



COMMISSION'S ORDER IN

Case No. HERC/PRO - 52 of 2018 & HERC/PRO - 53 of 2018

ON

**TRUE- UP FOR THE FY 2017-18, ANNUAL (MID-YEAR)
PERFORMANCE REVIEW FOR THE FY 2018-19, AGGREGATE
REVENUE REQUIREMENT
OF UHBVNL AND DHBVNL AND DISTRIBUTION & RETAIL SUPPLY
TARIFF FOR THE FY 2019-20**

7th March, 2019

**HARYANA ELECTRICITY REGULATORY COMMISSION
BAYS 33-36, SECTOR - 4, PANCHKULA - 134 112, HARYANA**

www.herc.nic.in

IN THE MATTER OF

Petition for True-up of the ARR for the FY 2017-18, Annual (Mid-Year) Performance Review for the FY 2018-19 and determination of ARR and Distribution and Retail supply tariff for the FY 2019-20 for Uttar Haryana Bijli Vitaran Nigam Limited (UHBVNL) and Dakshin Haryana Bijli Vitaran Nigam Limited (DHBVNL), under the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 and Section 45, 46, 47, 61, 62, 64 & 86 of the Electricity Act, 2003.

QUORUM

Shri Jagjeet Singh

Shri Pravindra Singh Chauhan

Chairman

Member

ORDER

The Haryana Electricity Regulatory Commission (hereinafter referred to as 'the Commission' or HERC), in exercise of the powers vested in it under section 62 of the Electricity Act, 2003 read with section 11 of the Haryana Electricity Reforms Act, 1997 and all other enabling provisions in this behalf, passes this Order determining the True-up of the ARR for the FY 2017-18, Annual (Mid-year) Performance Review for the FY 2018-19, Aggregate Revenue Requirements and distribution and retail supply tariff of UHBVNL and DHBVNL for their Distribution and Retail Supply Business under MYT framework for the FY 2019-20 in accordance with the provisions of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 (hereinafter referred to as MYT Regulations, 2012).

At the onset it needs to be noted that the Commission, vide notification dated 31st October, 2018 enacted 2nd amendment to the MYT Regulations, 2012. The relevant part of the said amendment is reproduced below: -

"2. Amendment of Regulation 3.16

The definition and interpretation under Regulation 3(3.16) shall be replaced by the following paragraph, namely: - "Control Period" means a multi-year tariff

period fixed by the Commission from time to time. The first control period shall be from 1st April 2014 to 31st March 2020.

Provided that where certain norms / benchmarks are required to be computed using 'baseline values' and the 'base year' has been defined as the financial year immediately preceding the first year of the control period. In all such cases the 'base year, for projecting normative values for annual determination of the ARR/Tariff petition(s) for the FY 2018-19 & FY 2019-20 shall be the FY 2015-16 based on the respective audited accounts of the licensees and the generating company.

Provided that in the case of HVPNL/Discoms the O&M expenses for the FY 2018-19 & FY 2019-20 shall be based on the audited accounts for the FY 2015-16 subject to prudence check.

Provided further that in the case of HPGCL, the per MW O&M expenses, shall be worked out by the Commission based on the audited accounts for the FY 2015-16 subject to prudence check.”

The Commission, while passing Order in the present case(s), has considered the Petition(s) filed by UHBVNL and DHBVNL along with subsequent filings/additional data provided by them including filings made by the two distribution licensees in response to the various queries of the Commission, objections received from various organisations and individuals and the reply / comments furnished by UHBVNL/DHBVNL thereto to as well as the suggestions of the SAC Members in the 19th meeting held on 25.02.2019. All other relevant facts, data and information available in the Commission as well as in the public domain has been considered while taking a reasoned view germane to the present petitions.

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Chapter 1

INTRODUCTION

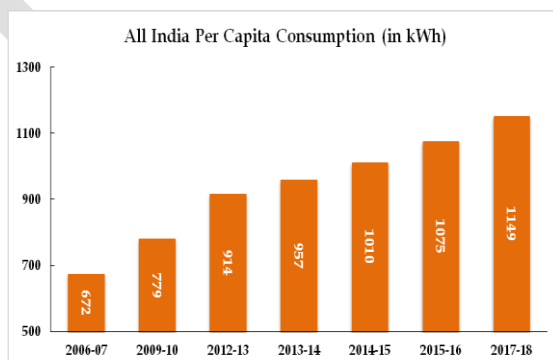
1.1 Petition filed by UHBVNL and DHBVNL

The two distribution licensees (Discoms) in Haryana i.e. Uttar Haryana Bijli Vitran Nigam (UHBVNL) and Dakshin Haryana Bijli Vitran Nigam (DHBVNL) have filed the present petition under the provisions of the Electricity Act, 2003 and the MYT Regulations, 2012 including its subsequent amendments notified by the Commission. The petition filed by the two Discoms are reproduced below: -

Petition filed by UHBVN

It has been submitted that the Indian power sector has witnessed versatile changes over the last decade post the passage of The Electricity Act, 2003. These changes include introduction of significant reform measures, enhanced regulatory regime, increased level of private sector participation, development of state-of-the-art grid linking the entire country and focus on renewable energy generation.

That energy requirement and supply is a strategic input and one of the key drivers for economic and social development behind any growing country. As energy plays a very vital role in industrial production, economic growth and common man's life, it has become extremely essential to boost the growth in energy segment for the growth of the Country. With growing demand in the energy requirement, the annual per capita energy consumption has grown significantly. However, the low per capita consumption in the Country as compared to the world average indicates significant potential for sustainable growth in the demand of electricity.

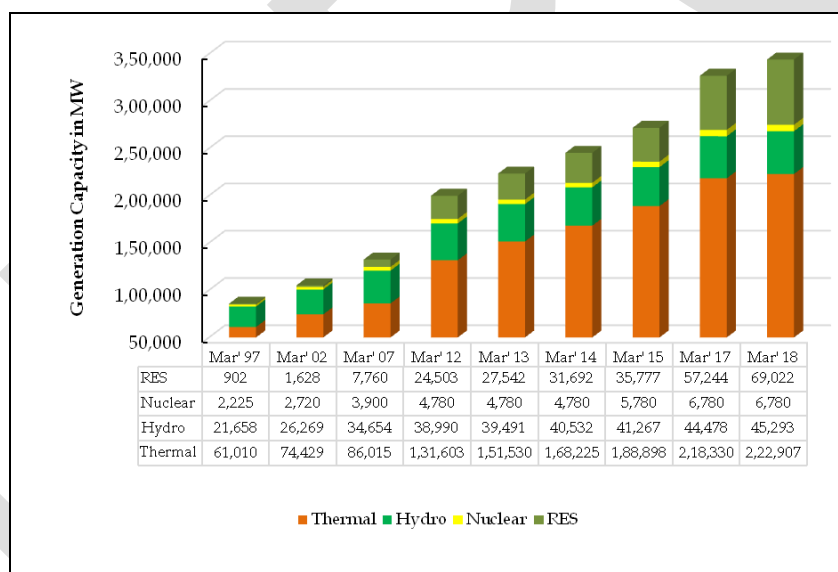


That the Distribution is the most critical segment of electricity business chain. The distribution segment is still largely government owned and will require sustained attention of the authorities if the sector performance is to improve. The real challenge of reforms in the power sector lies in efficient management of the distribution sector. It is therefore necessary to improve the distribution infrastructure and the management of distribution utilities.

All India Installed Capacity

It has been further submitted that India is one of the largest power-generating countries in the world with an installed capacity of 3,44,002 MW (as of March, 2018). Over the last 10 years, the installed capacity of the country has grown at a CAGR of 10.02%. The relevant statistics cited by the petitioner is as under: -

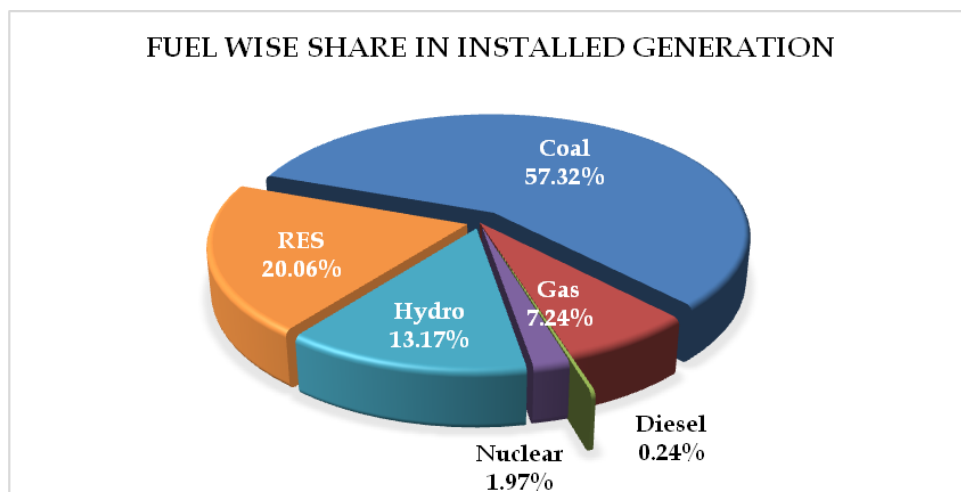
All India Installed Capacity (in MW) – As on March 2018



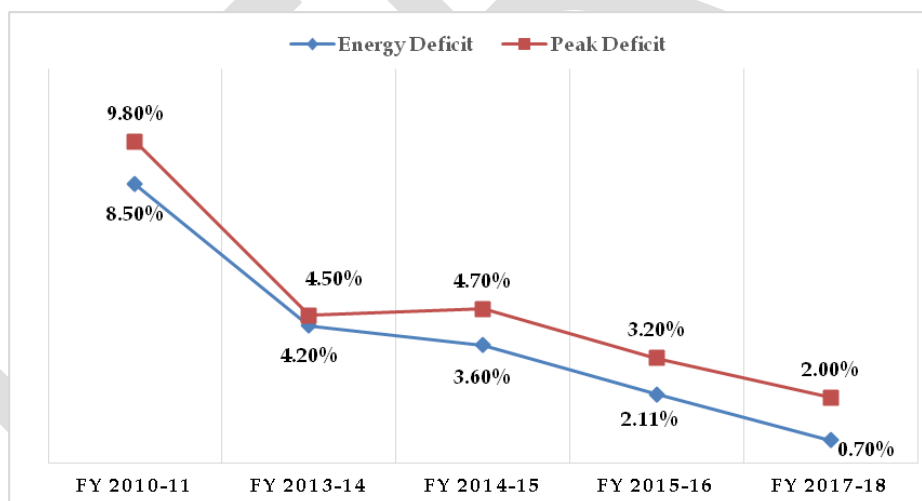
Similarly, the electricity generation increased from about 5.1 Billion units in 1950 to 1,206.31 BU (including imports) in the year 2017-18. The per capita consumption of electricity in the country has also increased from 15 kWh in 1950 to about 1,149 kWh in the year 2017-18. Out of 5,97,464 census villages, 5,97,121 villages (99.94%) have been electrified as on 31.10.2018. Regional grids have been integrated into a single national grid with effect from 31.12.2012 thereby providing free flow of power from one corner of the country to another through strong inter regional AC and HVDC links. As a result, the All India peaks demand (MW) as well as energy (MU) shortage have

registered steady decline. The peak shortage and energy shortage were 2.00% and 0.7% respectively during FY 2017-18.

Installed Generation Capacity (MW) as on March 2018



All India Peak and Energy Deficit March 2018



Profile of UHBVNL (as per the petition)

The Company is a Distribution Licensee within the meaning of Section 2 (17) of Electricity Act 2003 and pursuant to the Section 14 of the Electricity Act. Further, Section 42 and 43 of the Electricity Act 2003 prescribes the following duties of the Distribution Licensee:

- To develop and maintain an efficient, co-ordinated and economical distribution system;

- To supply electricity on an application of the consumer in accordance with the provisions specified in the Electricity Act 2003;
- To provide non-discriminatory open access to the consumers;
- To establish a forum for redressal of grievances of the consumers;

Since UHBVN has been vested with the function of distributing power by the State Government of Haryana, the Business Scope of the Company falls within the legal framework as specified in the Act and can include:

- To develop and maintain an efficient, co-ordinated and economical distribution system;
- To Operate the existing distribution infrastructure efficiently & effectively;
- Merchant Sale of Power in the event of availability of surplus power after meeting the requirement of own consumers with whom the capacity is contracted presently;
- Other associated businesses like providing Training, Research and Development activities, Technical consultancy services and O&M related services;
- Contracts for outsourcing of distribution related activities, joint venture participation;

Details of division and sub-division offices (UHBVN)

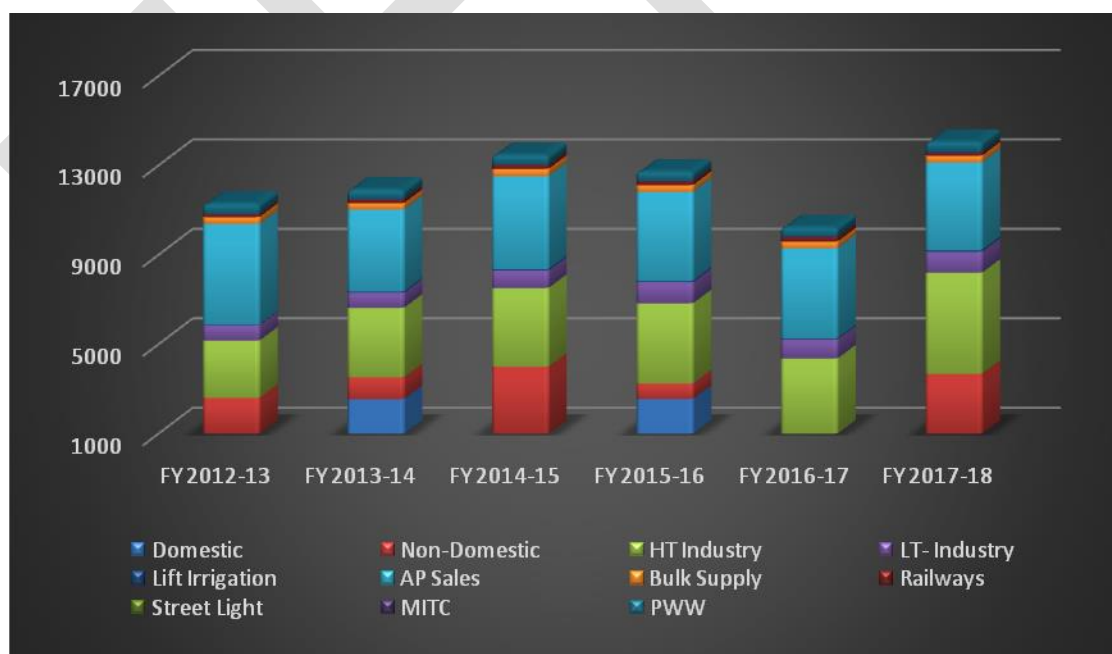
Name of Circle	Total No. of Division	Total No. of Sub-Division
Sonipat	3	15
Panipat	3	10
Kurukshetra	3	12
Ambala	3	15
Karnal	4	18
Jhajjar	3	13
Kaithal	3	12
Yamunanagar	3	14
Rohtak	3	16
UHBVN Total	28	125

The following table shows the total sales from FY 2012-13 to FY 2017-18 as per actual audited accounts:

Category wise Sales (MUs) for last six year

Category	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Domestic	2,352.76	2,527.88	2,760.03	2,834.78	3229.17	3,756.24
Non-Domestic	844.43	950.72	1,113.27	1,140.44	1241.53	1,310.87
HT Industry	2,497.19	3,069.58	3,523.06	3,588.73	3620.41	4,515.90
Lift Irrigation	18.99	47.87	55.32	53.03	856.58	70.56
LT Industry	674.47	677.11	793.64	951.88	45.97	943.98
Agriculture	3,938.50	3,434.39	4,205.75	3,979.70	4026.71	3,922.18
Bulk Supply	302.34	286.9	325.54	301.47	301.96	300.05
Railway Traction	102.73	146.01	155.91	152.07	180.56	104.74
Street Lighting	42.13	42.16	43.2	43.12	52.26	84.63
MITC	11.08	3.36	1.03	1.49	11.62	1.52
PWW	408.77	401.28	429.26	413.14	393.53	433.38
Total	11,193.38	11,587.26	13,406.00	13,459.85	13,960.31	15,444.04

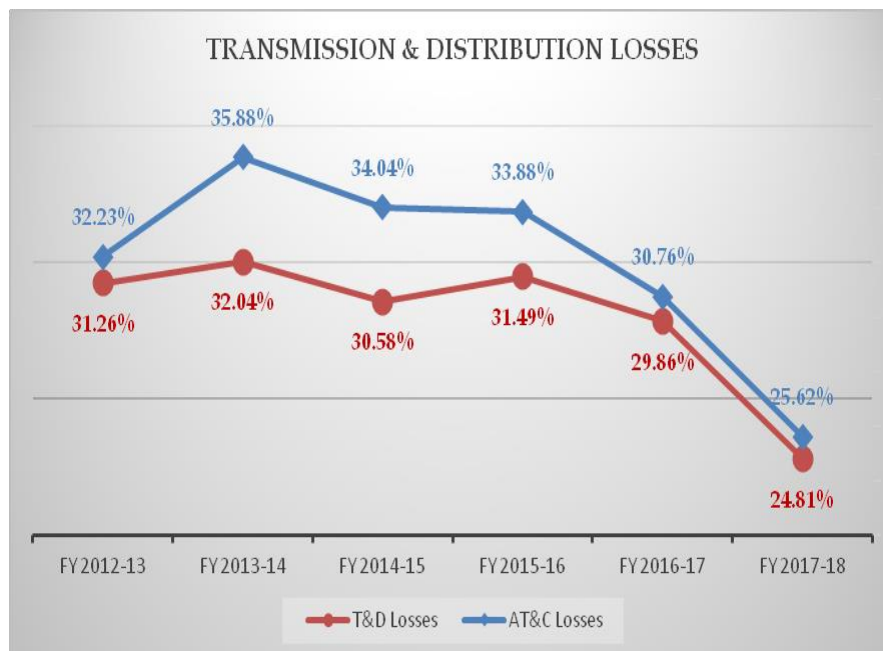
Category-Wise Sales Mix – Year-Wise



As may be seen from the above figure, HT Industrial and Agriculture consumption although varying but remains the highest (55% in FY2017-18) consuming

category followed by Domestic category at 24%. The HT Industrial and LT Industrial contribute for more than 35% of the total consumption.

Transmission & Distribution losses



It has been submitted that the Transmission & Distribution loss depends upon various factors such as size of the network, energy demand, connected Load etc. The Transmission Losses in the power system cannot be totally eliminated. However, efforts are undertaken to reduce T&D loss to the desired permissible level. Currently, UHBVN is serving 29,34,433 consumers out of which around 22,46,782 are domestic consumers. Given below is a graph depicting the number of consumers across different categories for the period from FY 2012-13 to FY 2017-18, from which is evident that the number of consumers has increased over the period. The majority of the consumers are in the LT-Domestic category followed by LT Commercial Category.

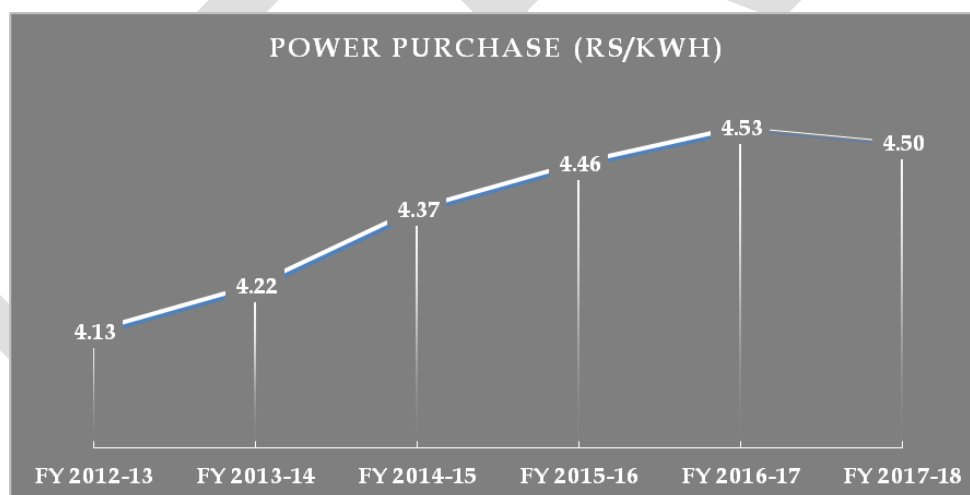
Consumer Mix for Last Six Years

Category	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18
Domestic	20,80,899	19,38,582	20,00,980	20,74,979	21,42,964	22,46,782
Non-Domestic	2,73,989	2,65,494	2,78,654	2,91,194	3,01,619	3,13,844
LT Industrial	36,647	35,720	36,626	37,585	38,467	39,467
HT Industrial	4,407	4,769	5,134	5,499	6,010	6,650
Agriculture	1,58,651	1,47,047	1,57,728	1,64,053	1,69,932	1,74,134

Category	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18
Metered						
Agriculture Unmetered	1,63,252	1,47,180	1,47,047	1,44,170	1,43,074	1,42,868
MITC / Societies	37	37	37	44	44	44
Lift Irrigation	129	103	119	80	97	134
Public Water Works	8,116	7,722	7,935	8,044	8,167	8,427
Bulk Supply	315	305	319	321	322	327
Railways	91	77	78	80	82	82
Street Light	901	961	1,068	1,200	1,508	1,674
Total	27,27,434	25,47,997	26,35,725	27,27,249	28,12,286	29,34,433

That the UHBVN has been purchasing majority of its power from Central Generating Stations (CGS) as per the allocation decided by Ministry of Power. The purchase cost from FY 2012-13 to FY 2017-18 is based on the audited accounts.

PER UNIT POWER PURCHASE COST



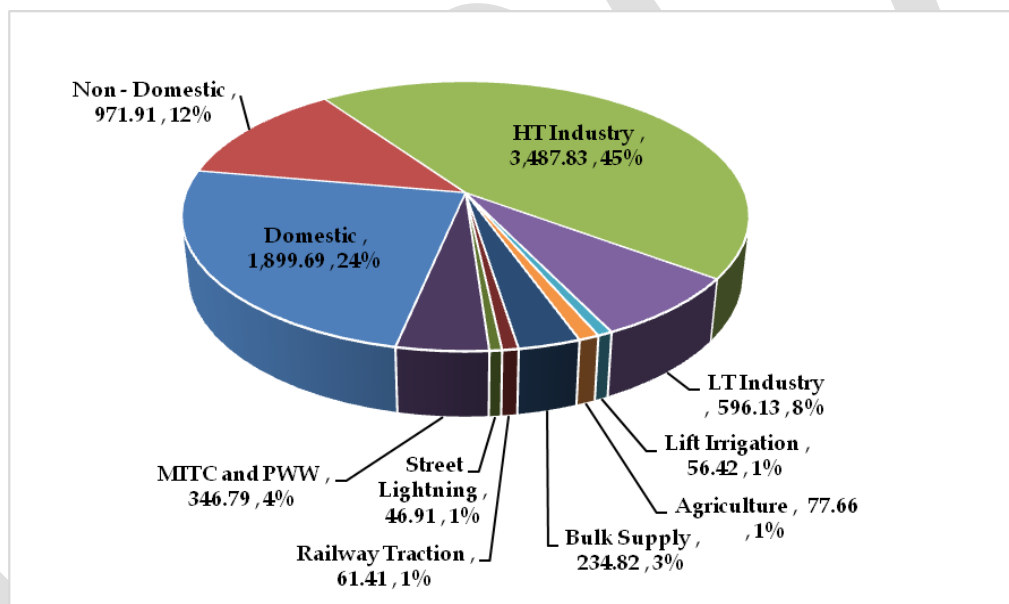
The figure depicts the per unit rate of power purchase for UHBVN during the last 6 years. The significant increase in power purchase cost is mainly on account of huge dependence on external sources for purchase of power and the increase in fuel cost of generating stations. However, during the last financial year Discoms have put in their best efforts to optimise the power purchase and has been able to mellow down power

purchase which has been continuously increasing over the past five financial years i.e. from FY 2012-13 to FY 2016-17.

Revenue

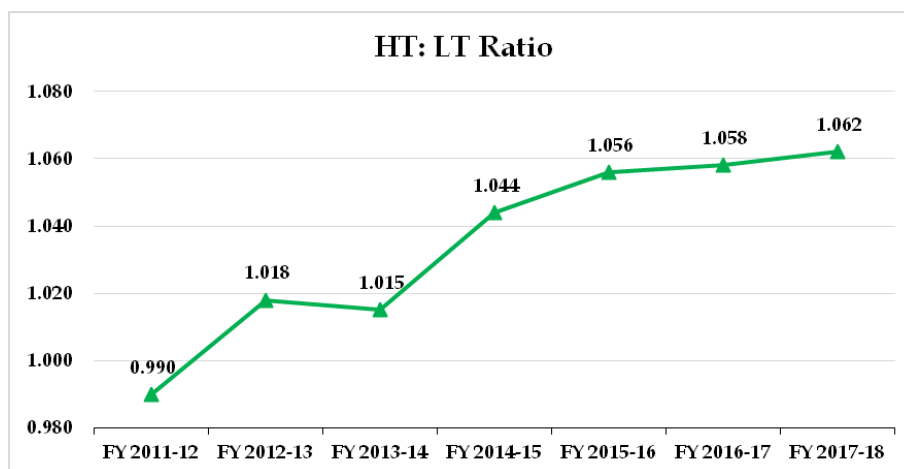
That the revenue generated from consumption of electricity to various categories is shown in the chart below. Even though no. of consumers of HT consumers is very few, the highest revenue is obtained from the Industrial consumers i.e. 45% of the total revenue. Domestic Category with the highest no. of consumers generates only 24% revenue.

Revenue from sale of power during the year FY 2017-18 (Crores)



HT-LT Ratio

The ratio of secondary line length to its concerned primary distribution line length is one of the important factors that influence the performance of primary distribution. Over the years, large scale expansion of the urban system and rural electrification programme in the State of Haryana has resulted in considerable expansion of High Tension (HT) distribution network. The size of the distribution transformers has been constantly increasing to meet the increasing demand due to load growth.



Regulatory Framework

The Hon'ble Commission had issued HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 (herein MYT Regulations) notified on 5th December 2012 and 1st amendment on 7th November, 2016 and 2nd amendment on 31st October 2018. As per 2nd amendment, the ARR for FY 2019-20 is to be determined in accordance to the MYT Regulations, 2012 and the subsequent amendments thereof.

The provisions of MYT Regulation 71.2.2 is as follows:

- a) Sales / demand forecast for each consumer category and sub-categories for each year of the control period and the methodology and rationale used;
- b) Power procurement plan based on the sales forecast and distribution loss trajectory for each year of the control period. The power procurement plan should also keep in view energy efficiency and demand side management measures;
- c) A set of targets proposed for other controllable items such as collection efficiency, recovery of bad debts, working capital, quality of supply targets etc. The targets shall be consistent with the capital investment plan and business plan approved by the Commission;

- d) Expected revenue from the licensed business, non-tariff income and income from other business for the control period and other matters considered appropriate by the distribution licensee(s);
- e) Number of consumers in each category, connected load in kW and estimate of the cost of supply for various consumer categories per kW and per kWh
- f) The ARR for various years of the control period, the revenue gap and tariff proposal for meeting the revenue gap for last year of the control period. The tariff proposal should be based on the cost of supply for various consumer categories and the cross-subsidy reduction road map.
- g) Proposal for meeting the projected cumulative revenue gap for last year of the control period which shall include mechanism for meeting the proposed revenue gap, tariff revision for various consumer categories etc.
- h) A statement of the effect of the proposed tariff changes on a typical small, average and large consumer in each tariff class. For this purpose, a typical small consumer is defined such that within the tariff class, 90% of the consumers supplied under that tariff within a 12 months period would have greater total expenditure on tariff charges than the small consumer. Similarly, a typical large consumer is defined such that 90% of the consumers supplied under the tariff would have lesser expenditure over a 12 months period than the typical large consumer. The average consumer shall be defined as a consumer having expenditure on tariff charges equal to the average expenditure in that tariff class.

Current Petition

That the petition for True-up of FY 2017-18, Annual Performance Review (APR) for the FY 2018-19 and Annual Revenue Requirement for FY 2019-20 is being submitted by the “Uttar Haryana Bijli Vitran Nigam Limited”. The present petition has

been prepared in accordance with the provisions of the following Acts/Policies/Regulations as under: -

- a) Electricity Act 2003;
- b) National Electricity Policy;
- c) National Tariff Policy;
- d) HERC (Terms and Conditions for Determination of Tariff for Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 and applicable current amendments;
- e) HERC (Terms and conditions for grant of connectivity and open access for intra-State transmission and distribution system) Regulations, 2012 and applicable current amendments;

It has been submitted that UHBVN has put its sincere efforts for compiling the information for determination of APR of FY 2018-19 and ARR of FY 2019-20, which are ensure to be free from any material errors and kept in consistent to MYT Regulations notified by the Hon'ble Commissions. However, there may be certain deficiencies owing to the compilation of accounts, which UHBVN prays to the Hon'ble Commission to accept the current filing whereas at the same time UHBVN assures that by taking appropriate measures in future it will improve its management information system for data compilation.

True-up of FY 2017-18 (UHBVN)

That the principles of True Up for FY 2017-18 - UHBVN is carrying out the true up exercise for the FY 2017-18, based on audited annual accounts of the petitioner company for the period from 1st April 2017 to 31st March 2018. The Annual Accounts for the above period are submitted along with petition as Annexure 1 - Audited Annual Accounts for the FY 2017-18.

As per Regulation 4.5 of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations 2012, the Hon'ble Commission shall notify the order for applicable tariff of relevant year after considering the True-Up of uncontrollable items, Midyear Performance Review and Specified performance target:

“4.5 The tariff applicable to each business in each of the remaining years of the control period shall be notified by the Commission through a separate order after taking into consideration the following: -

- (a) Mid-year performance review;
- (b) Specified performance targets;
- (c) True-up of uncontrollable items as defined in regulation 8.3.”

Therefore, in line to the above, UHBVN hereby submits the True -up of Aggregate Revenue Requirement for FY 2017-18 on the basis of expenses allowed by the Hon'ble Commission against the actual expenses incurred during the FY 2017-18.

It is submitted that expenses approved for FY 2017-18 are taken from the HERC Order notified for Distribution & Retail Supply ARR & Tariff of UHBVNL & DHBVN on 11th July 2017. Accordingly, the approved and actual expenditures, corresponding revenue and resultant revenue gap for FY 2017-18 are detailed in following paragraphs of this section.

Power Purchase Quantum and Cost

The Power Purchase for both the Haryana Discoms is carried out by Haryana Power Purchase Cell (HPPC), which is an administrative body established for power procurement and day to day operation related to power purchase. HPPC operates jointly by the representative of both Discoms, which manages the energy requirement of Haryana Discoms mainly through the following resources:

- i. NTPC

- ii. NHPC
- iii. NPC
- iv. HPGCL
- v. BBMB
- vi. Open Access & Others

The power purchase details along with the quantum and cost as per the audited accounts against the cost approved by the Commission for FY 2017-18 are provided in table below: -

Table 1: Power Purchase details for FY 2017-18

Generating Stations	Approved Power Purchase for FY 2017-18		Actuals Power Purchase in FY 2017-18					
	Quantum in Mus	Total Power Purchase Cost Rs. Million	UHBVN		DHBVN		Haryana	
			Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million
NTPC								
Singrauli STPS	1,326.66	2,740.60	572.079	1,149.79	796.95	1,598.49	1,369.03	2,748.29
Rihand I	434.17	1,070.72	200.049	414.06	279.43	577.40	479.48	991.47
Rihand II	380.73	945.04	178.118	371.65	249.27	518.64	427.38	890.29
Rihand III	374.39	1,162.14	180.455	481.14	255.34	678.33	435.80	1,159.46
Unchhahar I	51.73	209.86	30.678	117.53	43.48	165.90	74.16	283.44
Unchhahar II	108.19	442.46	60.909	230.15	86.40	325.13	147.31	555.28
Unchhahar III	69.48	305.96	30.278	127.29	42.69	178.95	72.97	306.24
Unchhahar IV	-	-	9.738	37.18	13.41	51.29	23.15	88.46
Anta CCPP	33.35	204.17	8.511	75.20	11.64	104.60	20.15	179.80
Auraiya CCPP	18.51	203.23	3.852	96.02	5.51	134.95	9.36	230.97
Dadri CCPP	40.37	270.29	42.201	200.86	57.24	276.32	99.44	477.18
Faridabad CCPP	1,213.47	5,421.51	348.192	1,939.20	494.76	2,786.53	842.96	4,725.72
Farakka STPS	85.55	274.28	23.599	89.20	33.17	125.33	56.77	214.53
Kahalgaoon I	133.92	488.78	54.581	205.37	76.76	289.16	131.35	494.53
Kahalgaoon II	341.10	1,292.35	174.584	623.52	246.35	879.13	420.93	1,502.64
Kol Dam	299.78	1,394.84	131.812	586.88	171.30	790.79	303.11	1,377.67
NCTPS (Dadri-II)	-	-	-	-0.00	-	-0.00	-	-0.00
Total NTPC	4,911.40	16,426.22	2,049.64	6,745.04	2,863.70	9,480.94	4,913.34	16,225.98
NHPC								

HERC Order on Application for True Up for the FY 2017-18, APR for the FY 2018-19 and ARR and Tariff Determination for the FY 2019-20

Generating Stations	Approved Power Purchase for FY 2017-18		Actuals Power Purchase in FY 2017-18					
	Quantum in Mus	Total Power Purchase Cost Rs. Million	UHBVN		DHBVN		Haryana	
			Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million
Salal I	435.57	1,200.33	200.00	426.20	263.03	603.42	463.03	1,029.63
Bairasiul	182.18	417.53	77.63	163.18	102.77	221.56	180.40	384.74
Tanakpur	24.93	82.22	8.34	33.44	10.99	44.71	19.33	78.16
Chamera I	318.68	638.44	155.17	295.02	203.12	396.69	358.28	691.71
Chamera II	71.66	159.75	35.33	72.78	46.54	98.81	81.87	171.59
Chamera-III	79.42	377.74	38.94	178.18	50.97	241.01	89.91	419.19
Dhauliganga	54.37	170.65	27.47	84.23	36.00	113.83	63.47	198.06
Dulhasti	104.17	543.69	52.92	278.25	70.90	379.77	123.82	658.02
Uri	130.20	269.66	52.62	110.80	69.86	152.69	122.49	263.48
Uri-II	55.46	342.90	27.87	173.07	37.34	237.69	65.22	410.77
Sewa II	26.24	136.62	12.34	60.50	16.42	82.88	28.76	143.39
Parbati-III	51.45	317.46	26.69	137.35	34.11	181.55	60.80	318.90
Total NHPC	1,534.33	4,656.99	715.32	2,013.02	942.05	2,754.63	1,657.38	4,767.65
SJVNL								
SJVNL HEP	250.43	824.92	129.02	304.29	170.37	413.26	299.38	717.55
SJVNL Rampur HEP	66.46	263.95	34.52	119.15	45.59	162.10	80.12	281.25
Total SJVNL	316.89	1,088.87	163.54	423.44	215.96	575.36	379.50	998.80
THDC								
Tehri (THDC)	180.08	1,158.00	90.72	459.24	125.12	638.10	215.84	1,097.34
THDC Koteshwar HEP	43.19	182.07	21.26	80.89	29.17	111.41	50.44	192.29
Total THDC	223.27	1,340.07	111.99	540.13	154.29	749.51	266.28	1,289.64
NPCIL								
NAPP	180.11	463.96	84.80	271.27	119.11	381.04	203.91	652.31
RAPP (3-4)	308.77	948.42	232.67	853.73	323.18	1,185.61	555.84	2,039.34
RAPP (5-6)	160.47	492.90	-	-	-	-	-	-
Total NPCIL	649.35	1,905.28	317.47	1,125.00	442.28	1,566.65	759.75	2,691.65
HPGCL								
HPGCL	17,252.66	72,153.24	4,194.56	21,676.82	5,873.19	30,336.69	10,067.75	52,013.51
Shared Project								
BBMB	2,622.38	1,418.71	1,203.18	643.67	1,643.80	898.68	2,846.98	1,542.35
DVC								
DVC Mejia-B	473.46	2,320.92	199.39	795.06	280.50	1,115.95	479.89	1,911.01
Koderma DVC	473.46	1,724.76	224.74	858.76	318.48	1,216.11	543.22	2,074.87

HERC Order on Application for True Up for the FY 2017-18, APR for the FY 2018-19 and ARR and Tariff Determination for the FY 2019-20

Generating Stations	Approved Power Purchase for FY 2017-18		Actuals Power Purchase in FY 2017-18					
	Quantum in Mus	Total Power Purchase Cost Rs. Million	UHBVN		DHBVN		Haryana	
			Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million
DVC Raghunathpur	152.50	560.49	80.90	348.84	113.16	487.30	194.06	836.14
Total DVC	1,099.42	4,606.17	505.03	2,002.66	712.14	2,819.35	1,217.17	4,822.01
UMPP								
CGPL, Mundra	2,435.73	5,550.14	1,046.38	2,523.49	1,475.10	3,562.40	2,521.49	6,085.89
Sasan UMPP	3,088.13	5,122.41	1,315.59	1,963.50	1,856.56	2,754.82	3,172.15	4,718.32
Total UMPP	5,523.86	10,672.55	2,361.97	4,486.99	3,331.67	6,317.22	5,693.63	10,804.21
Other Long Term								
Tala, HEP	51.34	103.96	18.63	40.23	23.85	51.52	42.48	91.75
PTC GMR	2,102.41	3,756.76	737.34	1,804.31	1,039.11	2,542.28	1,776.45	4,346.59
PTC Baglihar	269.20	1,001.43	119.14	443.19	157.74	586.78	276.87	1,029.97
PTC Lanco Amarkantak	1,840.07	5,218.47	763.83	2,234.21	1,057.94	3,121.91	1,821.77	5,356.12
PTC Karchamwangtoo	764.46	2,713.83	413.18	1,565.15	547.21	2,148.10	960.39	3,713.25
IGSTPP, APCPL Jhajjar	1,824.94	13,853.81	1,518.60	7,419.71	2,128.55	10,389.06	3,647.15	17,808.77
Pragati Gas Bawana	-	1,004.40	101.16	689.91	137.98	956.84	239.13	1,646.76
Adani Power Ltd.	9,780.38	34,420.78	3,562.04	12,639.35	4,952.80	17,577.04	8,514.85	30,216.39
Teesta III	-	838.80	-	-	-	-	-	-
MGSTPS, CLP, Jhajjar	3,294.00	18,271.89	2,635.20	11,726.29	3,720.82	16,464.01	6,356.02	28,190.30
Total Other Long Term	19,926.80	81,184.14	9,869.11	38,562.36	13,766.00	53,837.53	23,635.11	92,399.89
Small Hydro								
Bhoruka HEP	29.15	97.07	12.36	39.27	-	-	12.36	39.27
P&R Gogripur HEP	9.72	46.56	5.71	22.71	-	-	5.71	22.71
Puri Oil Mill HEP	13.64	60.83	16.94	65.87	-	-	16.94	65.87
Total Small Hydro	52.51	204.46	35.01	127.85	-	-	35.01	127.85
Other Renewable								
Biomass Projects	143.06	1,081.53	95.34	747.87	99.07	779.17	194.40	1,527.03
Cogeneration Plants	271.94	1,100.81	58.25	235.89	30.65	124.12	88.90	360.00
Solar Plants	21.27	120.60	3.93	22.29	44.29	256.87	48.22	279.15
HPGCL Solar	17.50	85.40	16.05	78.30			16.05	78.30
SECI Solar	133.16	732.38	60.53	333.41	84.72	466.64	145.25	800.04
Total Other Renewables	586.93	3,120.73	234.09	1,417.74	258.72	1,626.79	492.81	3,044.53
Transmission Charges								
PGCIL Transmission Charges	-	14,016.22	-	5,952.38	-	8,368.93	-	14,321.31
SLDC and Open Access charges	-	-	-	2,088.88	-	3,242.63	-	5,331.51

Generating Stations	Approved Power Purchase for FY 2017-18		Actuals Power Purchase in FY 2017-18					
	Quantum in Mus	Total Power Purchase Cost Rs. Million	UHBVN		DHBVN		Haryana	
			Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million
Total Transmission Charges	-	14,016.22	-	8,041.26	-	11,611.56	-	19,652.82
Short Term								
BANKING POWER			1,018.99	4,286.66	1,278.19	5,375.07	2,297.18	9,661.74
Short Term			7.48	29.13	10.08	39.67	17.56	68.80
Total Short Term	-	-	1,026.47	4,315.79	1,288.27	5,414.74	2,314.74	9,730.53
Unscheduled Interchange								
PGCIL-UI	-	-	182.17	860.32	274.37	1,243.86	456.55	2,104.18
HVPNL-UI	-	-	-0.43	0.43	-0.66	0.66	-1.09	1.09
Total Unscheduled Interchange	-	-	181.74	860.75	273.71	1,244.52	455.45	2,105.27
Power Purchase Cost	54,700	2,12,793.64	22,969.11	92,982.51	31,765.80	1,29,234.17	54,734.92	2,22,216.69
Prior Period Charges				2,660.58		3,885.56		6,546.14
Total PP Excluding HVPN Charges	54,700	2,12,793.64	22,969.11	95,643.10	31,765.80	1,33,119.73	54,734.92	2,28,762.83
HVPNL Charges		1,673.82	-	7,742.40	-	9,036.27	-	16,778.67
Total PP Cost incl. of all charges	54,700	2,14,467.46	22,969.11	1,03,385.49	31,765.80	1,42,156.00	54,734.92	2,45,541.50

Table 2: Power Purchase Details for FY 2017-18 for Haryana (in MU)

Power Purchase Quantum for FY 2017-18			
Particulars	Approved	Actual	Difference
Power Purchase Quantum	54,700	54,734.92	35.12

That the actual average power cost, excluding transmission charges, is Rs. 4.16 per unit against the average power purchase cost of Rs. 3.89 per unit approved in HERC Tariff Order dated 11th July 2017. The increase in average power purchase cost of the FY 2017-18 is due to unavailability of energy from HPGCL plants and purchase of energy from other generating sources in excess of the quantum approved by the Commission.

Further on the basis of actual power purchase cost of the FY 2017-18, the power allocated to UHBVN and DHBVN was in ratio of 42% and 58% respectively. It is further submitted that even after increase in average power purchase cost the overall power purchases quantum is quite in line to the quantum approved by the Commission. The

Petitioner prays to the Commission to allow the actual power purchase cost of Rs. 9,747.12 Crores (deducting revenue from interstate sales of Rs. 591.42 Cr from Gross Power Purchase Rs. 10,338.55 Cr for 22,969 MU) to UHBVN for FY 2017-18.

Energy Balance

It is submitted that on the basis of actual energy requirement and the energy available from the long term and short-term generating sources, the energy balance of UHBVN for FY 2017-18 is tabulated as under:

Table 3: Energy Balance for FY 2017-18

Sr. No.	Particulars	Unit	FY 2017-18
1	Total Power purchase *	MU	22,969.11
2	Sale outside the State including Banking &UI	MU	1,522.40
3	Purchase for sale within the state (a-b)	MU	21,446.71
4	Less Transmission losses	MU	907.23
5	Transmission Losses	%age	4.23%
6	Power available for sale	MU	20,539.48
7	Sales within the state (excluding Agriculture)	MU	11,521.86
8	Sales within the state – Agriculture	MU	3,922.18
9	Total Sales*	MU	15,444.04
10	Distribution Loss	%age	24.81%
11	Distribution Loss	MU	5095.43

Operation & Maintenance Expenses

The Operation & Maintenance Expenses of the company includes

- Employee Expenses;
- Repair & Maintenance Costs and
- Administrative and General Expenses.

