 LV-7: Information Technology Industries

Applicability

This tariff is applicable to Information Technology Industries having minimum contract demand of 50 kW.

Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)	Minimum Charge
LV-7: Information Technology Industries	Nil	4.50	Rs. 1500/-per month

Note:

Minimum Charge is monthly minimum charge whether any energy is consumed during the month or not.

14.1.8 LV 8: Temporary Supply

Applicability

This tariff is for connections that are temporary in nature. The tariff applicable shall be as given for the respective category of consumer.

Provided that for construction purpose, a consumer shall be given a temporary connection only.

Temporary supply cannot be demanded by a prospective consumer as a matter of right but will normally be arranged by the Licensee when a requisition is made subject to technical feasibility.

Tariff:

Fixed charge and energy charge to be billed at one and half times the normal tariff as applicable to the corresponding consumer categories.

Provided that for Agricultural pump connections, the Fixed charge and energy charge shall be billed at the normal tariff applicable for LV 3 category.

Notes:

- i. An amount equal to estimated bill for 3 months or for the period of temporary connection requisitioned, whichever is less, is payable before serving the temporary connection, subject to replenishment from time to time and adjustment in the last bill after disconnection.
- ii. No temporary connection shall be served without a meter.
- iii. Connection and disconnection charge shall be paid as per the schedule of miscellaneous charges.
- iv. No rebates/concessions under any head shall be applicable to temporary connections.
- v. A month for the purpose of billing of temporary supply shall mean 30 days from the date of connection or part thereof.
- vi. In case connected load/maximum demand is found more than contracted load/contract demand, then the billing of excess load/supply shall be done for the amount calculated as per the Clause 8 of the Terms & Conditions of LV tariff.
- vii. Any expenditure made by the Licensee for providing temporary supply up to the point of supply, shall be paid for by the consumer as per prescribed procedure.
- viii. Temporary connections shall not be served unless suitable capacitors, wherever applicable, are installed so as to ensure power factor of not less than 0.85 lagging.
- ix. Surcharge at the rate of 2% per month or part thereof on the outstanding amount of the bill shall be payable in addition, from the due date of payment of bill, if the bill is not paid by the consumer within the period prescribed.

14.1.9 Terms and Conditions of L.V. Tariff

1. Energy will be supplied to the consumer ordinarily at a single point for the entire premises of the consumer.
2. No new L.V. connection above 75 kW of contract demand/100 HP of contracted load shall be served.
3. All existing L.V. connections with contracted load above 100 HP (75 kW), which have not availed H.T. supply so far shall be levied 35% additional charge on total amount of monthly bill comprising fixed charge/demand charge and energy charge.
4. Contracted load/connected load or contract demand/maximum demand infraction shall be rounded off to the next whole number.
5. For the purpose of separate independent LV connection to HV industrial consumer in the same premises of HV industrial connection, to meet out its essential load during emergency or non-availability of supply in HV connection under LV 2 category conditions as mentioned in clause 4.40 of the Chhattisgarh State Electricity Supply Code and its amendment if any shall be applicable.
6. For the purpose of Demand Based Tariff (LV-2.2, LV-4.2 and LV-5.3)
 - i. **Determination of Maximum Demand-** The maximum demand means the highest load measured by sliding window principle of measurement in average kVA or average kW as the case may be at the point of supply of a consumer during any consecutive period of 30 minutes during the billing period.
 - ii. **Billing Demand** – The billing demand for the month shall be the actual maximum kW demand of the consumer recorded during the month or 75% of the contract demand or 15 kW, whichever is higher. The billing demand shall be rounded off to the next whole number.
 - iii. **Minimum Charge** – The demand charge on contract demand (CD) is a monthly minimum charge whether any energy is consumed during the month or not.
 - iv. There shall be no restriction on connected load for applicability of demand based tariff.

14.1.10 Power Factor Incentive and Surcharge

1. All LV industrial, agriculture allied, public water works, sewage treatment plants and sewage pumping installations' consumers shall arrange to install suitable low tension capacitors of appropriate capacity at their cost. The consumer also shall ensure that the capacitors installed by them properly match with the actual requirement of the load so as to ensure average monthly power factor of 0.85 or above. A consumer who fails to do so shall be liable to pay power factor surcharge @ 35 paise per unit on the entire consumption of the month.
2. All the agriculture pump connections of above 3 HP shall provide with capacitor of specified rating and maintain average monthly power factor of 0.85 or above failing which they shall be required to pay power factor surcharge @ 35 paise per kWh on the entire consumption of the month.
3. All LV non-domestic consumers with contracted load/connected load of 15 kW or

above shall arrange to install suitable low tension capacitors of appropriate capacity at their cost. The consumer shall ensure that the capacitors installed by him properly match with the actual requirement of the load so as to ensure average monthly power factor of 0.85 or above. A consumer who fails to do so will be liable to pay power factor surcharge @ 35 paise per kWh on the entire consumption of the month.

4. All LV installations having welding transformer are required to install suitable low tension capacitors so as to ensure power factor of not less than 0.85. Consumers not complying with the above shall have to pay surcharge of 75 paise per kWh on the entire monthly consumption, provided the load of the welding transformer(s) exceeds 25% of the total connected load.
5. **Note** - For the purposes of computing the connected load of welding transformers in kW, a power factor of 0.6 shall be applied to the kVA rating of such welding transformers. The kVA rating can also be calculated on the basis of load voltage and maximum load current on secondary side of welding machine.
6. The average monthly power factor recorded in the meter shall be considered for billing of power factor surcharge or power factor incentive, as the case maybe.
7. Levy of power factor surcharge as indicated above, shall be without prejudice to the rights of CSPDCL to disconnect the consumer's installation after issue of 15 days' notice if the average monthly power factor remains 0.7 or below for a period of more than two consecutive months. It shall remain disconnected till the consumer makes suitable arrangements to improve the power factor to the satisfaction of CSPDCL.
8. Notwithstanding the above, if the average monthly power factor of a new consumer is found to be less than 0.85 at any time during the first six months from the date of connection and if he maintains average monthly power factor continuously in subsequent three months at not less than 0.85, then the surcharge billed on account of low power factor during the said period shall be withdrawn and credited in next month bill.
9. All categories of LV consumers except the LV domestic consumers in whose case power factor surcharge is applicable; shall also be eligible for power factor incentive. Such incentive shall be payable @ 10 paise per unit on the entire consumption of that month in which he maintains an average monthly power factor equal or above 0.90 and @ 15 paise per unit of entire consumption of that month in which he maintains an average monthly power factor 0.95 or above.

14.1.11 Provisions of billing in case of Excess Supply

i. For connected load based tariff

1. The consumers, except the domestic (LV-1) consumers, availing supply at connected load based tariff shall restrict their actual connected load within the contracted load. However, in case the actual connected load in any month exceeds the contracted load, the connected load base tariff shall apply only to the extent of contracted load and corresponding units of energy. The connected load in excess of contracted load and corresponding units of energy shall be treated as excess supply. The excess supply so consumed in any month, shall be charged at the rate of one and half times of the connected load based tariff applicable to the consumer (fixed and

energy charges and VCA charges) for the excess connected load to the extent of 20% of contracted load and at the rate of two times of connected load based tariff if the excess connected load is found beyond 20% of contracted load for actual period of enhancement of load or 6 months whichever is less, including the month in which the existence of excess load is detected and shall be continued to be billed till excess load is removed or contract load is enhanced.

2. Where the recording facility of demand is available, the billing on account of excess supply shall be restricted to the recorded month only.

ii. For Demand Based tariff consumers

Consumers availing supply at demand based tariff (LV-5.3/LV-4.2/LV- 2.2) should at all times restrict their maximum demand to the contract demand. However, contract demand for the demand based tariff consumer can be less than connected load. In case the maximum demand in any month exceeds the contract demand, the said demand based tariff (LV-5.3/LV-4.2/LV- 2.2) shall apply only to the extent of the contract demand and corresponding units of energy. The demand in excess of contract demand and corresponding units of energy shall be treated as excess supply. The excess supply so availed in any month, shall be charged at the rate of one and half times of the normal tariff applicable to the consumer (fixed and energy charges and VCA charges) for the excess demand to the extent of 20% of contract demand and at the rate of two times of normal tariff if the excess demand is found beyond 20% of contract demand.

For the purpose of billing of excess supply, the billing demand and the units of energy shall be determined as under:

- a) Billing Demand: The demand in excess of the contract demand in any month shall be the billing demand.
- b) Units of Energy: the units of energy corresponding to kW portion of the demand in excess of the contract demand shall be:-

$$EU = TU (1 - CD/MD)$$

Where

EU – denotes excess units;

TU – denotes total units supplied during the month;

CD – denotes contract demand, and

MD – denotes actual maximum demand.

- I. The excess supply availed in any month shall be charged along with the monthly bill and shall be payable accordingly.
- II. The above billing of excess supply at one and half times/two times of the normal tariff shall be applicable to consumers without prejudice to CSPDCL's right to discontinue supply in accordance with the provisions contained in the Chhattisgarh State Electricity Supply Code, 2011.

1. Delayed Payment Surcharge

If the bill is not paid by the consumer within the period (due date) prescribed for payment of the bill, a surcharge @ 1.5% per month or part thereof, on the total outstanding amount of the bill (including arrears, if any, but excluding amount of surcharge), subject to minimum of Rs. 5 shall be payable in addition, from the due date of payment as mentioned in the bill.

2. Additional charges

Every Local Body shall pay an additional charge equivalent to any tax or fee levied by it under the provisions of any law including the Corporation Act, District Municipalities Act or Gram Panchayat Act on the poles, lines, transformers and other installations through which the local body receives supply.

3. Advance Payment Rebate

For advance payment made before commencement of consumption period for which bill is to be prepared, a rebate @ 0.5% per month on the amount which remains with the licensee at the end of the calendar month excluding security deposit shall be credited to the account of consumer after adjusting any amount payable to the licensee subject to the net amount of advance being not less than Rs.1000 and shall be adjustable in next month's bill.

4. Rounding off

The bill shall be rounded off to the nearest multiple of Rs.10. Difference, if any, between the bill amount before and after rounding off, shall be adjusted in next month's bill.

For example: - If the total amount of bill is Rs. 235.00, then the bill shall be rounded off to Rs. 240 and Rs. 5.00 will be credited in next month's bill, whereas if the total amount of bill is Rs. 234.95, then the bill will be rounded off to Rs. 230 and Rs. 4.95 will be debited in next month's bill. In view of the above provision, no surcharge will be levied on outstanding amount, which is less than Rs. 10.

5. Applicability of tariff

In case of any dispute about applicability of tariff to a particular LV category, the decision of the Commission shall be final and binding.

6. Tax or Duty

The tariff does not include any tax or duty, etc., on electrical energy that may be payable at any time in accordance with any law in force. Such charges, if any, shall be payable by the consumer in addition to tariff charges.

7. Meter Hire

Meter hire shall be charged as per the schedule of miscellaneous charges to all categories of LV consumers except the consumers of domestic light and fan category. Domestic light and fan category consumer shall not be required to pay such charges.

8. Variable Cost Adjustment Charge

VCA charges to be recovered from retail consumers for previous year's consumption for the period October 1, 2015 to March 31, 2016 shall not be billed to retail consumers.

Variable Cost Adjustment (VCA) charge on consumption from April 1, 2016 as per the formula and conditions specified in the MYT Regulations, 2015 shall be levied in addition to energy charge on all the LV categories including temporary supply.

However, from the date of applicability of this Order, the base values for computation of VCA for succeeding period shall be revised in accordance to this Order.

9. Conditions to have over-riding effect

All the above conditions of tariff shall be applicable to the consumer notwithstanding the provisions, if any, in the agreement entered into by the consumer with the Licensee.

14.2 TARIFF SCHEDULE FOR HIGH VOLTAGE (HV) CONSUMERS

14.2.1 HV-1: Railway Traction

Applicability:

This tariff is applicable to the Railways for traction loads only.

Tariff:

Supply Voltage	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
Railway Traction on 132 kV / 220 kV	350	4.65

Specific terms and conditions:

- The maximum demand means the highest load measured by sliding window principle of measurement in average kVA at the point of supply of a consumer during any consecutive period of 15 minutes during the billing period.

Provided that if as a result of an emergency in the consumer's installation or in the transmission lines supplying energy to the said traction sub-station, extra load is availed by the consumer with prior intimation to the licensee, the period of such emergency shall not be taken into account for the purpose of working out the maximum demand.

Provided further that as a result of emergency in the traction sub-station (TSS) or in the transmission line supplying power, if the entire load of the TSS or part thereof is transferred to adjacent TSS, the maximum demand (MD) of the TSS for the month shall not be taken as less than the average MD recorded for the previous three months during which no emergency had occurred.

- ii. In order to give impetus to electrification of railway network in the State, a rebate of 10% in energy charges for new railway traction projects shall be allowed for a period of five years from the date of connection for such new projects for which Agreements for availing supply from the Licensee are finalised during FY 2016-17.
- iii. Other terms and condition shall be as mentioned in the general terms and conditions of HV tariff.

14.2.2 HV-2: Mines

Applicability

This tariff is applicable to all types of mines, mines with stone crusher unit, coal mines, coal washery, etc., for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption for mining purpose, and consumption for residential and general use therein including offices, stores, canteen compound lighting, etc.

Tariff:

Supply Voltage	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
220 kV supply	400	5.40
132 kV supply	400	5.45
33 kV supply	400	5.80
11 kV supply	400	6.10

14.2.3 HV-3: Other Industrial and General Purpose Non-Industrial

Applicability

- i. This tariff is applicable to all types of industries including cement industries and industries not covered under HV-1, HV-2 and HV-4 for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption in factory; and consumption for residential and general use therein including offices, stores, canteen compound lighting, etc.
- ii. This tariff is also applicable for bulk supply at one point to establishment such as Railways (other than traction), hospitals, offices, hotels, shopping malls, power supplied to outside of State (border villages), educational institutions, mixture and/or stone crushers and other institutions, etc., having mixed load or non-industrial and/or non-residential load. This tariff is also applicable to all other HT consumers not covered specifically in any other HV tariff category.

Tariff:

Supply Voltage	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
220 kV supply	375	5.30
132 kV supply	375	5.35
33 kV supply	375	5.70
11 kV supply	375	6.05

14.2.4 HV-4: Steel Industries**Applicability**

This tariff is applicable to steel industries, mini-steel plant, rolling mills, sponge iron plants, ferro alloy units, steel casting units, iron ore pellet plant, iron beneficiation plant and combination thereof including wire drawing units with or without galvanizing unit; for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption in factory, and consumption for residential and general use therein including offices, stores, canteen compound lighting, etc.

Tariff:

Supply Voltage	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
220 kV supply	375	5.20
132 kV supply	375	5.25
33 kV supply	375	5.30
11 kV supply	375	5.35

Load Factor Rebate

The consumers of this category shall be eligible for load factor rebate on energy charges, as under:

Monthly Load Factor (LF)	Rebate
monthly Load Factor is between 65% and below 70% on contract demand	5% rebate on normal energy charges on entire energy consumption.
monthly Load Factor is 70% and above on contract demand	10% rebate on normal energy charges on entire energy consumption.

For the purpose of calculation of load factor, hours of load restriction enforced by CSPDCL/CSPTCL shall be excluded.

Provided that in case the monthly Load Factor is 64.99% or below, then no Load Factor Rebate shall be payable in that month.

Provided that in case the monthly Load Factor is 69.99% or below, then Load Factor Rebate of 5% shall be payable in that month.

Provided further that the Load Factor Rebate shall not be payable in the month in which the Maximum Recorded Demand exceeds the Contract Demand.

Provided also that the monthly Load Factor shall be rounded off to the lowest integer.

14.2.5 HV-5: Low Load Factor Industries

Applicability

This tariff is applicable to all such HT industries to whom tariff category HV-3 and HV-4 may apply but working in day time only, i.e., between 6:00 a.m. and 6:00 p.m., as an optional tariff; for power, lights, fans, etc., which shall mean and include all energy consumption in factory and consumption for residential and general use therein. This tariff will be applicable to a consumer who opts for it.

Tariff:

Supply Voltage	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
33 kV supply	190	5.85
11 kV supply	190	6.25

Specific Terms and Conditions:

- i. This tariff is applicable to HT industries, which use power during daytime between 6:00 a.m. and 6:00 p.m.
- ii. In case, power is drawn beyond the specified time, the energy consumed between 6:00 p.m. and 6:00 a.m. shall be charged at one hundred and thirty percent (1.3 times) of the normal rate of energy charge applicable to the consumer.
- iii. In case the monthly energy consumption between 6:00 p.m. and 6:00 a.m. is more than 25% of the monthly energy consumption between 6:00 a.m. and 6:00 p.m., then the demand charge shall be billed at twice the normal rate.
- iv. Alternatively, in case the recorded maximum demand in a month during the time period between 6:00 p.m. and 6:00 a.m. is more than the recorded maximum demand of a month between 6:00 a.m. and 6:00 p.m., then the demand charge shall be billed at twice the normal rate.
- v. The supply availed beyond specified period in any month shall be charged along with the monthly bill and shall be payable by the consumer.