Employee Expenses consist of salaries, dearness allowance, bonus, terminal benefits in the form of pension & gratuity, leave encashment and staff welfare expenses. Repairs and Maintenance expenses include regular expenditure made for improvement of system reliability and quality of power supply. Also, these expenses are important in view of the system maintenance and loss reduction within the distribution network.

Administrative expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits. Comparison of actual O&M expenses against the approved expenditures (after deducting the amount capitalized) is tabulated below: -

Table 4: O&M Expenses for FY 2017-18 (Rs. Crore)

Particulars	Approved	Actual	Difference
Employee Expenses	617.66	602.67	(14.99)
Administration & General Expenses	81.06	92.97	11.91
Repair & Maintenance Expenses	127.62	92.20	(35.42)
Terminal Liabilities	400.00	696.20	296.20
Total	1,226.34	1,484.04	257.70

As it can be observed from the above table that actual O&M Expenses (except for terminal benefits) of UHBVN are less than approved expenses, therefore the Commission may allow the same to UHBVN for the FY 2017-18.

Employee Expenses

It has been submitted that the 'Employees cost' includes the expenses incurred towards the employees those are presently working as well as has been retired from the Discoms. The cost of working employees includes salary, dearness allowance and other allowances such as HRA, CEA, LTC, medical reimbursement etc. However, the employees who will be retiring during the year as well as have been retired, the financial liabilities towards pension, gratuity, leave encashment benefit etc. of such employees have to discharged by the Discom.

That UHBVN has incurred expenses towards Terminal Benefits of Rs. 696.20 Crore, Basic salary expenses of employees Rs. 498.64 Crore, dearness allowance expense of employees Rs. 53.26 Crore, and other allowances of Rs 64.58 Crore as employee cost during the FY 2017-18.

That the actual employee expenses for FY 2017-18 are lower than the expenses approved by the Hon'ble Commission in Tariff Order dated 11th July 2017. The reason

for reduction of employee cost in FY 2017-18 is provisioning created in FY 2016-17 to meet out the arrears build-up due to implementation of 7th Pay Commission. The summary of the actual employee expenses for FY 2017-18 vis-à-vis the expenses approved by the Hon'ble Commission has been given in the table below: -

Table 5: Employee Expenses for FY 2017-18 (Rs. Crore)

Sr. No	Particulars	Approved	Actual	Difference
1	Salaries	617.66	498.64	(119.02)
2	Dearness Allowance		53.26	53.26
3	Other Allowances		64.58	64.58
4	Terminal benefits	400.00	696.20	296.20
5	Gross Employee Expense	1,017.66	1,312.67	295.01
6	Less Expenses Capitalised	-	(13.81)	(13.81)
7	Net Employee Expenses	1,017.66	1,298.87	308.82

UHBVN prays to the Hon'ble Commission to allow the actual Employee Expense of Rs. 1298.87 Crore against the approved expense of Rs. 1017.66 Crore shown in above table for FY 2017-18.

Repair & Maintenance Expenses (R&M)

Repair and Maintenance expenditure is dependent on various factors. R&M cost is meant to upkeep the distribution network. Further, as every asset requires repair and maintenance at some point, therefore to keep the system healthy and reliable the Petitioner has to infuse certain amount of funds on R&M activities. UHBVN is trying its best to ensure the uninterrupted supply of power and accordingly making necessary expenditure on R&M activities to keep the system healthy and reliable as per the power quality indices.

The comparison summary of actual R&M expenses vis-à-vis the expenses approved by the Commission for FY 2017-18 are given in the table below: -

Table 6: R&M Expenses for FY 2017-18 (Rs. Crore)

Sr. No.	Particulars	Approval	Actual	Difference

1	Repair and maintenance Expenses	127.62	92.20	(35.42)

It is submitted that as per the audited accounts, the R&M expenses for UHBVN are of Rs. 92.20 Crore, which are 1.34% of average GFA of FY 2017-18. UHBVN prays to the Hon'ble Commission to allow R&M Expense of Rs. 92.20 Crore against the approve amount of Rs. 127.62 Crore to the UHBVN for FY 2017-18.

Administrative & General Expenses

The actual A&G Expense as per the audited accounts is Rs. 92.97 Crore against the approved amount of Rs. 81.06 Crore. The comparison summary of the actual A&G expenses for FY 2017-18 vis-à-vis the expenses approved by the Hon'ble Commission are tabulated as below:

Table 7: A&G Expenses for FY 2017-18 (Rs. Crore)

Sr. no.	Particulars	Approved	Actual	Difference
1	Gross A&G Expenses	81.06	97.81	16.75
2	Less: Expenses Capitalised	-	4.84	-4.84
3	Net A&G Expenses	81.06	92.97	11.91

UHBVN prays to the Commission to approve the actual A&G Expense of Rs. 92.97 Crore for FY 2017-18.

Capital Expenditure

The Commission has approved the Capital Expenditure of Rs. 800 Crore to UHBVN for the FY 2017-18. The capital expenditure incurred by UHBVN was of Rs. 518.86 Crore against the approved amount for the FY 2017-18. It is submitted that Discom has put its best efforts to utilised the CAPEX amount approved by the Hon'ble Commission, however, due to some technical challenges at ground level the entire CAPEX amount cannot be utilised, which Discom ensures to streamline in near future. Therefore, in light of above, it is prayed to that the Commission may approve the actual capital expenditure as per the audited accounts of UHBVN for the FY 2017-18.

Interest Cost on long term loans

The Commission has allowed an expense of Rs.119.98 Crore to UHBVN towards the interest liability on long term loan for FY 2017-18. However, as per the audited account the gross interest liability towards long term loans is of Rs. 188.86 Crore, along with an interest capitalisation amount of Rs. 49.29 Crore. Thus, after offsetting the interest capitalisation amount from gross interest liability of long-term loan an amount of Rs. 139.57 Crore works out as expenditure towards the interest on long term loan for UHBVN during the FY 2017-18. Therefore, it is requested to the Commission to approve the same to UHBVN for the FY 2017-18.

Interest on Working Capital and Borrowings

The Commission has allowed an expense for interest on working capital on normative basis, which is line to the HERC MYT Regulation 2012. The Commission has approved an amount of Rs 112.72 Crores as an interest on short term borrowing, at an interest rate of 8.80% on working capital requirement of Rs. 1280.59 Crore for FY 2017-18. However, the interest cost on working capital as per the audited account is Rs. 164.14 Crore for UHBVN during FY 2017-18. Therefore, it is requested to the Hon'ble Commission to approve the same to UHBVN for FY 2017-18.

Interest on Consumer Security Deposits - The Hon'ble Commission has allowed Rs. 103.75 Crore as interest on consumer security deposit for FY 2017-18. However, the actual expenses under this head works out to be Rs. 73.74 Crore which is less than that expenses approved by the Hon'ble Commission. Therefore, it is prayed to the Hon'ble Commission to approve the actual expenses as per the audited accounts for interest on consumer security deposit for FY 2017-18.

Interest on Bonds

It has been submitted that Government of India has notified Ujwal Discom Assurance Yojana (UDAY) scheme for operational and financial turnaround of power distribution companies (DISCOMs), on 20th Nov 2015 under which State shall take over 75% of Discom debt as on 30th September, 2015 over two years – 50% of Discom debt

shall be taken over in FY 2015-16 and 25% in FY 2016-17. The schedule of takeover of loan has been given as under:-

Table 8: Break up of State Govt Takeover of Loans

Particulars	FY 16	FY 17	FY 18	FY 19	FY 20
Grant (%)	11.25%	11.25%	11.25%	11.25%	11.25%
Grant (Cr)	3,892.5	3,892.5	3,892.5	3,892.5	3,892.5
Equity (%)	3.75%	3.75%	3.75%	3.75%	3.75%
Equity (Cr)	1,297.5	1,297.5	1,297.5	1,297.5	1,297.5
Debt (%)	35.00%	45.00%	30.00%	15.00%	0.00%
Debt (Cr)	12,109.9	15,569.9	10,379.9	5,190.0	0.0

The amount taken over by the Government of Haryana would have been converted into grant in 5 instalments and in the meantime the interest cost of such bonds which has not been converted into grants by the GoH has to be borne by the Licensee only. The Licensee in the FY 2017-18 has borne interest cost of Rs 564.00 Cr total Interest on UDAY bonds and on OFR for state government. Before UDAY, the interest on FRP bonds was borne by the Government of Haryana, However, after the UDAY scheme the same is being borne by the Licensee. In the FY 2017-18, an expense of Rs 134.96 Cr has been incurred by the licensee to service the cost of FRP bonds. Also, an amount of Rs 75.76 has been paid toward HVPN Bonds.

Total Interest & Finance Cost

The total interest and finance charge as per the audited accounts of UHBVN for the FY 2017-18 vis-à-vis approved by the Hon'ble Commission is presented in the table below:-

Table 9: Total Interest & Finance Cost for FY 2017-18 (Rs Crores)

Sr. No.	Category	Approved	Actual
1	Gross Interest on Capex Loans		188.86
2	Less: Interest Capitalized		49.29
3	Net Interest on Capex Loans	119.98	139.57
4	Interest on Working Capital Loans	112.72	164.14
5	Interest on FRP Bonds now payable by UHBVN		134.96
6	Interest on HVPNL Bonds		75.76
7	Interest on UDAY Loans & OFR for state govt.		564.00
8	Interest on Consumer Security Deposits	103.75	73.74

Sr. No.	Category	Approved	Actual
9	Other Interest and Finance charges		4.31
	Total	336.45	1156.47

It is prayed to the Hon'ble Commission to approve the interest & finance expenses as per the audited accounts, detailed in the table above, to UHBVN for FY 2017-18.

Depreciations

The Commission, in its order has approved a net depreciation of Rs. 310.17 Crore after adjusting for depreciation on consumer's contribution. As per the audited account the actual Opening and Closing GFA of UHBVN for FY 2017-18 was of Rs. 6766.23 Crore and Rs. 7034.76 Crore respectively. The gross depreciation for UHBVN during the FY 2017-18 is of Rs. 315.05 Crore which after deducting an amount of Rs. 37.65 Crores on account of depreciation on consumer contribution and grants work out to be Rs. 277.39 Crore. The Commission is requested to approve the same.

Return on Equity

It is submitted that the Petitioner, for computation of Return on Equity, for the FY 2017-18 has considered the opening equity including the share application money pending allotment of Rs 3409.49 Crores as per the audited accounts and have deducted equity received under UDAY i.e. Rs 1586.24 Crores in FY 2015-16 & FY 2016-17. Subsequently, as per the Regulation 20.2 of HERC MYT Regulation 2012, the 50% of the CAPEX equity of Rs 78.10 Crores received during the FY 2017-18 has been added to determine the equity for computation of Return on Equity for FY 2017-18. Further, the return rate of 14% as per the HERC MYT Regulation 2012 has charged to determine the Return on Equity for the FY 2017-18.

The Return on equity for FY 2017-18 on the basis of above methodology works out as Rs 260.72 Crores against the approved amount of Rs. 191.56 Crores. It is therefore

requested to the Hon'ble Commission to approve RoE at the rate of 14% on basis of the audited account to UHBVN for FY 2017-18.

Particulars	FY 2017-18
Share Capital Opening	3,382.97
Add: Share Application money pending allotment	26.52
Add: Equity for Capex	78.10
Less: Equity received under UDAY	1,586.24
Equity for ROE	1,862.30
Rate of Return on Equity	14.00%
Total Return on Equity	260.72

Non – Tariff Income

The Non – Tariff income approved by the Commission for UHBVN for FY 2017-18 was of Rs. 197.25 Crore. As per the audited accounts of UHBVN for FY 2017-18, the actual Non-Tariff Income is Rs. 298.39 Crore. Further, the Discom has not considered the delayed payment surcharge for FY 2017-18. As the delayed payment surcharge are the charges collected against the receivables which were not timely received from the consumers. Due to the delay in receiving of revenue, the Nigam has to arrange additional working capital to carry out its operation work. Hence, the revenue received from delayed payment surcharges is not an income to the Discoms, rather it's an carrying cost recovered from consumers to repay the interest on the increased portion of working capital which has occurred due to delay in receiving of revenue. Thus, it is requested that the revenue from delayed payment surcharge should not be considered as income to the Nigam.

Further, the petitioner has not considered deferred income (depreciation on grant) as Non- tariff income, as the same was on the account of depreciation booked on the asset created through consumer contribution. The petitioner has already reduced its depreciation expense, claimed in true up, by the same amount therefore the same has been excluded from non-tariff income. The Hon'ble Commission is requested to approve the same.

Expenditure due to other debts

It is submitted that as per the audited accounts of UHBVNL for the FY 2017-18, an amount of Rs. 359.99 Crore is booked under other debts. The major part of this amount is sundry debit balances written off amounting to Rs. 261.88 Cr. whereas the balance amount of above expenses consisted of compensation for injury, death and damage and penalties provision for bad and doubtful debts. It is submitted that the reconciliation of the sundry debit balances was done in FY 2017-18 due to which there is an abnormal increase in sundry debit write off.

The Hon'ble Commission is requested to approve the same for the FY 2017-18.

True up of RE subsidy

The agricultural sales approved for UHBVN and DHBVN for the FY 2017-18 were 9193 MU, against which the subsidy of Rs. 6550.86 Crore was estimated by the Commission. On the basis of above the agriculture subsidy on the per unit basis works as Rs. 7.13/ Unit. Further on the basis of the feeder data of FY 2017-18, the revised agricultural sales as per the HERC methodology works out as 3960.48 MU and 5389.09 MU for UHBVN & DHBVN respectively. Therefore, on the basis above AP Sales of 9349.57 MU, the revised subsidy assessed for FY 2017-18 is Rs. 6662.43 Crores (9349.57 MU * Rs. 7.13 per unit). Therefore, the outstanding AP subsidy emerges to be Rs. 111.57 Crore.

Table 10: True up of RE subsidy for FY 2017-18

Particulars	2017-18
Total RE subsidy allowed by HERC in Tariff order for 2017-18 (Rs Crs)	6,550.86
Total Agricultural sales approved by HERC in T.O (Mus)	9,193.00
Approved Per unit Subsidy (Rs. /unit)	7.13
Agriculture Sales based on Feeder data minus 16% losses (Mus) UHBVN	3,960.48
Agriculture Sales based on Feeder data minus 16% losses (Mus) DHBVN	5,389.09
Agriculture Sales based on Feeder data minus 16% losses (Mus)	9,349.57
Eligibility of subsidy based on actual sales of 2017-18 (Rs. Crs)	6,662.43
Subsidy Outstanding/(Surplus) (Rs. Crs)	111.57

Summary of True up of FY 2017-18

The table below provides an overview of the difference between the expenses approved by the Commission in its Tariff Order vis-à-vis the actual expenditure incurred by the UHBVNL. It is prayed to the Hon'ble Commission to approve the difference between the approved and actual expenditure as per the below table to UHBVNL for FY 2017-18.

Table 11: True Up of Expenses for FY 2017-18 (Rs. Crore)

Summary of Actual ARR of UHBVN for FY 17-18				
Sr. No	Particulars	Approved Cost	Actual Cost	Diff.
1	Total Power Purchase Expense	9,146.58	9,747.12	(600.54)
1.1	<i>Power Purchase Expense (net of revenue from interstate sale)</i>	8,377.12	8,972.89	
1.2	<i>Interstate transmission charges and SLDC charges</i>	769.46	774.24	
2	Operations and Maintenance Expenses	1,226.34	1,484.04	(257.70)
2.1	<i>Employee Expense</i>	617.66	602.67	
2.2	<i>Administration & General Expense</i>	81.06	92.97	
2.3	<i>Repair & Maintenance Expense</i>	127.62	92.20	
2.4	<i>Terminal Liability</i>	400.00	696.20	
3	Depreciation	310.17	277.40	32.77
4	Total Interest & Finance Charges	336.45	1,156.47	(820.02)
5	Return on Equity Capital	191.56	260.72	(69.16)
6	Other Expenses	-	360.00	(360.00)
7	Total Expenditure	11,211.10	13,285.76	(2,074.66)
8	Less: Non-Tariff Income	197.25	298.39	(101.14)
9	Net Aggregate Revenue Requirement	11,013.85	12,987.37	(1,973.52)
10	Total Revenue		8,032.56	
10.1	<i>Revenue from Interstate sales</i>		-	
10.2	<i>Revenue from Intrastate sales / Sale of Power</i>		7,779.57	
10.3	<i>Revenue from FSA pertaining to current year</i>		252.99	
11	Net Gap		(4,954.81)	
12	AP-Subsidy	4,560.00	4,560.00	
13	GAP After AP Subsidy		(394.81)	

It has been submitted that the Petitioner has considered revenue of FSA pertaining to FY 2017-18 as part of its income while computing the revenue gap for true up year. The FSA pertaining to the HERC Order dated 03.03.2017 amounting Rs 828.40 Crores has distributed among UHBVNL and DHBVNL on the basis of the actual sale realised till September 2017. Subsequently, the allocated FSA amount of Rs 334.73 Crores has been deducted from the revenue of FSA booked in the audited account of FY 2017-18. As the Hon'ble Commission has already considered FSA of Rs 828.40 in the true up of FY- 2016-17 (Order dated 15th November 2018) the same has been reduced from the current year revenue from FSA. Therefore, on the basis of above the revenue gap for FY 2017-18 is determined by UHBVN. Further, the revenue gap approved by Hon'ble Commission for FY 2015-16 has been considered to assess the net revenue gap for FY 2017-18. The approved revenue gap is allocated between the Discoms on the basis of ARR approved for FY 2015-16. The balance revenue gap is further deducted by the revised AP subsidy allocated to the UHBVNL, which is further carried forward along with the holding cost of two years at the rate of 8.80% to arrive at the net revenue gap for UHBVN for FY 2017-18. The detail of the same is tabulated as under: -

Table 12: Final True up of FY 2017-18 in Rs Cr.

Sr. no	Parameter	Amount in Rs. Cr
1	True-Up of UHBVN after Subsidy	(394.81)
2	Revenue Gap of True Up of 2015-16 carried forward as per HERC order dated 11.07.2017	(557.47)
3	Increase in Subsidy due to actual AP Sales	66.94
4	Revenue Gap for FY 2017-18	(885.34)
5	Carrying Cost for 2 years @ 8.80%	(155.82)
6	Revenue Gap for FY 2017-18 including holding cost	(1,041.16)

Thus, in view of the above, it is requested to the Hon'ble Commission that net revenue gap submitted in above table may kindly be allowed to UHBVN for FY 2017-18. Further, the same may be allowed to the petitioner to carry forward the true up gap of FY 2017-18 in the ARR of FY 2019-20.

Annual Performance Review for FY 2018-19 and Annual Revenue Requirement for FY 2019-20:

It has been submitted that the section deals with the estimates of ARR for FY 2019-20 and APR of FY 2018-19 against that approved expense in the HERC Tariff Order dated 15th November, 2018. However, the response on the directives given in the Tariff Order of ARR for FY 2018-19 will be submitted separately as per the direction given by the Hon'ble Commission. Further, to estimate the various component of Annual Performance Review and Aggregate Revenue Requirement for FY 2018-19 and FY 2019-20, the various assumptions and approaches have been taken into the consideration. The same has been described in following sections, while projecting each component.

Capital Expenditure

The Hon'ble Commission vide order dated 15th November, 2018 has approved Capital Expenditure Plan of Rs 1262 Crores for FY 2018-19. Further, in order to achieve the loss targets of UDAY, UHBVN proposes the Capital Expenditure of Rs 1,209.75 Crores for FY 2019-20.

The funding of capital expenditure in FY 2018-19 and FY 2019-20 is being arranged by debt from REC, PFC and supported further from equity and consumer contribution. The table below reflects scheme wise capital expenditure during the FY 2019-20.

Table 13: Summary of capital expenditure funding in FY 2018-19 and 2019-20

Capitalization Schedule	2018-19	2019-20
% transfer of total Capex to fixed asset	60%	60%
% transfer of total Capex to CWIP	40%	40%
Total	100%	100%

The scheme wise detail of CAPEX for FY 2019-20 is tabulated as under:

Table 14: Scheme Wise details for the FY 2019-20

Sr. No.	Name of the Scheme	Quantity	Unit Rate (In Rs.)	Proposed CAPEX (Rs. in Cr.)
	Creation of new 33 kV sub-stations along with associated 33 KV and 11 KV lines	40 Nos.	3,60,00,000	144.00
	Augmentation of existing 33 kV sub-stations	50 Nos.	90,00,000	45.00
	Augmentation of Existing 33 kV lines	80 km	7,25,000	6.00
	Bifurcation/Trifurcation of overloaded 11 kV feeders	498 Nos.		76.19
	Release of tube well connections	5000	1,25,000	62.50
	Construction of UHBVN Buildings			20.00
	Civil Works			15.00
	Works to be carried out under DDUGJY scheme for system strengthening including SAGY			68.82
	Works to be carried out under IPDS scheme for system strengthening			20.00
	LRP works to be carried out under MGJG scheme and urban feeder sanitization Scheme on Turn Key Basis (UDAY)			180.00
	Shifting of 11 kV lines passing over residential areas under UHBVN	595.58 km		28.45
	Shifting of HT line (33 kV), passing over authorized/un-authorized colonies under jurisdiction of UHBVN	84.38 km		8.36
	Smart City Karnal (HT & LT Lines, DTs, U/G Cables, RMU and FRTUs etc)			72.00
	Smart City Panchkula (HT & LT Lines, DTs, U/G Cables, RMU and FRTUs etc)			46.00
	Smart City Panipat (HT & LT Lines, DTs, U/G Cables, RMU and FRTUs etc)			41.00
	Scaling of IT project to Non-R-APDRP areas covering the following: - 1. Establishment of IT infra in SDO & Other offices and its connectivity with Data Center. 2. Data Migration (IPDS & Balance Areas) 3. GIS Indexing (IPDS & Balance areas)			5.47
				2.61
				8.31
	RT-DAS SAIFI/SAIDI Measurement System in Non- SCADA, R-APDRP, Non- RAPDRP and IPDS Towns of UHBVN			11.63
	AMR of HT Industrial consumers			0.55
	Procurement of single-phase meters for replacement of defective meters & release	300000 Nos.	683	20.49

Sr. No.	Name of the Scheme	Quantity	Unit Rate (In Rs.)	Proposed CAPEX (Rs. in Cr.)
	of new connections.			
	Procurement of three phase meters for replacement of defective meters & release of new connections.	60000 Nos.	1687	10.12
	Material required for release of Non-AP connections & replacement of old assets			253.00
	Procurement of Power Transformers alongwith allied equipment, APFC			20.00
	Strengthening of 11 kV lines and augmentation of DTs			
	Zone-1			33.89
	Zone-2			10.36
	Gross proposed investment			1,209.75

Transmission and Distribution Losses

The Hon'ble Commission has approved AT&C loss for UHBVN at 20.80% for the FY 2018–19 in Tariff Order dated 15th November 2018. Further, as per UDAY, UHBVN has to achieve AT&C loss level of 15% in FY 2018-19. However, considering the actual AT&C losses of UHBVN, which were at loss level of 25.62% by the end of 31st March 2018, the achievement AT&C loss level of 15%, a reduction of loss level by 10% over a year, not be realistic. Therefore, in view of the above UHBVN has submitted a proposal to Ministry of Power, GoI under UDAY to revised the AT&C loss target under UDAY. In line to the same UHBVN has considered the AT&C losses of 15% for the FY 2019-20 and the approved AT&C loss of 20.80% for FY 2018-19 as per the HERC Tariff Order dated 15th November 2018.

Capital Work in Progress

Capital work in progress (CWIP) is projected by considering the capitalisation of 60% on the cumulative amount of capital expenditure proposed during the year and the Opening CWIP of each year.

Interest during construction is estimated on the basis of ratios of debt funding in Capex and capitalisation on the interest liability of long-term loan. The same is tabulated as under:

Table 14: Summary of CWIP (Rs. Crore)

Particulars	FY 2017-18	FY 2018-19	FY 2019-20
	Actual	Projected	Projected
Opening CWIP	432.42	473.04	790.36
Addition during the financial year	450.92	1,262.00	1,209.75
Capex Capitalized	478.24	1,041.03	1,200.06
IDC during the year	67.94	96.34	135.63
Closing CWIP	473.04	790.36	935.67

Assessment of Energy Sales for 2018-19 and 2019-20

In order to estimate the respective consumer category wise energy sales of UHBVNL for FY 2018-19 and FY 2019-20, the Petitioner has relied upon the CAGR of previous year's data of sales. The sales of the base year i.e. FY 2017-18 has been considered for projection of category wise sales to the consumers. Similarly, category wise connected load has been projected for the FY 2018-19 and FY 2019-20 based on the CAGR of 3 to 7 years. The methodology applied by the petitioner for estimating the metered sales is as under: -

- (a) Category wise energy sales for FY 2018-19 are estimated on the basis of actual sales for the first half and sales for the second half projected on the basis of CAGR of 3 to 7 years over the actual sales of the second half for FY 2017-18.
- (b) Category wise sales of FY 2019-20 are estimated by escalating the projected sales of FY 2018-19 with the CAGR of 3-5 years.
- (c) Agriculture consumption for FY 2018-19 and FY 2019-20 is calculated by assuming a growth rate of 5% in sales over FY 2017-18.

- (d) As railways has shifted into Open Access regime and relinquished the supply connections of Discoms at many locations having higher energy consumption capacity. Therefore, the sales accounted for railways till Sept' 2018 has been escalated with nominal increase of 5% to estimate the sales for second half and subsequently for overall year. Further, the projected energy sales for FY 2018-19 has been escalated again with 5% growth rate to determine the energy sales for railways for FY 2019-20.

Therefore, keeping the above basis in view, UHBVNL envisages the following category wise sales for FY 2018-19 & FY 2019-20:

Table 15: Category wise sales for FY 2018-19 and FY 2019-20 (MU)

Category	FY 2017-18 Actual	FY 2018-19 Approved	FY 2018-19 Projected	FY 2019-20 Projected
Domestic	3,756.24	3,561.44	4,201.59	4,622.36
Non-Domestic	1,310.87	1,381.39	1,400.46	1,499.70
HT Industry	4,515.90	3,867.50	4,436.48	4,765.06
LT- Industry	943.98	941.05	1,008.65	1,089.65
Lift Irrigation	70.56	45.23	63.36	66.51
AP Sales	3,960.48	4,055.00	4,158.50	4,366.43
Bulk Supply	300.05	308.2	301.89	304.63
Railways	104.74	196.57	16.60	17.43
Street Light	84.63	53.34	86.49	99.60
MITC	1.52	12.65	1.77	1.87
PWW	433.38	428.83	459.36	469.30
Total	15,482.34	14,851.20	16,135.15	17,302.53

UHBVNL request Hon'ble Commission to approve energy sales, show in table above for FY 2018-19 and FY 2019-20.

Energy Availability for Haryana for FY 2018-19 and FY 2019-20

Month Wise Energy availability of generation stations at the state periphery has been projected for FY 2018-19 & FY 2019-20, on the basis of share allocated to

Haryana in Central Generating Stations, State Generation Stations, IPP and other Stations.

The Energy Availability is calculated on the basis of the average PLF realised long term generating stations over the period of three years. The energy available from the tied up generating station is apportioned among Discoms at the ratio energy drawal during the FY 2017-18.

The energy sale projected for FY 2018-19 and FY 2019-20 is distributed in month wise basis in the ratio of actual month wise consumption of FY 2017-18. Subsequently, the estimated month wise sales of FY 2018-19 and FY 2019-20 is grossed up with the proposed T&D losses to determine the normative energy required at the Discom periphery and further grossed with intrastate transmission losses to arrive at the normative energy required at the State Periphery.

The normative energy required at the state is first balanced with the energy available from Must Run Plant like Hydro Power Plants, Solar Power Plant and Biomass etc. Thereafter, the remaining demand is met through the Thermal Generating Plants like NTPC, HPGCL and IPP as per the Merit order dispatch determined on the basis of variable charges for FY 2018-19 and FY 2019-20.

The impact of interstate losses on availability from the Inter State Generating station has already been accounted while determining the energy availability form such generating stations at the state periphery.

The backing down of the thermal/gas generating stations is assumed to be limited at backing down capacity and any surplus created on account of same is assumed to be banked with other states and consumed during next financial year.

The per unit energy charges of the tied-up generating stations for FY 2018-19, is kept same as recorded in energy bills received from the generating stations during the first half of FY 2018-19 and the same is increase by 5% for determining the per unit

variable charge for FY 2019-20. The per unit energy charges determined as above for FY 2018-19 and FY 2019-20 is multiplied with the estimated energy available from various generators as per the Merit Order dispatch to arrive at the total variable power purchase cost for the respective years.

Similarly, the fixed charges paid to the generators in FY 2017-18 are escalated at an average rate of 5% to arrive at the fixed charges to be paid for FY 2018-19 and FY 2019-20.

The plant wise energy availability for UHBVN and power purchase cost for FY 2018-19 and FY 2019-20 are tabulated as under:

**Table 16: Power Purchase Availability (MU) and Costs (Rs Crores)
Projected for FY 2018-19 and FY 2019-20**

Project	FY 2018-19				FY 2019-20			
	Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
Anta	7.03	5.76	5.12	10.88	3.49	3.00	5.38	8.38
Auriya	7.88	3.36	8.21	11.57	3.91	1.75	8.62	10.37
Dadri	15.21	5.52	7.12	12.64	7.54	2.88	7.48	10.35
Faridabad Gas	416.18	153.61	98.49	252.10	404.94	156.94	103.41	260.35
Feroz Gandhi Unchahar-1	24.95	7.19	3.62	10.81	24.95	7.55	3.80	11.35
Feroz Gandhi Unchahar-2	52.19	15.07	6.83	21.90	52.19	15.83	7.17	23.00
Feroz Gandhi Unchahar-3	27.19	8.02	4.78	12.80	27.19	8.42	5.02	13.44
Feroz Gandhi Unchahar-4	38.90	9.75	4.39	14.15	86.05	22.65	17.58	40.23
Farraka Super Thermal	26.20	6.17	3.35	9.51	26.20	6.48	3.51	9.99
Kahalgaoon-1	63.25	14.76	7.86	22.61	63.25	15.49	8.25	23.74
Kahalgaoon-2	176.23	37.30	23.16	60.46	176.23	39.17	24.32	63.49
Koldam	133.84	34.65	31.92	66.57	133.84	36.38	33.52	69.90
NCTPS (DADRI-II)	-	-	-0.00	-0.00	-	-	-0.00	-0.00
Rihand Thermal Power St.-1	176.98	24.03	16.41	40.45	176.98	25.23	17.23	42.47
Rihand Thermal Power St.-2	158.56	21.51	14.95	36.47	158.56	22.59	15.70	38.29
Rihand Thermal	155.92	21.46	26.07	47.53	155.92	22.54	27.37	49.91

Project	FY 2018-19				FY 2019-20			
	Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
Power St.-3								
Singrauli Super Thermal	570.79	81.60	38.97	120.57	570.79	85.68	40.92	126.60
TOTAL NTPC LTD (A)	2,051.28	449.77	301.27	751.05	2,072.00	472.57	329.30	801.86
BAIRASUIL	79.75	8.44	9.30	17.74	79.75	8.86	9.76	18.63
SALAL	196.87	12.61	33.49	46.10	196.87	13.24	35.16	48.40
TANAKPUR	7.78	1.33	2.11	3.44	7.78	1.40	2.21	3.61
CHAMERA-I	148.09	17.57	13.87	31.44	148.09	18.45	14.57	33.01
URI	59.67	5.10	7.25	12.35	59.67	5.35	7.61	12.97
CHAMERA-II	33.50	3.50	3.99	7.49	33.50	3.68	4.19	7.86
DHAULIGANGA	23.81	3.01	4.50	7.51	23.81	3.16	4.73	7.88
DHULHASTI	50.32	14.38	15.50	29.88	50.32	15.10	16.28	31.38
SEWA-II	12.00	2.70	3.58	6.27	12.00	2.83	3.75	6.59
CHAMERA III	34.82	7.69	10.06	17.75	34.82	8.07	10.56	18.63
PARBATI III	23.63	6.73	6.75	13.48	23.63	7.06	7.09	14.15
URI-II	28.30	6.98	11.38	18.36	28.30	7.33	11.94	19.28
TOTAL NHPC LTD (B)	698.54	90.03	121.76	211.80	698.54	94.53	127.85	222.39
SJVNL	122.69	15.49	15.87	31.36	122.69	16.26	16.67	32.93
SJVNL (RAMPUR)	29.68	4.98	6.78	11.75	29.68	5.23	7.12	12.34
THDC	81.94	22.63	24.20	46.82	81.94	23.76	25.41	49.17
THDC KOTESHWAR	20.98	4.26	4.23	8.50	20.98	4.48	4.45	8.92
RAPS	227.77	86.79	0.01	86.80	227.77	91.13	0.01	91.14
NAPS	77.81	25.89	-	25.89	77.81	27.18	-	27.18
BBMB	1,178.36	73.39	-	73.39	1,178.36	77.06	-	77.06
PTC TALA	18.91	4.25	-	4.25	18.91	4.46	-	4.46
PTC J&K	118.04	45.65	-	45.65	118.04	47.94	-	47.94
Aravali Co. Pvt. Ltd.	1,038.11	343.20	315.43	658.63	962.64	334.16	331.20	665.36
JHAJJAR POWER LTD. (CLP)	2,231.22	725.15	347.75	1,072.90	2,083.77	711.09	365.14	1,076.23
PRAGATI POWER	47.29	18.46	41.64	60.10	23.45	9.61	43.72	53.33
Coastal Gujrat Power Ltd.	1,074.84	220.15	100.90	321.05	1,074.84	220.15	100.90	321.05
ADANI POWER LTD	3,834.31	913.72	452.70	1,366.41	3,834.31	913.72	437.62	1,351.34
SASAN POWER LIMITED	1,258.53	163.43	21.80	185.23	1,258.53	163.43	21.68	185.11
PTC GMR KAMALANGA	882.26	129.78	126.60	256.38	882.26	129.78	125.10	254.88
PTC KARCHAMWANGTOO (200 MW)	337.26	62.87	91.54	154.41	337.26	66.02	96.12	162.13

Project	FY 2018-19				FY 2019-20			
	Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
PTC Lanco Amarkantak	779.42	169.86	100.20	270.05	779.42	178.35	105.20	283.55
DVC MEJIA	194.64	48.47	36.71	85.18	194.64	50.89	38.55	89.44
DVC KODERMA	141.07	27.96	45.77	73.72	141.07	29.35	48.06	77.41
DVC Raghunathpur	266.93	63.11	15.22	78.33	264.34	65.62	15.98	81.60
PTPS-V (HPGCL)	234.64	92.07	31.39	123.47	232.46	95.78	32.96	128.74
PTPS-VI (HPGCL)	234.64	92.07	37.55	129.62	232.46	95.78	39.42	135.20
PTPS-VII (HPGCL)	674.56	231.51	70.81	302.32	669.43	241.23	74.35	315.59
PTPS-VIII (HPGCL)	669.43	229.75	62.40	292.15	658.81	237.41	65.52	302.93
YTPP-I&2 (HPGCL)	954.80	318.90	200.69	519.59	944.93	331.39	210.72	542.11
RGTPS 1&2 (HPGCL)	2,417.73	818.64	353.64	1,172.29	2,378.45	845.61	371.33	1,216.93
WYC Kakaroi	84.02	18.20	-	18.20	84.02	19.11	-	19.11
OTHER LONG TERM (C)	19,231.87	4,970.62	2,503.83	7,474.45	18,913.25	5,035.96	2,577.22	7,613.19
P&R GOGRI PUR small hydro	4.08	1.62	-	1.62	4.08	1.70	-	1.70
Bhoruka Power Corps. Ltd. Small hydro	12.23	3.88	-	3.88	12.23	4.08	-	4.08
HPSEB/MITTAL SMALL HYD.	-	-	-	-	-	-	-	-
Megahalya/ APPC	-	-	-	-	-	-	-	-
SHAHBAD SUGAR MILL	33.91	13.73	-	13.73	33.91	14.42	-	14.42
CH. DEVI LAL SUGAR MILL	3.77	1.52	-	1.52	3.77	1.60	-	1.60
Haryana Co. Sugar Mill.	22.60	9.15	-	9.15	22.60	9.61	-	9.61
Hafed Sugar Mill	3.77	1.52	-	1.52	3.77	1.60	-	1.60
Meham Sugar Mill	3.77	-	-	-	3.77	-	-	-
Puri Oil Mill small hydro	5.71	2.17	-	2.17	5.71	2.28	-	2.28
SUGAR MILL AND SMALL HYDRO (D)	89.82	33.61	-	33.61	89.82	35.29	-	35.29
SDS SOLAR PVT LTD. DH	0.70	0.40	-	0.40	0.70	0.42	-	0.42
C&S Electrical DH	0.70	0.40	-	0.40	0.70	0.42	-	0.42
CHANDRALEELA SOLAR DH	0.56	0.32	-	0.32	0.56	0.33	-	0.33
SUKHBIR SOLAR DH	0.70	0.40	-	0.40	0.70	0.42	-	0.42
ZAMIL SOLAR DH	0.70	0.40	-	0.40	0.70	0.42	-	0.42

Project	FY 2018-19				FY 2019-20			
	Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
SIWANA SOLAR POWER DH	3.49	1.98	-	1.98	3.49	2.08	-	2.08
H.R. MINERAL SOLAR UH	0.70	0.40	-	0.40	0.70	0.42	-	0.42
TAYAL & CO SOLAR UH	0.70	0.40	-	0.40	0.70	0.42	-	0.42
VKG SOLAR UH	0.70	0.40	-	0.40	0.70	0.42	-	0.42
Utrecht Solar Pvt. Ltd.	0.70	0.40	-	0.40	0.70	0.42	-	0.42
Subhash Infra Engineers Pvt Ltd.	0.70	0.40	-	0.40	0.70	0.42	-	0.42
JBM Solar	13.97	7.93	-	7.93	13.97	8.33	-	8.33
Balarch Solar	0.70	0.40	-	0.40	0.70	0.42	-	0.42
HPGCL-Solar	6.98	3.41	-	3.41	6.98	3.58	-	3.58
Solar Energy Corporation of India Ltd.	55.88	30.73	-	30.73	55.88	32.27	-	32.27
SOLAR POWER (E)	87.87	48.34	-	48.34	87.87	50.75	-	50.75
STAR WIRE INDIA	27.84	22.61	-	22.61	27.84	23.74	-	23.74
GEMCO ENERGY LTD.	22.50	18.07	-	18.07	22.50	18.97	-	18.97
AB GRAIN SPIRIT PVT LTD.	14.06	11.14	-	11.14	14.06	11.69	-	11.69
SRI JYOTI	26.72	21.16	-	21.16	26.72	22.22	-	22.22
BIOMASS POWER (F)	91.12	72.97	-	72.97	91.12	76.62	-	76.62
Total Long term (A+B+C+D+E+F)	22,250.49	5,665.34	2,926.86	8,592.21	21,952.59	5,765.73	3,034.37	8,800.10
PTC KARCHAMWANGTOO (176MW)	272.40	50.47	-	50.47	296.79	57.74	-	57.74
GATI HYDRO/Chuzachain HEP Sikkim	155.49	75.82	-	75.82	169.41	86.74	-	86.74
DANS HYDRO/Tashiding HEP, Sikkim	149.11	71.01	-	71.01	162.46	81.23	-	81.23
SHIGA HYDRO/Jorethang HEP, Sikkim	149.27	73.10	-	73.10	162.64	83.63	-	83.63
IA HYDRO/Chanju HEP, HP	45.43	21.25	-	21.25	54.54	26.80	-	26.80
Naraingarh Sugar Mill	28.87	13.16	-	13.16	57.90	27.72	-	27.72
Total New Plants (FY 2018-19)	800.57	304.81	-	304.81	903.75	363.86	-	363.86

Project	FY 2018-19				FY 2019-20			
	Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
Tehri PSP (Uttaranchal)-THDC					96.96	49.65	-	49.65
Parbati II, HEP (H.P.)-NHPC					34.91	17.87	-	17.87
Wind Power of 1000 MW from SECI-I					141.04	41.88	-	41.88
Wind Power of 2000 MW from SECI-II					197.45	54.11	-	54.11
Solar Power through SECI under 2000MW ISTS scheme					48.92	13.94	-	13.94
New Plants (FY 2019-20)					519.29	177.44	-	177.44
Total Power Purchase cost	23,051.06	5,970.16	2,926.86	8,897.02	23,375.63	6,307.03	3,034.37	9,341.40

The Nigam prays that in case of any variance in the cost of new plants, the Nigam should be allowed to recover the additional cost.

The Nigam has escalated the Interstate Transmission charges for FY 2017-18 by 5% on year on year basis to estimate the Interstate Transmission charges for FY 2018-19 and FY 2019-20

Further, the Intrastate Transmission charges for FY 2018-19 has been taken as same approved by the Hon'ble Commission in its Order dated 15th November 2018. Further, the Intrastate Transmission charges for FY 2018-19 has been escalated by 5% to determine the Intrastate Transmission charges for FY 2019-20. The summary of same is given below: -

Table 17: Summary of Power Purchase in Rs Cr.

Particular	FY 2018-19	FY 2019-20
Power Purchase Cost	8,897.02	9,341.40
Interstate Transmission Cost	865.95	909.25
Intra-state Transmission Cost	825.90	867.20
Total Power Purchase Cost	10,588.87	11,117.85

The total power purchase cost from external and state sources for UHBVN is Rs. 10,588.87 Crores and Rs. 11,117.85 Crores for FY 2018-19 and FY 2019-20 respectively.

Transmission losses

For FY 2018-19 and FY 2019-20, the inter-state transmission losses have been considered as 3.82% and intra-state transmission losses have been considered as 2.44% and 2.42% for FY 2018-19 & FY 2019-20 respectively, in line to the loss trajectory approved for HVPNL in HERC Tariff Order dated 29th May 2014.

Energy Balance – UHBVNL

On the basis of the above projections, the Energy Balance for UHBVN for FY 2018-19 and FY 2019-20 is summarized below.

Table 18: Energy Balance for UHBVN

Particulars	Units	FY 2018-19	FY 2019-20
Energy Sales to the Consumers	Mus	16,135.15	17,302.53
T&D loss	%age	20.00%	14.14%
Energy Input at Discom Periphery	Mus	20,168.93	20,152.36
Intra- State Transmission Loss	%age	2.44%	2.42%
Energy Input at State Periphery	Mus	20,673.36	20,652.15
Total Energy Available	Mus	24,197.44	24,867.05
Inter State Power Purchase considering MoD	Mus	9,442.19	10,064.95
Inter State transmission losses	%age	3.82%	3.82%
Inter State Power Purchase at State Periphery	Mus	9,081.50	9,680.47
Intra state Power Purchase Considering MoD	Mus	13,969.56	13,691.39
Power Purchase at State Periphery	Mus	23,051.06	23,375.63
Surplus	Mus	2,377.70	2,723.48

The Nigam has assumed that the surplus power available will be sold entirely as 'inter-state sales' throughout FY 2018-19 and FY 2019-20 at average variable power

purchase cost for corresponding years. UHBVN request the Hon'ble Commission to approve the above submission for FY 2018-19 and FY 2019-20.