14.2.6 HV-6: Irrigation & Agriculture Allied Activities, Public Water Works

Applicability

- i. This tariff shall be applicable for Chhattisgarh State Housing Board and agriculture pump connections, irrigation pumps of lift irrigation schemes of State Government or its agencies/co-operative societies, including colonies developed by including energy used for lighting pump house.
- ii. This tariff is also applicable to the consumer availing supply at HV for the purpose of pump/tube well connections, other equipment for tree plantation, fisheries, hatcheries, poultry farms, dairy, cattle breeding farms, sericulture, tissue culture and aquaculture laboratories and milk chilling plant and bakery for power, lights, fans, coolers, etc., which shall mean and include all energy consumed in factory, offices, stores, canteen, compound lighting, etc. and residential use therein.
- iii. This tariff shall be applicable for public utility water supply schemes, sewerage treatment plants and sewage pumping installations run by P.H.E. Department, local bodies, Gram Panchayat or any organization made responsible by the Government to supply/maintain public water works/sewerage installation including energy used for lighting pump house.

Tariff:

Supply Voltage	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
Irrigation, Agriculture Allied Activities & Public Water Works	375	4.90

14.2.7 HV-7: Residential

Applicability

This tariff shall be applicable for bulk supply at one point to colonies, multi-storied residential buildings, townships, including townships of industries provided that consumption of non-domestic nature for other general purpose load (excluding drinking water supply, sewage pumping and street light) shall not be more than 10% of total monthly energy consumption.

In case the consumption of non-domestic nature for other general purpose load exceeds 10% of total monthly energy consumption, the tariff of HV-3: Other Industrial and General Purpose Non-Industrial, shall be applicable on entire consumption.

Tariff:

Category of Consumers	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
Residential	375	5.30

14.2.8 HV-8: Start-Up Power Tariff

Applicability

The tariff shall be applicable to those consumers who avail supply for start-up power for their power plant (generating station and captive generating plant) at 400/220/132/33/11 kV.

Tariff:

Supply Voltage	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
400/220/132/33/11 kV	200	7.50

Conditions for start-up power consumers:

- Contract demand shall not exceed 10% of the highest capacity of generating unit of the generating station/captive generating plant
- Captive generating plants which do not have any co-located industrial load and who use the grid for transmission and wheeling of electricity can avail start up-power tariff.
- Captive generating plant who have co-located industrial load are also entitled for start-up power tariff
- Drawal of power shall be restricted to within 10% of load factor based on the contract demand in each month. In case the load factor in a month is recorded beyond 10%, the demand charge shall be charged at double the normal rate. Supply can also be disconnected if the monthly load factor exceeds 10% in any two consecutive months. Load factor shall be computed from contract demand.
- Start-up power shall also be made available to the generator/captive generating plant connected to CTU grid with proper accounting.
- This tariff shall also be applicable to generators before their commercial operation.
- In case of generators who have not availed start-up connection but eventually draw power from the grid not more than 30 minutes at one occasion shall be billed @ Rs 14 per kVAh. Drawal beyond 30 minutes shall be billed at @ Rs 28 per kVAh.
- In case of captive generating plant, which do not have any co-located industrial load and who use the grid for transmission and wheeling of electricity, such CGP's, if they have not availed start-up connection but eventually draw power from the grid not more than 30 minutes at one occasion shall be billed @ Rs. 14 per kVAh, as per the average billing rate for this tariff category, which includes demand charge also. Drawal beyond 30 minutes shall be billed at @ Rs 28 per kVAh.
- In case of captive generating plant which have co-located industrial load and who have not availed start-up connection but eventually draws power from the grid not more than 30 minutes at one occasion shall be billed @ Rs. 14 per

kVAh it as per the average billing rate for this tariff, which includes demand charge also. Drawal beyond 30 minutes shall be billed at @ Rs 28 per kVAh.

- x. The existing biomass-based generators are exempted from payment of demand charge for the first five years from the date of availing start-up connection, i.e., they are required to pay energy charge only during first five years of availing start-up power and full start-up tariff from sixth year onwards. The new biomass-based generators who would come under operation during the MYT Control Period from FY 2016-17 to FY 2020-21 are exempted from payment of demand charge for the first five years from the date of commercial operation of their power plant, i.e., they will be required to pay energy charge only during first five years from COD and full start-up tariff from sixth year onwards. However, in case during first five years from the date of its connection, if the actual demand exceeds the contract demand, the billing for that month shall be as per other start-up power consumers exceeding contract demand. In case if the load factor is within 10% but actual demand exceeds the contract demand then also the billing for that month shall be as per other start-up power consumer exceeding contract demand. In case, it is established that the biomass based generator has used biomass in the lesser ratio than as mentioned in the guidelines of the Ministry of New and Renewable Energy during any financial year in first five years from the date of availing start up power tariff then demand charge as per this tariff category (HV-8) shall also become payable for the whole such financial year and such payable amount will be billed in three equal instalments after such happening comes in the notice of CSPDCL.

14.2.9 HV-9: Industries related to manufacturing of equipment for power generation from renewable energy sources

Applicability

This tariff is applicable to consumers availing supply at 220/132/33/11 kV for manufacturing of plant, machinery and equipment used for generation of power from renewable sources of energy including for the manufacturing of hydel turbine, generator and related auxiliaries needed for small hydel plants up to 25 MW but excluding manufacturing of boilers, turbines, generators, and the related auxiliaries which otherwise can be used for generation of power from conventional source of energy. This tariff shall also not be applicable for manufacturing of such common machines/equipment/and other items such as electrical motors, structural items, nuts bolts, etc. which can be used for other purposes also.

Tariff:

Supply Voltage	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
220/132/33/11 kV	110	3.15

14.2.10 HV-10: Information Technology Industries

Applicability

This tariff is applicable to Information Technology Industries having minimum contract demand of 50 kW.

Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kVAh)	Minimum Charge
HV-8: Information Technology Industries	Nil	4.50	Rs. 3000/-per month

Note:

Minimum Charge is monthly minimum charge whether any energy is consumed during the month or not.

14.2.11 Temporary Connection at HV

Applicability

This tariff is applicable to all HV connections (other than the consumers availing Start up power Tariff (HV-8), of temporary nature at 220/132/33/11 kV.

Provided that for construction purpose, a consumer shall be given a temporary connection only.

Temporary supply cannot be demanded by a prospective consumer as a matter of right but will normally be arranged by the Licensee when a requisition is made subject to technical feasibility.

Tariff:

One and half times of the normal Tariff applicable for the corresponding category of consumer for demand and energy charge.

Notes

- An amount equal to estimated bill for 3 months or for the period requisitioned, whichever is less; shall be payable in advance before the temporary connection is served subject to replenishment from time to time and adjustment in the last bill after disconnection.
- If maximum demand is found more than the contract demand in any billing month, the billing shall be done at one and half times/two times of the energy charges and Demand Charges as applicable, in case of exceeding contract demand in permanent connection, and shall be calculated as per Clause 10 of Terms & Conditions of HV tariff.
- Any expenditure made by CSPDCL up to the point of supply for giving temporary connection shall be payable by the consumer as per prescribed procedure.

- iv. Connection and disconnection charges shall be paid separately.
- v. No rebates/concessions under any head shall be applicable to temporary connections.
- vi. Month for the purpose of billing of temporary supply shall mean 30 days from the date of connection or for part thereof.
- vii. Other terms and conditions of the relevant category of tariff shall also be applicable.
- viii. Surcharge at 2% per month or part thereof on the outstanding amount of the bill shall be payable in addition from the due date of payment of bill, if the bill is not paid by the consumer within the period prescribed.

14.2.12 Time of Day Tariff

This tariff is applicable to HV-2, HV-3, and HV-4 tariff category. Under the Time of Day (TOD) Tariff, electricity consumption in respect of HV industries for different periods of the day, i.e., normal period, peak load period and off-peak load period, shall be recorded by installing a TOD meter. Consumption recorded in different periods shall be billed at the following rates on the tariff applicable to the consumer:

Period of Use	Normal rate of Demand Charge Plus
(i) Normal period (5:00 a.m. to 6:00 p.m.)	Normal rate of Energy Charges
(ii) Evening peak load period (6:00 p.m. to 11:00 p.m.)	130% of normal rate of Energy Charge
(iii) Off-peak load period (11:00 p.m. to 5:00 am of next day)	75 % of normal rate of Energy Charge

Applicability and Terms and Conditions of TOD tariff:

- i. The terms and conditions of the applicable tariff (such as monthly tariff minimum charge, etc.) shall continue to apply to a consumer to whom TOD tariff is applicable.
- ii. In case, the consumer exceeds the contract demand, the demand in excess and the corresponding energy shall be billed at one and half/two times (as per methodology specified in Para “Additional Charges for Exceeding Contract Demand” of the Terms and Conditions of HV Tariff) of the normal tariff applicable for the day time (i.e., 5.00 a.m. to 6.00 p.m.) irrespective of the time of use.

14.2.13 Terms and Conditions of HV Tariff

The maximum and minimum contract demand for different supply voltage is governed as per provisions of the Chhattisgarh State Electricity Supply Code, 2011 and its amendments thereof. Presently, the minimum and maximum permissible load at respective supply voltage are as below:

Supply Voltage	Minimum	Maximum
11 kV	60 kVA	500 kVA
33 kV	60 kVA	15 MVA
132 kV	4 MVA	40 MVA
220 kV	15 MVA	150 MVA

Deviation in contract demand, if any, in respect of the above provisions on account of technical reasons, may be permitted with the approval of the Commission and billing shall be done accordingly. The HV consumers having contract demand exceeding the maximum limit mentioned above for respective voltage of supply shall be billed as specified at Clause 7 of Terms and Conditions of HV Tariff.

Point of Supply

Power will be supplied to consumers ordinarily at a single point for the entire premises. In certain categories like coal mines, power may be supplied at more than one point on the request of consumer subject to technical feasibility. HV industrial consumers can avail separate LV supply as per Clause 4.40 of the Chhattisgarh State Electricity Supply Code, 2011 in the same premises.

Billing demand

The billing demand for the month shall be the maximum demand (in kVA) of the consumer recorded during the billing month or 75% of the contract demand or 60 kVA, whichever is higher, except for the consumers who have reduced their contract demand to zero. The billing demand shall be rounded off to the next whole number.

Determination of Demand

The maximum demand means the highest load measured by sliding window principle of measurement in average kVA at the point of supply of a consumer during any consecutive period of 15 minutes during the billing period.

1. Minimum Charge

The demand charge on contract demand (CD) is a monthly minimum charge whether any energy is consumed during the month or not.

2. Rounding off

The amount of HV energy bill shall be rounded off to the nearest multiple of Rs.10.

For example - the amount of Rs. 12345 will be rounded off to Rs. 12350 and Rs. 12344.95 shall be rounded off to Rs. 12340.

In view of the above provision no surcharge will be leviable on outstanding amount, which is less than Rs. 10.

3. Delayed Payment Surcharge

If the bill is not paid by the consumer within the period prescribed (due date) for payment of the bill, a surcharge @ 1.5% per month or part thereof, on the total outstanding amount of the bill (including arrears, if any but excluding amount of surcharge), shall be payable in addition, from the due date of payment as mentioned in the bill.

4. Additional charges for Local Bodies

Every Local Body shall pay an additional charge equivalent to any tax or fee levied by it under the provisions of any law including the Corporation Act, District Municipalities Act or Gram Panchayat Act on the poles, lines, transformers and other installations through which the Local Body receives supply.

5. Advance Payment Rebate

For advance payment made before commencement of consumption period for which bill is to be prepared, a rebate @ 0.5% per month on the amount which remains with the licensee at the end of calendar month excluding security deposit, shall be credited to the account of consumer after adjusting any amount payable to the licensee subject to the net amount of advance being not less than Rs.20000 and shall be adjustable in next month's bill.

6. Additional Charge for Exceeding Contract Demand

The consumers should restrict their maximum demand to the extent of contract demand. In case the maximum demand during any month exceeds the contract demand, the tariff at normal rate shall apply only to the extent of the contract demand and corresponding units of energy. The demand in excess of contract demand and corresponding units of energy shall be treated as excess supply. The excess supply so availed, if any, in any month shall be charged at one and half times of the normal tariff applicable to the consumer (demand and energy charges) for the excess demand to the extent of 20% of contract demand and at the rate of two times of normal tariff if the excess demand is found beyond 20% of contract demand.

For the purpose of billing of excess supply, the billing demand and the units of energy shall be determined as under:-

i. Billing Demand / Contract Demand:

The demand in excess of the contract demand in any month shall be the billing demand/ contract demand of the excess supply.

ii. Units Energy:

The units of energy corresponding to kVA of the portion of the demand in excess of the contract demand shall be:

$$EU = TU (1 - CD/MD)$$

Where

EU - denotes units corresponding to excess supply;

TU - denotes total units supplied during the month;

CD - denotes contract demand; and

MD - denotes maximum demand.

The excess supply availed in any month shall be charged along with the monthly bill and shall be payable by the consumer.

The billing of excess supply at one and half times/two times of the normal tariff applicable to consumer is without prejudice to CSPDCL's right to discontinue the supply in accordance with the provisions contained in the Chhattisgarh State Electricity Supply Code, 2011.

iii. No rebates/incentive is payable on such excess supply.

7. Additional Charge

The HV consumers having contract demand exceeding the maximum limit as prescribed in Clause 1 of terms and conditions of HV tariff with the approval of competent authority shall be levied additional charges at the rate of 5% on energy charges of the respective consumer category.

8. Meter Hire

Meter hire shall be charged as per the schedule of miscellaneous charges to all categories of HV consumers.

9. Tax or Duty

The tariff does not include any tax or duty, etc., on electrical energy that may be payable at any time in accordance with any law/State Government Rules in force. Such charges, if any, shall be payable by the consumer in addition to tariff charges.

10. Variable Cost Adjustment charge

VCA charges to be recovered for previous year's consumption for the period October 1, 2015 to March 31, 2016 shall not be billed to retail consumers.

Variable Cost Adjustment (VCA) charge on consumption from April 1, 2016 as per the formula and conditions specified in the MYT Regulations, 2015 shall be levied in addition to energy charge on all the HV categories including temporary supply.

However, from the date of applicability of this Order, the base values for computation of VCA for succeeding period shall be revised in accordance to this Order.

11. Dispute on applicability of tariff

In case of any dispute on applicability of tariff on a particular category of HV industry/ consumer, the decision of the Commission shall be final and binding.

Notwithstanding the provisions, if any, contrary to the agreement entered into by the consumer with the CSPDCL, all conditions prescribed herein shall be applicable to the consumer.

12. Parallel Operation Charges (POC)

Parallel operation charges shall be payable by CPP to CSPDCL for its captive and non-captive load at the rate Rs.21 per kVA/month.

13. Open Access Charges

a) Transmission Charges

The long-term and medium-term open access customers including CSPDCL shall be required to pay the annual transmission charges approved by the Commission. Bills shall be raised for transmission charge on monthly basis by the STU (CSPTCL), and payments shall be made by the beneficiaries and long-term and medium-term open access customers directly to the CSPTCL. These monthly charges shall be shared by the long-term open access customers and medium-term open access customers as per allotted capacity proportionately. The monthly transmission charge is Rs. 76.12 Crore.