The Petitioner also submits the bulk supply tariff computed for UHBVN as given below: -

Table 19: Bulk Supply Tariff for UHBVN

Bulk Supply Tariff	Units	FY 2018-19	FY 2019-20
Net energy available at state boundary for use in UHBVN	Mus	23,051.06	23,375.63
Intra-state transmission losses	%	2.44%	2.42%
Intra-state transmission losses	Mus	562.45	565.69
Energy available for sale to distribution licensee at distribution periphery	Mus	22,488.61	22,809.94
Power purchase cost	Rs Cr	8,897.02	9,341.40
Inter-state transmission charges	Rs Cr	865.95	909.25
Intra-state transmission charges	Rs Cr	825.90	867.20
Prior Period Expense	Rs Cr	-	-
Total bulk purchase and transmission charges	Rs Cr	10,588.87	11,117.85
Power purchase per unit	Rs/Kwh	3.96	4.10
Inter-state transmission charges	Rs/Kwh	0.39	0.40
Intra-state transmission charges	Rs/Kwh	0.37	0.38
Average BST for UHBVN	Rs/Kwh	4.71	4.87

Operation & Maintenance Expenses

The operation and maintenance expenditure of UHBVNL comprises of Employee Expenses, Repair & Maintenance expenses and Administration & General expenses. The O&M expenses, as per the MYT regulations, 2012 are considered as controllable factor with the exception of terminal benefits. The cost of terminal benefits has been considered as uncontrollable factor.

The MYT Regulations have clearly set out the methodology to calculate the O&M expenses for the Distribution and Retail supply business for the control period, the same is reproduced below:

“The actual audited O & M expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 4% to arrive at the O & M expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below”.

$$\text{O\&M}_n = (\text{R\&M}_n + \text{EMP}_n + \text{A\&G}_n) * (1 - \text{X}_n) + \text{Terminal Liabilities}$$

Where,

- *R&M_n – Repair and Maintenance Costs of the Distribution Licensee(s) for the nth year;*
- *EMP_n – Employee Costs of the Distribution Licensee(s) for the nth year excluding terminal liabilities;*
- *A&G_n – Administrative and General Costs of the Distribution Licensee(s) for the nth year;*

The above components shall be computed in the following manner.

a) $\text{R\&M}_n = K * \text{GFA} * \text{INDX}_n / \text{INDX}_{n-1}$

Where,

- *‘K’ is a constant (expressed in %) governing the relationship between O&M costs and Gross Fixed Assets (GFA) for the nth year. The value of K will be 1.65% for UHBVN and DHBVN respectively for the entire control period;*
- *‘GFA’ is the average value of the gross fixed asset of the nth year.*
- *‘INDX_n’ means the inflation factor for the nth year as defined herein after.*

b) $\text{EMP}_n \text{ (excluding terminal liabilities)} + \text{A\&G}_n = (\text{EMP}_{n-1} + \text{A\&G}_{n-1}) * (\text{INDX}_n / \text{INDX}_{n-1})$

Where,

- *INDX_n – Inflation Factor to be used for indexing the Employee Cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year and shall be calculated as under:*
- **$\text{INDX}_n = 0.55 * \text{CPI}_n + 0.45 * \text{WPI}_n$**

Note 1: For the purpose of estimation, the same $INDX_n$ value shall be used for all years of the control period. However, the Commission shall consider the actual values of the $INDX_n$ at the end of each year during the annual performance review exercise and true-up the employee cost and A&G expenses on account of this variation.

Note 2: Any variation in employee cost and A&G cost on account of reasons beyond variation in $INDX_n$ shall be subject to the incentive and penalty framework specified in regulation 12.

Note 3: As and when any material price index specific to power sector or a more relevant Index becomes available, the same shall replace the Index used for working out R&M cost.

Note 4: Terminal liabilities shall be approved as per actual expenditure incurred by the distribution licensee or established through actuarial valuation for the ensuing year.

Note 5: O&M expenses made on account of extraordinary situations (if any) shall be submitted to Commission for its approval. Such expenses shall be filed separately and will not be subjected to incentive and penalty framework. The approved amount by the Commission shall be trued up in the annual performance review.

Note 6: Changes in the pay scales of employees necessitated on account of pay revision by Pay Commission or by the State Government orders shall be considered by the Commission for true-up during the annual performance review.

c)

X_n is an efficiency factor for n th year

The Value of X_n will be determined by the Commission in the MYT order for the control period.

Computation of Inflationary Indices

The computation of applicable Inflationary Indices for the projection of O&M expenses and its sub-heads are as under:

Table 20: Inflation factor for WPI & CPI WPI Inflation

Month/Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average
FY 2018-19	117	118	119	120	120	121							119
FY 2017-18	113	113	113	114	115	115	116	116	116	116	116	116	115
FY 2016-17	109	110	112	112	111	111	112	112	112	113	113	113	112

Month/Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average
FY 2015-16	110	111	112	111	110	110	110	110	109	108	107	108	110
FY 2014-15	114	115	115	117	117	116	116	114	112	111	110	110	114

CPI Inflation

Month/Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average
FY 2018-19	288	289	291	301	301	301							295
FY 2017-18	277	278	280	285	285	285	287	288	286	288	287	287	284
FY 2016-17	271	275	277	280	278	277	278	277	275	274	274	275	276
FY 2015-16	256	258	261	263	264	266	269	270	269	269	267	268	265
FY 2014-15	242	244	246	252	253	253	253	253	253	254	253	254	251

Period	WPI	CPI	Total
Weightage	0.45	0.55	1.00
Avg Indexation for FY 18-19	119.23	295.17	
Avg Indexation n-1 (Index * Wt.)	53.66	162.34	216.00
Avg Indexation for FY 17-18	114.88	284.42	
Avg Indexation n (Index * Wt.)	51.69	156.43	208.12
Combined Inflation (Indxn/Indxn-1)	3.79%		

UHBVNL submits herewith that as per the calculations tabulated above, the applicable combined inflation indices, after taken considerations of weightage average ratios of WPI & CPI of 45:55 of FY 2017-18 and FY 2018-19 has been computed as 3.79%, and the same has been put into the calculations of O&M Expenses, discussed in consecutive paras of this submission.

Employee Expenses

The employee expenses primarily include costs towards salaries, dearness allowances, bonus, staff welfare and medical benefits, leave travel and earned leave encashment, and the terminal benefits in the form of pension, gratuity etc.

The employee cost i.e. basic salary, dearness allowance and other allowances, excluding of the terminal benefits for FY 2018-19 and FY 2019-20 is determined by escalating the component of actual employee cost of FY 2017-18 by an inflation factor of 3.79%, computed on the basis of variation in average of WPI and CPI indices specified in HERC MYT Regulation, 2012.

Apart from the above, terminal benefits of Rs 500 Crores is considered for FY 2018-19 and FY 2019-20. Terminal benefits is expected to be reduced from the actual cost of FY 2017-18 as major portion of employees under GPF scheme has already retired. The summary of employee cost is given in below table: -

Table 21: Employee Expenses for FY 2018-19 and FY 2019-20 (In Crs.)

Particulars	FY 2018-19	FY 2019-20
Salaries	517.52	537.12
Dearness Allowance	55.28	57.37
Other Allowances	67.02	69.56
Terminal benefits	500.00	500.00
Gross Employee Expense	1139.82	1164.05
<i>Less Expenses Capitalised</i>	<i>11.99</i>	<i>12.24</i>
Net Employee Expenses	1127.83	1151.81

The Commission is requested to approve total employee cost for FY 2018-19 and the FY 2019-20 as per above tabulated computation.

Repair & Maintenance Expenses

The petitioner has projected R&M expenses for FY 2018-19 and FY 2019-20, as per the formula defined in MYT regulations, 2012 and same has been quoted again as below:

$$(a) R\&M_n = K * GFA * INDX_n / INDX_{n-1}$$

Where,

- 'K' is a constant (expressed in %) governing the relationship between O&M costs and Gross Fixed Assets (GFA) for the nth year. The value of K will be 1.65% for UHBVN and DHBVN respectively for the entire control period;
- 'GFA' is the average value of the gross fixed asset of the nth year.
- 'INDX_n' means the inflation factor for the nth year as defined herein after.

The Petitioner has projected R&M expenses for FY 2018-19 and FY 2019-20 on the basis average GFA calculated as per the proposed CAPEX plan. Further the inflation factor of 3.79% is applied to determine the R&M expenses. The same are tabulated as under:

Table 22: R&M Expenses for FY 2018-19 and FY 2019-20 (In Crs.)

Sr. no.	Particulars	FY 2017-18	FY 2018-19	FY 2019-20
			Projected	
1	Estimated R&M Expense	92.20	127.54	142.82
R&M Expense has been projected @ 3.79% inflation factor for FY 2018-19 and as per MYT Regulations 2012, the K factor being considered 1.65% at average GFA				

We request the Hon'ble Commission to approve total R&M expenses for FY 2018-19 and FY 2019-20 as per above submission.

Administration & General Expenses

Administration and General expenses mainly comprise costs towards rent charges, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.

As per MYT Regulations, 2012, the Inflation factor of 3.79% has been considered over FY 2017-18 to arrive at A&G cost for FY 2018-19 and FY 2019-20. The computation of A&G cost considering expenses works out to as below: -

Table 23: A&G Expenses for FY 2018-19 and FY 2019-20 (in Rs Crs.)

Sr.	Particulars	FY 2017-18 (Actual)	FY 2018-19 (Projected)	FY 2019-20 (Projected)
1	Gross A&G Expenses	97.81	101.51	105.36
2	<i>Less: Expenses Capitalised</i>	<i>4.84</i>	<i>5.02</i>	<i>5.21</i>
3	Net A&G Expenses	92.97	96.49	100.14

UHBVN prays to the Hon'ble Commission that the total A&G expenses for FY 2018-19 and FY 2019-20 as shown in above table shall be allowed to the Petitioner.

Summary of O&M Expenses

The summary of O&M expenses projected as above for FY 2018-19 and FY 2019-20 is tabulated as under:

Table 24: Summary of O&M Expenses for FY 2018-19 and FY 2019-20 (In Rs Crs.)

Particulars	FY 2017-18	FY 2018-19	FY 2019-20
	Actual	Projected	Projected
Employee Expense	602.67	627.83	651.81
A&G Expense	92.97	96.49	100.14
R&M Expense	92.20	127.54	142.82
Terminal Benefit	696.20	500.00	500.00
Total	1,484.04	1,351.86	1,394.77

UHBVN prays to the Hon'ble Commission to approve the total O&M expenses shown in table above for FY 2018-19 and FY 2019-20.

Interest & Finance Charges

As per Regulation 21 of HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012; Interest on Loan Capital for existing loans shall be computed loan-wise and for new loans it shall be equal to the base rate of SBI as applicable on 1st April of the relevant financial year. The relevant regulations are provided here for ease of reference:

Regulation 21.1 Existing Loans

- (i) *Interest on loan capital shall be computed loan-wise for existing loans arrived in a manner specified in Regulation 19 and shall be as per the rates approved by the Commission.*
- (ii) *The loan outstanding as on 1st April of each financial year shall be worked out as the gross loan in accordance with regulation 19 by deducting the cumulative repayment as admitted by the Commission up to 31st March of previous financial year from the gross normative loan;*

- (iii) *The rate of interest shall be the weighted average rate of interest on institutional loans calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project. In case the weighted average rate is not available, the interest rate approved by the Commission in its earlier tariff order shall be allowed.*

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 plant/project does not have actual loan, then the weighted average rate of interest of the generating company/licensee as a whole shall be considered

- (iv) *The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest;*
- (v) *The generating company and the licensee shall from time to time review their capital structure i.e. debt and equity and make every effort to restructure the loan portfolio as long as it results in net savings on interest. The costs associated with such re- financing shall be borne by the beneficiaries and the net savings (after deducting the cost of re- financing) shall be subjected to incentive / penalty framework as mentioned in the regulation 12 which shall be dealt with at the time of mid-year performance review/true-up.*
- (vi) *The changes to the loan terms and conditions shall be reflected from the date of such re- financing and benefit passed on to the beneficiaries;*
- (vii) *In case of any dispute relating to re-financing of loan, any of the parties may approach the Commission with proper application along with all the relevant details. During the pendency of any*

dispute, the beneficiaries shall not withhold any payment on account of orders issued by the Commission.

- (viii) In case any moratorium period on repayment of loan is availed of by the generating company or the licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.*

Regulation 21.2 New Loans (on or after 6th April 2013)

- (i) Rate of interest on new loans shall be equal to the base rate of SBI as applicable on 1st April of the relevant financial year plus an appropriate margin that realistically reflects the rate at which generating company or the licensee can raise loans from the market. They shall however, be required to submit due justification to the Commission for the terms and conditions of the loans raised by them.*

Provided that interest and finance charges on works in progress shall be excluded and shall be considered as part of the capital cost;

Provided further that neither penal interest nor overdue interest shall be allowed for computation of Tariff

- (ii) Any variation above or below the allowed interest rate shall be subject to the incentive and penalty framework specified in regulation 12.*
- (iii) The amount of loan shall be arrived in the manner as specified in regulation 19 and shall be based on the approved capital investment plan.*
- (iv) In case any moratorium period on repayment of loan is availed of by the generating company or the licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as*

repayment during those years and interest on loan capital shall be calculated accordingly.

Interest on Capex Loan:

It is estimated that 78% of the CAPEX for FY 2018-19 & FY 2019-20 will be met through long term loans from various lending agencies. Further, it is expected that the fresh loans would be available at the rate of 10.75% to the Discom in FY 2018-19 and FY 2019-20. The Detailed calculation of interest on CAPEX loan is detailed in table below provide in later section.

Interest on Consumer Security Deposit:

Interest on consumer security deposit is payable the interest rate of 6.25% per annum on average opening and closing balance for the corresponding years. The petitioner submits that Interest on Security Deposit amount has been proposed as per the provision of MYT Regulations, 2012.

As per Para 21.4 of MYT Tariff Regulations, dated 26/12/2012,

“Interest shall be allowed on the amount held as security deposit held in cash from Transmission System Users, Distribution System Users and Retail consumers, at the Bank Rate as on 1st April of the financial year in which the petition is filed provided it is payable by the transmission/distribution licensee. “

The details of Interest on the Consumer Security Deposit are provided in table below:

Table 25: ICD of FY 2018-19 and FY 2019-20 (in Rs Crs)

Particulars	FY 2017-18	FY 2018-19	FY 2019-20
	Actuals	(Projections)	(Projections)
Opening balance	1,092.58	1,193.19	1,298.29
Receipt during the year	100.62	105.10	109.87
Closing balance	1,193.19	1,298.29	1,408.16
Average	1,142.88	1,245.74	1,353.22
Interest rate	6.45%	6.25%	6.25%
Interest on CSD	73.74	77.86	84.58

Interest Capitalized:

It is based on proportion of 60% of the asset capitalized over the opening CWIP and capex added during the year;

Interest on Working Capital Loan:

It is also pertinent to mention that the Government of India has notified Ujwal Discom Assurance Yojana (UDAY) scheme for operational and financial turnaround of power distribution companies (DISCOMs), on 20th Nov 2015 under which State shall take over 75% of Discom debt as on 30th September, 2015 over two years – 50% of Discom debt shall be taken over in FY 2015-16 and 25% in FY 2016-17. The implementation of UDAY leads to changes in the projections of interest and finance charges for the Discoms which had an impact on the revenue requirement of the Discoms.

It is submitted that the first tranche of UDAY bonds against 50% of the debt as on 30.9.2015 amounting to Rs. 17300 crores has been issued, after the finalization of the loans to be taken over under this tranche and the terms and conditions of the UDAY bonds. Now the second tranche has also been taken over towards 25% of the debt amounting to Rs. 8650 crore.

The major provisions of the UDAY scheme that have been taken into the account while preparing the revised ARR:

- 75% of outstanding debt as on 30.09.2015 to be taken over in the form of equity / loan / Grant to DISCOMS.
- Take-over in year 1: 50%, Year 2: 25%
- Take-over assumed at the end of second quarter from year 2
- Total Loan of Rs. 21150 Crore for UHBVN has been assumed to be taken over by the Govt. of Haryana under UDAY scheme including the FRP loans as well as HVPNL liabilities.

- The Bonds have been issued at a coupon rate of 8.21%
- ROI of balance 25% loan: Base rate+0.1% w.e.f. 01.04.2016 at present 9.80% (Bank rate of lead bank (OBC)).

Therefore, in order to operationally and financially turnaround the discoms, the Hon'ble Commission must consider the interest on the UDAY Bonds and loan considered under UDAY and other loan as the interest of the same is borne by the license and the disallowance of it would lead to unnecessary financial burden on the already financially distressed discoms. The Details of the year wise Interest has been given in the table below:

Table 26: Existing Loan Stream of FY 2018-19 (in Rs. Crores)

01.04.2018-30.09.2018	OB	ROI	Planned Receipt	Principal Repayment	CB	Interest Cost	01.10.2018-31.03.2019	OB	ROI	Planned Receipt	Principal Repayment	CB	Interest Cost
WC Loan							WC loan						
Bank Loan	33.61	11.50 %		33.61	-	0.05	Bank Loan	-	11.50%			-	-
PFC Loan	500.00	10.25 %			500.00	23.61	PFC Loan	500.00	10.25%		500.00	-	12.81
REC Loan	500.00	9.00%		416.67	83.33	5.42	REC Loan	83.33	9.00%		83.33	-	1.87
Deficit Financing		7.26%	-		-	-	Deficit Financing	-	9.00%	-		-	-
Total WC Loans	1,033.61		-	450.28	583.33	29.08	Total WC	583.33		-	583.33	-	14.69
HVPNL	410.90	9.79%			410.90	20.11	HVPNL	410.90	9.79%			410.90	20.11
HVPNL	130.00	9.45%			130.00	6.14	HVPNL	130.00	9.45%			130.00	6.14
HVPNL	200.00	9.83%			200.00	9.83	HVPNL	200.00	9.83%			200.00	9.83
HVPNL	132.85	8.62%			132.85	5.73	HVPNL	132.85	8.62%			132.85	5.73
Total HVPNL Bonds	873.75		-	-	873.75	41.81	HVPNL Bonds	873.75		-	-	873.75	41.81
UDAY Bonds-1	4,334.52	8.21%			4,334.52	177.93	UDAY Bonds-1	1,266.56	8.21%			1,266.56	51.99
UDAY Bonds-2	1,538.57	8.18%			1,538.57	62.93	UDAY Bonds-2	1,538.57	8.18%			1,538.57	62.93
UDAY Bonds-3	73.35	8.14%			73.35	2.99	UDAY Bonds-3	73.35	8.14%			73.35	2.99
UDAY Bonds-4	189.49	8.06%			189.49	7.64	UDAY Bonds-4	189.49	8.06%			189.49	7.64
Total UDAY Bonds	6,135.93		-	-	6,135.93	251.48	Total UDAY Bonds	3,067.97		-	-	3,067.97	125.54
UHBVNL/ FRP Bonds	1,565.29	9.80%			1,565.29	76.70	UHBVNL/ FRP Bonds	1,565.29	9.80%		1,565.29	-	38.35
REC/PFC loan	-	10.50 %			-	-	REC/PFC loan	-	10.50%	2,065.29	-	2,065.29	54.21
CC/OD	1.48	10.50 %	1,175.00		1,176.48	35.61	CC/OD	1,176.48	10.50%		751.48	425.00	33.63
Total Working Capital Loan	9,610.06		1,175.00	450.28	10,334.78	434.68	Total Working Capital Loan	7,266.82		2,065.29	2,900.10	6,432.01	308.24

HERC Order on Application for True Up for the FY 2017-18, APR for the FY 2018-19 and ARR and Tariff Determination for the FY 2019-20

01.04.2018-30.09.2018	OB	ROI	Planned Receipt	Principal Repayment	CB	Interest Cost	01.10.2018-31.03.2019	OB	ROI	Planned Receipt	Principal Repayment	CB	Interest Cost
Capex Loan							Capex Loan						
REC Schemes	1,609.91	10.75 %	102.48	70.27	1,642.12	86.92	REC Schemes	1,642.12	10.75%	881.29	187.69	2,335.72	106.90
REC IBRD	-	11.50 %		-	-	-	REC IBRD	-	11.50%			-	-
REC-RGGVY	3.52	11.50 %	-	0.66	2.86	0.19	REC-RGGVY	2.86	11.50%		0.41	2.45	0.15
PFC	59.87	9.00%	-		59.87	3.41	PFC	59.87	9.00%		59.87	-	1.35
NCRPB	3.79	9.25%	0.59	1.89	2.48	0.18	NCRPB	2.48	9.25%		-0.00	2.49	0.11
APDRP	13.33	11.50 %	-	0.52	12.81	0.73	APDRP	12.81	11.50%		2.06	10.75	0.68
PMGY	0.75	12.00 %	-	0.03	0.72	0.04	PMGY	0.72	12.00%		0.11	0.61	0.04
Total Capex	1,691.16		103.07	73.36	1,720.87	91.47	Total Capex	1,720.87		881.29	250.15	2,352.01	109.24
Total Loan for FY 2018-19	11,301.22		1,278.07	523.64	12,055.65	526.15	Total Loan Liability	8,987.68		2,946.58	3,150.25	8,784.01	417.47

Table 27: Loan Stream of FY 2019-20

In Rs. Crores

01.04.2019 - 30.09.2019	OB	ROI	Planned Receipt	Principal Repayment	CB	Int	01.10.2019 -31.03.2020	OB	ROI	Planned Receipt	Principal Repayment	CB	Int
WC loan							WC loan						
Bank Loan	-	11.50%			-	-	Bank Loan	-	11.50 %	-		-	-
PFC Loan	-	10.25%		-	-	-	PFC Loan	-	10.25 %			-	-
REC Loan	-	9.00%		-	-	-	REC Loan	-	9.00%			-	-
Deficit Financing	-	9.00%	504.89		504.89	11.36	Deficit Financing	504.89		504.89		1,009.78	34.08
Total WC	-		504.89		504.89	11.36	Total WC	504.89		504.89		1,009.78	34.08
HVPNL	410.90	9.79%			410.90	20.11	HVPNL	410.90	9.79%			410.90	20.11
HVPNL	130.00	9.45%			130.00	6.14	HVPNL	130.00	9.45%			130.00	6.14
HVPNL	200.00	9.83%			200.00	9.83	HVPNL	200.00	9.83%			200.00	9.83
HVPNL	132.85	8.62%			132.85	5.73	HVPNL	132.85	8.62%			132.85	5.73
Total HVPNL Bonds	873.75		-	-	873.75	41.81	HVPNL Bonds	873.75		-	-	873.75	41.81
UDAY Bonds-1	1,266.56	8.21%			1,266.56	51.99	UDAY Bonds-1		8.21%		-	-	-
UDAY Bonds-2	1,538.57	8.18%			1,538.57	62.93	UDAY Bonds-2		8.18%		-	-	-
UDAY Bonds-3	73.35	8.14%			73.35	2.99	UDAY Bonds-3		8.14%		-	-	-
UDAY Bonds-4	189.49	8.06%			189.49	7.64	UDAY Bonds-4		8.06%		-	-	-
Total UDAY Bonds	3,067.97		-	-	3,067.97	125.54	Total UDAY Bonds	-		-	-	-	-
UHBVNL/ FRP Bonds	-	9.80%			-	-	UHBVNL/ FRP Bonds	-	9.80%		-	-	-
REC/PFC loan	2,065.29	10.50%			2,065.29	108.43	REC/PFC loan	2,065.29	10.50 %	-		2,065.29	108.43

01.04.2019 - 30.09.2019	OB	ROI	Planned Receipt	Principal Repayme nt	CB	Int	01.10.2019 -31.03.2020	OB	ROI	Planned Receipt	Principal Repayme nt	CB	Int
CC/OD	425.00	10.50%			425.00	17.85	CC/OD	425.00	10.50 %			425.00	17.85
Total Working Capital	6,432.01		504.89	-	6,936.90	304.99	Total WC	3,868.93		504.89	-	4,373.82	202.17
Capex Loan							Capex Loan						
REC Schemes	2,335.72	10.75%	471.80	192.55	2,614.97	133.05	REC Schemes	2,614.97	10.75 %	471.80	192.55	2,894.23	148.06
REC IBRD	-	11.50%			-	-	REC IBRD	-	11.50 %			-	-
REC- RGGVY	2.45	11.50%		0.54	1.91	0.13	REC-RGGVY	0.84	11.50 %		0.54	0.31	0.03
PFC	-	9.00%		-	-	-	PFC	-	9.00%		-	-	-
NCRPB	2.49	9.25%		0.95	1.54	0.09	NCRPB	1.54	9.25%		0.95	0.60	0.05
APDRP	10.75	11.50%		1.29	9.46	0.58	APDRP	9.46	11.50 %		1.29	8.17	0.51
PMGY	0.61	12.00%		0.07	0.54	0.03	PMGY	0.54	12.00 %		0.07	0.47	0.03
Total Capex	2,352.01		471.80	195.39	2,628.42	133.88	Total Capex	2,627.35		471.80	195.39	2,903.77	148.68
					5.32				976.69				

Table 28: Net Interest & Finance Charges (Rs. In Crores)

Sr. No.	Particulars	FY 2018-19	FY 2019-20
1	Interest on UDAY bonds payable to the State Government	377.02	125.54
2	Interest on HVPNL & Bank bonds	252.89	300.48
3	Interest on WC loans including CC/OD limits	113.01	81.14
4	Interest on CAPEX loans	121.38	164.39
5	Interest Cost on Consumer Security Deposit	77.86	84.58
6	Guarantee Fees	26.40	26.00
7	Interest Cost of Jind Loans	(72.21)	(23.99)
8	Net Interest	896.35	758.13

A prayer has been made in the filing to allow the entire interest cost which is actual payout on the real loans of the Discom in the revenue requirement.

Depreciation

For the FY 2018-19, the Nigam has estimated depreciation charges on the basis of estimated additions in GFA as per the capital investment plan for the FY 2018-19. The transfer of total CAPEX to fixed asset has been considered as 60%. The Nigam has considered the Capital Expenditure of Rs 1262 Crores as approved by Hon'ble

Commission for FY 2018-19 and for FY 2019-20 the Nigam proposes a Capital expenditure of Rs 1209.75 Crores. It is submitted that the depreciation is calculation of average GFA of the corresponding year. The asset class wise depreciation rates as per MYT Regulation, 2012 is considered to calculate the depreciation amount for FY 2018-19 and FY 2019-20. The following depreciation rates is used for calculation of depreciation amount for the corresponding year:

Table 29: Asset wise Depreciation rate

Asset Type	Rate of Depreciation
Land	-
Buildings	3.34%
Plant & Machinery	5.28%
Vehicle	18.00%
Furniture and fixtures	6.33%

The detailed calculation of depreciation for the FY 2018-19 and the FY 2019-20 is provided in the tables below: -

Table 30: Depreciation for FY 2018-19

	Accumulated depreciation at the beginning of the year	Additions during the year		Balance depreciation at the end of the year
		Rate of depreciation (%)	Depreciation during the year	
Land & Land Rights	-	-	-	-
Buildings & Civil Structure	71.78	3.34	13.75	85.53
Plant & Machinery	2,151.27	5.28	366.07	2,517.35
Vehicles	9.61	18.00	2.58	12.18
Furniture & Fixture	11.84	6.33	2.05	13.89
Software	0.35	15.00	0.06	0.41
Less: Depreciation on assets contributed by Consumers and grants	-		38.99	
Total	2,244.85	5.16	345.53	2,629.36

Table 31: Depreciation for FY 2019-20

Particulars	Accumulated depreciation at the beginning of the year	Additions during the year		Balance depreciation at the end of the year
		Rate of depreciation (%)	Depreciation during the year	

Particulars	Accumulated depreciation at the beginning of the year	Additions during the year		Balance depreciation at the end of the year
		Rate of depreciation (%)	Depreciation during the year	
Land & Land Rights	-		-	-
Buildings & Civil Structure	85.53	3.34	15.06	100.59
Plant & Machinery	2,517.35	5.28	410.44	2,927.78
Vehicles	12.18	18.00	2.77	14.95
Furniture & Fixture	13.89	6.33	2.70	16.60
Software	0.41	15.00	0.06	0.48
Less: Depreciation on assets contributed by Consumers and grants	-		40.27	
Total	2,629.36	5.17	390.77	3,060.40

The Hon'ble Commission is requested to approve depreciation amount of Rs 345.53 Crores for FY 2018-19 and Rs 390.77 Crores for FY 2019-20.

Non-Tariff Income

The Non-Tariff income mainly comprises the following elements:

- a) Interest on staff loans & advances;
- b) Interest on fixed deposits with banks & company etc.;
- c) Delayed payment charges from consumers;
- d) Meter Service Rental;
- e) Recovery of theft of Power;
- f) Interest Income on Provident Fund;
- g) Misc. Charges from consumers;
- h) Income from staff welfare activities;
- i) Miscellaneous receipts;
- j) Rent from Residential Building;

The Hon'ble Commission while approving the Annual Revenue Requirement for the FY 2018-19 has approved a Non-Tariff Income of Rs 197.25 Cr. The petitioner has considered the same for FY 2018-19 and FY 2019-20. It is requested to the Hon'ble

Commission to kindly allow Rs 197.25 Crores of Non-tariff Income for FY 2018-19 and FY 2019-20.

Return on Equity

It is submitted that the petitioner in line to the methodology adopted for determination of Return of Equity for FY 2017-18, has computed the Return of Equity for the FY 2018-19 and FY 2019-20. The detail pertaining to of the same is tabulated as under:

Table 32: Return on Equity for FY 2018-19 and FY 2019-20 (in Rs Crs.)

Particulars	FY 2017-18	FY 2018-19	FY 2019-20
Share Capital Opening	3,382.97	3,461.07	3,713.47
Add: Share Application money pending allotment	26.52	26.52	26.52
Add: Equity for Capex	78.10	252.40	241.95
Less: Equity received under UDAY in FY 2015-16 & FY 2016-17	1,586.24	1,586.24	1,586.24
Equity for ROE	1,862.30	2,027.55	2,274.73
Rate of RoE	14.00%	14.00%	14.00%
Total RoE	260.72	283.86	318.46

The petitioner requests the Commission that the Return on Equity as tabulated above shall be allowed to UHBVN for FY 2018-19 and FY 2019-20.

Bad and Doubtful Debts

It is submitted that as per Regulation 64 of the MYT Regulations, 2012 provision for Bad and Doubtful debts have been created by the UHBVN in FY 2018-19 and FY 2019-20. The relevant extract of the aforementioned regulations is given as under:

“64 BAD AND DOUBTFUL DEBTS

“Bad and doubtful debts shall be allowed to the extent the distribution licensee has actually written off bad debts subject to a maximum of 0.5% of sales revenue. However, this shall be allowed only if the distribution licensee submits all relevant data and information to the satisfaction of the Commission. In case

there is any recovery of bad debts already written off, the recovered bad debts will be treated as other income.”

As per the provision of the MYT Regulation, 2012 the Nigam has estimated a provision for bad and doubtful debts of Rs 40.60 Cr and Rs 42.56 Cr for FY 2018-19 and FY 2019-20 respectively. The Commission is requested to approve the same.

Revenue Estimation

The Petitioner has projected the revenue from intra-state sales for the FY 2018-19 on the basis of sales projected above. The projected sales are distributed on subcategory wise basis as per the past years sub-category data. Further the distributed sales are multiplied with the applicable tariff approved by the Commission to estimate revenue for the corresponding year. Also, the similar treatment is done with the projected sales of FY 2019-20 which is further multiplied by the current applicable tariff approved by the Hon'ble Commission to assess the revenue for relevant year.

Table 33: Revenue Estimations for FY 2018-19 and FY 2019-20 (In Rs Crs.)

Sr.no.	Category	FY 2018-19	FY 2019-20
1	Domestic	1,983.82	2,034.80
2	Non-Domestic	958.61	1,036.02
3	HT Industry	3,102.25	3,230.01
4	LT industry	688.92	744.24
5	Agriculture	19.23	28.15
6	MITC	1.30	1.38
7	Lift irrigation	46.57	48.88
8	Railway traction	10.72	11.25
9	Bulk supply	207.77	209.66
10	Street lighting	63.57	73.21
11	PWW and Others	327.15	344.93
	Total Energy Charge	7,409.90	7,762.54
12	Fixed Charges	792.08	835.70
13	Total Revenue	8,201.98	8,598.23
14	Collection Efficiency	99%	99%
15	Revenue Realised	8,119.96	8,512.25

Revenue from inter-state sales:

Revenue from inter-state sales projected for FY 2017-18 and FY 2018-19 has been considered at average variable power purchase cost for the corresponding years.

Domestic Tariff Subsidy:

The Petitioner has filed an additional submission to the Petition No. PRO-85 & 83 of 2017 for Annual Revenue Requirement for FY 2018-19 under HERC (Terms and Conditions for determination of tariff for generation, transmission, wheeling and distribution & retail Supply under Multi Year Tariff Framework) Regulations, 2012.

Further, the Hon'ble Commission in Tariff Order dated 15th November 2018 has allowed the tariff subsidy extended by the Govt of Haryana on reservation of certain provision related to payment of working capital due to delay in payment of subsidy. The Discom proposes to continue the same level of subsidy for the domestic category consumers in FY 2019-20. The effective applicable tariff after subsidy has also been notified by the UHBVN through Sale Circular No. U-16/2018.

Therefore, on the basis of similar grounds, the subsidy assessed for the FY 2019-20 has worked out as Rs 841.38 Crores combinedly for both Discoms. Further, the subsidy pertaining to UHBVN will be claimed on the basis of actual energy sales accounted during the year. The revenue estimated in above table is at current level of domestic tariff without accounting any subsidy.

Agriculture Subsidy

Agriculture Subsidy for the FY 2018-19 is taken as Rs.7139.72 Crores, as approved by the Hon'ble Commission in Tariff Order dated 15th November 2018. Further the subsidy of FY 2018-19 is increased by the 5% to determine the subsidy for FY 2019-20.

Revenue Requirement

The following table summarizes the estimated Aggregate Revenue Requirement (ARR) of UHBVN for FY 2018-19 and FY 2019-20.

Table 34: Aggregate Revenue Requirement for FY 2018-19 & FY 2019-20 (In Rs Crs.)

Summary of ARR of UHBVN		FY 2018-19	FY 2018-19	FY 2019-20
Sr.No	Particulars	Approved	Projected	Projected
1	Total Power Purchase Expense	10,214.91	10,588.87	11,117.85
1.1	Power Purchase Expense	8,747.21	8,897.02	9,341.40
1.2	Interstate transmission Charge	641.80	865.95	909.25
1.3	Intrastate transmission charges and SLDC charges	825.90	825.90	867.20
2	Operations and Maintenance Expenses	1,334.49	1,351.86	1,394.77
2.1	Employee Expense	803.05	627.83	651.81
2.2	Administration & General Expense	99.91	96.49	100.14
2.3	Repair & Maintenance Expense	131.56	127.54	142.82
2.4	Terminal Liability	300.00	500.00	500.00
3	Depreciation	305.29	345.53	390.77
4	Total Interest & Finance Charges	312.46	896.35	758.13
4.1	Interest on UDAY bonds payable to the State Government		377.02	125.54
4.2	Interest on remaining loans			
4.3	Interest on WC loans including CC/OD limits	97.30	365.90	381.62
4.4	Interest on CAPEX loans	129.92	121.38	164.39
4.5	Interest Cost on Consumer Security Deposit	85.24	77.86	84.58
4.6	Guarantee Fees		26.40	26.00
4.7	Interest Cost of Jind Loans		(72.21)	(23.99)
5	Return on Equity Capital	196.61	283.86	318.46
6	Other Expenses		40.60	42.56
7	Total Expenditure	12,363.77	13,507.07	14,022.54
8	Less: Non-Tariff Income	197.25	197.25	197.25
9	Net Aggregate Revenue Requirement	12,166.52	13,309.82	13,825.29
10	Total Revenue		8,735.77	9,247.08
10.1	Revenue from Interstate sales		615.82	734.83
10.2	Revenue from Intrastate sales / Sale of Power		8,119.96	8,512.25
11	Revenue Gap		(4,574.05)	(4,578.21)
12	Less: AP-Subsidy		4,283.83	4,498.02
13	GAP After AP Subsidy		(290.21)	(80.19)
14	Revenue Gap of True Up Carried forward			(1,041.16)

15	GAP After AP Subsidy		(290.21)	(1,121.35)

Table 35: Aggregate Revenue Requirement of Wheeling and Retail Supply for FY 2018-19 & FY 2019-20 (In Crores.)

Summary of ARR of UHBVN				FY 2018-19	FY 2018-19	FY 2019-20	FY 2019-20
Sr.No	Particulars	Wheeling	Retail	Wheeling	Retail	Wheeling	Retail
1	Total Power Purchase Expense			-	10,588.87	-	11,117.85
1.1	Power Purchase Expense	0%	100%	-	8,897.02	-	9,341.40
1.2	Interstate transmission Charge	0%	100%	-	865.95	-	909.25
1.3	Intrastate transmission charges and SLDC charges	0%	100%	-	825.90	-	867.20
2	Operations and Maintenance Expenses			671.16	680.70	694.90	699.87
2.1	Employee Expense	48%	52%	301.36	326.47	312.87	338.94
2.2	Administration & General Expense	42%	58%	40.53	55.96	42.06	58.08
2.3	Repair & Maintenance Expense	70%	30%	89.28	38.26	99.97	42.85
2.4	Terminal Liability	48%	52%	240.00	260.00	240.00	260.00
3	Depreciation	82%	18%	283.33	62.20	320.43	70.34
4	Return on Equity Capital	90%	10%	255.47	28.39	286.62	31.85
5	Other Expenses	29%	71%	11.77	28.83	12.34	30.22
6	Interest and finance charges			178.95	717.40	198.87	559.27
6.1	Interest on UDAY bonds	10%	90%	37.70	339.32	12.55	112.99
6.2	Interest on WC including CC/OD limits	10%	90%	36.59	329.31	38.16	343.46
6.3	Interest on CAPEX loans	90%	10%	109.24	12.14	147.95	16.44
6.4	Interest Cost on Consumer Security Deposit	0%	100%	-	77.86	-	84.58
6.5	Guarantee Fees	10%	90%	2.64	23.76	2.60	23.40
6.6	Interest Cost of Jind Loans	10%	90%	(7.22)	(64.99)	(2.40)	(21.59)
7	Total Expenditure			1,400.69	12,106.38	1,513.16	12,509.38
8	Less: Non-Tariff Income	11%	89%	21.70	175.55	21.70	175.55
9	Net Aggregate Revenue Requirement			1,379.00	11,930.82	1,491.46	12,333.83

Recovery of Outstanding Gaps

Recovery of Gap

The ARR has been prepared on the basis of actual data available with Discoms, based on which the expenses and revenue is projected for FY 2018-19 & FY 2019-20. It is requested to the Hon'ble Commission that the current charges shall be continued for the APR and ARR years, as on the basis of this the total revenue gap for True-up year of FY 2017-18, APR years of FY 2018-19 and ARR year of FY 2019-20 works out to be at Rs.1,041.61 Crores, Rs 290.21 Crores and 1,121.35 Crores respectively. Further, the resultant gap, if any, after continuation of current levels of charges will be met through operational funding available under UDAY.

Additional Surcharge

The Petitioner submits that Regulation 22 of the "Haryana Electricity Regulatory Commission (Terms and conditions for grant of connectivity and open access for intra-State transmission and distribution system) Regulations, 2012 provides as under: *"Additional Surcharge. - (1) An open access consumer, receiving supply of electricity from a person other than the distribution licensee of his area of supply, shall pay to the distribution licensee an additional surcharge in addition to wheeling charges and cross-subsidy surcharge, to meet out the fixed cost of such distribution licensee arising out of his obligation to supply as provided under sub-section (4) of Section 42 of the Act.*

Provided that such additional surcharge shall not be levied in case open access is provided to a person who has established a captive generation plant for carrying the electricity to the destination of his own use.

(2) This additional surcharge shall become applicable only if the obligation of the licensee in terms of power purchase commitments has been and continues to be stranded or there is an unavoidable obligation and incidence to bear fixed costs consequent to such a contract. However, the fixed costs related to network assets would be recovered through wheeling charges.

(3) The distribution licensee shall submit to the Commission, on six monthly basis the details regarding the quantum of such stranded costs and the period over which these remained stranded and would be stranded. The Commission shall scrutinize the statement of calculation of such stranded fixed costs submitted by the distribution licensee and determine the amount of additional surcharge.

Provided that any additional surcharge so determined shall be applicable to all the consumers availing open access from the date of determination of same by the Commission.

(4) The consumers located in the area of supply of a distribution licensee but availing open access exclusively on inter-State transmission system shall also pay the additional surcharge.

(5) Additional surcharge determined on per unit basis shall be payable, on monthly basis, by the open access customers based on the actual energy drawn during the month through open access”.

Since the Petitioner has a universal obligation to supply power to all the consumers, they have to enter into long term agreements for purchase of power from various generating stations for meeting entire demand of the State. As such, when these Open Access consumers draw power from any other mode under Open Access i.e. through collective transaction or bilateral transaction, the fixed cost of such stranded power is still payable by the Petitioner, while making it a stranded capacity for the petitioner.

In accordance with the Haryana Electricity Regulatory Commission (Terms and Conditions for grant of connectivity and open access for intra-State transmission and distribution system) Regulations, 2012, Nigam hereby submits the calculation of additional surcharge based on 100% data of all days in first half of FY 2018-19 i.e. April-18 to September-18. The methodology for computation of Additional Surcharge is explained in subsequent paragraphs.

In order to ensure that only such power surrendered is taken for calculating additional surcharge, which corresponds to power stranded because of open access consumers, the lower quantum of open access power per slot and surrendered power for corresponding slot is taken as quantum of the stranded power for slot due to open access.

The Discoms have calculated slot wise stranded power due to open access and also the total open access power availed in that particular time slot. Further, based on slot-wise quantum eligible for calculation of Additional Surcharge and slot wise total open access power availed, the corresponding slot wise units have been calculated for all the days in first half of FY 2018-19 and thereafter the petitioner has calculated total units in MU, which corresponds to the stranded power due to Open Access and total Open Access units availed for the first half of FY 2018-19.

Subsequently, the total Additional Surcharge for first half of FY 2018-19 (in Rs. Crores) is calculated by multiplying the Units of Power (in MUs) evaluated above and the per unit effective fixed charge as calculated in the table below:-

Table 36: Approved Per unit fixed cost of power purchase for FY 2018-19

Sr. no.	Plants	Estimated Quantum	Fixed Cost
		in MU	Rs Cr
1	NTPC		
2	Singrauli STPS	1,296.00	92.88
3	Rihand I	431.00	39.11
4	Rihand II	378.00	35.63
5	Rihand III	372.00	62.11
6	FGTPS Unchhahar I	74.00	8.63
7	FGTPS Unchhahar II	155.00	16.28
8	FGTPS Unchhahar III	79.00	11.39
9	Anta CCGT	36.00	12.21
10	Auraiya CCGT	28.00	19.57
11	Dadri CCGT	92.00	16.97
12	Faridabad CCGT	926.00	234.69
13	Farakka STPS	80.00	7.98
14	Kahalgaon I	109.00	18.72
15	Kahalgaon II	331.00	55.19
16	Kol Dam HEP	152.00	76.07

Sr. no.	Plants	Estimated Quantum	Fixed Cost
		in MU	Rs Cr
17	NHPC		-
18	Salal I	442.00	79.80
19	Bairasiul	133.00	22.16
20	Tanakpur	25.00	5.02
21	Chamera I	330.00	33.06
22	Chamera II	73.00	9.50
23	Chamera-III	80.00	23.97
24	Dhauliganga	55.00	10.73
25	Dulhasti	103.00	36.94
26	Uri	142.00	17.27
27	Uri-II	63.00	27.11
28	Sewa II	28.00	8.52
29	Parbati-III	56.00	16.08
30	SJVNL HEP	280.00	37.82
31	Rampur HEP (SJVN)	69.00	16.15
32	THDC		-
33	Tehri Stage I HEP	197.00	57.66
34	Koteswar HEP	48.00	10.09
35	NPCIL		-
36	NAPP	180.00	-
37	RAPP (3-4)	545.00	0.02
38	RAPP (5-6)		
39	HPGCL	17,234.00	1,727.95
40	Shared Project		-
41	BBMB HEP	2,891.00	-
42	DVC		-
43	DVC Mejia-B	491.00	87.49
44	Koderma DVC HEP	274.00	109.06
45	DVC Raghunathpur TPP	636.00	36.27
46	UMPP		-
47	CGPL Mundra UMPP	2,425.00	250.31
48	Sasan UMPP	3,000.00	53.77
49	Others		-
50	PTC Tala, HEP	51.00	-
51	PTC GMR Kamalanga TPS	1,611.00	267.63
52	PTC Baglihar HEP	264.00	-
53	PTC Lanco Amarkantak	1,840.00	238.76
54	PTC Karchamwangtoo JSW HE	818.00	218.13
55	IGSTPP, APCPL (Aravali)	2,406.00	751.66
56	Pragati Gas Bawana	-	99.23
57	Adani Power Ltd. Mundra TPS	9,824.00	977.02
58	Teesta III HEP	-	-

Sr. no.	Plants	Estimated Quantum	Fixed Cost
		in MU	Rs Cr
59	MGSTPS, CLP, Jhajjar	3,441.00	828.69
60	Bhoruka HEP	29.00	-
61	P&R Gogripur HEP	10.00	-
62	Puri Oil Mill HEP	14.00	-
63	Biomass Projects	143.00	-
64	Cogeneration Plants	162.00	-
65	Solar projects	198.87	
68	Naraingarh Sugar Mills	111.00	-
69	PGCIL Transmission		
69	Total	55,261.87	6,765.33
70	Average Fixed Cost of Power Purchase exc. PGCIL Charges		1.22

Finally, the Per Unit Additional Surcharge is determined by dividing the total additional surcharge with the estimated Open Access Units for First half of FY 2018-19 in Mus.