For short-term open access customer: Rs. 288/MWh (or Rs. 0.288 per kWh) for the energy computed as per the provisions made in Regulation 33 of the CSERC (Connectivity and Intra State Open access) Regulations, 2011 and its subsequent amendment(s)/revision, if any, at 100% load factor for transmission. The same charges shall be applicable for both collective and bilateral transaction at the point or points of injection.

b) Energy losses for transmission

Transmission losses at the rate of 3.22% for the energy scheduled for transmission at the point or points of injection shall be recoverable from open access customers.

c) Wheeling Charges

For long-term, medium-term and short-term open access customer: Rs. 279/MWh (or Rs. 0.279 per kWh) for the energy computed as per the provisions made in Regulation 33 of the CSERC (Connectivity and Intra State Open access) Regulations, 2011 and its subsequent amendment(s)/revision, if any, at 100% load factor for wheeling. The same charges shall be applicable for both collective and bilateral transaction at the point of injection.

d) Energy losses for distribution

Distribution losses at the rate of 6 % for the energy scheduled for distribution at the point or points of injection at 33 kV side of 33/11 kV sub-station.

e) Operating Charges

The short-term open access customer shall pay the operation charges to SLDC at the rate of Rs. 2000 per day.

f) Reactive Energy Charges

Reactive energy charges shall be levied at the rate of 27 paisa/kVARh

g) Cross Subsidy Surcharge

- i. For 220 kV/132 kV consumers Rs. 1.16 per kWh (which is 90% of the computed value of Rs. 1.29 per kWh).
- ii. For 33 kV consumers Rs. 1.21 per kWh (which is 90% of the computed value of Rs. 1.34 per kWh).

h) Standby charges

The standby charges for consumers availing open access (using transmission and/or distribution system of Licensee) and who draw power from the grid up to the contracted capacity of open access during the outage of generating plant/CPP shall be 1.5 times of the per kWh weighted average tariff of HV consumers, which is Rs 11.27 per kWh (1.5 times of the average billing rate of Rs.7.51 per kWh). For drawal of power in excess of the contracted capacity of open access, the tariff for availing standby support from the grid shall be two times of the per unit weighted average tariff of HV consumers, which is Rs 15.02 per kWh (2 times of the average billing rate of Rs. 7.51 per kWh). Further, in case of outage of CPP supplying power to captive/non captive consumer who has reduced its contract demand to zero and also availed open access draws power of CSPDCL, then billing of such power drawn shall be done as per the standby charges mentioned above.

Note: The settlement of energy at drawal point in respect of consumers availing open access and when the generator is on outage shall be governed by the applicable intra-State ABT/UI Regulations to be notified by the Commission and as amended from time to time. Till that time provisions of this order in the matter shall prevail.

14. Intra-State Open Access Charges for renewable energy transactions

- a) Transmission Charges in cash for long-term/medium-term/short-term open access - NIL
- b) Wheeling Charges in cash for long-term/medium-term/short-term open access - NIL
- c) SLDC Charges (Operating Charges) for long-term/medium-term/short-term open access - NIL
- d) Total Transmission Charges or Wheeling Charges or Combination thereof in kind (energy losses) for long-term/medium-term/short-term open access - 6%
- e) Cross-subsidy surcharge -
 - i. A consumer availing open access is required to pay the cross-subsidy surcharge.
 - ii. In case a generating company is an open access customer and is supplying power to a consumer of the State, the liability of paying cross-subsidy surcharge shall be on the consumer. If a captive generating plant avails open access for supplying power to its captive users, and if the captive users do not fulfil the requirement of captive users in a financial year as prescribed in the Electricity Rules, 2005, then that end user/s shall be liable to pay the cross-subsidy surcharge.
 - iii. The cross subsidy surcharge payable is 50% of the cross subsidy surcharge determined for that year, which is as under:
 - a) For 220 kV/132 kV consumers Rs 0.58 per kWh (which is 50% of the computed value of Rs 1.16 per kWh).

- b) For 33 kV/11 KV consumers Rs. 0.605 per kWh (which is 50% of the computed value of Rs 1.21 per kWh).
- iv. In case of a consumer receiving power from biomass based power generating plants through open access, if it is established that the biomass based power generating plants supplying power to such consumer has used biomass in the lesser ratio than as mentioned in the guidelines of the Ministry of New and Renewable Energy during any financial year, then the relaxations at (iii) above given to the open access consumer shall be treated as withdrawn for that financial year and the biomass generator shall be liable to pay to CSPDCL full open access charges.

15 DIRECTIVES TO THE STATE POWER COMPANIES AND SLDC

Certain directives in previous tariff orders were issued to the State power companies and CSLDC. Compliance submitted by them were noted and following consolidated company wise directives as given below are issued;

15.1 DIRECTIVES TO CSPGCL

1. Detailed report of fuel cost adjustment charge be submitted to the Commission and also be made available to the Members of State Advisory Committee. The same should be uploaded on website.
2. Report on the progress of implementation of approved CIP should be submitted quarterly.
3. Timely payment of twelve equal monthly instalments as contribution to P&G trust should be ensured.

15.2 DIRECTIVES TO CSPTCL

1. CSPTCL should ensure that HT and EHT connectivity are released timely as per the specified provisions. For this purpose, CSPTCL should coordinate with CSPDCL and submit quarterly report to the Commission.
2. Report on the progress of implementation of approved CIP should be submitted quarterly.
3. CSPTCL should maintain its financial books in a way that it reflects the expenses and revenue related to heads defined in Tariff Regulations and/or any other applicable Regulations. For example, Revenue of CSPTCL should reflect the bills raised to CSPDCL against LTOA, MTOA and STOA charges. Bills raised to other open access consumers against LTOA, MTOA and STOA charges. Delay payment Surcharge billed to CSPDCL and other open access customers (if any) should be indicated separately.
4. Timely payment of twelve equal monthly instalments as contribution to P&G trust should be ensured.

15.3 DIRECTIVES TO CSLDC

1. CSLDC should continue to submit State Energy Account to the Commission on quarterly basis endorsing a copy of the same to CSPDCL.
2. CSLDC should submit quarterly report on the progress of implementation of approved CIP.
3. Timely payment of twelve equal monthly instalments as contribution to P&G trust should be ensured.

15.4 DIRECTIVES TO DISTRIBUTION COMPANY (CSPDCL)

1. CSPDCL should complete the study regarding voltage-wise cost of supply and study pertaining to voltage-wise wheeling loss at the earliest.
2. CSPDCL should continue to reconcile the power purchase bills according to SEA and submit reconciliation report on quarterly basis.
3. CSPDCL should exert all efforts to minimize revenue arrears.
4. CSPDCL should ensure to serve HT connection within the time limit prescribed in Supply Code and to furnish a quarterly report on pendency of HT connections as well as the load enhancement cases with reasons for their pendency.
5. In the daily load variation curve of the State, it is observed that there is considerable peak power demand in the evening time. CSPDCL is directed to continue to exert all its effort to reduce the evening peak by implementing suitable energy conservation and demand side management measures.
6. CSPDCL should maintain its financial books in a way that it reflects the expenses and revenue related to heads defined in Tariff Regulations and/or any other applicable regulations.
7. CSPDCL should maintain the accounts in such a way that it reflect the UI charges for over-drawal and under-drawal from regional pool separately. Similarly, for State UI pool, the UI charges for over injection, under injection, over-drawal and under-drawal shall shown separately. Amount billed against cross subsidies surcharge, parallel operation charges, wheeling charges, reactive energy charges, VCA charges and revenue from trading of electricity be reflected in books of accounts. The volume of energy on the above heads shall also be indicated.
8. Division-wise loss reduction target and all other commitments stipulated in the UDAY Scheme shall be adhered to. Achievement made in various Schemes be intimated on quarterly basis.
9. Timely payment of twelve equal monthly instalments as contribution to P&G trust should be ensured.

Annexure 1

Name of Representative who submit written submission on P.No.01/2016, 02/2016, 03/2016 and 04/2016

1.	Shri Ashok Agrawal (President), Chhattisgarh Steel Re-Rollers Association, Raipur (CG)
2.	Shri Pawan Kumar Agrawal (Director) Prime Ispat Limited, Raipur (CG)
3.	Shri Rajesh Agrawal (Managing Director), Mahamaya Steel Industries Ltd., Raipur (CG)
4.	Shri Ashok Surana (President), Mini Steel Plant Association, Raipur (CG)
5.	Shri Ramswaroopdas Niranjana Lal Charitable Trust, Raipur (CG)
6.	Shri I.K.Verma (President) Chhattisgarh Pragatishil Kisan Sangathan, Durg, (CG)
7.	Shri Bhupendra Sharma, Bemta, Dist- Raipur, (CG)
8.	Shri Dinesh Thakur, Dr. Anand Malhotra, Shivsena, Raipur, (CG)
9.	Shri Shashi Shekhar (Director), Lanco Solar Pvt. Ltd. (CG)
10.	Shri Pramod Dube, Mayor, Raipur, (CG)
11.	Shri Ramanlal, Sadar Bazar, Dhamtari, (CG)
12.	Shri Amar Parwani (State President), Chhattisgarh Chamber of Commerce & Industries, Raipur (CG)
13.	Shri Pradeep Gabhane (Secretary), Bharat Ki Communist Party (Markswadi), Raipur (CG)
14.	Shri Ajaz Dhebar (Secretary), Chhattisgarh Congress Committee Raipur (CG)
15.	Shri Arun Bhandakkar (GM (Electrical)) Bhilai Steel Plant, Bhilai, (CG)
16.	Shri Vikas Upadhyay (President), Raipur Shahar Zila Congress Committee, Raipur (CG)
17.	Shri Imran Pasha (National President), Azadi Ka Antim Andolan, Raipur (CG)
18.	Shri Dharmraj Mahapatra (Secretary), Central Of Indian Trade Union, Raipur (CG)
19.	Shri M.A.Iqbal (Gen Sec.), Vidyut Karmchari Sangh (Federation), Raipur (CG)
20.	Shri P.K.Khare (Gen Sec.), Chhattisgarh Vidyut Mandal Abhiyanta Sangh, Raipur (CG)
21.	Shri Shyam Kabra, Raipur (CG)
22.	Shri Manoj Kumar Agrawal (Director), Nandan Steel and Power Ltd. Raipur (CG)
23.	M/s Chhajed Investments, Raipur (CG)
24.	Shri Rajbali Chandrakar, Purani Basti, Raipur (CG)
25.	Shri Rajkumar Gupt, Chhattisgarh Pragatishil Kisan Sangathan, Durg (CG)
26.	Electricity consumer, Raipur (CG)
27.	Chief Electrical Distribution Engineer (SECR), Bilaspur (CG)