The details of the backing down owing to Open Access in MW and MU for calculation of additional surcharges and Open Access availed is given in the table below:

Table 37: Details of backdown due to Open Access and Open Access units (FY 2018-19 H1).

Row Labels	Average of Min in MW	Sum of Min in MU	Average of Total OA	Sum of Total OA in MU
April	9.55	6.87	9.64	6.94
May	12.12	9.02	12.41	9.24
June	41.44	29.84	49.16	35.40
July	71.44	53.15	72.75	54.13
August	71.21	52.98	71.61	53.28
September	35.78	25.76	35.78	25.76
Grand Total	241.55	177.63	251.35	184.74

A summary of total additional surcharge that may be allowed to the Petitioners is summarized below:-

Table 38: Calculation of Additional Surcharge for First half of FY 2018-19.

Particulars	Units	Amount
Total Units of power in MUs to be considered for Additional Surcharge	in MU	177.63
Effective approved Fixed Cost considered for the purpose of evaluating Additional Surcharge	Rs/ Unit	1.22
Total Additional Surcharge for H1 of FY 2018-19	In Rs Million	217.46
Open Access Units estimated	in MU	184.74
Per Unit Additional Surcharge applicable on the same Quantum of Open Access (Rs./unit)	Rs/ Unit	1.18

The Hon'ble Commission is requested to allow an additional surcharge of Rs 1.18 per unit to be levied on open access consumers which has been calculated based on details of slot wise surrendered power and slot wise open access power considering data of all days.

Prayer (UHBVN)

The Nigam respectfully prays that the Hon'ble Commission may:

- Take the accompanying filing of UHBVN on record and accept the petition regarding true up of expenses and revenue for FY 2017-18, Re-estimation of Revenue Requirement / Gap for FY 2018-19 and projected Revenue Requirement for FY 2019-20;
- Allow revision of the current petition, filing of any additional / supplementary submissions during the course of these proceedings;
- Allow return on equity as proposed;
- Allow the entire fixed charges of power purchase as the power is procured from the sources whose PPAs have been duly approved by the Hon'ble Commission and also the energy charges of power procurement from these sources as proposed in the filing;
- Allow the Annual Revenue Requirement of the Nigam for the FY 2019-20 including the actual interest on all the loans which is real expenditure borne by the utility;

- Allow True-Up of FY 2017-18 along with the holding cost and the revised expenses as projected for FY 2018-19 in the Annual Revenue Requirement of FY 2019-20;
- To continue the current levels of charges to meet the expenses, the gap being funded through operational financing as proposed under UDAY scheme;
- To allow Additional Surcharge of Rs 1.18 per unit to be recovered from Open Access Consumers
- Condone any inadvertent omissions/errors/shortcomings and permit UHBVN to add/change/modify/alter this filing and make further submissions as may be required during the course of these proceedings;
- Pass such Order, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case submitted by the Petitioner.

Petition filed by DHBVN

Background – Indian Power Sector

Since, the background part of the petition is same as that of UHBVN, it is not being reproduced here.

Profile of DHBVN

Table 39: Details of division and sub-division offices

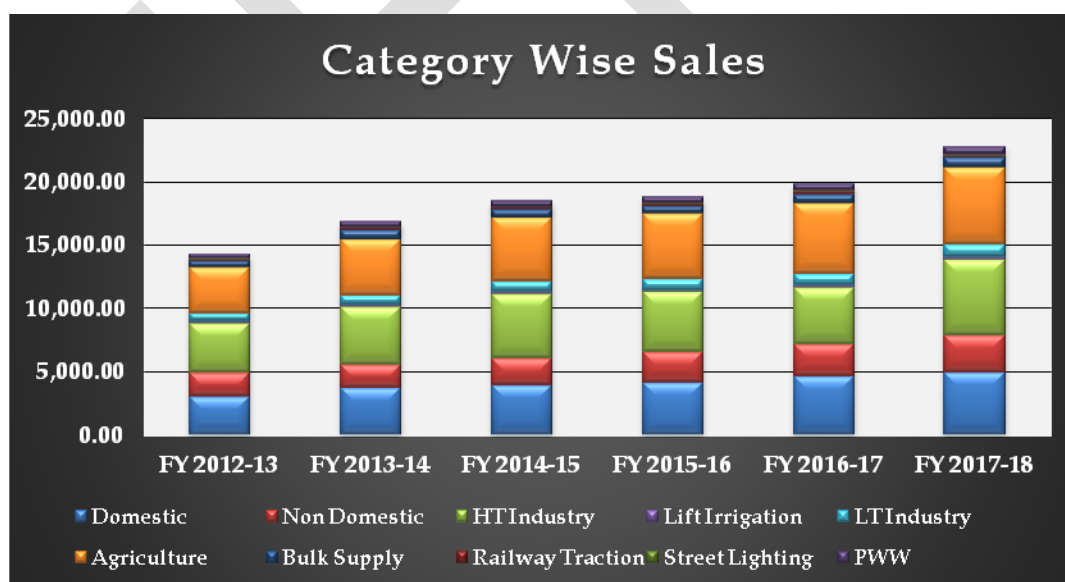
Name of Circle	Total No. of Division	Total No. of Sub-Division
Sirsa	3	13
Hisar	3	13
Bhiwani	3	17
Rewari	3	9
Gurugram-1	2	8
Gurugram-2	2	7
Palwal	2	11
Faridabad	4	18
Jind	3	13
Fatehabd	2	11
Narnaul	2	7
DHBVN	29	127

The following table shows the total sales from FY 2012-13 to FY 2017-18 as per actual audited accounts:

Table 40: Category wise Sales (MUs) for last six years

Category	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Domestic	3,059.32	3,671.97	3,899.42	4,152.52	4,589.16	4,976.56
Non-Domestic	1,837.26	1,864.03	2,161.04	2,402.07	2,548.65	2,913.86
HT Industry	3,895.79	4,563.45	5,053.43	4,723.18	4,521.60	5,965.04
Lift Irrigation	145.61	156.06	152.15	157.55	148.29	199.79
LT Industry	645.27	780.46	819.72	878.56	898.95	975.28
Agriculture	3,647.30	4,398.93	5,072.62	5,196.80	5,614.52	6,119.66
Bulk Supply	496.2	773.64	670.18	555.53	676.6	780.31
Railway Traction	159.92	157.38	160.23	169.88	197.45	144.64
Street Lighting	42.46	57.48	56.01	63.45	91.79	88.47
PWW	342.91	414.93	451.25	477.68	524.91	609.97
Total	14,272.03	16,838.32	18,496.05	18,777.21	19,811.92	22,791.58

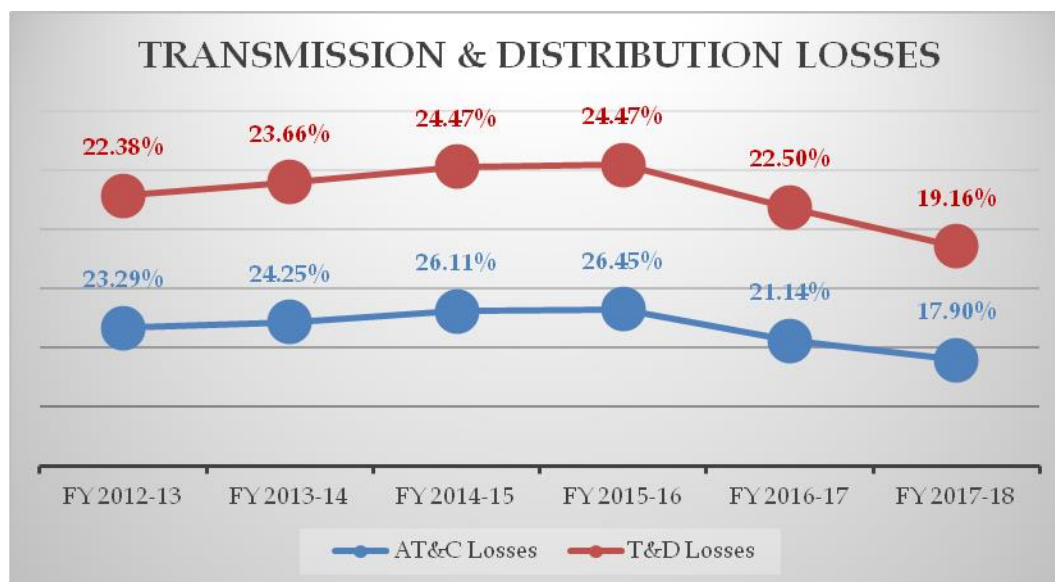
CATEGORY-WISE SALES MIX - YEAR-WISE



As seen from the above figure, Domestic category and Agriculture consumption although varying but remains the highest (48.73% in FY18) consuming category followed by HT Industrial at 26.19%. The HT Industrial and LT Industrial contribute for

more than 30.47% of the total consumption.

Transmission & Distribution losses



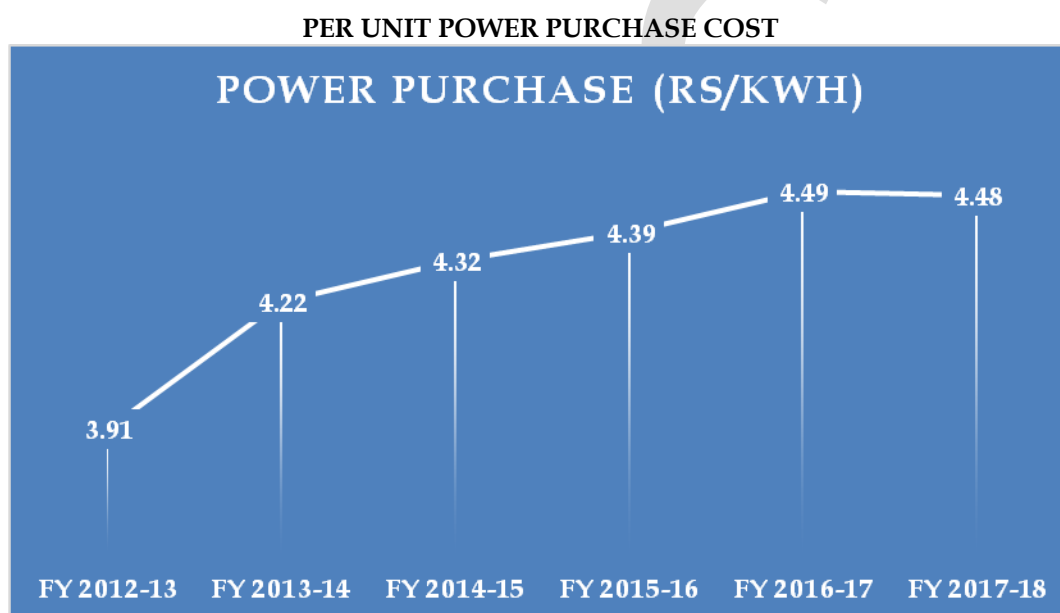
It has been submitted that the Transmission & Distribution loss depends upon various factors such as size of the network, energy demand, connected Load etc. The Transmission Losses in the power system cannot be totally eliminated. However, efforts are undertaken to reduce T&D loss to the desired permissible level. Currently, DHBVN is serving 32,90,104 consumers of which around 25,94,361 are domestic consumers. Given below is a table depicting the number of consumers across different categories for the period from FY 2012-13 to FY 2017-18, from which it is evident that the number of consumers has increased over the period. The majority of the consumers are in the LT-Domestic category followed by LT Commercial Category.

Consumer Mix for last six years

Category	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18
DOMESTIC	19,61,524	22,22,212	22,90,331	23,69,349	24,52,966	25,94,361
NON-DOMESTIC	2,28,923	2,56,616	2,68,741	2,82,654	2,95,444	3,09,611
LT INDUSTRIAL	44,204	47,010	48,403	49,073	49,619	50,400
HT INDUSTRIAL	5,624	6,340	6,494	6,804	7,052	7,653
AGRICULTURE METERED	1,59,789	1,94,999	2,06,679	2,11,062	2,16,106	2,21,924
AGRICULTURE UN-METERED	79,689	93,379	92,343	92,138	92,459	91,561
LIFT IRRIGATION	205	226	230	234	240	246
PUBLIC WATER WORKS	9,568	10,855	11,434	11,821	12,132	12,368
BULK SUPPLY	482	575	627	647	619	654

Category	Mar-13	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18
RAILWAYS	2	3	4	5	6	7
STREET LIGHT	783	917	1,004	1,127	1,206	1,319
TOTAL	24,90,793	28,33,132	29,26,290	30,24,914	31,27,849	32,90,104

DHBVN has been purchasing majority of its power from Central Generating Stations (CGS) as per the allocation decided by Ministry of Power. The power purchase cost from FY 2012-13 to FY 2017-18 is based on audited accounts.



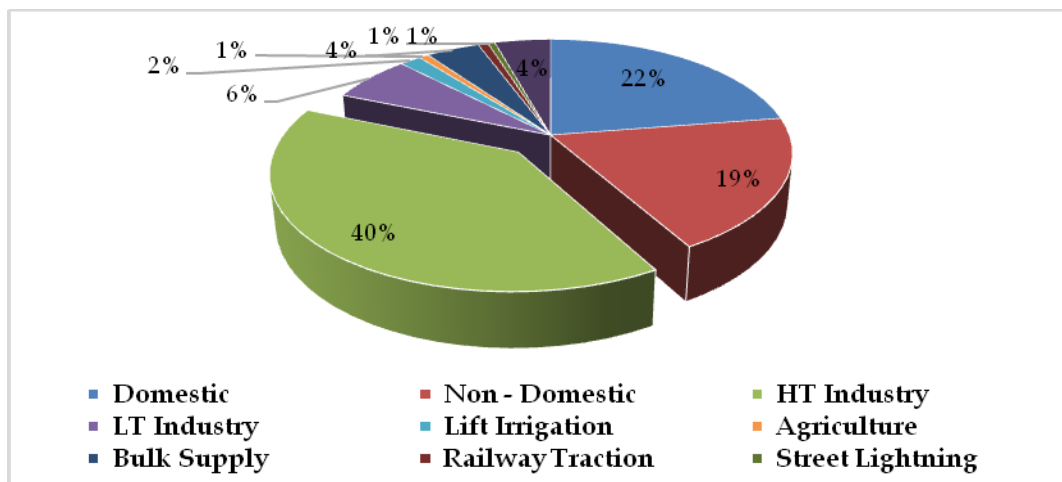
The figure depicts per unit rate of power purchase for DHBVN during last 6 years. The significant increase in power purchase cost is mainly on account of huge dependence on external sources for purchase of power and the increase in fuel cost of generating stations. However, during the last financial year, DISCOMs have put their best efforts to optimise the power purchase and has been able to mellow down power purchase which has been continuously in the increasing over the past five financial years i.e. from FY 2012-13 to FY 2016-17.

Revenue

The revenue generated from the consumption of electricity to various categories is shown in the chart below. Even though no. of consumers of HT consumers is very

few, the highest revenue is obtained from the HT Industrial consumers i.e. 40% of the total revenue.

Revenue from sale of power in the year FY 2017-18



Regulatory Framework

Same as that filed by UHBVN, hence, not being reproduced here.

Current petition

This petition for True-up of FY 2017-18, Annual Performance Review (APR) for FY 2018-19 and Annual Revenue Requirement for FY 2019-20 is being submitted by “Dakshin Haryana Bijli Vitran Nigam Limited”.

The current petition has been prepared in accordance with the provisions of the following Acts/Policies/Regulations:

- a) Electricity Act 2003;
- b) National Electricity Policy;
- c) National Tariff Policy;
- d) HERC (Terms and Conditions for Determination of Tariff for Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 and applicable current amendments;

- e) HERC (Terms and conditions for grant of connectivity and open access for intra-State transmission and distribution system) Regulations, 2012 and applicable current amendments;

DHBVN has made genuine efforts for compiling all relevant information relating to this APR for FY 2018-19 and ARR & Tariff petition for FY 2019-20, as required by the Regulations issued by the Hon'ble Commission and has also made every effort to ensure that information provided to the Hon'ble Commission is accurate and free from material errors. However, there may be certain deficiencies owing to the compilation of accounts of Petitioner company and hence, DHBVN prays to the Hon'ble Commission that the information provided be accepted for the current filing and at the same time DHBVN assures that it is taking appropriate measures to improve its management information system for improved data collection.

True-up of FY 2017-18

Principles of True Up for FY 2017-18

DHBVN is carrying out the true up exercise for FY 2017-18, based on audited annual accounts of the Petitioner Company for the period from 1st April 2017 to 31st March 2018.

The Annual Accounts for the above period are submitted along with petition as Annexure 1: Audited Annual Accounts for FY 2017-18.

As per Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.

“4.2 The Commission shall adopt Multi Year Tariff (MYT) framework for determination of ARR/tariff for each year of the Control Period from FY 2014-15. However, there shall be annual determination of ARR/tariff for the utilities for FY 2013-14 for their respective businesses as per these regulations.”

Therefore, Hon'ble Commission shall undertake the True-up of Aggregate Revenue Requirement of the Licensee for period of FY 2017-18, based on the comparison of the actual performance of the year with the approved estimate for the period of FY 2017-18. It is submitted that expenses approved for FY 2017-18 are taken

from the HERC Order on Distribution & Retail Supply ARR & Tariff of DHBVNL & UHBVNL, dated 11th July, 2017.

Accordingly, the approved and actual expenditures, corresponding revenue and resultant revenue gap for FY 2017-18 are provided in following paragraphs of this section.

Power Purchase and Power Purchase Cost

The Power Purchase for Haryana Discoms is carried out by Haryana Power Purchase Cell (HPPC), which is established separately for power procurement and day to day operation related to power purchase. HPPC is jointly managed by both the Discoms, which manages the energy requirement of Haryana Discoms mainly through the following resources:

- i. NTPC
- ii. NHPC
- iii. NPC
- iv. HPGCL
- v. BBMB
- vi. Open Access & Others

The details of power procured quantum and cost as per the audited accounts from various sources against the quantum and cost approved by the Commission for FY 2017-18 is shown in the following table.

Table 41: Power Purchase Details for FY 2017-18

Generating Stations	Approved Power Purchase for FY 2017-18		Actuals Power Purchase in FY 2017-18					
	Quantum in Mus	Total Power Purchase Cost Rs. Million	UHBVN		DHBVN		Haryana	
			Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million

Generating Stations	Approved Power Purchase for FY 2017-18		Actuals Power Purchase in FY 2017-18					
	Quantum in Mus	Total Power Purchase Cost Rs. Million	UHBVN		DHBVN		Haryana	
			Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million
NTPC								
Singrauli STPS	1,326.66	2,740.60	572.079	1,149.79	796.95	1,598.49	1,369.03	2,748.29
Rihand I	434.17	1,070.72	200.049	414.06	279.43	577.40	479.48	991.47
Rihand II	380.73	945.04	178.118	371.65	249.27	518.64	427.38	890.29
Rihand III	374.39	1,162.14	180.455	481.14	255.34	678.33	435.80	1,159.46
Unchhahar I	51.73	209.86	30.678	117.53	43.48	165.90	74.16	283.44
Unchhahar II	108.19	442.46	60.909	230.15	86.40	325.13	147.31	555.28
Unchhahar III	69.48	305.96	30.278	127.29	42.69	178.95	72.97	306.24
Unchhahar IV	-	-	9.738	37.18	13.41	51.29	23.15	88.46
Anta CCPP	33.35	204.17	8.511	75.20	11.64	104.60	20.15	179.80
Auraiya CCPP	18.51	203.23	3.852	96.02	5.51	134.95	9.36	230.97
Dadri CCPP	40.37	270.29	42.201	200.86	57.24	276.32	99.44	477.18
Faridabad CCPP	1,213.47	5,421.51	348.192	1,939.20	494.76	2,786.53	842.96	4,725.72
Farakka STPS	85.55	274.28	23.599	89.20	33.17	125.33	56.77	214.53
Kahalgaon I	133.92	488.78	54.581	205.37	76.76	289.16	131.35	494.53
Kahalgaon II	341.10	1,292.35	174.584	623.52	246.35	879.13	420.93	1,502.64
Kol Dam	299.78	1,394.84	131.812	586.88	171.30	790.79	303.11	1,377.67
NCTPS (Dadri-II)	-	-	-	-0.00	-	-0.00	-	-0.00
Total NTPC	4,911.40	16,426.22	2,049.64	6,745.04	2,863.70	9,480.94	4,913.34	16,225.98
NHPC								
Salal I	435.57	1,200.33	200.00	426.20	263.03	603.42	463.03	1,029.63

Generating Stations	Approved Power Purchase for FY 2017-18		Actuals Power Purchase in FY 2017-18					
	Quantum in Mus	Total Power Purchase Cost Rs. Million	UHBVN		DHBVN		Haryana	
			Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million
Bairasiul	182.18	417.53	77.63	163.18	102.77	221.56	180.40	384.74
Tanakpur	24.93	82.22	8.34	33.44	10.99	44.71	19.33	78.16
Chamera I	318.68	638.44	155.17	295.02	203.12	396.69	358.28	691.71
Chamera II	71.66	159.75	35.33	72.78	46.54	98.81	81.87	171.59
Chamera-III	79.42	377.74	38.94	178.18	50.97	241.01	89.91	419.19
Dhauliganga	54.37	170.65	27.47	84.23	36.00	113.83	63.47	198.06
Dulhasti	104.17	543.69	52.92	278.25	70.90	379.77	123.82	658.02
Uri	130.20	269.66	52.62	110.80	69.86	152.69	122.49	263.48
Uri-II	55.46	342.90	27.87	173.07	37.34	237.69	65.22	410.77
Sewa II	26.24	136.62	12.34	60.50	16.42	82.88	28.76	143.39
Parbati-III	51.45	317.46	26.69	137.35	34.11	181.55	60.80	318.90
Total NHPC	1,534.33	4,656.99	715.32	2,013.02	942.05	2,754.63	1,657.38	4,767.65
SJVNL								
SJVNL HEP	250.43	824.92	129.02	304.29	170.37	413.26	299.38	717.55
SJVNL Rampur HEP	66.46	263.95	34.52	119.15	45.59	162.10	80.12	281.25
Total SJVNL	316.89	1,088.87	163.54	423.44	215.96	575.36	379.50	998.80
THDC								
Tehri (THDC)	180.08	1,158.00	90.72	459.24	125.12	638.10	215.84	1,097.34
THDC Koteswar HEP	43.19	182.07	21.26	80.89	29.17	111.41	50.44	192.29
Total THDC	223.27	1,340.07	111.99	540.13	154.29	749.51	266.28	1,289.64
NPCIL								
NAPP	180.11	463.96	84.80	271.27	119.11	381.04	203.91	652.31
RAPP (3-4)	308.77	948.42	232.67	853.73	323.18	1,185.61	555.84	2,039.34
RAPP (5-6)	160.47	492.90	-	-	-	-	-	-
Total NPCIL	649.35	1,905.28	317.47	1,125.00	442.28	1,566.65	759.75	2,691.65

Generating Stations	Approved Power Purchase for FY 2017-18		Actuals Power Purchase in FY 2017-18					
	Quantum in Mus	Total Power Purchase Cost Rs. Million	UHBVN		DHBVN		Haryana	
			Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million
HPGCL								
HPGCL	17,252.66	72,153.24	4,194.56	21,676.82	5,873.19	30,336.69	10,067.75	52,013.51
Shared Project								
BBMB	2,622.38	1,418.71	1,203.18	643.67	1,643.80	898.68	2,846.98	1,542.35
DVC								
DVC Mejia-B	473.46	2,320.92	199.39	795.06	280.50	1,115.95	479.89	1,911.01
Koderma DVC	473.46	1,724.76	224.74	858.76	318.48	1,216.11	543.22	2,074.87
DVC Raghunathpur	152.50	560.49	80.90	348.84	113.16	487.30	194.06	836.14
Total DVC	1,099.42	4,606.17	505.03	2,002.66	712.14	2,819.35	1,217.17	4,822.01
UMPP								
CGPL, Mundra	2,435.73	5,550.14	1,046.38	2,523.49	1,475.10	3,562.40	2,521.49	6,085.89
Sasan UMPP	3,088.13	5,122.41	1,315.59	1,963.50	1,856.56	2,754.82	3,172.15	4,718.32
Total UMPP	5,523.86	10,672.55	2,361.97	4,486.99	3,331.67	6,317.22	5,693.63	10,804.21
Other Long Term								
Tala, HEP	51.34	103.96	18.63	40.23	23.85	51.52	42.48	91.75
PTC GMR	2,102.41	3,756.76	737.34	1,804.31	1,039.11	2,542.28	1,776.45	4,346.59
PTC Baglihar	269.20	1,001.43	-	-			-	-
PTC J & K			119.14	443.19	157.74	586.78	276.87	1,029.97
PTC Lanco Amarkantak	1,840.07	5,218.47	763.83	2,234.21	1,057.94	3,121.91	1,821.77	5,356.12
PTC Karchamwa	764.46	2,713.83	413.18	1,565.15	547.21	2,148.10	960.39	3,713.25

Generating Stations	Approved Power Purchase for FY 2017-18		Actuals Power Purchase in FY 2017-18					
	Quantum in Mus	Total Power Purchase Cost Rs. Million	UHBVN		DHBVN		Haryana	
			Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million
ngtoo								
IGSTPP, APCPL Jhajjar	1,824.94	13,853.81	1,518.60	7,419.71	2,128.55	10,389.06	3,647.15	17,808.77
Pragati Gas Bawana	-	1,004.40	101.16	689.91	137.98	956.84	239.13	1,646.76
Adani Power Ltd.	9,780.38	34,420.78	3,562.04	12,639.35	4,952.80	17,577.04	8,514.85	30,216.39
Teesta III	-	838.80	-	-	-	-	-	-
MGSTPS, CLP, Jhajjar	3,294.00	18,271.89	2,635.20	11,726.29	3,720.82	16,464.01	6,356.02	28,190.30
Total Other Long Term	19,926.80	81,184.14	9,869.11	38,562.36	13,766.00	53,837.53	23,635.11	92,399.89
Small Hydro								
Bhoruka HEP	29.15	97.07	12.36	39.27	-	-	12.36	39.27
P&R Gogripur HEP	9.72	46.56	5.71	22.71	-	-	5.71	22.71
Puri Oil Mill HEP	13.64	60.83	16.94	65.87	-	-	16.94	65.87
Total Small Hydro	52.51	204.46	35.01	127.85	-	-	35.01	127.85
Other Renewable								
Biomass Projects	143.06	1,081.53	95.34	747.87	99.07	779.17	194.40	1,527.03
Cogeneration Plants	271.94	1,100.81	58.25	235.89	30.65	124.12	88.90	360.00
Solar Plants	21.27	120.60	3.93	22.29	44.29	256.87	48.22	279.15
HPGCL Solar	17.50	85.40	16.05	78.30			16.05	78.30
SECI Solar	133.16	732.38	60.53	333.41	84.72	466.64	145.25	800.04
Total Other Renewables	586.93	3,120.73	234.09	1,417.74	258.72	1,626.79	492.81	3,044.53
Transmission Charges								

Generating Stations	Approved Power Purchase for FY 2017-18		Actuals Power Purchase in FY 2017-18					
	Quantum in Mus	Total Power Purchase Cost Rs. Million	UHBVN		DHBVN		Haryana	
			Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million
PGCIL Transmission Charges	-	14,016.22	-	5,952.38	-	8,368.93	-	14,321.31
SLDC and Open Access charges	-	-	-	2,088.88	-	3,242.63	-	5,331.51
Total Transmission Charges	-	14,016.22	-	8,041.26	-	11,611.56	-	19,652.82
Short Term								
BANKING POWER			1,018.99	4,286.66	1,278.19	5,375.07	2,297.18	9,661.74
Short Term			7.48	29.13	10.08	39.67	17.56	68.80
Total Short Term	-	-	1,026.47	4,315.79	1,288.27	5,414.74	2,314.74	9,730.53
Unscheduled Interchange								
PGCIL-UI	-	-	182.17	860.32	274.37	1,243.86	456.55	2,104.18
HVPNL-UI	-	-	-0.43	0.43	-0.66	0.66	-1.09	1.09
Total Unscheduled Interchange	-	-	181.74	860.75	273.71	1,244.52	455.45	2,105.27
Power Purchase Cost	54,700	2,12,793.64	22,969	92,982.51	31,766	1,29,234.17	54,735	2,22,216.69
Prior Period Charges				2,660.58		3,885.56		6,546.14
Total PP Excluding HVPNL Charges	54,700	2,12,793.64	22,969	95,643.10	31,766	1,33,119.73	54,735	2,28,762.83
HVPNL Charges		1,673.82	-	7,742.40	-	9,036.27	-	16,778.67
Total PP Cost incl. of	54,700	2,14,467.46	22,969.11	1,03,385.49	31,766	1,42,156.00	54,734.92	2,45,541.50

Generating Stations	Approved Power Purchase for FY 2017-18		Actuals Power Purchase in FY 2017-18					
	Quantum in Mus	Total Power Purchase Cost Rs. Million	UHBVN		DHBVN		Haryana	
			Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million	Units in MU	Amount in Rs Million
all charges								

Table 42: Power Purchase Details for FY-2017-18 for Haryana (in MU)

Haryana	Power Purchase		
	Approved	Actual	Difference
Power Purchase Quantum	54,700	54,735	-35

Further, it is submitted that the actual average power purchase excluding of transmission charges is Rs. 4.26 per unit against the average power purchase cost of Rs. 3.89 per unit approved in HERC Tariff Order dated 11th July 2017. The increase in average power purchase cost of FY 2017-18 is due to unavailability of energy from HPGCL plants and purchase of energy from other generating sources in excess to the quantum approved by the Hon'ble Commission.

The appellant submits herewith that on the basis of actual power purchase cost of FY 2017-18, the power allocation ratio was 42% and 58% for UHBVN and DHBVN respectively. The petitioner would like to submit that even after increase in average power purchase cost, the overall power purchase quantum is in line with the approval by Hon'ble Commission.

The Petitioner prays to the Hon'ble Commission to approve the actual power purchase quantum of 31,765.81 MU amounting Rs. 13,319.61 Crores (post deducting the Gross Power Purchase Rs. 14,215.60 Cr from interstate sales of Rs. 895.99 Cr) for DHBVN in FY 2017-18 as per the Annual Audited Accounts.

Energy Balance

It is submitted that on the basis of actual energy requirement and the energy available from the long term and short-term generating sources, the energy balance for FY 2017-18 is tabulated as under: -

Table 43: Energy Balance for FY 2017-18

Sr.	Particulars	Unit	FY 2017-18
1	Total Power purchase *	Mus	31,765.81
2	Sale outside the State including Banking &UI	Mus	2,305.74
3	Purchase for sale within the state (a-b)	Mus	29,460.07
4	Less Transmission losses	Mus	1,266.57
5	Transmission Losses	%	4.30%
6	Power available for sale	Mus	28,193.51
7	Sales within the state (excluding Agriculture)	Mus	16,671.91
8	Sales within the state – Agriculture	Mus	6,119.66
9	Total Sales	Mus	22,791.57
10	Distribution Loss	%	19.16%

DHBVN requests the Commission to approve the same.

Operation & Maintenance Expenses

The Operation & Maintenance Expenses of the company includes

- Employee Expenses;
- Repair & Maintenance Costs and
- Administrative and General Expenses.

Employee Expense consists of salaries, dearness allowance, bonus, terminal benefits in the form of pension & gratuity, leave encashment and staff welfare expenses.

Repairs and Maintenance expenses include regular expenditure made for improvement of system reliability and quality of power supply. Also, these expenses are important in view of the system maintenance and loss reduction within the distribution network.

Administrative expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other expenses.

A comparison of actual O&M expenses against approved net O&M expenses (after deducting the capitalization) are tabulated as under.

Table 44: O&M Expenses for FY 2017-18 (Rs. Crore)

Sr.	Particulars	Approved	Actual	Difference
1	Employee Expense	790.12	913.29	-123.17
2	Administration & General Expense	77.72	88.70	-10.98
3	Repair & Maintenance Expense	114.16	107.00	7.16
4	Terminal Liability	385.00	429.00	-44.00
	Total	1,367.00	1,538.00	-171.00

DHBVN has prayed that the Commission to approve the same.

Employee Expenses

The 'Employees cost' includes the cost incurred by the distribution licensees on their employees who are presently working as well as for their retired employees. The cost of working employees includes salary, dearness allowance and other allowances such as HRA, LTC, medical reimbursement etc. However, in case of retired employees and those who would retire during the year, the distribution licensees have to discharge financial liabilities towards pension, gratuity, leave encashment benefit etc.

DHBVN has incurred Terminal Benefits expenses of Rs. 429 Crore, Basic salary expenses of employees as Rs. 526.91 Crore, dearness allowance expense of employees as Rs. 65.51 Crore, Expenditure on Contractual/outsourced Employees as Rs. 209.21 Crore, and Rs. 123.98 Crore as other allowances.

The summary of the actual employee expenses for FY 2017-18 vis-à-vis the expenses approved by the Hon'ble Commission has been given in the table below:

Table 45: Employee Expenses for FY 2017-18 (Amt. in Rs. Crore)

Sr	Particulars	Approved	Actual	Difference
1	Basic Salary	790.12	526.91	-135.49

Sr	Particulars	Approved	Actual	Difference
2	Dearness Allowance (DA)		65.51	
3	Expenditure on Contractual/outsourced Employees		209.21	
4	Other allowance		123.98	
5	Terminal benefits	385.00	429.00	-44.00
6	Gross Employee Expense	1,175.12	1,354.61	-179.49
7	Less Expenses Capitalised	-	12.32	-12.32
8	Net Employee Expenses	1,175.12	1,342.29	-167.17

DHBVN prays the Hon'ble Commission to approve the actual Employee Expense for FY 2017-18 of Rs. 1,342.29 Crore against the approved expense of Rs. 1,175.12 Crore per the details given in above table.

Repair & Maintenance Expenses

Repair and Maintenance expenditure is dependent on various factors. R&M cost is meant for upkeep of the distribution system. Every asset requires repair and maintenance at some point and in order to keep the system healthy and running the Petitioner has to incur substantial amount on R&M. DHBVN has been trying its best to ensure uninterrupted operations of the system and accordingly has been undertaking necessary expenditure for R&M activities to keep the system healthy and maintain the quality indices.

The comparison summary of the actual R&M expenses for FY 2017-18 vis-à-vis the expenses approved by the Hon'ble Commission are given in the table below:

Table 46: R&M Expenses for FY 2017-18 (Amount in Rs. Crore)

Sr.	Particulars	Approval	Actual	Difference
1	Repair and maintenance Expenses	114.16	107.00	7.16

DHBVN prays the Hon'ble Commission to approve the actual R&M Expense for FY 2017-18 of Rs. 107 Crore against the approved expense of Rs. 114.16 Crore as per the details given in above table.

Administrative & General Expenses

The actual A&G Expense for FY 2017-18 is Rs. 88.70 Crore against Rs. 77.72 Crore as approved by the Hon'ble Commission. There is a slight increase in the A&G expenses incurred over the approved level.

The comparison summary of the actual A&G expenses for FY 2017-18 vis-à-vis the expenses approved by the Hon'ble Commission are given in the table below:

Table 47: A&G Expenses for FY 2017-18 (Rs. Crore)

Sr.	Particulars	Approved	Actual	Difference
1	Gross A&G Expenses	77.72	91.80	-14.08
2	Less: Expenses Capitalised	-	3.10	
3	Net A&G Expenses	77.72	88.70	-10.98

DHBVN prays the Hon'ble Commission to approve the actual A&G Expense for FY 2017-18 of Rs. 88.70 Crore as per the details given in above table.

Capital Expenditure

The Hon'ble Commission approved a Capital Expenditure of Rs. 1100.00 Crore for FY 2017-18. As per the audited accounts of DHBVN for FY 2017-18; the Capital Expenditure for DHBVN for FY 2017-18 is Rs. 808.36 Crore, which is less than the amount already approved by the Commission. DHBVN, thus requests the Hon'ble Commission that the actual capital expenditure as per the audited accounts be allowed to the DHBVN for FY 2017-18.

Interest Cost on long term loans

The Hon'ble Commission has allowed an amount of Rs. 122.06 Crore as net interest cost on long term borrowings for FY 2017-18 against which the net interest cost on long term Capex Loans, after interest capitalization, comes to Rs. 80.53 Crore. The Petitioner requests the Commission to kindly approve the actual Interest on long term loans.

Interest on Working Capital Borrowings

The Hon'ble Commission has allowed interest on borrowings for working capital as per the MYT Regulation. The Hon'ble Commission had approved the working capital requirement of Rs. 1,440.67 Crore. Interest of Rs.125.91 Crores @8.74% on the approved working capital requirement of Rs.1440.67 Crore was approved for the year FY 2017-18. The actual interest cost on working capital borrowings is Rs. 163.08 Crore as per the audited accounts for FY 2017-18. The Petitioner requests the Commission to kindly approve the actual Interest on working capital loans.

Interest on Consumer Security Deposits

The Hon'ble Commission has allowed Rs. 93.02 Crore as interest on consumer security deposit for FY 2017-18. However, the actual expenses under this head as per audited accounts for the year is Rs. 52.33 Crore.

DHBVN thus prays to the Hon'ble Commission to approve the actual Expense for interest on consumer security deposit for FY 2017-18 as per the details given above.

Interest on Bonds

It is submitted that Government of India has notified Ujwal Discom Assurance Yojana (UDAY) scheme for operational and financial turnaround of power distribution companies (DISCOMs) on 20th Nov 2015 under which the State government would take over 75% of Discom debt as on 30th September, 2015. 50% of the Discom debt would be taken over in FY 2015-16 and balance 25% in FY 2016-17. The schedule of takeover of loan has been given as under:

Break up of State Govt Takeover of Loans					
Particulars	FY 16	FY 17	FY 18	FY 19	FY 20
Grant (%)	11.25%	11.25%	11.25%	11.25%	11.25%
Grant (Cr)	3,892.5	3,892.5	3,892.5	3,892.5	3,892.5
Equity (%)	3.75%	3.75%	3.75%	3.75%	3.75%
Equity (Cr)	1,297.5	1,297.5	1,297.5	1,297.5	1,297.5
Debt (%)	35.00%	45.00%	30.00%	15.00%	0.00%
Debt (Cr)	12,109.9	15,569.9	10,379.9	5,190.0	0.0

The Amount taken over by the Government of Haryana will be converted into equity/grant over a period of 5 years and in the meantime the interest cost of such bonds which has not been converted into equity/grants by the GoH has to be borne by the DISCOMs.

Accordingly, DHBVN has borne interest cost of Rs 480.33 Cr on UDAY bonds in FY 2017-18.

Total Interest & Finance Cost

The total Interest Expense as per the audited annual accounts of DHBVN for FY 2017-18 vis-à-vis approved by the Hon'ble Commission is shown in the table below:-

Table 48: Total Interest & Finance Cost for FY 2017-18 (Rs. Crore.)

Sr.	Category	Approved	Actual
1	Net Interest on long term Capex Loans	122.06	80.53
2	Interest on Working Capital Loans (<i>incl. cash credit, Bank/HVPL Bonds and UHBVN loan</i>)	125.91	163.08
3	Interest on UDAY Bonds		480.33
4	Interest on Consumer Security Deposits	93.02	52.33
5	Other Interest and Finance charges	3.00	3.64
	Total	343.99	779.91

DHBVN prays the Hon'ble Commission to approve the actual interest & finance expenses for FY 2017-18 as per the details provided in the table given above.

Depreciation

The Hon'ble Commission, in its order approved a net depreciation of Rs. 288.87 Crore after adjusting for depreciation on consumer's contribution.

As per audited accounts of FY 2017-18 the opening and closing GFA is Rs. 7,067.83 Crore and Rs. 7,683.95 Crore respectively. The net depreciation after adjusting for depreciation on consumer's contribution and grants works out to Rs. 225.12 Crore. The Hon'ble Commission is requested to approve the same.

Return on Equity

The Hon'ble Commission, in its Tariff Order approved a RoE of Rs. 173.16 crs. @10% for FY 2017-18. It is submitted that the Petitioner for computation of Return on Equity for FY 2017-18 has considered the opening equity excluding the equity received under UDAY for FY 2015-16 and FY 2016-17. The Return on Equity on the basis of above methodology works out to be Rs. 234.45 Crore. Therefore, requested to the Hon'ble Commission that the RoE at the rate of 14% on basis of the audited account be allowed to DHBVN for FY 2017-18.

Non – Tariff Income

The Non – Tariff Income approved by Hon'ble Commission for DHBVN in FY 2017-18 was Rs. 247.47 Crore. As per the audited annual accounts of DHBVN for FY 2017-18; the Actual Non-Tariff Income comes to Rs. 469.51 Crore.

The Nigam has not considered the delayed payment surcharge for FY 2017-18 as part of non-tariff income. As the delayed payment surcharge are the charges collected against the receivables which were not timely received from the consumers. Due to delay in receiving of revenue, the Nigam has to arrange additional working capital to carry out its operation work. Hence, the revenue received from delayed payment surcharges is not an income to the Discoms, rather it is an carrying cost recovered from consumers to repay the interest on the increased portion of working capital which has occurred due to delay in receiving of revenue.

Thus, it is requested that the revenue from delayed payment surcharge should not be considered as income to the Nigam.

The Hon'ble Commission is requested to approve the same.

Expenditure due to other debits

It is submitted that as per the annual accounts of DHBVNL, there is an amount of Rs. 19.57 Crore recorded under the head of other debits. The amount consists of expenditure on account of compensation, revenue amount refunded and miscellaneous losses.

The Hon'ble Commission is requested to approve the same for FY 2017-18.

True up of RE subsidy

The total agricultural sales for both DISCOMs approved by the Hon'ble Commission in FY 2017-18 were 9,193 MU against the same, subsidy of Rs. 6,550.86 Crore for DHBVN and

UHBVN was allowed. This amounts to a per unit subsidy of Rs. 7.13/unit. Based on the feeder data, the actual agricultural sales, following HERC methodology of 16% losses on AP Feeder data emerges to 5,389.09 MU for DHBVN and 3,960.48 MU for UHBVN.

Thus, for total sales of 9,349.57 MU, the eligibility of subsidy works out to Rs. 6,662.43 Crores (9349.57 MU*Rs. 7.13 per unit). Consequently, post true up, the additional subsidy is calculated to Rs. 111.57 Crore as under:

Table 49: True up of RE subsidy for FY 2017-18

Particulars	2017-18
Total RE subsidy allowed by HERC in Tariff order for 2017-18 (Rs Crs)	6,550.86
Total Agricultural sales approved by HERC in T.O (MUs)	9,193.00
Approved Per unit Subsidy (Rs./unit)	7.13
Actual Agriculture Sales based on Feeder data minus 16% losses (Mus) DHBVN	5,389.09
Actual Agriculture Sales based on Feeder data minus 16% losses (Mus) UHBVN	3,960.48
Total actual Agriculture Sales based on Feeder data minus 16% losses (Mus)	9,349.57
Eligibility of subsidy based on actual sales of 2017-18 (Rs. Crs)	6,662.43
Additional Subsidy (Rs. Crs)	111.57

Summary of True up of FY 2017-18

The table below provides an overview of the difference between the approved expenditure for FY 2017-18 under consideration vis-à-vis the actual expenditure incurred by DHBVN as per audited accounts for FY 2017-18.

It is prayed to the Hon'ble Commission that the difference between the approved and actual expenditure as per the below table be allowed to DHBVN for FY 2017-18.

Table 50: True Up of Expenses for FY 2017-18 (Rs. Crore)

Summary of Actual ARR of DHBVN for FY17-18				
Sr.	Particulars	Approved	Actual	Difference
1	Total Power purchase cost	11,925.87	13,319.61	-2,289.73
1.1	Power Purchase Expenses incl Inter State Transmission	11,021.51	12,415.98	-2,290.46
1.2	Intrastate transmission charges and SLDC charges	904.36	903.63	0.73
2	Operations and Maintenance Expenses	1,367.00	1,538.00	-171.00
2.1	Employee Expense	790.12	913.29	-123.17
2.2	Administration & General Expense	77.72	88.70	-10.98
2.3	Repair & Maintenance Expense	114.16	107.00	7.16
2.4	Terminal Liability	385.00	429.00	-44.00
3	Depreciation	288.87	225.12	63.75

4	Total Interest & Finance Charges	343.99	779.91	-435.92
5	Return on Equity Capital	173.16	234.45	-57.31
6	Other Expenses	-	19.58	-19.57
7	Total Expenditure	14,098.89	16,116.68	-2,909.80
8	Less: Non-Tariff Income	247.47	469.51	-222.04
9	Net Aggregate Revenue Requirement	13,851.42	15,647.16	-2,687.75
10	Total Revenue		11,570.93	
10.1	Revenue from Intrastate sales / Sale of Power		11,570.93	
11	Revenue Gap		(4,076.23)	
	Less: Subsidy from Govt. of Haryana & NEF		3,043.32	
	Less: FSA Recovered as per Audited Accounts FY 2017-18		326.38	
13	GAP After AP Subsidy		-706.53	

It is submitted that the Petitioner has considered revenue of FSA pertaining to FY 2017-18 as part of its income while computing the revenue gap for true up year. The FSA pertaining to the HERC Order dated 03.03.2017 amounting Rs. 828.40 Crores has distributed among DHBVNL and UHBVNL on the basis of the actual sale realised till September 2017. Subsequently, the allocated FSA amount of Rs 493.68 Crores has been deducted from the revenue of FSA booked in the audited account of FY 2017-18. As the Hon'ble Commission has already considered FSA of Rs 828.40 in the true up of FY- 2016-17 (Order dated 15th November 2018) the same has been reduced from the current year revenue from FSA. Therefore, on the basis of above the revenue gap for FY 2017-18 is determined by DHBVN.

Further, the revenue gap approved by Hon'ble Commission for FY 2015-16 has been considered to assess the net revenue gap for FY 2017-18. The approved revenue gap is allocated between the DISCOMs on the basis of ARR approved for FY 2015-16. The balance revenue gap is further deducted by the revised AP subsidy allocated to the DHBVNL, which is further carried forward along with the holding cost of two years at the rate of 8.74% to arrive at the net revenue gap for DHBVN for FY 2017-18. The detail of the same is tabulated as under:

Table 51: Final True up of FY 2017-18 in Rs Cr.

Particulars	Amount
True-up of DHBVN after subsidy	(706.53)

Increase in Subsidy due to actual AP sales (Rs. Crs)	44.63
Revenue GAP for FY 2015-16 as approved by HERC dated T.O 11 th July 2017	(743.47)
Carrying Cost for 2 years @8.74%	(245.66)
Revenue Gap for FY 2017-18 including Holding Cost	(1,651.04)

Thus, in view of the above, it is requested to the Hon'ble Commission that net revenue gap submitted in above table may kindly be allowed to DHBVN for FY 2017-18. Further, the same shall be allowed to the petitioner to carry forward the true up gap of FY 2017-18 in the ARR of FY 2019-20.

Annual Performance Review for FY 2018-19 and Annual Revenue Requirement for FY 2019-20

Preamble

This chapter deals with the estimates of ARR for FY 2019-20 and APR of FY 2018-19 against the approved expense in HERC Tariff Order dated 15th November, 2018. However, the response on the directives given in the Tariff Order of ARR for FY 2018-19 will be submitted separately as per the direction given by the Hon'ble Commission. Further, to estimate the various component of Annual Performance Review and Aggregate Revenue Requirement for FY 2018-19 and FY 2019-20, the various assumptions and approaches have been taken into the consideration. The same has been described in following sections, while projecting each component.

Capital Expenditure

The Hon'ble Commission vide order dated 15th November, 2018 has approved a Capex Plan of Rs 1170 Cr. for FY 2018-19. DHBVN has estimated to undertake an expenditure of Rs 975 Cr based on the actual capital expenditure incurred in first half of FY 2018-19. In order to achieve the loss targets as proposed in the following chapters, DHBVN propose a Capital Expenditure of Rs 1355.89 Cr for FY 2019-20.

The funding of capital expenditure in FY 2018-19 and FY 2019-20 is being arranged by debt from REC, PFC and supported further from equity and consumer contribution. The table below reflects the funding arrangement of capital expenditure during the control period.

Table 52: Summary of funding of capital expenditure in FY 2018-19 and 2019-20

Capitalization Schedule	2018-19	2019-20
% transfer of total Capex to fixed asset	60%	60%
% transfer of total Capex to CWIP	40%	40%
Total	100%	100%

Further, the Details of Scheme wise CAPEX for the FY 2019-20 has been given in the table below:

Table 53: Scheme Wise details for the FY 2018-19

Sr. No.	Categories	Proposed CAPEX (In Crores)	Total Expenditure incurred upto 30.09.2018	Likely Expenditure to be incurred upto 01.10.18 to 31.03.19.	CAPEX for FY 2018-19
1	AT&C loss reduction plan				
a	Procurement of single-phase meters for replacement of defective meters & release of new connections.	50.00	7.48	25.87	33.35
b	Procurement of three phase meters for replacement of defective meters & release of new connections.	30.00	3.05	12.43	15.48
c	Power Factor Improvement (Providing automatic power factor correctors)	16.00	0.00	0.00	0.00
d	Providing of LT Capacitors on 400 KVA and above Distribution Transformers	33.00	0.00	0.00	0.00
2	Load Growth schemes				
a	Creation of new 33 kV sub-stations along with associated 33 kV & 11 kV lines	150.00	70.39	31.13	101.52
b	Augmentation of existing 33 kV sub-stations	14.00	10.50	3.55	14.05
c	Augmentation of existing 33 kV lines	5.00	2.49	3.41	5.90
d	Bifurcation of 11 kV feeders (Work of bifurcation of feeders, augmentation of ACSR).	50.00	3.86	42.00	45.86
e	Material required for release of Non-AP connections & replacement of old assets	171.00	128.74	35.50	164.24
f	Release of Tube well connection on turnkey basis and segregation of AP load from Rural Urban	62.00	4.60	37.56	42.16

Sr. No.	Categories	Proposed CAPEX (In Crores)	Total Expenditure incurred upto 30.09.2018	Likely Expenditure to be incurred upto 01.10.18 to 31.03.19.	CAPEX for FY 2018-19
	feeders.				
g	Procurement of power transformers and allied equipment such as 33 kV CTs, 33 kV PTs, 33 kV and 11 kV VCBs, 33 kV Control and Relay Panels etc.	28.00	11.73	12.51	24.24
h	Release of BPL connections under RGGVY schemes. Work already awarded for Palwal (9163 BPL Connections), Gurugram (2882 BPL Connections) and Faridabad (1494 BPL Connections) Circles.	4.00	0.00	4.00	4.00
i	11 kV Lines	21.98	3.95	123.29	135.00
j	Distribution Transformers (25, 63, 100, 200 kVA)	15.20	1.40		
k	LT ABC Line	8.49	3.27		
l	Augmentation – DTR, existing line on conductor to ABXLPE, Augmentation of 11kV lines	11.90	3.09		
m	Metering (3-Phase), Solar Energy Meter	1.46	0.00		
n	Solar Project	0.84	0.00		
3	R-APDRP schemes				
a	Implementation of R-APDRP (Part-A)	8.80	53.78	34.97	88.75
4	Other works				
a	Maintenance free earthing using 'Ground Enhancing Material' for Distribution Transformers, Meter Pillar Boxes and H-pole etc.	3.00	5.73	0.37	6.10
b	Installation of meters on 33 kV Incomers at sub-stations for energy auditing. Work already awarded on 02.06.2017. Approximately 40% work already completed and provision has been made for taking care of remaining works.	2.00	0.79	0.02	0.81
c	Civil Works	10.00	0.56	8.44	9.00
d	Shifting of HT line (33 kV), passing over authorized/un-authorized colonies under jurisdiction of DHBVN.	5.00	6.43	3.96	10.39
e	Mhara Gaon Jagmag Gaon scheme for rural area and feeder sanitization for Urban area/LRP/Replacement of iron pole.	190.00	102.67	17.07	119.74
f	Other works for system improvement - Procurement of IT Equipment & Software	8.00	3.50	5.50	9.00
g	Smart City Gurgaon (HT & LT Lines, DTs, U/G Cables, RMUs and FRTUs Etc.) including SCADA Project, IMT, Manesar.	235.00	0.00	138.00	138.00
h	Smart City Faridabad, Hisar & Rewari (HT & LT	68.00	0.00	0.00	0.00

Sr. No.	Categories	Proposed CAPEX (In Crores)	Total Expenditure incurred upto 30.09.2018	Likely Expenditure to be incurred upto 01.10.18 to 31.03.19.	CAPEX for FY 2018-19
	Lines, DTs, U/G Cables, RMUs and FRTUs Etc.)				
i	Shifting of 11 lines passing over residential areas under DHBVN.	20.00	0.00	5.00	5.00
j	Works under EESL (Smart Meters)	55.00	0.00	0.00	0.00
	Total	1277.67	428.01	544.58	972.59
	B) CAPEX under UDAY (Ujjwal DISCOM Assurance Yojana)				
1	Scaling of IT project to Non R-APDRP areas covering the following:- 1. Establishment of IT infra in SDO & Other offices and its connectivity with Data Center. 2. AMR for Non R-APDRP feeders. 3. DT metering for 2953 in Non R-APDRP areas. 4. AMR for HT & LT CT operated meters. 5. Procurement of Computer Furniture for Office under IPDS town and balance in Non-R-APDRP areas.	12.33	0.00	2.41	2.41
2	Boundary meters for Villages in Rural Areas (3648 number of villages i.e. 7296 meters)	10.00	0.00	0.00	0.00
	Total	22.33	0.00	2.41	2.41
	Grand Total	1300.00	428.01	546.99	975.00

Table 54: Scheme Wise details for the FY 2019-20

Sr. No.	Categories	Quantity (In No.)	Unit Rate (In Rs.)	CAPEX (Rs. In Cr)
1	AT&C loss reduction plan			
a	Procurement of single-phase meters for replacement of defective meters & release of new connections.	650000 Nos.	683.5	44.43
b	Procurement of three phase meters for replacement of defective meters & release of new connections.	120000 Nos.	1687.5	20.25
c	Power Factor Improvement (Providing automatic power factor correctors)			16.00
d	Providing of LT Capacitors on 400 KVA and above Distribution Transformers			10.00
2	Load Growth schemes			
a	Creation of new 33 kV sub-stations along with	30 Nos.	30000000	90.00

Sr. No.	Categories	Quantity (In No.)	Unit Rate (In Rs.)	CAPEX (Rs. In Cr)
	associated 33 kV & 11 kV lines			
b	Augmentation of existing 33 kV sub-stations	50 Nos.	3000000	15.00
c	Augmentation of existing 33 kV lines	20 KM	700000	1.40
d	Bifurcation of 11 kV feeders (Work of bifurcation of feeders, augmentation of ACSR).	150 Nos.	2500000	37.50
e	Material required for release of Non-AP connections & replacement of old assets			175.00
f	Release of Tube well connection on turnkey basis and segregation of AP load from Rural Urban feeders.	6000 Nos.	125000	75.00
g	Procurement of power transformers and allied equipment such as 33 kV CTs, 33 kV PTs, 33 kV and 11 kV VCBs, 33 kV Control and Relay Panels etc.	45 Nos. (10 MVA) 05 Nos. (12.5 MVA)	4200000 (10 MVA) 5300000 (12.5 MVA)	28.00
h	11 kV Lines			123.85
i	Distribution Transformers (25, 63, 100, 200 kVA)			
j	LT ABC Line			
k	Augmentation – DTR, existing line on conductor to ABXLPE, Augmentation of 11kV lines			
l	Metering (3-Phase), Solar Energy Meter			
m	Solar Project			
3	Other works			
A	Maintenance free earthing using 'Ground Enhancing Material' for Distribution Transformers, Meter Pillar Boxes and H-pole etc.	6000 Nos.	5000	3.00
b	Civil Works			10.00
C	Shifting of HT line (33 kv), passing over authorized/un-authorized colonies under jurisdiction of DHBVN. <u>Note:-Hon'ble Chief Minister has made an announcement on the floor of Haryana Vidhan Sabha that all dangerous wires of 33 KV and above levels passing over the various colonies shall be removed. Accordingly, Worthy ACS/Power, Govt. of Haryana, Power Deptt. directed to prepare the detailed scheme in this regar. Also, Worthy ACS/Power, Govt. of Haryana, Power Deptt. has desired that it may be made part of the CAPEX Plan and approval of HERC be obtained.</u>	7 Nos. 33 KV lines under Rewari and Narnaul Circles		5.00
d	Mhara Gaon Jagmag Gaon scheme for rural area and feeder sanitization for Urban area/LRP/Replacement of iron pole.			125.00
e	Other works for system improvement - Procurement of IT Equipment & Software			3.00
f	Smart City Gurgaon (HT & LT Lines, DTs, U/G Cables,			300.00

Sr. No.	Categories	Quantity (In No.)	Unit Rate (In Rs.)	CAPEX (Rs. In Cr)
	RMUs and FRTUs Etc.) including SCADA Project, IMT, Manesar			
g	Smart City Faridabad, Hisar & Rewari (HT & LT Lines, DTs, U/G Cables, RMUs and FRTUs Etc.)			50.00
i	Shifting of 11 lines passing over residential areas under DHBVN.			49.60
	Total			1182.03
	B) CAPEX under UDAY (Ujjwal DISCOM Assurance Yojana)			
1	Scaling of IT project to Non R-APDRP areas covering the following:- 1. Establishment of IT infra in SDO & Other offices and its connectivity with Data Center. 2. AMR for Non R-APDRP feeders. 3. DT metering for 2953 in Non R-APDRP areas. 4. AMR for HT & LT CT operated meters. Total DPRs cost for the above works is Rs. 20.55 Crores and approximately, 60% expenditure is likely to be incurred during FY 2018-19.			40.11
2	Implementation of ERP Application			33.75
3	Laying of Infrastructure in Gurugram (Sector-58 to Sec-115) and Faridabad (Sector-75 to Sector-89)			100.00
	Total			173.86
	Grand Total			1355.89

Transmission and Distribution Losses.

The Hon'ble Commission vide its Tariff Order dated 15th November 2018 has approved AT&C loss level of 15.00% for DHBVN for the FY 2018-19 which is in accordance with the targets laid down in the UDAY MoU. Against the committed AT&C losses of 18.76% for FY 2017-18 in the UDAY MoU, the Discom has been able to achieve actual AT&C loss level of 17.90%. Further, as per the UDAY MoU, both the Discoms were required to achieve an AT&C loss level of 15% for the FY 2018-19. As such a loss reduction of approx. 3% has to be achieved during the current financial year to meet the UDAY targets.

In view of above, DHBVN has considered AT&C loss target of 15.00% for FY 2018-19 and continue the same level of losses for the FY 2019-20.

Capital Work in Progress

Capital work in progress (CWIP) is projected by considering the capitalisation of 60% on the cumulative amount of capital expenditure plan and the Opening CWIP over each year. The same is tabulated as under:

Table 55: Summary of CWIP (Rs. Crore)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
	<i>Actual</i>	<i>Actual</i>	<i>Projected</i>	<i>Projected</i>
CWIP				
Opening CWIP	989.61	1,137.38	1290.63	906.25
Add: Capex during year	640.93	808.35	975.00	1355.89
Capex Capitalized	493.16	655.10	1359.38	1357.28
IDC during the year				
Closing CWIP	1,137.38	1,290.63	906.25	904.86

Assessment of Energy Sales for 2018-19 and 2019-20

In order to estimate the respective consumer category wise energy sales of DHBVNL for FY 2018-19 and FY 2019-20, the Petitioner has relied upon the CAGR of previous year's data of sales. The sales of the base year i.e. FY 2017-18 has been considered for projection of category wise sales to the consumers. Similarly, category wise connected load has been projected for the FY 2018-19 and FY 2019-20 based on the CAGR of 3 to 5 years. The methodology applied by the petitioner for estimating the metered sales is as under: -

- Category wise energy sales for FY 2018-19 are estimated on the basis of actual sales for first half and sales for the projected on the basis of CAGR of 3 to 5 years over the actuals sales of the second half of FY 2017-18. Category wise sales of FY 2019-20 are estimated by escalating the projected sales of FY 2018-19 with the CAGR of 3-5 years.
- Agriculture consumption for FY 2018-19 and FY 2019-20 is calculated by assuming a growth rate of 5% in sales over FY 2017-18.
- As Railways has shifted into Open Access regime, the sales for Railway is considered as nil. For determination of sales of Metro for FY 2018-19 a nominal increase of 5% in sales is considered on second half sales of FY

2017-18 to determine the sales for remaining half. However, for FY 2019-20, a nominal increase of 5% in sales is considered.

Therefore, keeping the above basis in view, DHBVNL envisages the following category wise sales for FY 2018-19 & FY 2019-20: -

Table 56: Statement of sales for FY 2018-19 and FY 2019-20 (Mus)

Sr. No.	Category	FY 2017-18 Actual	FY 2018-19 Approved	FY 2018-19	FY 2019-20
1	Domestic	4976.56	5,269.85	5,137.30	5,394.16
2	Non-Domestic	2913.86	3,006.42	2,974.60	3,123.33
3	HT Industry	5963.04	5,162.83	6,897.95	7,558.81
4	LT- Industry	975.28	981.11	1,052.25	1,143.59
5	Lift Irrigation	199.79	157.32	199.98	213.08
6	AP Sales	5389.09	5,520.00	5,658.55	5,941.47
7	Bulk Supply	780.31	676.60	854.73	926.92
8	Railways	144.64	200.94	76.22	76.67
9	Street Light	88.47	95.74	95.70	100.49
10	PWW	609.97	527.08	641.55	673.63
	Total	22041.00	21,597.89	23,588.82	25,152.15

DHBVNL requests Hon'ble Commission to approve energy sales, as per revised projections for FY 2018-19 and FY 2019-20 tabulated above.

Energy Availability for Haryana for FY 2018-19 and FY 2019-20

Month Wise Energy availability of generation stations at the state periphery has been projected for FY 2018-19 & FY 2019-20, on the basis of share allocated to Haryana in Central Generating Stations, State Generation Stations, IPP and other Stations.

The Energy Availability is calculated on the basis of the average PLF realised long term generating stations over the period of three years. The energy available from the tied up generating station is apportioned among Discoms at the ratio energy drawal during the FY 2017-18.

The energy sale projected for FY 2018-19 and FY 2019-20 is distributed in month wise basis in the ratio of actual month wise consumption of FY 2017-18. Subsequently, the estimated month wise sales of FY 2018-19 and FY 2019-20 is grossed up with the

proposed T&D losses to determine the normative energy required at the Discom periphery and further grossed with intrastate transmission losses to arrive at the normative energy required at the State Periphery.

The normative energy required at the state is first balanced with the energy available from Must Run Plant like Hydro Power Plants, Solar Power Plant and Biomass etc. Thereafter, the remaining demand is met through the Thermal Generating Plants like NTPC, HPGCL and IPP as per the Merit order dispatch determined on the basis of variable charges for FY 2018-19 and FY 2019-20.

The impact of interstate losses on availability from the Inter State Generating station has already been accounted while determining the energy availability from such generating stations at the state periphery.

The backing down of the thermal/gas generating stations is assumed to be limited at backing down capacity and any surplus created on account of same is assumed to be banked with other states and consumed during next financial year.

The per unit energy charges of the tied-up generating stations, is kept same as recorded in energy bills received from the generating stations during the first half of FY 2018-19 for FY 2018-19 and the same is increased by 5% for determining the per unit variable charge for FY 2019-20. The per unit energy charges determined as above for FY 2018-19 and FY 2019-20 is multiplied with the estimated energy available from various generators as per the Merit Order dispatch to arrive at the total variable power purchase cost for the respective years.

Similarly, the fixed charges paid to the generators in FY 2017-18 are escalated at an average rate of 5% to arrive at the fixed charges to be paid for FY 2018-19 and FY 2019-20.

The plant wise energy availability for DHBVN and power purchase cost for FY 2018-19 and FY 2019-20 are tabulated as under:-

Table 57: Power Purchase Quantum Availability and Costs – Projected for FY 2018-19 and FY 2019-20

Sr. No	Project	FY 2018-19				FY 2019-20			
		Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
1	Anta	7.27	5.95	7.09	13.04	4.82	4.15	7.44	11.59

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Sr. No	Project	FY 2018-19				FY 2019-20			
		Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
2	Auriya	8.15	3.48	11.36	14.84	5.41	2.42	11.93	14.35
3	Dadri	20.87	7.57	9.85	17.43	21.04	8.02	10.34	18.36
4	Faridabad Gas	567.84	209.59	136.22	345.81	575.62	223.08	143.03	366.11
5	Feroz Gandhi Unchahar-1	37.71	10.87	5.01	15.88	37.71	11.41	5.26	16.67
6	Feroz Gandhi Unchahar-2	78.88	22.78	9.45	32.23	78.88	23.92	9.92	33.84
7	Feroz Gandhi Unchahar-3	41.09	12.12	6.61	18.73	41.09	12.73	6.94	19.67
8	Feroz Gandhi Unchahar-4	64.85	16.26	6.08	22.33	130.06	34.23	24.31	58.54
9	Farraka Super Thermal	36.24	8.53	4.63	13.16	36.24	8.96	4.86	13.82
10	Kahalgaon-1	87.47	20.41	10.87	31.28	87.47	21.43	11.41	32.84
11	Kahalgaon-2	243.74	51.60	32.03	83.63	243.74	54.18	33.63	87.81
12	Koldam	185.10	47.92	44.15	92.08	185.10	50.32	46.36	96.68
13	NCTPS (DADRI-II)	-	-	0.00	0.00	-	-	0.00	0.00
14	Rihand Thermal Power St.-1	244.77	33.24	22.70	55.94	244.77	34.90	23.84	58.74
15	Rihand Thermal Power St.-2	219.30	29.76	20.68	50.44	219.30	31.24	21.72	52.96
16	Rihand Thermal Power St.-3	215.65	29.69	36.05	65.74	215.65	31.17	37.85	69.02
17	Singrauli Super Thermal	789.44	112.86	53.91	166.76	789.44	118.50	56.60	175.10
	TOTAL NTPC LTD (A)	2,848.38	622.62	416.68	1,039.30	2,916.35	670.66	455.45	1,126.10
18	BAIRASUIL	110.30	11.67	12.86	24.53	110.30	12.26	13.50	25.76
19	SALAL	272.29	17.44	46.32	63.76	272.29	18.31	48.63	66.94
20	TANAKPUR	10.76	1.84	2.92	4.76	10.76	1.93	3.06	4.99
21	CHAMERA-I	204.83	24.30	19.19	43.48	204.83	25.51	20.15	45.66
22	URI	82.53	7.05	10.03	17.08	82.53	7.41	10.53	17.93
23	CHAMERA-II	46.33	4.84	5.51	10.35	46.33	5.08	5.79	10.87
24	DHAULIGANGA	32.93	4.16	6.23	10.39	32.93	4.37	6.54	10.91
25	DHULHASTI	69.59	19.89	21.44	41.33	69.59	20.88	22.51	43.40
26	SEWA-II	16.59	3.73	4.94	8.68	16.59	3.92	5.19	9.11
27	CHAMERA III	48.16	10.63	13.91	24.54	48.16	11.16	14.61	25.77
28	PARBATI III	32.69	9.31	9.33	18.64	32.69	9.77	9.80	19.57
29	URI-II	39.14	9.66	15.73	25.39	39.14	10.14	16.52	26.66
	TOTAL NHPC LTD (B)	966.13	124.52	168.41	292.93	966.13	130.75	176.83	307.58
30	SJVNL	169.69	21.42	21.95	43.37	169.69	22.49	23.05	45.54
31	SJVNL (RAMPUR)	41.04	6.88	9.37	16.26	41.04	7.23	9.84	17.07
32	THDC	113.33	31.30	33.47	64.76	113.33	32.86	35.14	68.00

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Sr. No	Project	FY 2018-19				FY 2019-20			
		Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
33	THDC KOTESHWAR	29.02	5.90	5.86	11.75	29.02	6.19	6.15	12.34
34	RAPS	315.02	120.04	0.01	120.05	315.02	126.04	0.01	126.06
35	NAPS	107.62	35.80	-	35.80	107.62	37.59	-	37.59
36	BBMB	1,629.77	101.50	-	101.50	1,629.77	106.58	-	106.58
37	PTC TALA	26.16	5.87	-	5.87	26.16	6.17	-	6.17
38	PTC J&K	163.25	63.14	-	63.14	163.25	66.30	-	66.30
39	Aravali Co. Pvt. Ltd.	1,437.59	475.27	436.27	911.53	1,604.96	557.13	458.08	1,015.21
40	JHAJJAR POWER LTD. (CLP)	3,396.86	1,103.98	480.97	1,584.95	3,296.57	1,124.95	505.02	1,629.97
41	PRAGATI POWER	48.92	19.09	57.59	76.69	65.41	26.80	60.47	87.28
42	Coastal Gujrat Power Ltd.	1,486.59	304.49	139.55	444.04	1,486.59	304.49	139.55	444.04
43	ADANI POWER LTD	5,466.16	1,302.59	626.12	1,928.71	5,466.16	1,302.59	605.27	1,907.86
44	SASAN POWER LIMITED	1,740.65	226.04	30.15	256.19	1,740.65	226.04	29.98	256.02
45	PTC GMR KAMALANGA	1,220.23	179.50	175.10	354.60	1,220.23	179.50	173.03	352.53
46	PTC KARCHAMWA NGTOO (200 MW)	466.46	86.96	126.61	213.56	466.46	91.31	132.94	224.24
47	PTC Lanco Amarkantak	1,078.01	234.92	138.58	373.50	1,078.01	246.67	145.51	392.18
48	DVC MEJIA	271.75	67.67	50.78	118.45	271.75	71.05	53.32	124.37
49	DVC KODERMA	195.12	38.67	63.30	101.97	195.12	40.60	66.46	107.06
50	DVC Raghunathpur	369.19	87.29	21.05	108.34	369.19	91.65	22.10	113.76
51	PTPS-V (HPGCL)	323.02	126.75	43.42	170.17	321.51	132.47	45.59	178.06
52	PTPS-VI (HPGCL)	323.02	126.75	51.93	178.68	321.51	132.47	54.52	186.99
53	PTPS-VII (HPGCL)	925.63	317.68	97.94	415.62	925.87	333.65	102.84	436.48
54	PTPS-VIII (HPGCL)	925.63	317.68	86.30	403.98	925.87	333.65	90.62	424.27
55	YTPP-I&2 (HPGCL)	1,321.05	441.23	277.57	718.80	1,335.67	468.42	291.44	759.86
56	RGTPS 1&2 (HPGCL)	3,086.69	1,045.15	489.12	1,534.27	3,036.54	1,079.58	513.57	1,593.15
57	WYC Kakaroi	116.21	25.17	-	25.17	116.21	26.43	-	26.43
	OTHER LONG TERM (C)	26,793.68	6,918.73	3,463.00	10,381.73	26,839.18	7,180.90	3,564.51	10,745.40
59	P&R GOGRIPUR small hydro	5.64	2.24	-	2.24	5.64	2.36	-	2.36
60	Bhoruka Power Corps. Ltd. Small hydro	16.91	5.37	-	5.37	16.91	5.64	-	5.64
61	HPSEB/MITTAL SMALL HYD.	-	-	-	-	-	-	-	-
62	Megahalya/	-	-	-	-	-	-	-	-

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Sr. No	Project	FY 2018-19				FY 2019-20			
		Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
	APPC								
63	SHAHBAD SUGAR MILL	46.89	18.99	-	18.99	46.89	19.94	-	19.94
64	CH. DEVI LAL SUGAR MILL	5.21	2.10	-	2.10	5.21	2.21	-	2.21
65	Haryana Co. Sugar Mill.	31.26	12.66	-	12.66	31.26	13.29	-	13.29
66	Hafed Sugar Mill	5.21	2.11	-	2.11	5.21	2.21	-	2.21
67	Meham Sugar Mill	5.21	-	-	-	5.21	-	-	-
68	Puri Oil Mill small hydro	7.89	3.00	-	3.00	7.89	3.15	-	3.15
	SUGAR MILL AND SMALL HYDRO (D)	124.23	46.48	-	46.48	124.23	48.80	-	48.80
69	SDS SOLAR PVT LTD. DH	0.97	0.55	-	0.55	0.97	0.58	-	0.58
70	C&S Electrical DH	0.97	0.55	-	0.55	0.97	0.58	-	0.58
71	CHANDRALEEL A SOLAR DH	0.77	0.44	-	0.44	0.77	0.46	-	0.46
72	SUKHBIR SOLAR DH	0.97	0.55	-	0.55	0.97	0.58	-	0.58
73	ZAMIL SOLAR DH	0.97	0.55	-	0.55	0.97	0.58	-	0.58
74	SIWANA SOLAR POWER DH	4.83	2.74	-	2.74	4.83	2.88	-	2.88
75	H.R. MINERAL SOLAR UH	0.97	0.55	-	0.55	0.97	0.58	-	0.58
76	TAYAL & CO SOLAR UH	0.97	0.55	-	0.55	0.97	0.58	-	0.58
77	VKG SOLAR UH	0.97	0.55	-	0.55	0.97	0.58	-	0.58
78	Utrecht Solar Pvt. Ltd.	0.97	0.55	-	0.55	0.97	0.58	-	0.58
79	Subhash Infra Engineers Pvt Ltd.	0.97	0.55	-	0.55	0.97	0.58	-	0.58
80	JBM Solar	19.32	10.97	-	10.97	19.32	11.52	-	11.52
81	Balarch Solar	0.97	0.55	-	0.55	0.97	0.58	-	0.58
82	HPGCL-Solar	9.66	4.71	-	4.71	9.66	4.95	-	4.95
83	Solar Energy Corporation of India Ltd.	77.28	42.50	-	42.50	77.28	44.63	-	44.63
	SOLAR POWER (E)	121.53	66.85	-	66.85	121.53	70.20	-	70.20
84	STAR WIRE INDIA	38.51	31.27	-	31.27	38.51	32.84	-	32.84
85	GEMCO ENERGY LTD.	31.12	24.99	-	24.99	31.12	26.24	-	26.24
86	AB GRAIN SPIRIT PVT LTD.	19.45	15.40	-	15.40	19.45	16.17	-	16.17
87	SRI JYOTI	36.95	29.26	-	29.26	36.95	30.73	-	30.73
	BIOMASS POWER (F)	126.02	100.93	-	100.93	126.02	105.97	-	105.97
	Total Long term	30,979.97	7,880.14	4,048.09	11,928.23	31,093.43	8,207.28	4,196.78	12,404.06

Sr. No	Project	FY 2018-19				FY 2019-20			
		Quantum	Energy Charge	Fixed Charges	Total Charges	Quantum	Energy Charge	Fixed Charges	Total Charges
	(A+B+C+D+E+F)								
88	PTC KARCHAMWA NGTOO (176MW)	376.75	69.80	-	69.80	410.49	79.86	-	79.86
89	GATI HYDRO/Chuzachain HEP Sikkim	215.05	104.87	-	104.87	234.31	119.97	-	119.97
90	DANS HYDRO/Tashiding HEP, Sikkim	206.23	98.21	-	98.21	224.70	112.35	-	112.35
91	SHIGA HYDRO/Jorethang HEP, Sikkim	206.45	101.10	-	101.10	224.94	115.66	-	115.66
92	IA HYDRO/Chanju HEP, HP	62.83	29.40	-	29.40	75.44	37.06	-	37.06
93	Naraingarh Sugar Mill	39.93	18.21	-	18.21	80.08	38.34	-	38.34
	Total New Plants (FY 2018-19)	1,107.25	421.58	-	421.58	1,249.96	503.24	-	503.24
94	Tehri PSP (Uttranachal)-THDC					134.11	68.66	-	68.66
95	Parbati II, HEP (H.P.)-NHPC					48.28	24.72	-	24.72
96	Wind Power of 1000 MW from SECI-I					195.07	57.92	-	57.92
97	Wind Power of 2000 MW from SECI-II					273.09	74.83	-	74.83
98	Solar Power through SECI under 2000MW ISTS scheme					67.66	19.28	-	19.28
	New Plants (FY 2019-20)					718.21	245.42	-	245.42
	Total Power Purchase cost	32,087.22	8,301.72	4,048.09	12,349.81	33,061.60	8,955.94	4,196.78	13,152.73
99	Hon'ble APTEL Judgement								-
100	Total Cost of Power Purchase	32,087.22	8,301.72	4,048.09	12,349.81	33,061.60	8,955.94	4,196.78	13,152.73

The Nigam prays that in case of any variance in the cost of new plants, the Nigam should be allowed to recover the additional cost.

Further, the Nigam has projected the Interstate Transmission charges for FY 2018-19 and 2019-20 by escalating the actual interstate transmission charges of FY 2017-18 by 5%, while Nigam has considered Intrastate Transmission charges as

approved by the Hon'ble Commission vide its Tariff Order dated 15th November 2018 and escalation of 3.32% has been considered in FY 2019-20 which is rate of escalation considered by Hon'ble CERC for escalating the transmission charges. The summary of same is given below:

Table 58: Summary of Power Purchase in Rs Cr.

Output	FY 2018-19	FY 2019-20
Power Purchase Cost	12,349.81	13,152.73
Interstate Transmission Cost	1,219.21	1,280.17
Intra-state Transmission Cost	969.15	1,071.61
Total Power Purchase Cost	14,538.18	15,450.51

The total power purchase cost from external and state sources for DHBVN are assessed at **Rs. 14,538.18** Crores for FY 2018-19 and **Rs. 15,450.51** Crores for FY 2019-20.

Transmission losses

For FY 2018-19 and FY 2019-20, the inter-state transmission losses have been considered as 3.82% and intra-state transmission losses have been considered as 2.44% and 2.42% for FY 2018-19 & FY 2019-20 respectively, in line to the loss trajectory approved for HVPNL in HERC Tariff Order dated 29th May 2014.

Energy Balance – DHBVNL

On the basis of the above projections, the Energy Balance for DHBVN for FY 2018-19 and FY 2019-20 is summarized below.

Table 59: Energy Balance for DHBVN

Energy Balance	Units	FY 2018-19	FY 2019-20
Energy Sales to the Consumers	Mus	23,588.82	25,152.15
T&D loss	%age	14.14%	14.14%
Energy Input at Discom Periphery	Mus	27,473.59	29,294.86
Intra- State Transmission Loss	%age	2.44%	2.42%
Energy Input at State Periphery	Mus	28,160.71	30,021.38
Total Energy Available	Mus	33,180.26	34,106.39
Inter-state Power Purchase considering MoD	Mus	13,064.65	13,997.74
Inter State transmission losses	%age	3.82%	3.82%
Inter-state Power Purchase at State Periphery	Mus	12,565.58	13,463.03

Energy Balance	Units	FY 2018-19	FY 2019-20
Intra state Power Purchase Considering MoD	Mus	19,521.64	19,593.36
Power Purchase at State Periphery	Mus	32,087.22	33,061.60
Surplus	Mus	3,926.51	3,040.22

The Nigam has assumed that the surplus power available will be sold entirely as 'inter-state sales' throughout FY 2018-19 and FY 2019-20 at average variable power purchase cost.

DHBVN requests the Hon'ble Commission to approve the above submission for FY 2018-19 and FY 2019-20.

The Petitioner also submits the bulk supply tariff computed for DHBVN as given below:

Table 60: Bulk Supply Tariff for DHBVN

Bulk Supply Tariff	Units	FY 2018-19	FY 2019-20
Net energy available at state boundary for use in DHBVN	Mus	32,087.22	33,061.60
Intra-state transmission losses	%	2.44%	2.42%
Intra-state transmission losses	Mus	782.93	800.09
Energy available for sale to distribution licensee at its periphery	Mus	31,304.29	32,261.51
Power purchase cost	Rs Cr	12,349.81	13,152.73
Inter-state transmission charges	Rs Cr	1,219.21	1,280.17
Intra-state transmission charges	Rs Cr	969.15	1,017.61
Total bulk purchase and transmission charges	Rs Cr	14,538.18	15,450.51
Power purchase per unit at Generator Ex-bus	Rs/Kwh	3.95	4.08
Inter-state transmission charges	Rs/Kwh	0.39	0.40
Intra-state transmission charges	Rs/Kwh	0.31	0.32
Average BST for DHBVN	Rs/Kwh	4.64	4.79

Operation & Maintenance Expenses

The operation and maintenance expenditure of DHBVNL comprises of Employee Expenses, Repair & Maintenance expenses and Administration & General expenses. The O&M expenses, as per the MYT regulations, 2012 are considered as controllable

factor with the exception of terminal benefits. The cost of terminal benefits has been considered as uncontrollable factor.

The MYT Regulations have clearly set out the methodology to calculate the O&M expenses for the Distribution and Retail supply business for the control period, the same is reproduced below:

The actual audited O & M expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 4% to arrive at the O & M expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below.

$$\mathbf{O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1 - X_n) + Terminal Liabilities}$$

Where,

- *R&M_n – Repair and Maintenance Costs of the Distribution Licensee(s) for the nth year;*
- *EMP_n – Employee Costs of the Distribution Licensee(s) for the nth year excluding terminal liabilities;*
- *A&G_n – Administrative and General Costs of the Distribution Licensee(s) for the nth year;*

The above components shall be computed in the following manner.

$$\mathbf{k) \ R\&M_n = K * GFA * INDX_n / INDX_{n-1}}$$

Where,

- *‘K’ is a constant (expressed in %) governing the relationship between O&M costs and Gross Fixed Assets (GFA) for the nth year. The value of K will be 1.65% for DHBVN and UHBVN respectively for the entire control period;*
- *‘GFA’ is the average value of the gross fixed asset of the nth year.*
‘INDX_n’ means the inflation factor for the nth year as defined herein after.

$$\mathbf{l) \ EMP_n \text{ (excluding terminal liabilities)} + A\&G_n = (EMP_{n-1} + A\&G_{n-1}) * (INDX_n / INDX_{n-1})}$$

Where,

- $INDX_n$ – Inflation Factor to be used for indexing the Employee Cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year and shall be calculated as under:
- $INDX_n = 0.55 * CPI_n + 0.45 * WPI_n$

Note 1: For the purpose of estimation, the same $INDX_n$ value shall be used for all years of the control period. However, the Commission shall consider the actual values of the $INDX_n$ at the end of each year during the annual performance review exercise and true-up the employee cost and A&G expenses on account of this variation.

Note 2: Any variation in employee cost and A&G cost on account of reasons beyond variation in $INDX_n$ shall be subject to the incentive and penalty framework specified in regulation 12.

Note 3: As and when any material price index specific to power sector or a more relevant Index becomes available, the same shall replace the Index used for working out R&M cost.

Note 4: Terminal liabilities shall be approved as per actual expenditure incurred by the distribution licensee or established through actuarial valuation for the ensuing year.

Note 5: O&M expenses made on account of extraordinary situations (if any) shall be submitted to Commission for its approval. Such expenses shall be filed separately and will not be subjected to incentive and penalty framework. The approved amount by the Commission shall be trued up in the annual performance review.

Note 6: Changes in the pay scales of employees necessitated on account of pay revision by Pay Commission or by the State Government orders shall be considered by the Commission for true-up during the annual performance review.

m) X_n is an efficiency factor for n th year

The Value of X_n will be determined by the Commission in the MYT order for the control period.

Computation of Inflationary Indices

The computation of applicable Inflationary Indices for the projection of O&M expenses and its sub-heads are as under:

Table 61: Inflation factor for WPI & CPI

WPI Inflation

Financial Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average
FY 2018-19	117.3	118.3	119.1	119.9	120.0	120.8							119.25
FY 2017-18	113.2	112.9	112.7	113.9	114.8	114.9	115.6	116.4	115.7	116.0	116.1	116.3	114.88
FY 2016-17	109	110.4	111.7	111.8	111.2	111.4	111.5	111.9	111.7	112.6	113	113.2	111.6
FY 2015-16	110.2	111.4	111.8	111.1	110.0	109.9	110.1	109.9	109.4	108	107.1	107.7	109.7

CPI Inflation

Financial Year	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Average
FY 2018-19	288	289	291	301	301	301							295.17
FY 2017-18	277	278	280	285	285	285	287	288	286	288	287	287	284.42
FY 2016-17	271	275	277	280	278	277	278	277	275	274	274	275	275.9
FY 2015-16	256	258	261	263	264	266	269	270	269	269	267	268	265.0

Inflation Faction	WPI	CPI	Total
Weightage	45%	55%	100%
Average Indexation for FY17-18	114.88	284.42	
Average Indexation n-1 (Index * Wt.)	51.7	156.4	208.12
Average Indexation for FY18-19	119.25	295.17	
Average Indexation n (Index * Wt.)	53.7	162.3	216.00
Combined Inflation (Indxn. /Indxn-1)	3.79%		

DHBVNL submits herewith that as per the calculations tabulated above, the applicable combined inflation indices, after taking into consideration the weightage average ratios of **WPI & CPI of 45:55** as FY 2017-18 and FY 2018-19 has been computed as **3.79 %**, and the same is used in computation of O&M Expenses, discussed in consecutive paras of this submission.

Employee Expenses

The employee expenses primarily include costs towards salaries, dearness allowances, bonus, staff welfare and medical benefits, leave travel and earned leave encashment, and the terminal benefits in the form of pension, gratuity etc.

The Inflation Index of **3.79%** as indicated in above table is considered over FY 2017-18 to arrive at employee cost for FY 2018-19 and FY 2019-20. The petitioner has projected Employee Expense of Rs 947.87 Cr and Rs 983.77 Cr respectively.

The petitioner has also projected the amount paid for terminal benefits, as Rs. 424.50 Crores for FY 2018-19 and Rs 426.75 Cr for FY 2019-20.

Table 62: Employee Expenses for FY 2018-19 and FY 2019-20 (Amt. in Rs. Crores)

Particulars	FY 2018-19	FY 2019-20
Salaries	546.86	567.57
Dearness Allowance	67.99	70.57
Expenditure on Employees Engaged on Contractual Basis	217.13	225.35
Other Allowances	128.67	133.55
Terminal benefits	424.50	426.75
Gross Employee Expense	1,385.16	1,423.79
Less Expenses Capitalised	12.79	13.27
Net Employee Expenses	1,372.37	1,410.52

We request the Hon'ble Commission to approve total employee cost for FY 2018-19 and FY 2019-20 as per above tabulated computation.