Annexure 2

Name of Representative who express comment during Hearing on P.No.1/2016, 2/2016, 3/2016 and 4/2016 dated 9, 10 & 11 Feb. 2016

Sl. No.	Name	Organisation/ Designation
1.	Shri D.C.Patnaik	South Eastern Central Railway, Bilaspur
2.	Shri Pawan Kumar Agrawal	Prime Ispat Limited, Raipur
3.	Shri Ashok Agrawal	Chhattisgarh Steel Re-Rollers Association, Raipur
4.	Shri Rajesh Agrawal	Mahamaya Steel Industries Limited, Raipur
5.	Shri P. Mohta	Mahamaya Steel Industries Limited, Raipur
6.	Smt. L.K.Laxmi	BSP, Bhilai
7.	Shri Shyam Kabra	Raipur
8.	Shri Vinay Agrawal	Raipur
9.	Shri Ashok Surana	Chhattisgarh Mini Steel Plant Association, Raipur
10.	Shri Mukesh Pandey	Raipur
11.	Shri Mahesh Kakkad	Udyog Maha Sangh, Raipur
12.	Shri Ashwin Garg	Raipur
13.	Shri Ramesh Valryani	Raipur
14.	Shri Pramod Dubey	Mayor, Raipur, CG
15.	Shri Vikas Upadhyay	Raipur Shahr Zila Congress Committee
16.	Shri M.A.Iqabal	Vidyut Karmchari Sangh (Federation), Raipur
17.	Shri Satnam Singh Panag	Raipur
18.	Shri Loknath Nayak	Saraypali, Mahasamund
19.	Shri Hublal Patel	Saraypali, Mahasamund
20.	Shri Gopal Patel	Village Devgaon, Baloda Bazar
21.	Shri Rajkumar Gupta	Durg
22.	Shri Mahendra Varma	Patan, Durg
23.	Shri B.L.Chandrakar	Village Atari, Durg
24.	Shri I.K.Verma	Chhattisgarh Pragatishil Kisan Sangathan
25.	Shri Anand Malhotra	Shivsena, Raipur
26.	Shri Bhupendra Sharma	Bemta
27.	Shri Kisan Chandel	Durg
28.	Shri Asif Ali	Rajnandgaon

Annexure 3

FORMAT-I							
Details/Information for Computation of Energy Charge Rates for FCA from to							
Name of the Company : Chhattisgarh State Power Generation Company Limited							
Name of the Power Station : Korba (East) Thermal Power Station - KTPS							
	Description	Unit	Considered in Tariff order	For 1st Month of the Quarter	For 2nd Month of the Quarter	For 3rd Month of the Quarter	For the Quarter
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)					
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)					
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)					
d	Normative Transit & Handling Losses	%	1.15				
e	Normative Transit & Handling Losses (cXd)	(MMT)					
f	Net coal / Lignite Supplied (c-e)	(MMT)					
g	Amount charged by the Coal / Lignite Company	(Rs.)					
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)					
i	Net amount Charged by Coal Company (g+h)	(Rs.)					
j	Rate of Coal for the period Charged by Coal Company = (i/(f*10 ⁶))	Rs/MT					
k	Rate of Bonus payable to Coal Company	Rs/MT					
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT	1,227.76				
m	Transportation Charge per Ton	Rs/MT	177.98				
n	Landed Price of Coal per MT (l+m)	Rs./MT	1,405.74				
o	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	2,967				
p	Normative SHR	Kcal/ KWh	3,110				
q	Normative Specific Oil Consumption	ml/ KWh	2.00				
r	GCV of Secondary Fuel (Oil)	Kcal/ml	10				
s	Normative Auxiliary Consumption	%	11.25				
t	ECR for the Period= ((p-(qxr))/(0*(n/1000)/(1-s)	Rs/ KWh					
u	ECR as considered in Tariff order	Rs/ KWh	1.650				
v	Change in ECR (t-u)	Rs/ KWh					
w	Net Generation during the Period	KWh					
x	FCA Claim for the Period (vXw)	Rs					0
Note-							
1. Values to be filled in shded cells only . Adjustment towards all other parameters shall be taken care of at the time of True Up.							
2. Other cells carry either computed values or fixed values.							
3. For computed values formula have been indicated in the partivulars column.							
4. ECR to be worked out to third digit							

FORMAT-I							
Details/Information for Computation of Energy Charge Rates for FCA from to							
Name of the Company : Chhattisgarh State Power Generation Company Limited							
Name of the Power Station : Korba (West) Thermal Power Station - HTPS							
	Description	Unit	Considered in Tariff order	For 1st Month of the Quarter	For 2nd Month of the Quarter	For 3rd Month of the Quarter	For the Quarter
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)					
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)					
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)					
d	Normative Transit & Handling Losses	%	0.20				
e	Normative Transit & Handling Losses (cXd)	(MMT)					
f	Net coal / Lignite Supplied (c-e)	(MMT)					
g	Amount charged by the Coal / Lignite Company	(Rs.)					
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)					
i	Net amount Charged by Coal Company (g+h)	(Rs.)					
j	Rate of Coal for the period Charged by Coal Company $= (i/(f*10^6))$	Rs/MT					
k	Rate of Bonus payable to Coal Company	Rs/MT					
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT	1,214.25				
m	Transportation Charge per Ton	Rs/MT	80.75				
n	Landed Price of Coal per MT (l+m)	Rs./MT	1,295				
o	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,356				
p	Normative SHR	Kcal/ KWh	2,650				
q	Normative Specific Oil Consumption	ml/ KWh	0.80				
r	GCV of Secondary Fuel (Oil)	Kcal/ml	10				
s	Normative Auxiliary Consumption	%	9.70				
t	ECR for the Period= $((p-(qxr))/(0)*(n/1000))/(1-s)$	Rs/ KWh					
u	ECR as considered in Tariff order	Rs/ KWh	1.129				
v	Change in ECR (t-u)	Rs/ KWh					
w	Net Generation during the Period	KWh					
x	FCA Claim for the Period (vXw)	Rs					-
Note-							
1. Values to be filled in shded cells only . Adjustment towards all other parameters shall be taken care of at the time of True Up.							
2. Other cells carry either computed values or fixed values.							
3. For computed values formula have been indicated in the partivulars column.							
4. ECR to be worked out to third digit							