Repair & Maintenance Expenses

The petitioner has projected R&M expenses for FY 2018-19 and FY 2019-20, as per the formula specified in HERC MYT regulations, 2012 and same has been quoted again as below:-

$$(b) R\&M_n = K * GFA * INDX_n / INDX_{n-1}$$

Where,

- 'K' is a constant (expressed in %) governing the relationship between O&M costs and Gross Fixed Assets (GFA) for the nth year. The value of K will be 1.65% for DHBVN and UHBVN respectively for the entire control period;
- 'GFA' is the average value of the gross fixed asset of the nth year.

- ' $INDX_n$ ' means the inflation factor for the n th year as defined herein after.

The petitioner has projected R&M expenses for FY 2018-19 and FY 2019-20, on the basis of average of GFA calculated as per the proposed CAPEX plan. Further, the inflation factor of **3.79%** is applied to determine the R&M expenses. The same are tabulated as below:

Table 63: R&M Expenses for FY 2018-19 and FY 2019-20 (Amt. in Rs. Crores)

Particulars	FY 2018-19 (Projected)	FY 2019-20 (Projected)
Average GFA for Previous Year	8,342.53	9,654.99
K factor	1.65%	1.65%
Indexation %	3.79%	3.79%
R&M Expenses	142.86	165.34
R&M Expense has been projected @ 3.79% inflation factor for FY 2018-19 and as per MYT Regulations 2012, the K factor being considered 1.65% at average GFA		

We request the Hon'ble Commission to approve total R&M expenses for FY 2018-19 and FY 2019-20 as per above submission.

Administration & General Expenses

Administration and General expenses mainly comprise costs towards rent charges, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other expenses.

As per MYT Regulations, 2012, the Inflation factor of **3.79%** is considered over FY 2017-18 to arrive at A&G cost for FY 2018-19 and FY 2019-20. The A&G cost works out to as below:

Table 64: A&G Expenses for FY 2018-19 and FY 2019-20 (Amt. in Rs. Crores)

Particulars	FY 2018-19	FY 2019-20
Gross A&G Expenses	91.80	95.28
Indexation (%)	3.79%	3.79%
Net A&G Expenses	95.28	98.89
Less: Expenses Capitalised	3.10	3.21

Particulars	FY 2018-19	FY 2019-20
Administrative and General Expense	92.18	95.67

DHBVN prays the Hon'ble Commission to approve total A&G expenses for FY 2018-19 and FY 2019-20 as per above submission.

Summary of O&M Expenses

The projected O&M expenses summary for FY 2018-19 and FY 2019-20 is tabulated as under:

Table 65: Summary of O&M Expenses for FY 2018-19 and FY 2019-20 (Amt. in Rs. Crores)

Particulars	FY 2018-19 (Approved)	FY 2018-19 (Projected)	FY 2019-20 (Projected)
Employee Expense	820.03	947.87	983.77
A&G Expense	85.18	92.18	95.67
R&M Expense	148.99	142.86	165.34
Terminal Benefits	343.25	424.50	426.75
Total O&M Expenses	1397.45	1607.42	1671.53

DHBVN prays the Hon'ble Commission to approve total O&M expenses for FY 2018-19 and FY 2019-20 as tabulated above.

Interest & Finance Charges

As per Regulation 21 of HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012; Interest on Loan for existing loans shall be computed loan-wise and for new loans it shall be equal to the base rate of SBI as applicable on 1st April of the relevant financial year plus an appropriate margin that realistically reflects the rate at which the licensee can raise loans from the market. The relevant regulations are provided here for ease of reference:

Regulation 21.1 Existing Loans

- (i) *Interest on loan capital shall be computed loan-wise for existing loans arrived in a manner specified in Regulation 19 and shall be as per the rates approved by the Commission.*
- (ii) *The loan outstanding as on 1st April of each financial year shall be worked out as the gross loan in accordance with regulation 19 by deducting the cumulative repayment as admitted by the Commission up to 31st March of previous financial year from the gross normative loan;*
- (iii) *The rate of interest shall be the weighted average rate of interest on institutional loans calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project. In case the weighted average rate is not available, the interest rate approved by the Commission in its earlier tariff order shall be allowed.*

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 plant/project does not have actual loan, then the weighted average rate of interest of the generating company/licensee as a whole shall be considered

- (iv) *The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest;*
- (v) *The generating company and the licensee shall from time to time review their capital structure i.e. debt and equity and make every effort to restructure the loan portfolio as long as it results in net savings on interest. The costs associated with such re- financing shall be borne by the beneficiaries and the net savings (after deducting the cost of re- financing) shall be subjected to incentive / penalty*

framework as mentioned in the regulation 12 which shall be dealt with at the time of mid-year performance review/true-up.

- (vi) The changes to the loan terms and conditions shall be reflected from the date of such re- financing and benefit passed on to the beneficiaries;*
- (vii) In case of any dispute relating to re-financing of loan, any of the parties may approach the Commission with proper application along with all the relevant details. During the pendency of any dispute, the beneficiaries shall not withhold any payment on account of orders issued by the Commission.*
- (viii) In case any moratorium period on repayment of loan is availed of by the generating company or the licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.*

Regulation 21.2 New Loans (on or after 6th April 2013)

- (v) Rate of interest on new loans shall be equal to the base rate of SBI as applicable on 1st April of the relevant financial year plus an appropriate margin that realistically reflects the rate at which generating company or the licensee can raise loans from the market. They shall however, be required to submit due justification to the Commission for the terms and conditions of the loans raised by them.*

Provided that interest and finance charges on works in progress shall be excluded and shall be considered as part of the capital cost;

Provided further that neither penal interest nor overdue interest shall be allowed for computation of Tariff

(vi) Any variation above or below the allowed interest rate shall be subject to the incentive and penalty framework specified in regulation 12.

(vii) The amount of loan shall be arrived in the manner as specified in regulation 19 and shall be based on the approved capital investment plan.

(viii) In case any moratorium period on repayment of loan is availed of by the generating company or the licensee, depreciation provided for in the tariff during the years of moratorium shall be treated as repayment during those years and interest on loan capital shall be calculated accordingly.

Interest on Capex Loan to be raised for the ensuing control period:

It is estimated that 78% of the CAPEX i.e. proposed CAPEX Rs 975 Cr. for FY 2018-19 and Rs 1355.89 Cr for FY 2019-20 would be made through loans from various Lending agencies. It is estimated that the fresh loans would be serviced at the rate of 10.25% per year. The Detailed calculation of interest on CAPEX loan are given at the Table: 28 and Table 29.

Interest on Consumer Security Deposit:

Interest on Consumer Security Deposit is payable @ 6.25% per annum on average opening and closing balance. The petitioner submits that Interest on Security Deposit amount has been claimed as per the provision of MYT Regulations, 2012.

As per Para 21.4 of MYT Tariff Regulations, dated 26/12/2012,

“Interest shall be allowed on the amount held as security deposit held in cash from Transmission System Users, Distribution System Users and Retail consumers, at the Bank Rate as on 1st April of the financial year in which the petition is filed provided it is payable by the transmission/distribution licensee.

“

The details of Interest on the Consumer Security Deposit is provided in the table below:

Table 66: ICD of FY 2018-19 and FY 2019-20

Description	FY 2018-19	FY 2019-20
Security Deposit (Rs. In Crores)	1,304.45	1,483.29
Interest Rate	6.25%	6.25%
Interest on security deposit (Rs. In Crores)	81.53	87.12

Interest Capitalized:

It is based on proportion of 60% of the asset capitalized over the opening CWIP and capex added during the year;

Interest on Working Capital Loan:

In order to operationally and financially turnaround the DISCOMs, the Hon'ble Commission may consider the interest on the UDAY Bonds and other loan as the interest of the same is borne by the license and the disallowance of it would lead to financial burden on the discoms. The Details of the year wise Interest has been given in the table below:

Table 67: Loan Profile and interest Liability of the Nigam for FY 2018-19 (Amount in Crores)

Particulars	First Half of FY 2018-19 (H1)						Second Half of FY 2018-19 (H2)					
	Opening Balance as on 1.04.2018	Interest Rate (%)	Loan Receipt	Loan Repayment	Closing Balance as on 30.09.2018	Interest Cost	Opening Balance as on 1.10.2018	Interest Rate	Loan Receipt	Loan Repayment	Closing Balance as on 31.03.2019	Interest Cost
(A) CAPEX LOAN												
PMGY (GOH)	0.48	10.5-12	-	0.02	0.46	0.02	0.46	10.5-12	-	0.07	0.39	0.03
APDRP (GOH)	17.69	10.5-12.5	-	0.69	17.00	0.56	17.00	10.5-12.5	-	2.76	14.23	1.25
REC (Term Loan)	1,733.28	9.95-10.60	150.33	53.10	1,830.51	88.40	1,830.51	9.95-10.60	166.97	114.54	1,882.94	98.41
PFCL (R-APDRP)	58.93	9.00	-	-	58.93	-	58.93	9.00	-	-	58.93	-
REC (RGGVY)	4.91	9.75-11.50	-	-	4.91	0.21	4.91	9.75-11.50	-	0.28	4.63	0.25
World Bank Loan	193.29	LIBOR + Spread	11.70	-	204.98	-	204.98	LIBOR + Spread	-	13.50	191.48	3.37
JICA Loan	-	0.80	9.55	-	9.55	-	9.55	0.80	90.45	-	100.00	0.44

HERC Order on Application for True Up for the FY 2017-18, APR for the FY 2018-19 and ARR and Tariff Determination for the FY 2019-20

Particulars	First Half of FY 2018-19 (H1)						Second Half of FY 2018-19 (H2)					
LENDERS PROFILE	Opening Balance as on 1.04.2018	Interest Rate (%)	Loan Receipt	Loan Repayment	Closing Balance as on 30.09.2018	Interest Cost	Opening Balance as on 1.10.2018	Interest Rate	Loan Receipt	Loan Repayment	Closing Balance as on 31.03.2019	Interest Cost
Punjab & Sind Bank, Hisar	89.23	9.80	-	11.90	77.33	4.12	77.33	9.80	-	11.90	65.42	3.50
Total (A)	2,097.81		171.58	65.71	2,203.68	93.30	2,203.68		257.42	143.06	2,318.04	107.25
(B) State Govt. Loans Under UDAY												
State Govt. Loans Under UDAY-DHBVN												
Tranche 1	3,282.91	8.21	-	-	3,282.91	21.49	3,282.91	8.21	-	2,345.85	937.05	159.31
Tranche 2	1,208.93	8.18	-	-	1,208.93	20.33	1,208.93	8.18	-	-	1,208.93	78.56
Tranche 3	55.78	8.14	-	-	55.78	1.12	55.78	8.14	-	-	55.78	3.42
Tranche 4	144.09	8.06	-	-	144.09	3.00	144.09	8.06	-	-	144.09	8.61
Total (B)	4,691.71		-	-	4,691.71	45.94	4,691.71		-	2,345.85	2,345.85	249.90
(C) Other WORKING CAPITAL LOAN												
Loan from HVPNL(Bonds)												
HVPNL Bonds 1	293.40	9.45	-	-	293.40	10.77	293.40	9.45	-	-	293.40	48.06
HVPNL Bonds 2	200.00	9.83	-	-	200.00		200.00	9.83	-	-	200.00	
HVPNL Bonds 3	132.85	8.62	-	-	132.85		132.85	8.62	-	-	132.85	
PFC STL	100.64	10.25	-	67.02	33.62	2.81	33.62	10.25	-	33.62	-	0.86
9.80% DHBVN Bonds	162.86	9.80	-	-	162.86	2.23	162.86	9.80	-	162.86	-	7.98
Loan form UHBVN							-					
HVPNL Bonds -1	61.51	9.79	-	-	61.51	1.01	61.51	9.79	-	-	61.51	3.01
HVPNL Bonds -2	19.46	9.45	-	-	19.46	0.31	19.46	9.45	-	-	19.46	0.92
FRP Bonds	188.19	9.80	-	-	188.19	2.58	188.19	9.80	-	188.19	-	9.22
Bank Cash Credit/Overdraft	20.78	9.40-10.70	-	20.78	-	15.89	-	9.40-10.70	100.00	-	0.00	29.11
Total (C)	1,179.69		-	87.81	1,091.89	35.59	1,091.89		100.00	384.67	807.22	99.17
G. Total (A+B+C)	7,969.21		171.58	153.52	7,987.27	174.84	7,987.27		357.42	2,873.58	5,471.11	456.32

Note: The CC limits are availed and recouped during the month as per cash flows. Hence, the interest cost is projected as per utilization during the year as per historical trends.

Table 68: Loan Profile and Interest Liabilities of the Nigam for FY 2019-20 (Amount in Crores)

Particulars	First Half of FY 2019-20 (H1)						Second Half of FY 2019-20 (H2)					
LENDERS PROFILE	Opening Balance as on 1.04.2019	Interest Rate (%)	Loan Receipt	Loan Repayment	Closing Balance as on 30.09.2019	Interest Cost	Opening Balance as on 1.10.2019	Interest Rate	Loan Receipt	Loan Repayment	Closing Balance as on 31.03.2020	Interest Cost

HERC Order on Application for True Up for the FY 2017-18, APR for the FY 2018-19 and ARR and Tariff Determination for the FY 2019-20

Particulars	First Half of FY 2019-20 (H1)						Second Half of FY 2019-20 (H2)					
LENDERS PROFILE	Opening Balance as on 1.04.2019	Interest Rate (%)	Loan Receipt	Loan Repayment	Closing Balance as on 30.09.2019	Interest Cost	Opening Balance as on 1.10.2019	Interest Rate	Loan Receipt	Loan Repayment	Closing Balance as on 31.03.2020	Interest Cost
(A) CAPEX LOAN												
PMGY (GOH)	0.39	10.5-12	-	0.04	0.35	0.02	0.35	10.5-12	-	0.04	0.30	0.02
APDRP (GOH)	14.23	10.5-12.5	-	1.38	12.85	0.80	12.85	10.5-12.5	-	1.38	11.47	0.80
REC (Term Loan)	1,882.94	9.95-10.60	354.86	93.11	2,144.68	113.64	2,144.68	9.95-10.60	354.86	93.11	2,406.42	113.64
PFCL (R-APDRP)	58.93	9.00	-	-	58.93	-	58.93	9.00	-	-	58.93	-
REC (RGGVY)	4.63	9.75-11.50	-	0.14	4.50	0.26	4.50	9.75-11.50	-	0.14	4.36	0.26
World Bank Loan	191.48	LIBOR + Spread	-	7.50	183.98	1.56	183.98	LIBOR + Spread	-	7.50	176.48	1.56
JICA Loan	100.00	0.80	50.00	-	150.00	0.60	150.00	0.80	50.00	-	200.00	0.60
Punjab & Sind Bank, Hisar	65.42	9.80	-	11.90	53.52	2.62	53.52	9.80	-	11.90	41.61	2.62
Total (A)	2,318.04		404.86	114.08	2,608.81	119.50	2,608.81		404.86	114.08	2,899.59	119.50
(B) State Govt. Loans Under UDAY												
State Govt. Loans Under UDAY-DHBVN												
Tranche 1	937.05	8.21	-	937.05	0.00	38.47	0.00	8.21	-	-	0.00	-
Tranche 2	1,208.93	8.18	-	1,208.93	0.00	49.45	0.00	8.18	-	-	0.00	-
Tranche 3	55.78	8.14	-	55.78	-	2.27	-	8.14	-	-	-	-
Tranche 4	144.09	8.06	-	144.09	-	5.81	-	8.06	-	-	-	-
Total (B)	2,345.85		-	2,345.85	0.00	95.99	0.00		-	-	0.00	-
(C) Other WORKING CAPITAL LOAN												
Loan from HVPNL(Bonds)												
HVPNL Bonds 1	293.40	9.45	-	-	293.40	13.86	293.40	9.45	-	-	293.40	13.86
HVPNL Bonds 2	200.00	9.83	-	-	200.00	9.83	200.00	9.83	-	-	200.00	9.83
HVPNL Bonds 3	132.85	8.62	-	-	132.85	5.73	132.85	8.62	-	-	132.85	5.73
PFC STL	-				-		-	0.00			-	
9.80% DHBVN Bonds	-				-		-	0.00			-	
Loan form UHBVN							-					
HVPNL Bonds -1	61.51	9.79	-	-	61.51	3.01	61.51	9.79	-	-	61.51	3.01
HVPNL Bonds -2	19.46	9.45	-	-	19.46	0.92	19.46	9.45	-	-	19.46	0.92
Bank Cash Credit/Overdraft	100.00	9.40-10.70	50.00	-	150.00	30.00	150.00	9.40-10.70	50.00	200.00	0.00	30.00

Particulars	First Half of FY 2019-20 (H1)						Second Half of FY 2019-20 (H2)					
LENDERS PROFILE	Opening Balance as on 1.04.2019	Interest Rate (%)	Loan Receipt	Loan Repayment	Closing Balance as on 30.09.2019	Interest Cost	Opening Balance as on 1.10.2019	Interest Rate	Loan Receipt	Loan Repayment	Closing Balance as on 31.03.2020	Interest Cost
Total (C)	807.22		50.00	-	857.22	63.35	857.22		50.00	-	707.22	63.35
G. Total (A+B+C)	5,471.11		454.86	2,459.93	3,466.03	278.21	3,466.03		454.86	314.08	3,606.81	182.85

Note: The CC limits are availed and recouped during the month as per cash flows. Hence, the interest cost is projected as per utilization during the year as per historical trends.

Table 69: Net Interest & Finance Charges (Rs. In Crores)

Particulars	FY 2018-19	FY 2019-20
Interest on Long Term CAPEX loans	120.17	140.77
Interest on UDAY bonds payable to the State Government	295.84	95.99
Interest on WC loans including bank cash credit	134.76	126.70
Interest Cost on Consumer Security Deposit	81.53	87.12
Guarantee Fees to State Govt. & other finance charges	8.64	5.00
Net Interest	640.94	455.58

A prayer has been made in the filing to allow the entire interest cost which is actual payout on the real loans of the Discom in the Revenue Requirement.

Depreciation

For FY 2018-19, the Nigam has estimated depreciation on the basis of estimated additions in GFA as per the capital investment plan for FY 2018-19. The transfer of total CAPEX to fixed asset has been considered as 60%. The Nigam has considered the Capital Expenditure of Rs 975 Cr as submitted in Table 15 for FY 2018-19 and for FY 2019-20 the Nigam proposes a Capital expenditure of Rs 1355.89 Cr as submitted in Table 16.

For the purpose of projecting depreciation for FY 2018-19 and FY 2019-20, the licensee has considered the category-wise depreciation rates in line with HERC MYT

Regulations, 2012. The following depreciation rates are used for calculating of depreciation charges for the corresponding year:

Table 70: Asset wise Depreciation rate

Types of Assets	Rate of Depreciation (%)
Land	-
Buildings	3.34%
Plant & Machinery	5.28%
Vehicle	18.00%
Furniture and fixtures	6.33%

The detailed calculation of depreciation for FY 2018–19 is provided in the tables below:

Table 71: Depreciation for FY 2018–19 (Amount in Crores)

Particulars	Accumulated Depreciation (1 st Apr 2018)	Additions during the year			Balance Depreciation (31 st Mar 2019)
		Rate of Depreciation	Depreciation Charge	Total	
Land & Land Rights	-	0.00%	-		-
Buildings & Civil Structure	58.08	3.34%	8.73		66.81
Plant & Machinery	2,546.80	5.28%	406.74		2,953.54
Vehicles	12.89	18.00%	3.44		16.33
Furniture & Fixture	12.77	6.33%	1.37		14.14
Less: Depreciation on assets contributed by Consumers and grants	-		120.46		-
Total	2,630.54		299.82		3,050.82

Table 72: Depreciation for FY 2019-20 (Amount in Crores)

Particulars	Accumulated Depreciation (1 st Apr 2019)	Additions during the year			Balance Depreciation (31 st Mar 2020)
		Rate of Depreciation	Depreciation Charge	Total	
Land & Land Rights	-	0.00%	-		-
Buildings & Civil Structure	66.81	3.34%	10.88		77.70
Plant & Machinery	2,953.54	5.28%	488.22		3,441.76
Vehicles	16.33	18.00%	4.15		20.48

Furniture & Fixture	14.14	6.33%	1.63		15.77
Less: Depreciation on assets contributed by Consumers and grants	-		121.69		-
Total	3,050.82		383.19		3,555.71

The Hon'ble Commission is requested to approve depreciation amount of Rs 299.82 Cr and Rs 383.19 Cr for FY 2018-19 and FY 2019-20 respectively as tabulated in the table above.

Non-Tariff Income

The Non-Tariff income mainly comprises the following elements:

- a. Interest on staff loans & advances;
- b. Delayed payment charges from consumers;
- c. Meter Service Rental;
- d. Recovery of theft of Power;
- e. Misc. Charges from consumers;
- f. Income from staff welfare activities;
- g. Miscellaneous receipts;
- h. Rent from Residential Building;

The petitioner has projected Rs 469.51 Cr as a non-tariff income for FY 2018-19 and has considered the same level of non-tariff income for FY 2019-20, the Hon'ble Commission is requested to approve the same. It is observed that in the FY 2017-18 audited accounts of DHBVN, the recovery of theft of power was Rs. 42.32 Crore and RS. 41.58 Crore in the case of DHBVN. As far as rent from residential buildings are concerned the utilities seems to be charging rent at a rate lower than the rate of recovery of license fees by the PWD for Government buildings. The Commission is of the considered view that the power utilities ought to maintain parity in the rate with that of PWD.

It is requested to the Hon'ble Commission to kindly allow Rs. 469.51 Crores of Non-tariff Income for FY 2018-19 and FY 2019-20.

Return on Equity

It is submitted that the Petitioner in line with the methodology adopted for determination of Return on Equity for FY 2017-18, has computed the Return on equity for FY 2018-19 and FY 2019-20. The detail pertaining to the same is tabulated as under: -

Table 73: Return on Equity for FY 2018-19 and FY 2019-20 (Amt. in Rs. Crores)

Particulars	FY 2018-19	FY 2019-20
Opening Equity	1,709.33	1,904.33
Add: Equity Received for GFA	195.00	266.18
Closing Equity	1,904.33	2,170.51
Average Equity	1,806.83	2,037.42
Rate of Return on Equity (RoE)	14.00%	14.00%
Total Return on Equity (RoE)	252.96	285.24

The petitioner requests to the Hon'ble Commission that the Return on Equity as tabulated above shall be allowed to DHBVN for FY 2018-19 and FY 2019-20.

Bad and Doubtful Debts

It is submitted that as per section 64 of the MYT Regulations, 2012 provides for creation of provision for Bad and Doubtful debts. The relevant extract of the aforementioned regulations has been given in the below:

“64 BAD AND DOUBTFUL DEBTS

Bad and doubtful debts shall be allowed to the extent the distribution licensee has actually written off bad debts subject to a maximum of 0.5% of sales revenue. However, this shall be allowed only if the distribution licensee submits all relevant data and information to the satisfaction of the Commission. In case

there is any recovery of bad debts already written off, the recovered bad debts will be treated as other income.”

As per the provision of the MYT Regulation, 2012 the Nigam has estimated a provision for bad and doubtful debts of Rs 64.31 Cr and Rs 68.91 Cr for FY 2018-19 and FY 2019-20 respectively. The Hon’ble Commission is requested to approve the same.

Revenue Estimation

The Petitioner has projected the revenue from intra-state sales for the FY 2018-19 based on the sales projected above in Table 18. The projected sales is distributed subcategory wise based on the past years sub-category wise distribution and multiplying the projected sub-category wise distributed sales of the FY 2018-19 with the Tariff determined by the Hon’ble Commission. Also, the similar treatment is done with the projected sales of FY 2019-20 which is further multiplied by the current applicable tariff approved by the Hon’ble Commission to assess the revenue for relevant year. The details of the same have been given as under:

Table 74: Revenue Estimations for FY 2018-19 and FY 2019-20 (In Crs.)

Category	FY 2018-19	FY 2019-20
Domestic	2,684.67	2,818.90
Non-Domestic	2,134.02	2,240.72
HT Industry	4,836.20	5,299.53
LT industry	758.06	823.86
Lift irrigation	146.98	156.61
Agriculture	42.37	37.60
Bulk supply	517.56	561.27
Railway traction	50.94	51.25
Street Lighting	69.65	73.86
PWW	471.54	495.12
Total Energy Charge	11,711.99	12,558.72
Fixed Charges	1,279.15	1,362.39

Total Revenue	12,991.14	13,921.11
Collection Efficiency	99.00%	99.00%
Revenue Realised	12,861.23	13,781.90

Revenue from inter-state sales:

Revenue from inter-state sales projected for FY 2018-19 and FY 2019-20 has been considered at average variable power purchase cost for the corresponding financial years.

Government Subsidy on Domestic Supply Tariff

The Petitioner has filed an additional submission to the Commission through Petition No. PRO-85 & 83 of 2017 for Annual Revenue Requirement (ARR) for FY 2018-19 under HERC (Terms and Conditions for determination of tariff for generation, transmission, wheeling and distribution & retail Supply under Multi Year Tariff Framework) Regulations, 2012.

Further, the Hon'ble Commission in Tariff Order dated 15th November 2018 has allowed the tariff subsidy extended by the Government of Haryana on reservation of the certain provisions related to payment of working capital due to delay payment of subsidy.

The Discom proposes to continue the same level of subsidy for the domestic category consumers in FY 2019-20. The effective applicable tariff after subsidy has also been notified by DHBVN through Sales Circular No. D-25/2018 dated 22nd September 2018.

Therefore, on the basis of similar grounds, the subsidy assessed for FY 2019-20 has combinedly been worked out as Rs 841.38 Crores combinedly for both DISCOMs. Further, the subsidy pertaining to DHBVN will be claimed on the basis of actual energy sales accounted during the year. The revenue estimated in above table is at current level of domestic tariff without accounting any subsidy.

Agriculture Subsidy

Agriculture Subsidy for the FY 2018-19 is considered of **Rs. 7,139.72 Crores**, as approved by the Hon'ble Commission in Tariff Order dated 15th November 2018. Further the subsidy of FY 2018-19 is increased by the 5% to determine the subsidy for FY 2019-20.

Tariff Requirement:

The following table summarizes the estimated Aggregate Revenue Requirement (ARR) of DHBVN for FY 2018-19 and FY 2019-20.

Table 75: Aggregate Revenue Requirement for FY 2018-19 and FY 2019-20 (Amt. in Rs Crores)

Sr. No.	Particulars	FY 2018-19 (Approved)	FY 2018-19 (Projected)	FY 2019-20 (Projected)
1	Total Power Purchase Expense	13,720.50	14,538.18	15,450.51
1.1	Power Purchase Expense (incl. CIL)	11,907.61	12,349.81	13,152.73
1.2	Interstate transmission Charge	843.74	1,219.21	1,280.17
1.3	Intrastate trans. charges and SLDC charges	969.15	969.15	1,017.61
2	Operations & Maintenance Expenses	1,397.45	1,607.42	1,671.53
2.1	Employee Expense	820.03	947.87	983.77
2.2	Administration & General Expense	85.18	92.18	95.67
2.3	Repair & Maintenance Expense	148.99	142.86	165.34
2.4	Terminal Liability	343.25	424.50	426.75
3	Depreciation	288.09	299.82	383.19
4	Return on Equity Capital	198.23	252.96	285.24
5	Provision for Bad & Doubtful Debts		64.31	68.91
6	Interest and Finance Charges	437.29	640.94	455.58
6.1	Interest on UDAY bonds payable to the State Government	-	295.84	95.99
6.2	Interest on WC loans including CC/OD limits	171.68	134.76	126.70
6.3	Interest on CAPEX loans	184.73	120.17	140.77
6.4	Interest Cost on Consumer Security Deposit	76.87	81.53	87.12
6.5	Other Interest Cost	4.01	8.64	5.00
7	Total Expenditure	16,041.67	17,403.61	18,314.95
8	Less: Non-Tariff Income	247.47	469.51	469.51
9	Net Aggregate Revenue Requirement	15,794.20	16,934.10	17,845.44
10	Total Revenue		13,877.11	14,605.45

Sr. No.	Particulars	FY 2018-19 (Approved)	FY 2018-19 (Projected)	FY 2019-20 (Projected)
10.1	Revenue from Interstate sales		1,015.88	823.56
10.2	Revenue from Intrastate sales / Sale of Power		12,861.23	13,781.90
13	Net Gap		-3,056.99	-3,239.98
14.1	Less: AP-Subsidy		2,855.89	2,998.68
15	GAP After AP Subsidy		-201.11	-241.30
16	Revenue Gap of True Up carried forward			(1,651.04)
17	Net Gap			(1,892.34)

**Table 76: Aggregate Revenue Requirement of Wheeling and Retail Supply
(Amount in Rs. Crores)**

Summary of ARR of DHBVN				FY 2018-19		FY 2019-20	
S. No.	Particulars	Wheeling	Retail	Wheeling	Retail	Wheeling	Retail
1	Total Power Purchase Expense	0.00%	100.00 %	-	14,538.18	-	15,450.51
1.1	Power Purchase Expense	0.00%	100.00 %	-	12,349.81	-	13,152.73
1.2	Interstate transmission Charge	0.00%	100.00 %	-	1,219.21	-	1,280.17
1.3	Intrastate transmission charges and SLDC charges	0.00%	100.00 %	-	969.15	-	1,017.61
2	Operations and Maintenance Expenses			797.46	809.96	832.97	838.56
2.1	Employee Expense	48.00%	52.00%	454.98	492.89	472.21	511.56
2.2	Administration & General Expense	42.00%	58.00%	38.72	53.46	40.18	55.49
2.3	Repair & Maintenance Expense	70.00%	30.00%	100.01	42.86	115.74	49.60
2.4	Terminal Liability	48.00%	52.00%	203.76	220.74	204.84	221.91
3	Depreciation	82.00%	18.00%	245.85	53.97	314.22	68.97
4	Return on Equity Capital	90.00%	10.00%	227.66	25.30	256.71	28.52
5	Other Expenses	29.00%	71.00%	18.65	45.66	19.98	48.93
6	Interest on Actual Working Loans			152.08	488.86	149.46	306.11
6.1	Interest on UDAY bonds	10.00%	90.00%	29.58	266.26	9.60	86.39
6.2	Interest WC loans including CC/OD limits	10.00%	90.00%	13.48	121.29	12.67	114.03
6.3	Interest on CAPEX loans	90.00%	10.00%	108.15	12.02	126.70	14.08
6.4	Interest on Consumer Security Deposit	0.00%	100.00 %	-	81.53	-	87.12
6.5	Other Interest Cost	10.00%	90.00%	0.86	7.78	0.50	4.50
7	Total Expenditure			1,441.70	15,961.92	1,573.35	16,741.60
8	Less: Non-Tariff Income	11.00%	89.00%	51.65	417.87	51.65	417.87
9	Net Aggregate Revenue Requirement			1,390.05	15,544.05	1,521.70	16,323.74

Recovery of Outstanding Gaps

Recovery of Gaps

The ARR has been prepared on the basis of actuals, and the foreseeable expenses and revenue. The Hon'ble Commission is requested to continue with the current levels of charges shall be continued for total gap after True-up for FY 2017-18 comes at Rs. 1,651.04 Crores; after re-assessment of ARR gap for FY 2018-19 comes out to be Rs. 201.11 Crores and for FY 2019-20 at Rs. 1,892.34 Crores respectively.

Further, the resultant gap if any after continuation of current levels of charges will be met through operational funding available under UDAY.

Additional Surcharge

Same as that filed by UHBVN, hence not being repeated here.

Prayer (DHBVN)

The Nigam respectfully prays that the Hon'ble Commission may:

- Take the accompanying filing of DHBVN on record and accept the petition regarding true up of expenses and revenue for FY 2017-18, Re-estimation of Revenue Requirement / Gap for FY 2018-19 and projected Revenue Requirement for FY 2019-20;
- Allow filing of any additional / supplementary submissions during the course of these proceedings;
- Allow return on equity as proposed;
- Allow the entire fixed charges of power purchase as the power is procured from the sources whose PPAs have been duly approved by the Hon'ble Commission and also the energy charges of power procurement from these sources as proposed in the filing;
- Allow the Annual Revenue Requirement of the Nigam for the FY 2019-20 including the actual interest on all the loans which is real expenditure borne by the utility;

- Allow True-Up of FY 2017-18 along with the holding cost and the revised expenses as projected for FY 2018-19 in the Annual Revenue Requirement of FY 2019-20;
- To continue the current levels of charges to meet the expenses, the gap being funded through operational financing as proposed under UDAY scheme;
- To allow Additional Surcharge of Rs 1.18 per unit to be recovered from Open Access Consumers
- Condone any inadvertent omissions/errors/shortcomings and permit DHBVN to add/change/modify/alter this filing and make further submissions as may be required during the course of these proceedings;
- Pass such Order, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case submitted by the Petitioner.

Chapter 2

PROCEDURAL ASPECTS OF THE ARR PETITION(S)

2.1 ARR Petitions filed by UHBVNL & DHBVNL

The Petitions filed by UHBVNL and DHBVNL as reproduced in the preceding chapter were examined at length. The Commission, vide memo no. 4632-33/HERC/Tariff dated 9.01.2019 sought a few clarification / additional information from the petitioners. The observations, conveyed to the Discoms are re-produced below: -

1. *Compliance report on the directions issued by the Commission in its Order dated 15.11.2018 including on para 3.1.16, regarding Fuel Surcharge Adjustment.*
2. *Half Yearly Accounts for the FY 2018-19.*
3. *Data of employees including new recruitments for the FY 2016-17 and FY 2017-18.*
4. *Report of actuary for valuation of terminal benefit cost for the FY 2017-18.*
5. *Work wise details of actual capital expenditure incurred during FY 2017-18 and 2018-19 along with the reasons for over/under expenditure, if any, against the approved expenditure. Also separately send work wise list where capital expenditure incurred on the works other than approved by the Commission in the FY 2017-18 and the FY 2018-19 till date.*
6. *Proposed capital expenditure plan for FY 2019-20 along with the justification/details of proposed expenditure in line with MYT Regulations. Source of funds for the same may also be indicated.*
7. *Circle wise as well as cumulative information regarding failure rate of transformers under warranty/out of warranty separately for rural & urban area during FY 2017-18 and 2018-19.*
8. *Details of pending connections category wise vis-a-vis their respective load at the beginning of FY 2017-18, FY 2018-19 along with reasons of pendency, if any.*
9. *Circle wise and area wise (urban and rural) details of three phase and single-phase defective meters pending for replacement at the beginning of the FY 2017-18 and 2018-19 and replaced during the period under consideration.*

10. *Details of three phase and single-phase Electrometrical meters pending in the urban and rural area separately along with the details of meters replaced vis-a-vis replaced pending during FY 2017-18 and FY 2018-19.*
11. *Category and area wise (rural & urban) number of defaulters and their defaulting amount at the beginning of FY 2017-18 and FY 2018-19 along with efforts made to reduce the same.*
12. *Information regarding distribution losses and AT&C losses for FY 2017-18 (audited) and FY 2018-19 along with trajectory approved under UDAY. Details of methodology adopted for calculations of AT&C losses.*
13. *Details of collection efficiency in rural and urban area separately during FY 2017-18 and FY 2018-19 along with cumulative figures of collection efficiency.*
14. *Circle wise information/details regarding feeders having distribution losses more than 25% in urban area and 50 % in rural area vis-a-vis total population of such feeders in the beginning of FY 2017-18, by the end December, 2017 and by the beginning of FY 2018-19 and by the end December, 2018 . The progress achieved at the end may also be justified considering the targets set by the Commission in the matter.*
15. *Month wise AP actual consumption data for the FY 2016-17, FY 2017-18 and FY 2018-19 on the enclosed formats as per the methodology prescribed by the Commission.*
16. *Requisite information on Standards of Performance as per clause 65.2 of HERC MYT Regulations, 2012.*
17. *Voltage wise loss data for the FY 2017-18 & FY 2018-19 for LT, 11Kv and 33 Kv.*
18. *Details of RE Subsidy for the current year and for the previous years not yet released by the State Government.*
19. *Monthly sales and power procurement data clearly specifying monthly shortage and surplus and proposal to bridge the gap keeping in view the recently approved PPA's till date including RE.*
20. *A progress report on the implementation of UDAY Scheme.*
21. *Licensee has segregated the ARR for the FY 2019-20 into wheeling and retail supply in accordance with regulation 7 of MYT regulation. However, no allocation*

- statement approved by the Board of Directors is provided. Also there is no explanation of the methodology of allocation.*
- 22. Monthly consumer category-wise sales for the FY 2017-18 (in Rupees & MUs).*
 - 23. Monthly power purchase details for source-wise volume and cost showing separately the variable cost and fixed cost, for the FY 2017-18. The licensee may provide justification for source wise variation from the approvals, if any.*
 - 24. Details of prior period cost included in the power purchase cost for the FY 2017-18, along with the reason & justification for the same.*
 - 25. Power purchase cost in respect of power purchased from M/s. Mittal Processors in compliance to the Commission's Order dated 18.10.2017 in the case of PRO-37 of 2016.*
 - 26. The detail of monthly AP sale and other sales on segregated feeder, AP sales on other feeder.*
 - 27. Details of interstate sale and banking power for the FY 2016-17 be provided.*
 - 28. Reasons for abnormal increase in Repairs & Maintenance – Machinery (both the DISCOMS), Legal charges (both the DISCOMS) & Telephone charges (DHBVNL).*
 - 29. It is observed that the Discoms have not paid interest on consumers security deposit to a large number of consumers which is reflected in the increase in the balance of Interest payable on consumer security deposits. The Discoms are to provide justification for the same.*
 - 30. Details of sales quantum estimated for the FY 2019-20.*
 - 31. The petition is not in accordance with the MYT Regulations as the following requirements are not fulfilled by the licensee:-*
 - a) In accordance with Regulation 11 of MYT regulation, a Distribution Licensee is to submit the following:-*
 - i) Actual operational and cost data.*
 - ii) Comparison of actual performance with approved forecast (and reasons for deviation).*
 - iii) Annual statement of Performance.*
 - iv) Analysis of detailed reasons for losses, if any.*

- v) *Proposal for Tariff revision.*
- b) *In accordance with Regulation 12 of MYT regulation, a distribution licensee is to submit the following for the ensuing year of control period:-*
 - i) *Estimation of Distribution loss level*
 - ii) *Collection efficiency*
 - iii) *Recovery of arrears*
- c) *In accordance with Regulation 58 of MYT regulation, a Distribution Licensee is to submit the following information:-*
 - i) *The Distribution Licensee shall also indicate consumer category – wise open access consumers. The demand and energy wheeled for them shall be shown separately for*
 - *Supply within its area of supply and*
 - *Supply outside its area of supply*
 - ii) *Sale of electricity, if any, to electricity traders as other Distribution Licensees or outside State through banking etc. shall be separately indicated*
 - iii) *The Distribution Licensee shall project month wise and source wise power purchase requirement.*
 - iv) *Any Power purchased by Distribution Licensee over and above the requirement of power approved by the Commission or variation in the mix of power and reason for the same.*
- d) *In accordance with Regulation 60 of MYT regulation, a Distribution Licensee is to submit the following information:*
 - i) *Rolling quarterly forecast of the quantum of short – term power to be purchased.*
- e) *In accordance with Regulation 63 of MYT regulation, a Distribution Licensee is to submit the following information:*
 - i) *Detail of consumer category wise cross subsidy and additional surcharge received during the year.*
 - ii) *Calculation for determination of cross subsidy surcharge and additional surcharge.*

- f) *In accordance with Regulation 71 of MYT regulation, a distribution licensee is to submit the following information: -*
- i) *A set of targets proposed for other controllable items such as collection efficiency recovery of bad debts, working capital, quality of supply targets etc.*
 - ii) *Cost of supply to various consumer categories.*
 - iii) *Road map for reduction of cross subsidy.*

2.2 Objections file by the Interveners

The Discom (UHBVN), as required, issued a public notice in two newspaper i.e. The Tribune (English) and Dainik Bhaskar (Hindi) dated 6.12.2018 informing the stakeholders / General Public regarding their petition / availability of documents and inviting objections on the same. Additionally, the Commission also issued public notice invting objections / suggestions / comments from the stakeholders / general public.

2.2.1 Objections & Discoms reply thereto

In response to the public notice issued by the Discoms and the Commission, the following objections were received in the Commission: -

2.2.2 Objection filed by Jindal Stainless, Hisar

Jindal Stainless (Hisar) Ltd. Vide letter no. 1209/Jindal Stainless (Hisar) / DHBVN ARR dated 12.02.2019, filed objections against the petition of DHBVN. The same is reproduced below: -

TRUE-UP OF EXPENSES FOR FY 2017-18

That DHBVN has submitted its application for True-up of expenses for the FY 2016-17. The application shows a large variation in all important performance statistics as compared to the parameters approved by the Hon'ble Commission. For ready reference some of the important parameters are given hereunder.

All figures in Rs. Crore

Parameter	HERC ARR order	Actual by DHBVN	Variation with revised
Cost of power purchase	11,925.87	*13,319.61	2,289.73
O&M Expenses	1367.00	*1,538.00	171.00
Employees expenses	790.12	*913.29	123.71
R & M Cost	114.16	107.00	(-)7.16
Interest & Financing cost	343.99	*779.91	435.92
Depreciation	288.87	225.12	(-)63.75
ROE	173.16	234.45	57.31
Net Annual Expenses	14,098.89	16,116.68	2,909.80
Total Income including RE Subsidy		14,991.57	
Revenue Gap/(Surplus)	**1011.57	706.53	
CAPEX	1100.00	637.94	

*Parameters which are controllable as per MYT Regulations.

**Combined for UHBVN & DHBVN.

Commission's View

The Commission has considered the above-mentioned objection and is of the view that the true-up of expenditures shall be done strictly in accordance to the provisions of the MYT Regulations in vogue.

While reviewing the CAPEX Plan for the year 2017-18, Hon'ble Commission had observed as under,

"In case of DHBVNL the actual capital expenditure for FY 2015-16 and revised capital expenditure for FY 2016-17 is in the tune of Rs.588.15 Crore and Rs. 637.94 Crore respectively. For the FY 2017-18, DHBVNL has posed a capital expenditure of Rs.1260 Crore which includes Rs.200 Crores towards the first phase of Smart Grid of Gurgaon. The total outlay on the Smart Grid of Gurgaon Project has been proposed as 1382.36 Crore, out of which 273.20 Crore is

admissible under PSDF grant. The expenditure of Rs. 300 Crore for MGJG scheme and Rs.105.19 Crore for bifurcation/trifurcation of feeders seems to be on the higher side. The Commission, however, recognizes that huge capital expenditure shall be required in order to meet the targets envisaged under UDAY scheme and to strengthen the distribution system. **Considering the above, the Commission approves the overall capital expenditure plan of Rs.1100 Crore only for FY 2017-18.**

Discoms are directed to revise their capital expenditure plan accordingly and submit the scheme wise details of proposed expenditure to the Commission within one month from the date of issue of this Order.

Both the licensees are further directed that they shall regulate their capital expenditure plans for FY 2016-17 and FY 2017-18 as per Regulations 9.7 to 9.12 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.”

Similarly, while examining the trend of continuing distribution losses, Hon'ble Commission had observed as under,

“The distribution licensees are directed to file, within 3 months, detailed reasons for not achieving the targets determined by the Commission in its tariff Order dated 07.05.2015. The Commission also directs the distribution licensees to bring down the total number of rural feeders with line losses above 50% as on 31.03.2017 to half and to bring down the losses of all urban feeders below 25% by the time of next ARR/APR filing. The distribution licensees are further directed to file report on the status of losses on each of these feeders and also prominently display them on their website.”