FORMAT-I							
Details/Information for Computation of Energy Charge Rates for FCA from to							
Name of the Company : Chhattisgarh State Power Generation Company Limited							
Name of the Power Station : Dr. Shyama Prasad Mukharjee Thermal Power Station - DSPM TPS							
	Description	Unit	Considered in Tariff order	For 1st Month of the Quarter	For 2nd Month of the Quarter	For 3rd Month of the Quarter	For the Quarter
a	Quantity of Coal / Lignite supplied by Coal/Lignite	(MMT)					
b	Adjustment (+/-) in quantity supplied made by	(MMT)					
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)					
d	Normative Transit & Handling Losses	%	0.20				
e	Normative Transit & Handling Losses (cXd)	(MMT)					
f	Net coal / Lignite Supplied (c-e)	(MMT)					
g	Amount charged by the Coal / Lignite Company	(Rs.)					
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)					
i	Net amount Charged by Coal Company (g+h)	(Rs.)					
j	Rate of Coal for the period Charged by Coal Company = $(i/(f \times 10^6))$	Rs/MT					
k	Rate of Bonus payable to Coal Company	Rs/MT					
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT					
m	Transportation Cost Paid to railways	Rs					
n	Transportation Charge rate paid to Railways $(m/(f \times 10^6))$	Rs/MT					
o	Other Charges (per Ton) towards transportation	Rs/MT					
p	Total per ton Transportation Charges (n+o)						
q	Landed Price of Coal per MT ((l+p)	Rs./MT	1,525.70				
r	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,280.29				
s	Normative SHR	Kcal/ KWh	2,500				
t	Normative Specific Oil Consumption	ml/ KWh	0.50				
u	GCV of Secondary Fuel (Oil)	Kcal/ml	10.00				
v	Normative Auxiliary Consumption	%	9.00				
w	ECR for the Period= $((s-(txu))/(r)*(q/1000)/(1-v))$	Rs/ KWh					
x	ECR as considered in Tariff order	Rs/ KWh	1.275				
y	Change in ECR (w-x)	Rs/ KWh					
z	Net Generation during the Period	Kwh					
aa	FCA Claim for the Period (yX z)	Rs					0
Note-							
1. Values to be filled in shded cells only . Adjustment towards all other parameters shall be taken care of at the time of True Up.							
2. Other cells carry either computed values or fixed values.							
3. For computed values formula have been indicated in the partivulars column.							
4. ECR to be worked out to third digit							

FORMAT-I							
Details/Information for Computation of Energy Charge Rates for FCA from to							
Name of the Company : Chhattisgarh State Power Generation Company Limited							
Name of the Power Station : - 1x500 MW KW TPP							
	Description	Unit	Considered in Tariff order	For 1st Month of the Quarter	For 2nd Month of the Quarter	For 3rd Month of the Quarter	For the Quarter
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)					
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)					
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)					
d	Normative Transit & Handling Losses	%	0.20				
e	Normative Transit & Handling Losses (cXd)	(MMT)					
f	Net coal / Lignite Supplied (c-e)	(MMT)					
g	Amount charged by the Coal / Lignite Company	(Rs.)					
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)					
i	Net amount Charged by Coal Company (g+h)	(Rs.)					
j	Rate of Coal for the period Charged by Coal Company =(i/(f*10 ⁶))	Rs/MT					
k	Rate of Bonus payable to Coal Company	Rs/MT					
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT	1,214.25				
m	Transportation Charge per Ton	Rs/MT	80.75				
n	Landed Price of Coal per MT (l+m)	Rs./MT	1,295				
o	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,356				
p	Normative SHR	Kcal/ KWh	2,375				
q	Normative Specific Oil Consumption	ml/ KWh	0.50				
r	GCV of Secondary Fuel (Oil)	Kcal/ml	10				
s	Normative Auxiliary Consumption	%	5.25				
t	ECR for the Period= ((p-(qxr))/(0)*(n/1000)/(1-s)	Rs/ KWh					
u	ECR as considered in Tariff order	Rs/ KWh	0.965				
v	Change in ECR (t-u)	Rs/ KWh					
w	Net Generation during the Period	KWh					
x	FCA Claim for the Period (vXw)	Rs					
Note-							
1. Values to be filled in shded cells only . Adjustment towards all other parameters shall be taken care of at the time of True Up.							
2. Other cells carry either computed values or fixed values.							
3. For computed values formula have been indicated in the particulars column.							
4. ECR to be worked out to third digit							

FORMAT-I							
Details/Information for Computation of Energy Charge Rates for FCA from to							
Name of the Company : Chhattisgarh State Power Generation Company Limited							
Name of the Power Station : Marwa Thermal Power Plant - MTPP							
	Month	Unit	Considered in Tariff order	For 1st Month of the Quarter	For 2nd Month of the Quarter	For 3rd Month of the Quarter	For the Quarter
a	Quantity of Coal / Lignite supplied by Coal/Lignite	(MMT)	-				
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)	-				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)					
d	Normative Transit & Handling Losses	%	0.80				
e	Normative Transit & Handling Losses (cXd)	(MMT)					
f	Net coal / Lignite Supplied (c-e)	(MMT)					
g	Amount charged by the Coal / Lignite Company	(Rs.)					
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)					
i	Net amount Charged by Coal Company (g+h)	(Rs.)					
j	Rate of Coal for the period Charged by Coal Company = (i/(fX10 ⁶))	Rs/MT					
k	Rate of Bonus payable to Coal Company	Rs/MT					
l	Net Rate of coal payable to coal compnay (j+k)	Rs/MT					
m	Transportation Cost Paid to railways	Rs					
n	Transportation Charge rate paid to Railways (m/(fX10 ⁶))	Rs/MT					
o	Other Charges (per Ton) towards transportation	Rs/MT					
p	Total per ton Transportation Charges (n+o)						
q	Landed Price of Coal per MT ((l+p)	Rs./MT	1,535				
r	Average GCV of coal / Lignite as fired as per tariff order	(kCal/Kg)	3,280.29				
s	Normative SHR	Kcal/ KWh	2,378				
t	Normative Specific Oil Consumption	ml/ KWh	0.50				
u	GCV of Secondary Fuel (Oil)	Kcal/ml	10				
v	Normative Auxiliary Consumption	%	5.25				
w	ECR for the Period= ((s-(tu))/(r)*(q/1000))/(1-v)	Rs/ KWh					
x	ECR as considered in Tariff order	Rs/ KWh	1.20				
y	Change in ECR (w-x)	Rs/ KWh					
z	Net Generation during the Period	Kwh					
aa	FCA Claim for the Period (yX z)	Rs					
Note-							
1. Values to be filled in shded cells only . Adjustment towards all other parameters shall be taken care of at the time of True Up.							
2. Other cells carry either computed values or fixed values.							
3. For computed values formula have been indicated in the partivulars column.							
4. ECR to be worked out to third digit							

Annexure 4
Ujwal DISCOM Assurance Yojana (UDAY)

- Salient features of UDAY as notified by GoI
- The scheme is applicable only to State owned DISCOMs. It is voluntary in nature.
- A tripartite agreement to be signed between Govt. of India, State Govts. and DISCOMs stipulating everyone's responsibilities for achieving operational and financial milestones.
- A review mechanism to be devised for monthly monitoring of the performance. Operational guidelines related to the same will be issued separately.
- A timeline of targeted activities have been prescribed for improving operational efficiencies. Activities such as Compulsory feeder and Distribution Transformer (DT) metering by States, Consumer indexing, GIS mapping of losses, Smart metering, DSM, quarterly tariff revision etc. have been listed out which are to be completed by the timeline prescribed for each of the respective activities. In general, all activities have to be completed between 2016 to 2019.
- States are supposed to develop their own state specific targeted programmes for activities other than those listed in the scheme, which will aid improvement in efficiency.
- Reduction of AT&C losses to 15% and gap between ACoS and ARR to zero by 2018-19 are the indicators to measure the improvement in operational efficiency.
- Various steps have been listed out to be undertaken by Govt. of India and respective State Govts. separately to reduce cost of power generation.
- Financial turnout to be undertaken by respective State Govts. by taking over 75% debts of DISCOMs (50% in 2015-16 and 25% in 2016-17) on priority basis.
- Non-SLR bonds (including SDL bonds) to be issued in the market or to the financial institutions to raise money for financing DISCOMs debts.
- Bonds to have maturity period of 10-15 years with a moratorium on payment of principal up to 5 years.