Even while dealing with the AT&C Loss trajectory Hon'ble Commission had made the following observations,

“The distribution licensees are directed to explain the reason of under achievement even after re-fixing of their AT&C loss trajectory envisaged under UDAY scheme.”

Another important observation made by the Hon'ble Commission was on the non-submission of Cost of Service by the Licensee,

“The Distribution licensees as stipulated under Regulation 57.1 (f) of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 and as per the directive in Commission's Order on ARR of the two licensees for the control period FY 2014-15 to FY 2016-17 and also in Order on their Annual Performance Review Petition for FY 2014-15 have to submit the computation of supply voltage wise and consumer category wise distribution and AT&C losses. However, in compliance to above, the distribution licensees have submitted the voltage wise losses only. The Commission is of the considered view that a scientific methodology needs to be developed to calculate voltage wise and category wise losses so as the COS of respective category could be calculated precisely.”

“Accordingly, licensees are directed to finalize the methodology for Cost of supply (CoS) / voltage wise and category wise cost of services and submit the proposal to the Commission for its approval within three months from the date of issue of this Order.”

Our main observations on this part of the True-up Application of the licensee are as under,

The Commission observes that the Discoms (UHBVN & DHBVN) have provided the progress of works Capital Works related expenditure for the FY 2017-18 including status of completed works and reasons for over / under expenditure. Further, it has been submitted by the intervener that there are large variations even on the controllable

parameters, which should be disallowed. It would be recalled that every year such non-compliance of performance targets fixed by the Hon'ble Commission result in accumulation of losses of the Utilities which ultimately are carried over to the next ARR and are to be made good from the corresponding tariff increase and ultimate financial burden to the electricity consumers.

Reduced expenditure on Repair & Maintenance reflects directly on the failure of the Licensee to look after the required maintenance of the distribution system which results in poor quality of power supply to the consumers;

The capital expenditure allowed to the Licensee should be linked with corresponding increase in revenue and quality of power supply otherwise it is an avoidable burden on the consumers. Even the Licensee failed to submit the revised CAPEX Plans and implement Smart Grid in Gurgaon so far.

Due to non-furnishing of voltage-wise cost of service the Commission had to adopt the average CoS for major two categories i.e. LT & HT. It results in distortion of COS to various consumers falling in HT categories (including 11 kV, 33 kV, 66 kV, 132 kV, 220 kV and 400 kV) which affects the determination of Cross Subsidy Surcharge for the Industrial consumers using open access facility. **The Commission has taken serious view in the matter i.e. non-submission of comprehensive CoS which is essential for taking a view on consumer category wise tariff. Hence, the Commission as a last opportunity allows six months time to the Discoms to conduct detailed CoS study and submit the report to the Commission. Failure to do so shall make the officer(s) concerned liable for a penalty of Rs. 6000/- per day subject to a maximum of Rs. One lakh. Thereafter, the Commission shall initiate a suo motu proceedings in the matter for non-compliance of its Order.**

It is disheartening that every year the Licensees report huge revenue deficit which is carried forward and attracts the resultant carrying cost as well. DHBVN alone has reported a net revenue gap of Rs. 706.53 Crore for FY 2017-18 which after taking into account the carried forward revenue gap of Rs.743.47 Crore for FY 2015-16 and the carrying cost comes to a huge gap of Rs.1651.04 Crore. Due to the inefficient

working of the Discoms the consumers are unnecessarily burdened by way of huge revenue deficits and ultimate impact the consumer tariffs.

The Utility has approached the Hon'ble Commission to allow a consolidated true up of Rs.1651.04 Crore, which is nothing but an attempt to camouflage the inefficiency by the Utility and seek relaxations over the figures approved by the Hon'ble Commission. It needs to be appreciated that if such relaxations are to be allowed, then the very purpose of the detailed exercise of approving ARR and other performance parameters becomes in-fructuous. Ultimately the consumers have to bear the difference by way of successive tariff increase. Moreover, these figures do indicate the lack of seriousness of the licensee to achieve the fixed parameters.

Commission's View

The Commission has taken note of the above objections and is of the view that no cost of inefficiency including slippages on achieving the loss trajectory and capital expenditure shall be passed on to the electricity consumers of Haryana. As far as non-compliance of the Commission's directives are concerned including on issues such as Feeder Losses, reduction of distribution losses, replacement of defective meters and release of pending connections etc. The Commission has called for status report from the Licensees and shall initiate proceedings under the relevant provisions of the Electricity Act, 2003, if required. The Commission, however, observes that DHBVN has been able to achieve the AT&C loss target of 15% for FY2018-19, it has rather overachieved. The AT&C losses of DHBVNL for FY 2018-19 are 14.67%. Further, although UHBVN has not been able to meet the AT&C loss target of 15% for FY 2018-19 but still UHBVNL have achieved commendable reduction in AT&C losses from about 34% in FY 2015-16 to about 21% in FY 2018-19, a reduction of 13% in three years which, by any yardstick, is not a mean achievement. This needs to be appreciated by all stakeholders.

ANNUAL PERFORMANCE REVIEW OF 2018-19:

DHBVN has submitted its application for Annual Performance Review for FY 2018-19. The application shows a large variation in all important performance parameters as compared to the figures approved by the Hon'ble Commission. For ready reference some of the important parameters are given hereunder,

Parameter (All figures in Rs. Crore)	Approved by HERC	Revised by DHBVN	Variation
Cost of power purchase	13,720.50	*14,538.18	817.68
O&M Expenses	1,397.45	*1,607.42	209.97
Employees expenses	820.03	*947.87	127.84
R & M Cost	148.99	142.86	(-) 6.13
Interest & Financing cost	437.39	*640.94	203.65
Depreciation	288.09	299.82	11.73
ROE	198.23	252.96	54.73
Net Annual Expenses	15,794.20	16,934.10	1,139.90
Total revenue of DHBVN		13,877.11	
Revenue Surplus (Gap)	**306.39	201.11	
CAPEX	1,170.00	975.00	

*Parameters which are controllable as per MYT Regulations.

** For UHBVN & DHBVN combined.

The Utility has approached the Hon'ble Commission to allow a revised ARR of Rs.16,934.10 Crore against the earlier approved figure of Rs.15,794.20 Crore which is a considerable upward revision just after 15 days of the HERC order.

The observations made on the True-up of ARR for FY 2017-18 also apply to the revised ARR for FY 2018-19, which may kindly be considered.

Against the estimated surplus of Rs.306.39 Crore for UHBVN & DHBVN combined for FY 2018-19, DHBVN alone has submitted a revised figure of Rs.201.11 Crore as gap to be trued up. A similar gap of Rs.290.21 Crore has been projected by UHBVN, **thus making a total gap of Rs.491.32 Crore by the two Licensees**. The net result is that there will be a resultant drop of around Rs.800 Crore for the two Licensees in a gap of hardly a month from the last ARR order. This is bound to result in increased financial burden to the consumers. This is inspite of the fact that Government of India had come up with UDAY Scheme under which large sums of accumulated losses of the Utilities were passed on to the State Government so that the financial health of the Distribution

Utilities could be improved and the consumers are not unnecessarily burdened by way of increased tariffs. The continuation of such poor performance of the Utilities forfeits the very purpose of Government initiative. This is high time for the Distribution Utilities to improve their operational efficiency and reduce their expenses instead of adding to the burden of the consumers.

Commission's View

The Commission has taken note of the objections filed by the intervener and observes that, at this stage, for the FY 2018-19, no true-up is being allowed of any expenses including the revenue gap thereto estimated by the Discoms.

ANNUAL REVENUE REQUIREMENT FOR FY 2019-20

ARR as projected by the Licensee – highlights thereof:

The Licensee has projected an Annual revenue Requirement of Rs.17,845.44 Crore for the year 2019-20, which is 13% higher than approved figure for FY 2018-19 and 5% higher than the revised estimates for the current Financial Year. A net revenue gap of Rs. 1,892.34 Crore has been projected (including gap of True up carried forward).

Some of the main observations on the ARR submissions for FY 2019-20 are as under;

The actual category-wise sales have been reported by the Licensee for FY 2017-18 (as per actual audited accounts) in Table 2 (Page 5) and then Table 18 (Page 37) of the ARR filing. There is quite a substantial difference in the two statements although these are claimed to be from audited accounts. **The AP sales in the two statements are 6,119.66 and 5,389.09 MUs and so is the total sales figures 22,791.58 and 22,041.00 MUs.**

Commission's View

The Commission has persued the ibid objections and is of the considered view that AP sales are projected and allowed by the Commission in accordance with the methodology specified in its Order(s). Further, while taking a view on the AP Sales in the present Order the Commission shall reckon with the aberrations pointed out by the intervener and the base figure, for the purpose of projection, shall be taken as per the audited accounts made available to the Commission.

The intervener has suggested that the estimated sales to HT Industries also needs to be examined carefully as it is going to affect the estimated revenue receipts and ultimate revenue gap. Sudden increase in HT industry sales in FY 2017-18 (32%) needs to be understood in the background of the impact of prevalent Cross Subsidy Surcharge and Addl. Surcharge in these years.

(All figures in Ps/unit)

Year	Cross Subsidy Surcharge	Addl. Surcharge	Total
2014-15	202	50	252
2015-16	93	84	177
2016-17	157	87	244
2017-18	163	99	262
2018-19	81	113	194

Further estimated increase in energy sales to HT Industry in FY 2018-19 (16%) and 2019-20 (27%) over that of FY 2017-18 is totally wrong and bound to distort the ARR.

Commission's View

The aforesaid objection has been taken note of. It is reiterated that consumer category wise sales projections are done by the Commission on its own, indepedant of the sales projection by the Discoms, based on the CAGR of time series data for the last 3-5 years to smoothen out the year to year aberrations. The working out of additional surcharge is not dependant on the sales projections and the cross subsidy surcharge has been worked out in this Order in line with the formula given in the National Tariff Policy taking the sales projections as determined by the Commission.

Objection

While submitting energy balance for DHBVN, the Licensee has mentioned in **Table 21** that there will be lot of surplus power during FY 2018-19 and FY 2019-20. The relevant figures given in Table 21 on Page 45 of the ARR filing are reproduced hereunder for kind reference,

Energy Balance	Unit	FY 2018-19	FY 2019-20
Power Purchase at State Periphery	MUs	32,087.22	33,061.60
Energy Input at State Periphery	MUs	28,160.71	30,021.38
Surplus	MUs	3,926.51	3,040.22

The Nigam has assumed that the surplus power available will be sold entirely as 'inter-state sales' throughout FY 2018-19 and FY 2019-20 at average variable power purchase cost.

The above statement shows that the Licensee is projecting a surplus of 14% in power availability in the current year and 10% during the next financial year, which is proposed to be sold at average variable power purchase cost. **This is to be appreciated that if the Licensee does not require this power then why should the Licensee buy extra power in the first place and then sell it at a loss. It would further be noted that every now and then Licensee is approaching the Commission seeking permission to buy additional power on one pretext or other. The Licensee every now and then is approaching the Commission seeking permission to buy extra power at high rates on the ground of shortage in power availability and then sell this power at a low rate. We had pointed out this fact while recently the Hon'ble Commission was considering the proposal of the Licensee for additional purchase. There were proposals for buying nearly 4000 MW additional power from different sources.** This is pure mismanagement in power procurement and would result in direct additional financial burden to the consumers. The net impact would be,

- a) Increased cost of extra power purchased, sale of surplus power at a rate lower than the purchase rate and resultant revenue gap;
- b) Inflated figures of so called stranded power, which results in higher Additional Surcharge to be paid by consumers availing open access facility.

Commission's View

The Commission has considered the above submissions and observes that each new source of power procurement proposed by the Discoms is scrutinised by the Commission keeping in mind the need to procure such power and economics of such purchase thereto. Additionally, the proposal to purchase RE Power is considered in the backdrop of RPO trajectory determined by the Commission. Further, the Commission has taken note of the surplus power available to the Discoms and its cost implications thereto. This situation in Haryana has arisen due to the fact that there exists a large variation in peak demand and base load demand and most of the power purchase agreement of the Discoms historically is for round the clock power. The Discoms, through various measures including DSM, ToU tariff are making attempts to address this issue. It needs to be noted that trading losses are not being passed on to the electricity consumers. Further, the accumulated financial losses are also not funded through ARR / Tariff. Besides, the fixed cost of stranded power which is considered for working out Additional surcharge is only for the power which has actually been stranded on account of energy drawl by open access consumers. **Additionally, the Commission observes that entering into PPA without realistic estimate of base load and peaking power requirement will ultimately lead to increase in stranded PPA and trading losses thereto as well as increase in consumers tariff. Hence, the responsibilities arising from trading losses shall be that of the Discoms / Govt. as the same cannot be passed on to the electricity consumers of Haryana in any shape.**

It has been submitted that in **Table 25** the Licensee has projected R&M expenses of Rs.142.86 Crore and Rs.165.34 for FY 2018-19 and FY 2019-20

respectively. These provisions are on very high side if we compare with the actual expenses of Rs.68.23 Crore and Rs.107 Crore intimated by the Licensee for FY 2016-17 & FY 2017-18 respectively. **Accordingly, a realistic estimate may kindly be allowed instead of un-necessarily inflating the Annual Revenue Requirement.**

In **Table 31** of the filing Net Interest & Financing Charges of Rs.640.94 Crore and Rs.455.58 Crore have been projected for FY 2018-19 and FY 2019-20 respectively which are much higher compared to the expenses allowed in ARR for FY 2017-18 and FY 2018-19 i.e. Rs.340.99 Crore and Rs.437.29 Crore respectively. Even there are large sums projected as interest on CAPEX loans, which may kindly be allowed only considering the expected improvement in the distribution system and ultimate benefit to be accrued to the consumers.

In **Table 35** the licensee has asked for RoE of Rs.252.96 Crore and Rs.285.24 Crore for FY 2018-19 and FY 2019-20 respectively. Hon'ble Commission has been disallowing any RoE in the previous years and it was only during FY 2018-19, RoE of Rs.198.23 Crore was approved. Accordingly, this provision may please be reduced/disallowed for these years.

The Licensee has been recovering large amount by way of FSA from different categories of consumers, and other charges such as Wheeling Charges, Cross Subsidy Surcharge and Additional Surcharge from Open Access Consumers which have not been reflected in revenue projections. Due provisions for these revenues may please be ensured while allowing the total revenue requirement.

Under **Chapter 4** of the ARR filing the Licensee has indicated that the resultant revenue gap will be met through the Operational Funding available under UDAY assuming that the current levels of tariff will be allowed to continue. In fact with the introduction of UDAY Scheme it was expected that the distribution licensees would show marked improvement in their performance parameters and it will ultimately benefit the consumers by way of improved power supply services and considerable relief in tariffs. However no such benefit is in sight and consumers are forced to continue paying very high tariffs every year.

Commission's View

All the expenses including those pointed out by the Intervener shall be subjected to prudence check inline with the MYT Regulations in vogue before considering the same for allowing the same in the ARR / Tariff for the FY 2019-20.

IMPORTANT ISSUES NEEDING IMMEDIATE ATTENTION OF THE HON'BLE COMMISSION:

There are a couple of issues which are being brought to the kind notice of the Hon'ble Commission as these are resulting in un-necessary burden on the consumers;

Need for rationalization/reduction of levy of Additional Surcharge:

At the time approval of ARR of the Distribution Licensees for FY 2018-19, we had raised basic objections on the method of determination of Additional Surcharge. Some of the major issues raised included,

The consumers are already paying for the cost of Fixed Charges paid to the generating companies in multiple ways, like;

- (i) The Fixed Cost is fully booked in the cost of power purchase allowed to the Licensee through every successive ARR order;
- (ii) The Fixed Demand Charges recovered from the consumers include substantial part of the fixed cost borne by the Licensee;
- (iii) While allowing True up at the end of the year any part of the unrecovered fixed cost is allowed to the Licensee;
- (iv) While computing the FSA, any unrecovered gap in the cost of power purchase is fully figured in.
- (v) Out of the power purchased by consumers over IEX and PXIL platforms, there is sizeable part of power purchased by the Licensee also.
- (vi) The power claimed to have been surrendered/backed down depends on what was the PLF of the specific generating stations.

- (vii) The Petitioner needs to certify that the backing down was as per their instructions and not a fait accompli.
- (viii) It has to be certified that the backing down was done on merit order basis and not by pick and choose method.

A reference was also made to the Commission's ARR order for FY 2014-15 dated 29.05.2014, which recognized the fact that Licensee was already recovering substantial part of the fixed cost.

- A) Reference was also made to the HPERC order dated 30.10.17 wherein due weightage was given to the charges already being recovered by the Licensee through Fixed Charges.
- B) Even the Hon'ble Commission had taken note of the concerns of the beneficiaries in its order dated 15.11.18 and recorded as under,
"The Commission shall review the issue of calculation of Additional Surcharge upon the receipt of detailed information on the concern raised by the beneficiaries regarding certain reliefs."

Thus, there is urgent need for review of these issues and save the industrial consumers from this multiple charging of the fixed cost by the Licensee in the shape of Additional Surcharge.

Commission's View

The Commission has taken note of the *ibid* objections / comments and observes that the Commission in the past Orders has been working out the additional surcharge based on the fixed cost of power that has to be surrendered by the Discoms on account of energy drawn by the consumers through open access. This is in line with the provision as in section 42 of Electricity Act, 2003 as also in line with clause 8.5.4 of the National Tariff Policy. The same methodology has been followed while calculating additional surcharge in the present Order.

Need for determination of Cost of Service for each voltage level:

Hon'ble Commission has been repeatedly giving directions to the Distribution Licensees to submit voltage-wise cost of service but the Licensees have failed to comply with this direction. The result is that the Commission decides the CoS for two major groups i.e. LT and HT supply. This is totally erroneous as it is wrong to say that the CoS for consumers getting supply at 11 kV, 33 kV, 66 kV, 132 kV, 220 kV or 400 kV could be the same. Even the tariff difference of 5 Ps/unit is not commensurate with the cost of the backup system. We would request the Hon'ble Commission to fix the CoS for different voltages.

Commission's View

Admittedly, comprehensive CoS has not been submitted by the Discoms even along with the present petition. However, the Commission as per the methodology laid down by the Hon'ble Aptel has been calculating CoS for supply at HT and LT Voltages with appropriate adjustments for HT Supply at higher voltage levels.

Need for simplifying the Schedule of Tariff for Industrial consumers with special reference to the Time of Use tariff:

While introducing the Time of Use Tariff in the ARR order dated 11.07.17, Hon'ble Commission had allowed a rebate of 15% on the normal tariff during off-Peak night hours (10 PM to 05-30 AM). This was however, changed in the last ARR order dated 15.11.18 with the following riders,

Note: The rebate of 10% shall be increased to 15% in case the consumer install Smart Meter/Smart Grid as per CEA norms. Further, if such consumer install rooftop solar system also then the rebate shall be increased to 20% and in case the rooftop solar system is accompanied by battery storage system, the rebate shall be increase to 25%.

In fact these rebates are illusionary only. The fact is that the night time rebate in tariff has been reduced from 15% to 10%. The main supporting arguments are as under,

- i) The rebates are not for each of the riders but in a particular sequence i.e. for availing 15% rebate, the consumer must have Smart Meter/ Smart Grid. This is not possible as the Smart Grid is to be created by the Licensee. Commission had made a special provision of Rs. 130 Crore in the Capex Plan of UHBVN for implementing smart grid initiatives in smart cities of Karnal, Panchkula, Panipat, Industrial Area Kundli and Bahadurgarh. Similar provision of Rs.250 Crore was made for DHBVN for smart city of Gurgaon. Thus it is a fact that no such facility has been provided anywhere in Haryana so far.
- ii) The Smart Meters are to be provided by the Utility as was done in UK and South Korea where Smart Grids were created and Smart Meters were installed. This is more a Demand Side Management project. In the absence of this facility being created by the Licensee, the riders are unrealistic.
- iii) The serial order in which these additional rebates are to be allowed fail at the first step itself and therefore even if some consumer installs the Solar Rooftop Plant, he will not get the benefit of higher rebate as the first condition is not fulfilled because of the inaction/failure of the Licensee.
- iv) Although the ABT meter installed by the Open Access Consumers has the facility of Smart Meters and can be read through remote metering but the Licensee is not availing and thus the benefit is being denied to the consumers.
- v) The next slab of 5% is rooftop solar plant. Even if the consumer has installed solar rooftop plant but due to non-fulfillment of the first condition this benefit is denied to him. The very purpose of giving such benefits gets forfeited.
- vi) Next condition of the rooftop solar plant having storage system is also non-functional as the cost of storage system at present is more than the cost of the solar plant.

- vii) Thus all these rebates are just on paper only and no one can avail the benefit. At least the serial rebate condition need to be removed so that any consumer fulfilling any of these conditions could get the benefit of rebate.

Need for reduction in electricity tariff for industrial consumers:

As is very well known, the electricity tariffs for industrial consumers is very high mainly due to the fact that this sector is highly cross subsidizing the subsidized sector of consumers. According to the national Electricity Policy and the Tariff Policy of the Govt. of India, it is the duty of the Appropriate Commission to reduce the cross subsidies and to achieve a scenario where every electricity consumer is required to pay the actual cost of service. It has to be appreciated that Industry In our neighboring State of Punjab, the State Government had reduced the industrial tariff to Rs.5/unit which has resulted in their industrial sales going up by 30%. Any increase in industrial activity gives a snowball effect due to development in allied services like employment, infrastructure growth, increase in State revenues and overall growth of the State. We would urge the Hon'ble Commission to reduce the cross subsidy being paid by the industrial consumers.

Commission's View

The Commission has taken note of the suggestions / comments of the intervener on HT Tariff / ToU Tariff and related issues and shall keep the same in mind while realigning tariff(s) including ToD tariff. The Discoms shall submit the requisite details including CoS within six months. As previously noted a failure to do so shall make the officer concerned liable for penalty and further action.

Need for implementation of Solar Policy and Bio-energy Policy notified by the State Government:

The State Government notified the Solar Policy, 2016 on 14.03.2016 and Bio-energy Policy on 09.03.2018. Through these Policies large number of incentives/waivers were given to the developers. In respect to wheeling of such RE power, some of the incentives given through these Policies were as follows,

Clause 4.3 of Solar Policy, 2016

Exemption of Electricity Duty & Electrical Taxes & Cess, Wheeling, Transmission & Distribution, cross subsidy charges, surcharges and Reactive Power Charges:

All electricity taxes & cess, electricity duty, wheeling charges, cross subsidy charges, Transmission & Distribution charges and surcharges will be totally waived off for Ground mounted and Roof Top Solar Power Projects.

Clause (F) under Chapter-3 (Incentives) of Bio-Energy Policy, 2018

Exemption of Transmission & Distribution, cross subsidy charges, surcharges and Reactive Power Charges:

All cross subsidy charges, Transmission & Distribution charges, surcharges and reactive power charges will be totally waived off for any biomass projects set up in the State.

However, Hon'ble Commission partially modified the RE Regulations through HERC/40/2018 Regulations notified on 24.07.2018, whereby under Regulation 60 of these Regulations, Wheeling Charges, Cross Subsidy Charges, Transmission & Distribution charges and Additional Surcharge were totally waived of, for third party sale/Open Access consumers for energy from ground mounted/Roof Top Solar power, commissioned during the control period under the Regulations. In addition these waivers were also extended to the Captive Solar Power for self-consumption. Banking facility was also given to the above power projects.

The New & Renewable Energy Deptt., Haryana/HAREDA issued its own guidelines on 09.10.2018 laying down 'Procedure/Guidelines for approval of MW Scale Ground Mounted/Rooftop Projects/Solar Park for captive consumption or third party sale under Haryana Solar Policy 2016/ RE Regulations 2017. These guidelines did not have the prior approval of the Commission and as such were held in abeyance by way of State Government intervention.

Meanwhile, HVPN has also come out with its own Interim Guidelines for grant of Connectivity to the Solar Power Plants.

The end result is that there is an environment of complete confusion and uncertainty and the Solar Developers/consumers are not able to move ahead for the installation of solar power plants or to negotiate any long term power sale/purchase agreement for solar power. There is complete stalemate in the State and the net result is that the State is not able to tap this renewable source because of non-clarity of Policies/Guidelines/Regulations.

There is need for taking a final view and impart clear instructions on Solar Power and Bio-energy development in the State.

We request the Hon'ble Commission to kindly consider these observations while finalizing the ARR of the Distribution Licensee and we further request for giving us an opportunity to express our views during the Public Hearing scheduled for 22nd February, 2019.

Commission's View

The Commission, in the present order, is not dealing with the issues of RE Regulations and its implementation thereto. However, it would suffice to say that the dispensations under the RE Regulations are final and binding unless reviewed by this Commission after following due process or set aside by a court of competent jurisdiction.

2.2.3 Objections filed by Faridabad Industries Association

Faridabad Industries Association- Comments on DHBVNL APR petition for FY 2018-19, and ARR Petition for FY 2019-20

Distribution Losses

At 3.3 of the petition, for FY2018-19 and FY 2019-20, DHBVNL has considered distribution loss of 15% for both the years, which is not acceptable. All the principals of tariff fixation as laid down in tariff regulations 2102 shall be applicable for the projection and determination of ARR for the FY 2019-20 also. The Commission, must therefore, set justifiable targets for AT&C Loss, distribution loss and collection efficiency and these can not be same for two consecutive years as it will not incentivize the performance. The Commission is therefore, requested to approve the energy balance considering better targets for AT&C Losses, distribution losses and collection efficiency which in any case can not be less than the targets for 2018-19. The assumptions made by DHBVNL against these controllable parameters must therefore, be rejected by the Commission and should not form basis for the projection of ARR for FY 2019-20.

Commission's View

The Commission has taken note of the above objections and observes that the loss trajectory as well as treatment of controllable parameters shall be as per the MYT Regulations in vogue.

1. Employee Expenses

In table 24 on page 49 of its tariff petition for FY 2019-20, DHBVNL has projected a figure of Rs 1410.52 Cr for the FY 2019-20. The relevant extracts from the tariff regulations on employee costs are given below:-

“(b) EMP_n (excluding terminal liabilities) + $A\&G_n = (EMP_{n-1} + A\&G_{n-1}) * (INDX_n / INDX_{n-1})$

Where,

☐ *$INDX_n$ – Inflation Factor to be used for indexing the Employee Cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year and shall be calculated as under:*

☐ ***$INDX_n = 0.55 * CPI_n + 0.45 * WPI_n$***

Note 1: *For the purpose of estimation, the same INDXn value shall be used for all years of the control period. However, the Commission shall consider the actual values of the INDXn at the end of each year during the annual performance review exercise and true-up the employee cost and A&G expenses on account of this variation.*

Note 2: *Any variation in employee cost and A&G cost on account of reasons beyond variation in INDXn shall be subject to the incentive and penalty framework specified in regulation 12.”*

Employees expenses are the controllable expenses and as can be seen from above, any variation in employees costs from the approved figures is allowed only to the extent of variation in inflation factor.

DHBVN has applied an inflation index of 3.79 % on their costs of FY 2017-18 to arrive at costs for FY 2018-19 and 2019-20. Further as per our comments on true up for FY 2017-18, the true up costs for employee expenses are Rs 1175.12 Cr on the ground that dicom has not followed the laid down principals of the tariff regulations and no calculation and methodology has been depicted by it to arrive at such costs. DISCOM needs to work out the inflation factor for the relevant year and apply it scientifically on the approved costs of 2017-18 to arrive at the actual expenses for the year 2019-20, which would require due diligence and scrutiny from the Commission before approving the employee costs for fy 2019-20. **As there is no justification provided for increase in these employee expenses, the increase may not be considered by Commission and the approved figures of employee expenses as given in commission order dated 15 Nov 2018, may please be taken into account for the arriving at the revised estimates of ARR for FY 2018-19 and then the ARR for FY 2019-20.**

Commission’s View:

The Commission has taken note of the above objections on computation / projection of Employees Cost. While reckoning with the same in the present Order, the

dispensation and methodology in the MYT Regulations in vogue shall be strictly adhered to.

2. R&M Expenses

In table 25 on page 50 of its tariff petition for FY 2019-20, DHBVNL has asked for R&M expenses of Rs 142.86 Cr for 2018-19 Cr and projected a figure of Rs 165.34 Cr for the FY 2019-20. Referring to the true up petition of DHBVNL, DHBVN has incurred R & M expenses of only Rs 107. cr against the approved figure of Rs 114.16 cr for FY 2017-18 by the Commission in its tariff order. Historically they have been spending much less on R and M as can be seen from the historical figures of the petitioner. **The commission is therefore, requested to re estimate and re approve the R& M expenses for FY 2018-19 and FY 2019-20 taking into account the actual R & M expenses of FY 2017-18 as given in the true up petition.**

Commission's view:

The Commission has considered the above objection and observes that R&M expenses approved for up-keep of the assets in use ought to be fully utilised to ensure quality of service and supply. However, the same is allowed on a normative basis in accordance with the dispensation provided in the Regulations. Accordingly, the shortfall thereto vis-à-vis the approved R&M expenses shall be trued up in line with the Regulations.

3. A & G expenses

At 3.13 of the petition, DISCOM has requested for a revised A & G expenses of Rs 92.18 cr and Rs 95.67 cr for FY 2018-19 and FY 2019-20 respectively. They have arrived at this estimate by taking the actual A & G expenses of FY 2017-18 and applying inflation factor of 3.79 %.

However, as per our submissions on true up petition for FY 2017-18, Commission needs to approve only Rs 77.72 cr (after capitalization) as the A & G expenses for FY 2017-18, which was approved by the Commission in its tariff order 11

July 2017. Taking an inflation factor of 3.79% as considered by the discom, the estimated A & G expenses for FY 2018-19 and FY 2019-20 should come out to be about Rs 80.66 cr and Rs 83.72 cr respectively. **The Commission is therefore, requested not to allow any increase in the revised projection of A&G expenses for FY 2018-19 and FY 2019-20 than those given above.**

The Commission has taken note of the above objections. As far as the figures of the FY 2018-19 is concerned, the Commission, in the present order is not truing up the same. However, projections for the FY 2019-20 shall be examined and allowed in line with the provisions of the relevant Regulations occupying the field.

4. Non Tariff Income

As per 3.17 , the DHBVNL has requested for Non Tariff Income of Rs 469.51cr for FY 2018-19 and FY 2019-20 respectively, which is at the same level as of for FY 2017-18. It has not included income due to late payment surcharge. As Late payment surcharge is also legitimate NTI, taking it into account, Total NTI for FY 2018-19 and 2019-20 shall be much more than the discom estimates as given above. **The Commission is therefore, requested to re estimate the non tariff income figures of DHBVN for FY 2018-19 and FY 2019-20 taking into consideration the actual figures for the FY 2017-18.**

Commission's View:

The Commission has taken note of the above, the treatment of NTI shall be strictly as per the relevant Regulations and previous Order(s) of the Commission in the matter.

5. Power purchase costs

At 3.6 of its petition, DHBVNL has revised their estimates of power purchase quantum and cost for FY 2018-19 and 2019-20 as can be seen from Table 20 of the petition. Table 21 on energy balance for Haryana which is produced below, Indicates that DHBVNL has considered distribution loss of 14.14 % for both the financial years:

"Table 21: Energy Balance for DHBVN Energy Balance	Units	FY 2018-19	FY 2019-20
Energy Sales to the Consumers	Mus	23,588.82	25,152.15
T&D loss	%age	14.14%	14.14%
Energy Input at Discom Periphery	Mus	27,473.59	29,294.86
Intra- State Transmission Loss	%age	2.44%	2.42%
Energy Input at State Periphery	Mus	28,160.71	30,021.38
Total Energy Available	Mus	33,180.26	34,106.39
Inter-state Power Purchase considering MoD	Mus	13,064.65	13,997.74
Inter State transmission losses	%age	3.82%	3.82%
Inter-state Power Purchase at State Periphery	Mus	12,565.58	13,463.03
Intra state Power Purchase Considering MoD	Mus	19,521.64	19,593.36
Power Purchase at State Periphery	Mus	32,087.22	33,061.60
Surplus	Mus	3,926.51	3,040.22

In order to incentivize performance, the Commission must consider lesser targets for AT and C Loss reduction for FY 2019-20 as compared to 2018-19 and that should be taken into **account to consider the power purchase quantum and its associated cost for the FY 2019-20.**

Commission's View:

The Commission has taken note of the suggestion regarding AT&C loss trajectory.

Supply Voltage wise and consumer category wise distribution and AT&C losses:

As stipulated under regulation 57.1 (f) of HERC regulations 2012, the DISCOMs are required to submit the information on these losses to arrive at wheeling charges, open access charges and other important parameters like collection efficiency and AT&C losses category wise. However, despite repeated directives by the commission and the clear legal provisions stipulated in the regulations, both the licensees have not submitted computation of supply voltage wise and consumer category wise distribution and AT&C losses till date. In the MYT Order dated 29 May 2014 also, *the Commission had expressed serious concern on the issue and stated as follows:-*

“Both the licensees have not submitted the computation of supply voltage wise and consumer category wise distribution and AT&C losses, as required under Regulation 57.1 (f) of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.”

However, despite repeated directives from the Commission, the DHBVN has again failed to comply with its orders and the statutory provisions of the regulation. **In view of the repeated failure of the discom to comply with the regulatory directive of the Commission and the continuous flouting of the legal provisions as enshrined in the Tariff regulations, the Commission may consider taking a serious view of the matter including invoking section 142 of the Electricity Act.**

8. Non-compliance to the directives of the Commission

a) Cost of Supply

The Tariff Regulations notified by this Commission casts statutory obligation on the Discoms to conduct CoS and submit the same for consideration of the Commission. However, the DHBVN has repeatedly failed to submit any tariff proposal backed by CoS. Even in its tariff order dated 18 Nov 2018, commission had observed the following:-

“Another important observation made by the Hon’ble Commission was on the non-submission of Cost of Service by the Licensee,

“The Distribution licensees as stipulated under Regulation 57.1 (f) of Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 and as per the directive in Commission’s Order on ARR of the two licensees for the control period FY 2014-15 to FY 2016-17 and also in Order on their Annual Performance Review Petition for FY 2014-15

have to submit the computation of supply voltage wise and consumer category wise distribution and AT&C losses. However, in compliance to above, the distribution licensees have submitted the voltage wise losses only. The Commission is of the considered view that a scientific methodology needs to be developed to calculate voltage wise and category wise losses so as the COS of respective category could be calculated precisely.”

“Accordingly, licensees are directed to finalize the methodology for Cost of supply (CoS) / voltage wise and category wise cost of services and submit the proposal to the Commission for its approval within three months from the date of issue of this Order.” Despite repeated warnings and cautions, discom has failed to act. Commission must make a serious note of this.

Commission’s View:

Regarding non-compliance of the directives the Commission has taken up the matter separately. As far as the present Order is concerned, the Commission shall reckon with the same while allowing RoE to the distribution licensees.

b) AP Subsidy

The DHBVNs has failed to submit the details of subsidy released by the State Government on a quarterly basis. As per earlier directions of the HERC, the Nigam was to take up the issue of direct transfer of RE subsidy to the eligible AP Consumers in their Aadhar linked bank accounts. This has not been done and DISCOM has merely stated that this issue falls under State government.

Commission’s View:

The Discoms are providing the requisite data, on regular basis to the Commission, regarding subsidy claimed and the subsidy released by the State Govtt. for Agriculture Tube-well consumers. Regarding the mechanism for release of the said subsidy the same is a policy decision to be taken by the State Govtt. within the four corners of Section 65 of the the Electricity Act, 2003.

c) Replacement of defective Meters

The commission has been insisting and giving instructions to the discom for so many years to replace the defective meters and had given the following directive:

“In Commission’s order dated 07th May, 2015, the following targets were assigned to the licensees for replacement of defective energy meters.

a. Single phase meters: The number of defective energy meters should not exceed 10,000 at any time after December, 2015.

b. Three phase meters: The number of defective energy meters should not exceed 500 at any time after December, 2015.”

The reply of the Nigam has always been very vague and open ended. This point has been commented upon by the Commission for the last 10 years. Even in its tariff order dated nov 2018, commission had expressed serious concern as below:

“The Commission had been observing the position with concern ever since a long time, but the position did not improve. The Commission, therefore, as per powers conferred to it under Sub-section (3) of Section 55 of the Electricity Act 2003, passed an Order on 10th January 2013, in the matter of non-replacement of defective energy meters by the distribution licensees. Vide this Order, both the distribution licensees were directed to replace all the meters lying defective as on 10th January, 2013 in the Municipal Areas by 30th April, 2013, but the job has not yet been accomplished.

The Commission’s Order dated 07th May, 2015, further assigned the following targets to the licensees for replacement of defective energy meters.

a) Single phase meters: The number of defective energy meters should not exceed 10,000 at any time after December, 2015.

b) Three phase meters: The number of defective energy meters should not exceed 500 at any time after December, 2015.

The licensees vide Commission’s Order dated 07th May, 2015 were also informed that failure to comply with the above targets set by the Commission shall attract the penal provision of Section 142 of the Electricity Act, 2003 against the XEN and above responsible for the lapse. However, both the licensees failed

miserably in achieving the targets for replacement of defective meters set by the Commission. The licensees vide Commission's Order dated 01st August, 2016 were again, directed to submit a detailed report within two months from the date of issue of Order, indicating the detailed reason for not meeting with the targets assigned failure to do so shall attract penal action as per the Electricity Act, 2003. Distribution licensees, however, again failed to keep the defective meters in the system within the specified targets. The Commission observed that sincere efforts are not made instead for replacement of defective energy meters and accordingly in its tariff order date 11.07.2017, as a last chance, directed the distribution licensees to submit a detailed report indicating the detailed reason for not meeting with the targets assigned along with action plan to achieve the targets and failure to do so shall attract penal action as per the Electricity Act, 2003. The licensees were also directed to intimate the average time taken for replacement of defective meter along with area wise and age wise defective meters pending for replacement."

Despite the directive time and again, the no of defective meters have gone up. We strongly feel that unless the supply of meters outstrips the demand, this situation will continue. **The Commission should ensure a time bound compliance from the discom as defective meters are a huge burden on the power system and its economics and concerted efforts should be made by the discom to get it replaced in a time bound manner.** We request commission to impose heavy penalties on discom for this gross violation time and again.

d) Reporting of Circle wise losses

The utilities are required to place on their website the circle wise losses suffered in the respective utilities along with the name (s) and designations(s) of the officers concerned working in the supervisory capacity. Such information should be updated periodically on quarterly basis. The information in respect of total losses incurred in a year should also be made public at the time of filing ARRs for information of the consumers.. In its last tariff order also, commission had severely made the following observation:

"Similarly while examining the trend of continuing distribution losses, Hon'ble commission had observed as under,

“The distribution licensees are directed to file, within 3 months, detailed reasons for not achieving the targets determined by the Commission in its tariff Order dated 07.05.2015. The Commission also directs the distribution licensees to bring down the total number of rural feeders with line losses above 50% as on 31.03.2017 to half and to bring down the losses of all urban feeders below 25% by the time of next ARR/APR filing. The distribution licensees are further directed to file report on the status of losses on each of these feeders and also prominently display them on their website.”

However, despite repeated directives by the Commission, utilities have failed to comply with such an important aspect which can go a long way in managing the acute problem of distribution losses.

e) Non-replacement of Electro-mechanical Meters:

Commission in its order dated 07th May, 2015 on APR petitions of the licensees for FY 2014-15, had directed to replace the Electro-mechanical meters by 31st March, 2016 by making all necessary arrangements. In its order dated nov 2018, commission had passed serious comments on the issue as given below:

“Total number of Electro-mechanical meters pending for replacement as on September, 2015 as per the ARR Order dated 01.08.2016 were 825978 nos. i.e. 429040 nos. and 396938 nos. with respect of UHBVNL and DHBVNL respectively. It reveals that merely 93951 nos. Electro-mechanical meters were replaced by both the licensees since from October, 2015 to March, 2017.

Section-55 (1) of the Electricity Act, 2003 provides that no licensee shall supply electricity, after the expiry of two years from the appointed date, except through installation of a correct meter in accordance with the regulations to be made in this behalf by the Central Electricity Authority. The Central Electricity Authority vide its Regulations notified on 17th March, 2006 called as the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, under Section-4 (1) provides that all interface meters, consumer meters and energy accounting and audit meters shall be of static type. As such by March 2008, the distribution licensees should have replaced all the Electro- mechanical meters

with static meters. But even after 9 years of the expiry of appointed date, more than seven (7) lakh Electro- mechanical meters (13% of the total energy meters) are still in use. These Electro- mechanical meters being very old may not be recording energy accurately and may be one of the reasons of under assessment of energy sold.

In Commission's Order 7th May, 2015 on APR petitions of the licensees for FY 2014-15, the licensees were directed to replace these Electro-mechanical meters by 31st March, 2016 by making all necessary arrangements. Further, not satisfied with the progress reported during the ARR filing of previous year, the Commission vide in its ARR Order for FY 2016- 17 directed the licensees to file, within 3 months, the detailed reasons for not complying with the directive of the Commission.

In this respect, the licensees however, have informed that most of the EM meters are located in rural area where they have to face lot of resistance in replacing the EM meters. DHBVNL in its reply has further emphasised that being located in rural area theses EM meters contributes only 7 - 8% of total revenue and due to practical reasons focus is preliminary on urban areas. But as per reported progress, large numbers of EM meters are still pending for replacement even in urban areas. The Commission, however, is of view that progress of replacement of electromechanical meters can improved significantly by simultaneous execution of same with MGJG and other schemes targeting rural area.

The Commission is not satisfied with the progress and the reasons imparted by the distribution licensees. The Commission, however, feels appropriate to revise the time lines as a last measure and therefore directs the licenses to replace the existing EM meters in following manner: -

1. All the EM meters exist in the urban areas should be replaced by March, 2019.

2. 50 % of EM meters exist in rural areas should be replaced by March, 2019 and remaining by March, 2020. The licensee should endeavour to replace the EM in a systematic manner by taking a specific area/circle at a time.

The distribution licensees are also directed to submit the detailed action plan for replacement of defective meters and electromechanical meters consistent with the time lines set by the Commission in the matter. “

As can be seen, the Discom not only flouts the repeated directives of the Commission on the issue but also contravenes the legal provisions of tariff regulations and Electricity Act which prohibits use of electromechanical meters. Commission is requested to closely monitor the compliance by the discom and impose heavy penalties in the event of unsatisfactory progress.

Commission's View:

As already noted the Commission has taken up the issue of non-compliance of the directives separately. Needless to add that all directives issued by the Commission from time to time and their compliance thereto are closely monitored by the Commission.

f) Issuance of payment of interest on consumer security deposit

That the Commission had directed the discom that it will be mandatory for discom to provide interest on consumer securities in the next billing cycle. Pls refer to the following directive in the commission's last order dated 15 Nov 2018 at 3.1.4:

“It is further directed to ensure that the interest on consumer securities is given to the consumers in the next billing cycle if not paid earlier. Further, DISCOMs were also directed to submit details of unclaimed Security Deposit of the consumers, where the consumer has discontinued receiving supply from DISCOMs and the action on such unclaimed securities be also taken as per accounting procedure within six months. The above action be

completed within six months, otherwise it shall be deemed to be a notice for taking action against the guilty officers/officials under section 142 of the Electricity Act, 2003.”

However, discom is still not following the directive and consumers are made to suffer.