- The 10 year State bond will be priced at 10 year G-Sec plus 0.5% spread for 10 year State bonds plus 0.25% spread for non-SLR status on semi-annual compounding basis, or market determined rate, whichever is lower. This may be further reduced if interest is paid on monthly basis.
- Money to be transferred by State Govt. to DISCOM will be treated as a grant. If equity support is required then not more than 25% of the grant may be given as equity.
- 50% of the DISCOM debt as on September 30, 2015 to be converted into loans or bonds with interest rate not more than bank's base rate plus 0.1%. Alternatively, DISCOM may fully or partly issue the debts as State guaranteed DISCOM bonds at the prevailing market rates which shall be equal to or less than bank base rate plus 0.1%. Operational guidelines to be issued separately by Ministry of Power.
- DISCOMs losses to be taken over in a graded manner as prescribed. Previous year's actual losses to be used for calculation instead of current year's estimated losses.
- For working capital, banks to lend only 25% of DISCOMs previous year's annual revenue or as per prudential norms.
- Renewable Purchase Obligation (RPO) outstanding since April 1, 2012 to be complied with.
- On meeting operational milestones as outlined, participating States to get additional sops such as additional/priority funding through DDUGJY, IPDS or any other schemes, additional coal at notified prices, low cost power from NTPC or any other CPSUs.
- States not meeting operational guidelines will be liable to forfeit their claim on IPDS and DDUGJY grants.
- Targets as specified in MoU signed between CSPDCL, Chhattisgarh Govt. & GoI

• **Billing Efficiency :**

2015-16	2016-17	2017-18	2018-19
79.27	80.78	81.74	85.28

Loss Reduction Targets at the Division Level (in %)

Sl.No.	Name of Divison	2015-16	2016-17	2017-18	2018-19
1	City (E)	12.76%	11.76%	11.19%	9.32%
2	City central	14.55%	13.42%	12.76%	10.62%
3	City (S)	16.71%	15.40%	14.65%	12.18%
4	City (W)	12.28%	11.33%	10.78%	8.98%
Raipur City Circle-I		13.83%	12.75%	12.13%	10.10%
5	City (N)	8.20%	7.41%	7.06%	5.90%
6	Siltara	0.17%	0.19%	0.19%	0.22%
7	Urla	1.34%	1.24%	1.19%	1.05%
Raipur City Circle-II		2.48%	2.27%	2.17%	1.86%
8	Raipur (O&M)	18.01%	16.24%	15.45%	12.84%
9	Bhatapara	16.69%	15.05%	14.32%	11.91%
10	B.Bazar	30.31%	27.31%	25.96%	21.54%
11	Rajim	17.02%	15.35%	14.60%	12.14%
12	Kurud	17.00%	15.33%	14.58%	12.13%
13	Dhamtari	13.22%	11.93%	11.35%	9.45%
Raipur O&M Circle		19.29%	17.39%	16.54%	13.74%
14	Mahasamund	36.04%	32.47%	30.87%	25.60%
15	Saraipali	39.42%	35.51%	33.75%	27.99%
16	Gariyabandh	20.00%	18.03%	17.15%	14.25%
Mahasamund (O&M)		35.44%	31.93%	30.35%	25.17%
Raipur Region		15.76%	14.22%	13.53%	11.25%
17	Durg City	11.94%	10.78%	10.26%	8.55%
18	Bhilai(W)	13.87%	12.51%	11.90%	9.91%
19	Bhilai (E)	12.32%	11.13%	10.59%	8.82%
Durg City Circle		12.77%	11.53%	10.97%	9.14%
20	Durg (O&M)	10.85%	9.80%	9.33%	7.78%
21	Bhilai (O&M)	11.93%	10.77%	10.25%	8.54%
22	Balod	14.03%	12.66%	12.04%	10.02%
23	Bemetara	35.14%	31.66%	30.09%	24.96%
24	Saja	20.13%	18.15%	17.26%	14.34%
Durg O&M Circle		18.40%	16.59%	15.78%	13.12%
Durg region		15.54%	14.02%	13.34%	11.10%
25	Rajnandgaon	13.61%	12.28%	11.69%	9.73%
26	Khairagarh	21.56%	19.43%	18.48%	15.35%
27	Dongargarh	9.25%	8.36%	7.96%	6.64%
28	Dongargaon	16.37%	14.76%	14.04%	11.68%
29	Kawardha	33.40%	30.10%	28.61%	23.73%
30	Pandariya	31.91%	28.75%	27.33%	22.67%
Rajnandgaon Circle		21.05%	18.98%	18.05%	15.00%
Rajnandgaon Region		21.05%	18.98%	18.05%	15.00%

Sl.No.	Name of Divison	2015-16	2016-17	2017-18	2018-19
31	City Dn. Bilaspur East	17.28%	15.59%	14.83%	12.33%
32	City Dn. Bilaspur West	18.11%	16.33%	15.53%	12.91%
City Circle Bilaspur		17.63%	15.90%	15.12%	12.57%
33	(O&M) Bilaspur	36.85%	33.20%	31.56%	26.17%
34	Mungeli	46.93%	42.27%	40.17%	33.30%
35	Pendra Raod	21.99%	19.83%	18.85%	15.66%
O&M Bilaspur Circle		36.63%	33.00%	31.37%	26.02%
36	City Korba	16.99%	15.32%	14.57%	12.12%
37	O&M Korba	34.82%	31.37%	29.82%	24.73%
Korba (O&M) Circle		25.39%	22.89%	21.76%	18.06%
39	Champa	37.27%	33.58%	31.91%	26.47%
40	Akaltara	26.26%	23.89%	22.71%	18.85%
41	Shakti	45.22%	40.73%	38.71%	32.09%
Janjgir-Champa		37.04%	33.37%	31.72%	26.31%
42	Raigarh -I	26.77%	24.13%	22.94%	19.04%
43	Raigarh -II	7.84%	23.90%	22.73%	18.86%
44	Pathalgaon	18.82%	16.97%	16.14%	13.41%
45	Jashpur	52.56%	47.34%	44.99%	37.28%
Raigarh		27.83%	25.08%	23.85%	19.79%
Bilaspur Region		30.65%	27.62%	26.26%	21.79%
46	Ambikapur	23.10%	20.83%	19.80%	16.45%
47	Balrampur	51.39%	46.29%	43.99%	36.46%
48	Manendragarh	24.12%	21.74%	20.67%	17.16%
49	surjpur (New Dn)	23.10%	20.83%	19.80%	16.45%
Ambikapur Circle		27.46%	24.75%	23.53%	19.53%
Ambikapur Region		27.46%	24.75%	23.53%	19.53%
50	Kanker (O&M)	31.00%	27.94%	26.56%	22.03%
51	Kondagaon	20.47%	18.70%	17.79%	14.78%
52	Narayanpur	29.91%	26.95%	25.62%	21.26%
Kanker (O&M) Circle		28.28%	25.48%	24.22%	20.10%
53	Jagdalpur	19.51%	17.59%	16.73%	13.90%
54	Dantewada	4.49%	4.08%	3.89%	3.28%
55	Sukma	15.37%	13.87%	13.19%	10.97%
56	Bijapur	25.37%	22.86%	21.74%	18.05%
Jagdalpur		14.61%	13.18%	12.54%	10.43%
Jagdalpur Region		20.72%	18.69%	17.77%	14.76%
STATE TOTAL		21.00%	18.93%	18.00%	15.00%

Detailed Action Plan for Implementation of targeted activities

Clause No.	Activity	Unit	Status at the end of FY 2014-15	2015-16		2016-17		2017-18		2018-19		Officer responsible	Resources (in Rs Cr.)
				H1	H2	H1	H2	H1	H2	H1	H2		
1.3 (b)	AT&C loss reduction trajectory	%	22.41	21		19.50		18		15		ED (O&M)	
1.3 (g-iv)	11 KV Feeder metering functional	%	57.2	57	57	100						ED (O&M)	42.10
1.3 (g-iv)	DT Metering in Urban area	%	62.05	67	70	80	90	100				ED (O&M)	34
	DT metering in (Rural) area	%	16.24	16	16	16	40	100				ED (O&M)	100
1.3 (g-v)	11 KV Feeder audit in Rural Area	%	9.11	9	9	9	100					ED (O&M)	-
1.3 (g-vii)	Feeder Improvement programme on feeder	%	0	0	0	20	100					CE (STR E)	557
1.3 (g-viii)	Feeder separation (separation of AG load on feeder)	%	32	32	40	45	60	80	100			CE (STR E)	930
1.3 (g-ix)	Installation of Smart Meters / other than Ag.	%	0	0	0	10	20	40	60	80	100	ED (O&M)	694

Clause No.	Activity	Unit	Pending at the end of FY 2014-15	2015-16		2016-17		2017-18		2018-19		Office responsible	Resources in INR Cr.
				H1	H2	H1	H2	H1	H2	H1	H2		
1.3 (g-x)	Domestic connections (in lakhs) under 24x7 PFA	Nos In Lac	9.25	0.3	0.8	2.2	3.6	5	6.4	7.8	9.25	ED(O&M)	-
1.3 (e-x)	Implementation of ERP		Already Implemented									CE(EITC)	
1.3 (h-i)	Providing LED bulbs under DELP	Lac	50		3	25	50	-	-	-	-	ED(O&M)	-