Commission’s View:

The Commission has taken note of the above and directs the Discoms to file a status report regarding the same without any further loss of time, if not already done.

g) Directive on RPO Obligation

The Commission had directed the Discom to purchase renewable energy or RECs to meet the RPO targets set for the FY 2017-18 and also to make up for the shortfall of RPO compliance carried forward for the previous years, on actual basis. In view of Haryana Government’s mandate to promote RE energy especially roof top solar and Waste to Energy, Discom was directed to meet the maximum RPO targets from these sources. However, despite repeated directives from the commission, years after years, the discom is terribly short of purchase of renewable energy and meeting the RPO obligations. Refer to the commission’s concern in the last order at 3.2.11 of the order dated 15 Nov 2018 as given below:

“The Commission observes that the shortfall in meeting the RPO obligations of the DISCOMs is not reducing. DISCOMs are advised to ensure that the Solar RPO data provided by them to HAREDA includes energy generated by Rooftop solar Power also. Accordingly, the Commission in its Order dated 22.03.2018 in case nos. HERC/PRO-26 of 2015 & HERC/PRO-28 of 2015 after examining the compliance report filed by the Nodal Agency (HAREDA) and observed that “there have been instances when the mandated reports have not been filed with the Commission in compliance of the RPO regulations. The Commission directed

*HAREDA and the obligated entities to strictly comply with the RPO through purchase of RE power and / or REC in case of power surplus scenario and also the filing requirements. Further, HAREDA was also directed to ensure that its website is kept upto-date with the information filed by the obligated entities. **The Commission further directed that HPPC and other obligated entities shall assess the shortfall in meeting RPO for the FY 2016-17 and take suitable action to meet at least 50% of the shortfall so determined by purchase of REC's. DISCOMs are directed to file the compliance report of the same within 45 days from the date of issue of this Order.***

The continuous non-compliance by the discom must be dealt with sternly by the Commission in line with the provisions of the tariff regulations and the latest regulations on RPO.

It has been observed that the directives issued by Commission are not complied by DHBVN time and again. **Directives are essential and integral part of the order issued by the Commission and any non-compliance should be viewed seriously by Commission. As there has been repeated flouting of the directives of the Commission by the DHBVN, Commission must take stringent view and may consider taking punitive action against the concerned official by holding him personal guilty for non-compliance and may also consider imposing penalty by invoking section 142 of the electricity act 2003.**

Commission's View:

The issue of non-compliance of the directives have been already dealt with by the Commission in the present Order.

Standards of performance and reliability indices

As per HERC regulations 2004 on standards of performance, clause 3.1 stipulates that these standards shall be the minimum standards of the service with reference to the quality, continuity and reliability of the services of distribution company.

Further, as per clause 8.1 of these regulations, every licensee shall furnish the information on these standards and reliability indices (refer clause 8.3) every year.

Further as per schedule 1 of the guaranteed standards of the performance of these regulations, the period of load shedding shall not exceed 4 hours per day continuously for 4 days and in the event of the failure by the licensee to do so, a penalty has been specified. Further, as per the overall standards of performance as given in schedule II, defective meters shall not exceed 1% of the metered installations as per these standards, though there are still many more lacs defective meters in the licensed area of the petitioner as mentioned by the discom in its ARR Petition. In fact, most of these provisions are grossly and blatantly flouted by the licensee. No such compensation has been paid by the utility against the non compliance of these standards of the performance, even though there is a provision for automatic payment of compensation as per clause 7.2 of these regulations. Similarly, for failure rate of distribution transformers, standards prescribe 5% for urban areas and 10% for rural areas. However, the DTs failure rate is much higher in both the areas which is affecting the ARR adversely. Commission has noted its concern in the last tariff order at 3.7 as below:

“The Commission also noted it with concern that licensees are not consistent in achieving the damage rate within limits prescribed by the Commission considering the fact that the prescribed limits are far relaxed in comparison of international standards and even standards achieved by Tata Power and other power utilities in India.

The licensees have reported that measures such as routine checking, load balancing, regular checking of oil level, proper earthing of DTs, installation of proper size of fuse at HT and LT side, maintaining of LT lines to ensure proper working of DTs, augmentation of overloaded DTs, mandatory visit to field by senior officers etc. are being taken to reduce the damage rate of DTs. However, in spite of observations of the Commission in its Order dated 01th August, 2016 on APR petition of the licensees for the FY 2015-16 and revised ARR for FY 2016-17,

licensees have not examined and reported the cause of damage of DTs in the areas attributing higher damage rate.

The Commission again directs the licensees to examine the cause of damage of DTs in the areas where it is above the norms and endeavour to bring down the distribution transformer damage rate below the prescribed limits by ensuring proper maintenance and protection. Further, the reasons for excessive damage of DTs which are in warranty period be examined separately and intimated to the Commission along with the action taken thereof in the matter. Discoms are also directed to submit the year wise details of Power Transformers damaged along with ARR filing.”

Commission is requested to look in to the performance indices of the discom and order punitive action where non-compliance is observed.

Commission’s View:

Commision has taken note of the objections and shall look into the matter.

Objection

New supply connections

As per the Haryana Electricity Regulatory Commission (Duty to supply electricity on request, Power to recover expenditure incurred in providing supply & Power to require security) Regulations, 2005, it is the Duty of Licensee to supply electricity on request. As per clause 3.1 of these regulations, every distribution Licensee shall, on receipt of an application from the owner or occupier of any premises, give supply of electricity to such premises, within one month of receipt of the application, complete in all respects along with the non - refundable application processing fee. However, a no of new connections remains pending as observed by the commission in last tariff order as given below:

3.11 Pending electricity connection/load

The Discoms, in connection with their petition for Annual Performance Review petition for FY 2017-18 (including revised Annual Revenue Requirement for FY 2018-19), have subsequently submitted information pertaining to connection/load pending for release. From the data provided by the UHBVNL, the Commission observes that at the end of FY 2017-18 the number of pending applications were 30427 with applied load of 353140 kW. Similarly, in DHBVNL the number of pending applications, at the end of FY 2017-18 was 52162 with an applied load of 1064702 kW. Thus, in both the Discoms, the total load pending for release works out to 1368906 kW or 1368.90 MW. The Commission has taken serious note of the fact that on the one hand the Discoms are projecting surplus power during most of the year while on the other hand there are pending applications for release of new connections. Timely release of pending connection could have taken care of the surplus power available to the Discoms to a certain extent, which otherwise is proposed for selling in the inter-State market at 20% below the average cost of power purchase and in turn adding to the financial losses on account of trading of surplus power. The Commission in its previous tariff Order dated 01.08.2016 made it clear that such trading losses shall not be passed on to the electricity consumers of Haryana. The Commission again in its tariff Order dated 11.07.2017 directed the distribution licensees to expedite the release of pending connections/load and to remove the backblock within three months from the date of Order. However, the pendency has increased instead of going down which represents adversely on the working of both the distribution licensees.

*The Commission also observed that Discoms are not executing the release of connection to AP consumers under tatkal scheme within the time specified by the Commission even after collecting a premium for early execution of work. **The Commission has great sympathy for the farmer community and accordingly in the interest of justice directs the distribution licensees to award compensation as per HERC Regulations wherever the delay in releasing the AP connections under Tatkal Scheme is beyond thirty days. It is directed that pending connections be released within one month, otherwise interest at State Bank of India MCLR rate with one year tenor applicable on***

01.04.2018 shall be payable from the date of deposit of tatkal premium amount.

In view of the above, the Commission again directs the distribution licensees to expedite the release of pending applications for new connections as well as load enhancement. The present backlog should be removed within two months from the date of this Order and the distribution licensees shall submit a report on the same thereafter. In case backlog is not cleared within two months, it shall be deemed to be a notice under section 142 against the erring Officer/Official and the penalty so levied shall be paid to the sufferers. The hearing for taking action under Section 142 shall be held in the month of Febuary, 2018. Distributions licensees are directed to submit the circle-wise & age wise pendency of new as well as extension of load cases along with reasons for not expediting the same within the given time frame.

Compensation paid to the applicants, as specified by the Commission in its Regulations, for delay in expediting new connection or release of extended load shall also informed within two months from the date of this Order. The details of pending connections be uploaded on the website of the DISCOMs on monthly basis along with action plan to release the same."

A large no of pending requests for new supply connections beyond the permissible time limit is clearly violative of the statutory provisions and Commission must not allow this to happen without punitive actions.

Commission's View:

The Commission is monitoring the issue of non-release of new connections / load extension within the time limit specified for the purpose and shall take appropriate action, if required.

Penalty for contraventions

It has been observed that the licensee has not been complying with the various provisions of regulations, supply code, Electricity act, Conditions of the License and directives issued by the commission in the past. It has also been found flouting various provisions of applicable regulations and Act as can be seen from the tariff orders of the commission and by discom's own admission in its ARR petition. Though there are provisions in the Act and the regulations, e.g. Sections 142 and 146 of the Act and other regulations in force provide for penal action against the licensee, no penal action is taken against the licensee. Also, Discom has been flouting almost all the provisions of supply code and various standards of performance, neither any compensation is given to the gullible consumers, nor any penal action is ever taken by the commission though, repeated warnings for taking penal actions have been issued by the commission in vain in its tariff orders and otherwise.

As there has been repeated flouting of these provisions, the Commission may take stringent view and may consider taking punitive action against the concerned official by holding him personal guilty for non-compliance and may also consider imposing penalty by invoking section 142 of the electricity act 2003.

Commission's View:

The Commission has taken up the matter regarding non-compliance separately.

12. Tariff philosophy

As per National tariff policy, cross subsidy should be reduced every year. Clause 8.3 on tariff policy provides as under:

- 1. In accordance with the National Electricity Policy, consumers below poverty line who consume below a specified level, say 30 units per month, may receive a special support through cross subsidy. Tariffs for such designated group of consumers will be at least 50% of the average cost of supply.*

2. For achieving the objective that the tariff progressively reflects the cost of supply of electricity, the SERC would notify roadmap within six months with a target that latest by the end of year 2010-2011 tariffs are within $\pm 20\%$ of the average cost of supply. The road map would also have intermediate milestones, based on the approach of a gradual reduction in cross subsidy. For example if the average cost of service is Rs 3 per unit, at the end of year 2010- 2011 the tariff for the cross subsidized categories excluding those referred to in para 1 above should not be lower than Rs 2.40 per unit and that for any of the cross subsidizing categories should not go beyond Rs 3.60 per unit.”

Further MYT regulations 2012 provide the following provisions for cross subsidy:

“69.1 The distribution licensee’s tariff proposal should reflect the reasonable cost of providing service to each consumer class. In case where tariffs are historically distorted with significant level of cross-subsidy, the aim should be to gradually move to non-cross subsidized tariffs.

69.2 In the annual performance review and tariff application, the distribution licensee shall include a report on how far they have implemented the cross-subsidy reduction trajectory approved by the Commission for reduction of cross-subsidy and the measures being proposed in the current application to implement the plan.”

The Licensees have not submitted any measures or plan to reduce the inter category cross subsidy which is a vital requirement of tariff policy and MYT Regulations.

Commission’s View:

The Commission, while determining tariff and cross-subsidy surcharge keeps in mind the provisions of NTP and the limits specified thereto.

13. Audit of loss making feeders

In DHBVN, there is a high no of feeders, both urban and rural, on which the losses are consistently above 50%, but the licensee has not bothered to get energy audit of such feeders done and take suitable measures to curtail the same despite numerous directives of the commission on the issue. The Commission had further viewed this lapse on the part of licensee very seriously and had directed to file report on the status of losses on each of these feeders and also prominently display them on their website within 3 months with detailed reasons for non-compliance of the Commission's directives. **However, despite all these warnings, nothing has been done by the discom.**

These losses are taking place repeatedly even after making huge capital expenditure on loss reduction. The adverse effect of increase in the cost of supply due to such losses is borne by honest consumers, while the distribution companies are reluctant to take action against the defaulters for want of will power. Most of these losses are caused by the connivance of Discoms with the unscrupulous and corrupt elements. The mounting losses of the two distributions companies are a big drain on the state exchequer. Strangely, the government has done nothing except doling out huge subsidies and infusing funds in the form of equity without any notable improvement in their performance.

The Commission must therefore, invoke Section 142 of the Electricity Act, 2003 and take stringent action against the discom.

Commission's View:

The issue has already been dealt with in the present Order.

14. Cost of Industrial power in Haryana

The Honorable Prime Minister Narendra Modi had unveiled his plan of "Make in India" and has focused on reviving the manufacturing sector of India which is witnessing stagnancy and de-growth in last 10 years. He has taken the target of 10% industrial growth in next five years. Same has also been incorporated by the ruling party's Haryana Election manifesto. The commission would kindly appreciate that as the State

industries have to compete in the National/International markets, they need to get assured, cheap, reliable and un-interrupted power at competitive rates. The current energy tariff to industry at 11 kV voltage level taking into consideration the associated costs of fixed charges, PLEC, FSA etc, the overall industrial tariff is extremely high as compared to the industrial tariffs of various neighboring states. The power cost constitutes approx. 10-15% of manufacturing cost on an average for industry and its percentage of manufacturing cost is much higher for power intensive industries. Hence, this higher cost of power is resulting in industry of Haryana state becoming sick, non-competitive as their production cost is higher by 4-5% than other states on an average. The state of Haryana is witnessing very low industrial growth of in recent years as compared to previous years. This high cost of power being charged to industry are attributable to various malpractices, mismanagement, inefficiency and incompetency of DHBVN which should not be allowed to be passed on to the consumers of Haryana, and especially the industry which are an engine of economic growth. **Commission is requested to carry out due diligence of above submissions and take necessary steps to rationalize the charges for industrial power.**

Commission's View:

The Commission has taken note of the above concerns regarding HT Industry tariff.

15. Refund of Fuel Surcharge (FSA)

The Hon'ble commission decided that FSA @ 37 paise per unit would continue from 1st July, 2017. The total unrecovered amount could be recovered at the end of November, 2017 because the estimated sales would be estimated as 10938.13 MU. The final order of the commission was that the recovery of FSA shall continue @ 37 paise per unit till the total amount as determined in the order is fully recovered. So, after 30 Nov. 2017, the FSA should have been stopped. Unfortunately, the Discoms have been charging FSA at the same @ 37 paise per unit even after 30th Nov. 2017. No reason has been given by the Discoms to continue the same FSA even after the recovery of the total amount of FSA. So, the Hon'ble Commission is requested to order

discom to refund the amount recovered by the Discoms of FSA @37 paisa per unit since 1st December, 2017 to the consumers. **We request HERC to give suitable directions to the DISCOM on the subject.**

In view of the above, we, the industry of Haryana look forward for your kind intervention in order to save industries from the present stalemate created due to the unwarranted attitude of the DHBVN and provide relief. Commission must therefore, take a judicious, conscious and decisive view of the situation and try to salvage industry out of the rut of power menace. It must consider steps to facilitate the energy supply to industry and solve the various operational issues plaguing the industry.

Commission's View:

The Commission has taken note of the FSA issue raised by the intervener and the same was also deliberated in the State Advisory Committee meeting. The Commission after perusing the details regarding the FSA recovery shall pass an appropriate Order in accordance with the Regulations occupying the field.

Comments on True-up petition of DHBVNL for FY 2017-18 before HERC

1. O & M Expenses

That as per 13.2 of MYT regulation 2012:

“13.2 Truing-up of uncontrollable items shall be carried out at the end of each year of the control period through tariff resetting for the ensuing year and for controllable items shall be done only on account of force majeure conditions and for variations attributable to uncontrollable factors.”

As given at 2.4 of the true-up petition of DHBVNL, the comparison of approved O & M expenses by HERC in its order dated 11 July 2017 and actual being claimed by DHBVNL for FY 2017-18 is given below:

“ Table 6: O&M Expenses for FY 2017-18 (In Rs. Crores)

Sr.	Particulars	Approved	Actual	Difference
1	Employee Expense	790.12	913.29	(123.17)
2	Administration & General	77.72	88.70	(10.98)
3	Repair & Maintenance Expense	114.16	107.00	7.16
4	Terminal Liability	385.00	429.00	(44.00)
	Total	1367.00	1538.00	(171.00)

Employee expenses and 10.98 cr more on A & G expenses which need to be disallowed by the Commission in line with 57.3 of the regulation.

“57.3 Operation and Maintenance Expenses

The actual audited O & M expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 4% to arrive at the O & M expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below.

$$\mathbf{O\&Mn = (R\&Mn + EMPn + A\&Gn) * (1 - Xn) + Terminal Liabilities}$$

Where,

- ☐ *R&Mn – Repair and Maintenance Costs of the Distribution Licensee(s) for the nth year;*
- ☐ *EMPn – Employee Costs of the Distribution Licensee(s) for the nth year excluding terminal liabilities;*
- ☐ *A&Gn – Administrative and General Costs of the Distribution Licensee(s) for the nth year;*

The above components shall be computed in the following manner.

(a) $R\&Mn = K * GFA * INDXn / INDXn-168$ Where,

- **'K'** is a constant (expressed in %) governing the relationship between O&M costs and Gross Fixed Assets (GFA) for the nth year. The value of K will be 1.65% for DHBVN and UHBVN respectively for the entire control period;
- **'GFA'** is the average value of the gross fixed asset of the nth year.
- **'INDXn'** means the inflation factor for the nth year as defined herein after.

$$(b) \text{ EMPn (excluding terminal liabilities) + A\&Gn = (EMPn-1 + A\&Gn-1) * (INDXn / INDXn-1)}$$

Where,

- **INDXn** – Inflation Factor to be used for indexing the Employee Cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year and shall be calculated as under:

$$\square \text{ INDXn} = 0.55 * \text{CPI}_{n-1} + 0.45 * \text{WPI}_{n-1}$$

Note 1: For the purpose of estimation, the same INDXn value shall be used for all years of the control period. However, the Commission shall consider the actual values of the INDXn at the end of each year during the annual performance review exercise and true-up the employee cost and A&G expenses on account of this variation.

Note 2: Any variation in employee cost and A&G cost on account of reasons beyond variation in INDXn shall be subject to the incentive and penalty framework specified in regulation 12.

Note 3: As and when any material price index specific to power sector or a more relevant Index becomes available, the same shall replace the Index used for working out R&M cost.

Note 4: Terminal liabilities shall be approved as per actual expenditure incurred by the distribution licensee or established through actuarial valuation for the ensuing year.

Note 5: O&M expenses made on account of extraordinary situations (if any) shall be submitted to Commission for its approval. Such expenses shall be filed separately and will not be subjected to incentive and penalty framework. The approved amount by the Commission shall be trued up in the annual performance review.

Note 6: Changes in the pay scales of employees necessitated on account of pay revision by Pay Commission or by the State Government orders shall be considered by the Commission for true-up during the annual performance review.

(c) X_n is an efficiency factor for n th year

The Value of X_n will be determined by the Commission in the MYT order for the control period.”

In line with above regulations, the discom should have given a clear explanation and calculation of expenses of all the components of O & M expenses and a mere mention of this amount in the audited accounts is not enough. They must take a base value of employee expenses, R & M expenses and A & G expenses, apply inflationary index and the efficiency factor to arrive at the expenses which they wish to get approved from the commission.

In the absence of any calculation and justification, Commission may therefore, allow total O & M expenses of Rs 1367.00 Cr as approved in the tariff order dated 11 July 2017 for FY 2017-18 against Rs 1538.00 Cr as claimed by the DHBVN in line with MYT Regulations while considering true up for FY 2017-18.

Further it is observed that actual R & M expenses of DHBVNL are low at Rs 107 cr against the approved figure of Rs 114.16 cr as per the tariff order dated 11 July 2017. It is found that DHBVNL is not spending enough on R & M expenses as a percentage of

total ARR. It should improve its operational performance with judicious expenditure on R&M. The study on “Various power distribution models in India” conducted by CRISIL Infrastructure Advisory for the High-level panel (HLP) constituted under the Chairmanship of Shri V.K. Shunglu highlighted that one of the reasons behind better performance of the private distribution licensees has been IT implementation, adequate expenditure on R&M and judicious expenditure on employee cost.

A comparison of these expenses with other government and private distribution companies indicates that while the private distribution licensee have been spending about 25% to 35% of their O&M expense on repair and maintenance of their network, the majority of DHBVN's O&M costs are directed towards employees and administration.

We humbly request the Commission to direct the licensee to work on improving its operational performance by judicious expenditure in O&M cost for supplying quality power to the consumers.

Commission's View:

The Commission observes that true-up of expenses are done strictly as per the MYT Regulations in vogue and all expenses are subjected to prudence check.

2. RPO Obligation

At 3.2.11 of the distribution tariff order dated 11 July 2017, and the table 3.33 of this order, the Commission had stipulated the Renewable energy purchase quantum as 1568.37 MUs.

Also as given at table 3.2.11 of the order dated 11 July 2017 and the note below it, Commission had considered the total shortfall in solar and non solar RPO from 2011-12 to 2016-17 as 797 MUs, though shortfall in non solar had improved. Commission had further directed that the discom should meet the solar RPO as provided in HERC Regulations and any shortfall in meeting RPO shall be treated in accordance with the Regulation 64 of HERC (Terms and Conditions for determination of

Tariff for Renewable Energy Sources, Renewable Purchase Obligation and Renewable energy Certificate) Regulations, 2010 and discom would be penalized accordingly, which is fully supported by MYT regulations 2012 also. Regulation 59.8 of MYT Regulation 2012 clearly stipulates that distribution license is obliged to follow renewable energy regulations and is to be penalized accordingly in case of any shortfall.

As can be seen from the DHBVN true up petition, there is hardly any energy purchase from renewable energy sources and the DHBVN has miserably failed in its obligation of RPO which has now been repeatedly happening over the years.

The Commission is therefore, requested to treat the violation in accordance with the provisions of regulation 65, 66 and 67 on renewal energy purchase and penalize the DISCOM accordingly.

Commission's View:

The Commission has taken note of the above and shall deal with the same at the relevant paragraph on RPO in the present Order.

3. Power purchase Costs

As per 2.2 of DHBVN petition, DHBVNL has asked for a true up of power purchase cost of Rs 54735 Cr for FY 2017-18 against the approved figures of Rs 54700 Cr. It has indicated the average actual per unit cost of power as Rs 4.26 against the approved average power purchase cost of Rs 3.89 per unit by HERC in its tariff order dated 11 July 2017. DHBVN has attributed the higher power purchase costs to the unavailability of power from HPGCL Plants and purchase of energy from other generating sources and has not given any cogent explanation for the same.

It may be noted that as per MYT regulations 8.3 (b) of 2012, governing the Multiyear tariff frame work, power purchase cost for short term power and UI is a controllable parameter and any cost escalation on account of short-term power and UI cannot be allowed to pass on in the ARR of the distribution licensee.

Referring to table 3 of true up petition of DHBVNL, it is observed that its actual per unit power purchase cost for FY 2017-18 has gone up tremendously from Rs 3.89 to Rs 4.26 per unit though total power purchase quantum in the state of Haryana has come down for both DISCOMs during FY 2017-18.

A close scrutiny of Table 3 of true up petition of DHBVNL indicates that higher actual power purchase cost for DHBVNL of Rs 4.26 per unit is also attributable to drawl under UI at an average rate of Rs 4.55 per unit which is much higher than average price of Rs 3.89 per unit approved by commission as total average power purchase price.

Further referring to commission's notes on page 185 of the commission's order dated 11 July 2017, which is produced below:

"As per Commission estimates, the availability of energy is considerably in excess of the estimated requirement during the FY 2017-18. In view of the above observation, the Discoms must gear up its power purchase procurement planning and strengthen its trading activities for disposal of surplus power. It would be appropriate for the licensee to closely monitor, on daily basis, the surplus capacity, which could neither be backed down nor sold off even at variable cost and is therefore leading to trading losses. The Discoms must fine tune its projection model and ensure that surplus energy available is disposed of in cost effective manner."

It was clearly stated by the Commission that there was excess power available in state and licensees must monitor their power purchase activity prudently and must ensure no trading losses.

It was also stated that under no circumstances, power purchase price during drawl under UI Mechanism should exceed the average power purchase price. Also, the following clauses of the Commission's order dated 11 July 2017 clearly lay down the treatment of drawl of power under UI Mechanism:

"3.2.4 *The consumer category wise sales approved by the Commission are based on CAGR as previously mentioned. Further, given the surplus power*

availability in Haryana there may not be any need to purchase short-term power or drawl under UI mechanism in a low grid frequency regime. **However, in case such purchase is required to manage day-to-day operations the power purchase rate should not exceed the average per unit cost of power approved by the Commission in the present Order.”**

3.4.9 Power Purchase through Short Term/bilateral/UI mechanism

The Discoms have not proposed any drawl of power under short - term / bilateral & UI mechanism. Consequently, the Commission, while estimating quantum of power purchase, has not considered any power from short – term arrangements including drawl under UI mechanism.”

“ 3.2.7

In accordance with the source wise volume and cost of power purchase approved by the Commission as indicated in the table above, the total volume of power available in the FY 2017-18 is approved at 54700 million units (kWh) (rounded off) at a fixed cost, including PGCIL transmission charges, of Rs. cost of Rs.80473.02 millions and variable cost of Rs.132320.61. Hence, the allowed total cost of power purchase in the FY 2017-18 is pegged at Rs. 212793.636. **The average rate of power purchase (APPC) allowed by the Commission in the FY 2017-18 works out to Rs. 3.89/kWh.**

The Licensee(s) is directed to ensure that power is procured only from those sources for which the Commission has approved PPA's. Additionally, any power from Central Generating Stations, beyond the quantum for which the PPA has been signed and specifically approved by the Commission must be surrendered in case the Discoms have to backing down any approved long-term source of power.

It is made clear that any power procured from sources not specifically approved by the Commission and/ or excess quantum vis-à-vis the approved PPA purchased by the Discoms shall be disallowed by the Commission.

In addition to the above and keeping in view the surplus power availability scenario obtaining in Haryana, the Commission directs that the Discoms shall not procure any additional power over and above the quantum approved in the PPA that may be available to it from the un-allocated share / share relinquished by any other State in the Central Generating Power Stations. The Commission thereto shall disallow all such power procurements and the cost thereto.

The Commission had clearly not allowed any short term power purchase or drawl under UI mechanism for estimating power purchase cost of DHBVN for FY 2017-18. Also Regulation 60.3 of HERC Tariff regulation 2012 on short term power requirements, do not allow the provisions of pass through of quantum and cost of short term power purchased by the DISCOMs without the approval of the Commission. In its order dated 1 August 2016 also, the commission had made critical observations on its UI drawl by the DHBVN s as given below:-

“The Commission observes that the Discoms have been drawing power under UI mechanism at a very high rate. In the FY 2014-15 power has been drawn under UI mechanism at a cost of over Rs. 7.50/Kwh. This has been viewed very seriously by the Commission and for the FY 2016-17 the Discoms are directed to manage the UI drawls more efficiently and the Commission may not approve the power purchase cost of such drawls at a rate higher than the average cost of power purchase, any loss on account of that shall be borne by the Discoms.”

In view of the above, it is strongly requested that any overdrawl of power under UI at a rate higher than the average power purchase rate must be disallowed by the Commission in line with its own earlier stand and in line with the statutory provisions as given in the regulations.

The Commission is therefore, requested not to consider and allow any power purchase cost incurred on account of short-term power purchase or power under UI for the FY 2017-18. Commission is also requested to disallow any illogical and imprudent procurement of power resulting in trading loss and true

up ARR for FY 2017-18 only after adjusting the FSA already collected from the consumers.

It may further be noted that power purchase cost of DHBVNL is considerably higher than that of some other DISCOMs like MP and Rajasthan as a percentage of their total ARRs. Where as in case of DHBVN, it is generally about 80% of the total ARR, it is about 70% of their respective ARRs in M.P and Rajasthan. The Model tariff regulations of Forum of Regulators also have suggested detailed power purchase planning by distribution licensee on long-term, medium-term and short-term basis. On its part, Commission also had made the similar observations as given below in tariff order dated 30th March 2013:

“The Commission is of the opinion that excess availability of power is due to mismatch between the availability of power and the ability of the licensees to supply the same to the consumers in an efficient manner in the state. The interstate sale of power should be managed in such a manner so that the consumers of the state are not made to suffer loss due to this inability of the licensee. In case the power procurement planning is done in an efficient manner, the licensees should even be able to subsidise the consumers of Haryana by selling the excess power to consumers outside the state at remunerative rates.”

The Hon’ble Commission is therefore, requested to guide the distribution licensees of Haryana to carry out a better power procurement planning in short, medium and long run so as to arrive at an optimum power purchase cost.

Commission’s View:

The Commission has taken note of the ibid comments and observes that the power purchase cost claimed is closely examined by the Commission including at the transmission / distribution loss allowed and any purchase not found prudent or done due to higher than the approved loss levels are dis-allowed.

4. Employee Expenses

At 2.5 of its petition, DHBVNL has shown actual employee expenses of Rs 1342.29 cr for the FY 2017-18 and has requested for the true up of these expenses. However, as per the prevailing regulations 2012 of HERC, Commission may kindly approve only the expenses as approved in its tariff order dated 11 July 2017, which is Rs 1175.12 Cr and variation as permissible only to the extent of variation in the inflationary index and efficiency factor.

The relevant extracts from the tariff regulations on employee costs are given below:

$$\text{“(b) EMPn (excluding terminal liabilities) + A\&Gn = (EMPn-1 + A\&Gn1) * (INDXn / INDXn-1)} \\ \text{”}$$

Where,

□ *INDXn – Inflation Factor to be used for indexing the Employee Cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year and shall be calculated as under:*

$$\square \text{INDXn} = 0.55 * \text{CPI}_{n-1} + 0.45 * \text{WPI}_{n-1}.$$

Note 1: *For the purpose of estimation, the same INDXn value shall be used for all years of the control period. However, the Commission shall consider the actual values of the INDXn at the end of each year during the annual performance review exercise and true-up the employee cost and A&G expenses on account of this variation.*

Note 2: *Any variation in employee cost and A&G cost on account of reasons beyond variation in INDXn shall be subject to the incentive and penalty framework specified in regulation 12.”*

Employee expenses are the controllable expenses and as can be seen from above, any variation in employees costs from the approved figures is allowed only to the extent of variation in inflation factor. The discom should have given a clear explanation and calculation of expenses of Rs 1342.29 cr for employee expenses and a mere

mention of this amount in the audited accounts is not enough. They must take a base value of employee expenses, apply inflationary index and the **efficiency factor** to arrive at the expenses which they wish to get approved from the commission.

In the absence of any calculation and justification, Commission may therefore, allow an employee expenses of Only Rs 1175.12 Cr (after capitalization) as approved in the tariff order dated 11 July 2017 for FY 2017-18 against Rs 1342.29 Cr as claimed by the DHBVN in line with MYT Regulations.

Commission's View:

The Commission has already dealt with this issue earlier in the present Order.

5. Administrative & General Expenses

As per 2.7 of its true up petition, DHBVNL has requested for approval of net A & G expenditure of Rs 91.80 cr on actual basis. However, as it can be allowed only on normative basis, **Commission may allow this expense to the extent of approved expenditure of Rs 77.72 cr as per its order dated 11 July 2017 and** variation as permissible only to the extent of inflationary index and efficiency factor may be permitted.

The discom should have given a clear explanation and calculation of expenses of Rs 88.70.13 cr for A & G Expenses and a mere mention of this amount in the audited accounts is not enough. They must take a base value of A & G expenses, apply inflationary index and the **efficiency factor** to arrive at the expenses which they wish to get approved from the commission.

In the absence of any calculation and justification, Commission may therefore, allow an A&G expenses of Only Rs 77.72 Cr (after capitalization) as approved in the tariff order dated 11 July 2017 for FY 2017-18 against Rs 88.70 Cr as claimed by the DHBVN in line with MYT Regulations.

Commission's View:

The Commission has already dealt with this issue earlier in the present Order.

6. Efficiency factor

Referring to 57.3 of the tariff regulations, following has been stipulated:

“57.3 Operation and Maintenance Expenses

The actual audited O & M expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 4% to arrive at the O & M expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below.

$$\mathbf{O\&Mn = (R\&Mn + EMPn + A\&Gn) * (1 - Xn) + Terminal Liabilities}$$

Where,

- ☐ *R&Mn – Repair and Maintenance Costs of the Distribution Licensee(s) for the nth year;*
- ☐ *EMPn – Employee Costs of the Distribution Licensee(s) for the nth year excluding terminal liabilities;*
- ☐ *A&Gn – Administrative and General Costs of the Distribution Licensee(s) for the nth year;*

The above components shall be computed in the following manner.

(a) $R\&Mn = K * GFA * INDXn / INDXn-168$ Where,

- ☐ ***‘K’*** *is a constant (expressed in %) governing the relationship between O&M costs and Gross Fixed Assets (GFA) for the nth year. The value of K will be 1.65% for DHBVN and UHBVN respectively for the entire control period;*
- ☐ ***‘GFA’*** *is the average value of the gross fixed asset of the nth year.*

□ **'INDXn'** means the inflation factor for the nth year as defined herein after.

(b) $EMPn$ (excluding terminal liabilities) + $A\&Gn = (EMPn-1 + A\&Gn-1) * (INDXn / INDXn-1)$

Where,

□ $INDXn$ – Inflation Factor to be used for indexing the Employee Cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year and shall be calculated as under:

□ **$INDXn = 0.55 * CPI_n + 0.45 * WPI_n$.**

Note 1: For the purpose of estimation, the same $INDXn$ value shall be used for all years of the control period. However, the Commission shall consider the actual values of the $INDXn$ at the end of each year during the annual performance review exercise and true-up the employee cost and A&G expenses on account of this variation.

Note 2: Any variation in employee cost and A&G cost on account of reasons beyond variation in $INDXn$ shall be subject to the incentive and penalty framework specified in regulation 12.

Note 3: As and when any material price index specific to power sector or a more relevant Index becomes available, the same shall replace the Index used for working out R&M cost.

Note 4: Terminal liabilities shall be approved as per actual expenditure incurred by the distribution licensee or established through actuarial valuation for the ensuing year.

Note 5: O&M expenses made on account of extraordinary situations (if any) shall be submitted to Commission for its approval. Such expenses

shall be filed separately and will not be subjected to incentive and penalty framework. The approved amount by the Commission shall be trued up in the annual performance review.

Note 6: *Changes in the pay scales of employees necessitated on account of pay revision by Pay Commission or by the State Government orders shall be considered by the Commission for true-up during the annual performance review.*

(c) X_n is an efficiency factor for n th year

The Value of X_n will be determined by the Commission in the MYT order for the control period.”

It is quite clear from the above that while calculating the O&M Expenses for the distribution licensee, efficiency factor of the licensee is to be applied and O&M Expenses will be calculated accordingly. The Commission has to decide the value of efficiency factor. However, no such value has so far been decided by the commission and the same has not been taken in to account for calculating these expenses.

It is extremely important to link the expenses of the distribution licensee with the efficiency so as to incentivize his performance. Commission must therefore, decide immediate figures for efficiency factor and reflect them in the allowable costs for O&M Expenses.

Commission’s View:

The Commission has already dealt with this issue earlier in the present Order. Efficiency issue shall be dealt with at the relevant paragraph of the present Order.

7. Interest on working Capital and borrowings

As per 2.10 of true-up petition, DHBVNL has asked for the interest of Rs 125.91 cr on the working capital. As per 8.3 (b) of MYT regulations 2012 notified by the

Commission, interest and finance charges are a controllable parameter and cannot be allowed on actual basis. In the commission's order dated 11 July 2017, the following had been provided by the commission at 3.2.21:

“ 3.2.21 Interest on Working Capital

Working capital borrowings have been calculated in accordance with the methodology prescribed in the MYT regulations. However, the rate of interest has been derived from the filings of the licensee; being the average rate of interest on working capital borrowings for the FY 2017-18 which is lower on account of conversion of borrowings into bonds under the UDAY scheme. The average rate of interest as per filings is 8.80% for UHBVNL and 8.74 % for DHBVNL. The Commission, in accordance with the MYT Regulations, approves the interest on working capital borrowings for the FY 2017-18 as under: -

Approved Interest on Working Capital Loan of DHBVNL

(Rs. Crore) Interest on working capital	FY 2017-18
O&M expenses for 1 month	113.92
Maintenance spares 1% of opening GFA	79.92
2 months receivables	2308.57
Uncollected revenue	138.51
Total	2640.93
Less	
ACD	1200.26
Net working capital	1440.67
Interest rate	8.74%
Interest cost	125.91

For DHBVNL, the Commission had approved Rs. 125.91 crore as interest on working capital borrowings based on the principal laid down in the MYT Regulation.

Against this approved figure of Rs 125.91 Cr, the discom has claimed interest on working capital as Rs 163.08Cr as per 2.10 of the true up petition, which can not be allowed to be passed on and must be disallowed by the Commission.

Also 12.1 of MYT regulations provide for the following:

“12.1 Various elements of the ARR of the generating company and the licensee will be subject to incentive and penalty framework as per the terms specified in this regulation. The overall aim is to incentivize better performance and penalize poor performance, with the base level as per the norms / benchmarks specified by the Commission.”

Further 12.2 and 12.2(a) of these regulations clearly stipulate that interest on working capital would be subjected to Incentive and Penalty frame work when it is less or exceeds the levels specified by the Commission. Also in line with 22 of these regulations on working capital, the requirement of working capital is worked out by Commission after due diligence and considering various factors and any excess cost incurred on this is to be subjected to a penalty frame work and treated accordingly.

Hence, Hon’ble Commission is requested to allow the interest and finance charges to the tune of Rs 125.91 cr only and the balance may be disallowed.

Commission’s View:

The Commission is also bound by the Regulations notified by it. Hence, working capital and interest thereto shall be computed and allowed as per the Regulation governing the same.

8. Return on Equity

As per 2.15 of its true up petition, DHBVNL has claimed a return on equity of Rs 234.45 cr for FY 2017-18 against the commission’s allowed figures of Rs 173.16 Cr.

we request the Commission to take a judicious decision in the matter and allow the RoE Rs 173.16 Cr only for FY 2015-16 in consonance with its tariff order and the provisions given in the tariff regulations.

Commission’s View:

The Commission has taken note of the above and shall deal with the same while computing allowable RoE in the present Order.

9. Expenditure due to other debts

At 2.17 of its rue up petition, DHBVNL has claimed an expenditure of Rs 19.57 cr on account of other debts like miscellaneous losses, unrealized surcharge, refunds, compenation etc. It may kindly be noted that there is no scope for recovery of expenses on account of such under performance and incompetency on part of DISCOM and there is clear provision in regulation regarding bad and doubtful debts as given at 64 of regulations 2012 which is produced below: -

“64 Bad and doubtful debts shall be allowed to the extent the distribution licensee has actually written off bad debts subject to a maximum of 0.5% of sales revenue. However this shall be allowed only if the distribution licensee submits all relevant data and information to the satisfaction of the Commission. In case there is any recovery of bad debts already written off, the recovered bad debts will be treated as other income.”

DISCOM has not been mandated to waive off any kind of bad debts and instead charge the same from the consumer through its ARR. This is absolutely against any norms of commercial transactions. The waived off bad debts cannot be loaded on any consumers; it has to be suffered by discom as a loss. This results in decrease in collection efficiency, increase in commercial losses and overall worsens the scenario of AT &C losses, which is the ultimate benchmark for the health of any distribution utility. Moreover, the honest consumer, who is diligently and regularly paying his dues has to bear the brunt of defaulters and pay for their misdeeds. Further the facility of waiving off creates a bad habit amongst consumers expecting this undue and unfair advantage every time from the government authorities and promotes wastage of energy, thereby, resulting in more distribution losses. There is no provision for waive off of any kind of electricity dues and the discom should be sternly warned that they must take recourse to all possible means of recovery against the defaulters.

As there is no justification given by licensee and there is absolutely no legal provision to sustain this claim, the Commission is, therefore, requested not to consider this expense in the ARR while truing up the costs for FY 2017-18.

Commission's View:

The Commission has taken note of the above and shall keep in mind while dealing with the issue in the present Order.

10. Distribution losses & AT&C Losses

Referring to the 3.6 of the Commission's latest tariff order dated 11 July 2017, against a target of 16.10 % for AT &C Losses, the discom has indicated a figure of 19.16 % for FY 2017-18, which is an under achievement of 3.06%. Referring to the true-up petition of DHBVNL for FY 2017-18, DHBVNL has not indicated any data on the actual distribution loss and the AT &C Loss for fy 2017-18, which is the ultimate benchmark for the health of any distribution utility. This figure may even be higher than given above and DHBVN has not mentioned this figure in its true up petition despite the clear instructions of the commission in its order dated 11 july 2017. Therefore, there is a clear cut short fall of minimum 3.06% on account of AT &C losses for the FY 2017-18 which is to be subjected to the penalty framework as stipulated in the 57.1(g) of MYT regulations 2012, which are reproduced below:

“(g) Any overachievement and underachievement of the loss trajectory specified by the Commission in the MYT order shall be subject to incentive and penalty framework specified in regulation 12. The distribution licensee(s) shall provide a statement to this effect in the mid- year performance review and true-up.”

This penalty for under achievement of losses by the DHBVN is to be levied in line with Regulation 12 of the Tariff regulations reproduced below:

“(d) Only for Distribution licensee

- (i) Distribution losses - Applicable when actual distribution losses fall below or exceed the level specified by the Commission*
- (ii) Collection efficiency- Applicable when actual collection efficiency falls below or exceeds the level specified by the Commission*
- (iii) Recovery of arrears - Applicable when actual recovery of arrears of*

previous years falls below or exceeds the targets specified by the Commission

12.3 The gains / losses shall be computed item wise separately for each business. The computations shall be based on the data submitted by the generating company and the licensees in the application for mid- year performance review / true – up and audited annual accounts corresponding to the financial year.

12.4 In case of gain

The item wise gain shall be shared between the generating company or the licensee, as the case may be, and their respective beneficiaries in the ratio of 50:50. However, the sharing ratio of 50:50 may be revised to a maximum of 60:40 at the time of true-up during mid-year performance review / true-up. The manner of utilization of the additional 10% gain shall be specified by the Commission from time to time.

12.5 In case of loss

12.5.1 The item wise losses on account of controllable factors in case of a distribution licensee shall be dealt with in the following manner:

- (a) The loss to the Distribution Licensee on account of Distribution losses, as may be admitted by the Commission after prudence check, shall be dealt with as under:*
 - (i) One-third of the amount of such loss may be passed on as an additional charge in tariff over such period as may be specified in the Order of the Commission; and*
 - (ii) The balance amount of loss shall be absorbed y the Distribution Licensee.*
- (b) The item wise losses on account of other controllable factors,*

unless otherwise specifically provided by the Commission, shall be borne by the distribution licensee. “

The Commission is therefore, requested to allow only one-third of the loss on account of losses of DHBVN to be passed on to the consumers and the loss on account of two-third losses shall be absorbed by distribution licensee in line with 12.5.1 (a)ii.

It is also prayed that the discom must be directed to state the actual and true figures for AT&C Losses, distribution losses and collection efficiency for the FY 2017-18 immediately and Commission must give a ruling on the quantum of penalty for any shortfall on these targets.

Commission’s View:

The Commission has taken note of the aforesaid objections / suggestions.

11. Collection Efficiency

Collection efficiency is defined as ratio of total revenue realized to the total revenue billed during the year and its target has been specified in 57.2 of the regulations as under:

“57.2 Collection Efficiency

The norms for collection efficiency for the distribution licensee(s) shall be as under:

Distribution Licensee	2013-14	2014-15	2015-16	2016-17
DHBVN	98%	98.5%	99%	99%

Besides the collection efficiency, the Commission shall also monitor the recovery of arrears of previous years for which the Commission shall prescribe the targets and shall accordingly assess the performance of the licensee with regard to recovery of arrears.

Any over achievement or under achievement in respect of collection efficiency and recovery of arrears shall be subject to incentive and penalty framework as

specified in regulation 12.”

Further referring to 3.6 of the order dated 11 July 2017, a collection efficiency of 99 % was specified by the commission for FY 2017-18 for DHBVN. However, true up petition of DHBVN provides no information in the petition regarding revenue billed and the collection efficiency for FY 2017-18. These figures are required to be provided by the licensee which then would be subjected to the prudence check of the commission and any shortfall in the targets will be subjected to the penalty framework as per regulation 12 of MYT regulations 2012.

Commission is therefore, requested to direct the licensee to provide the necessary information and figures immediately to assess the performance of licensee against the targets for these controllable parameters.

12. Non-Tariff Income

DHBVN has submitted a non tariff income of Rs 469.51 Cr for the year FY 2017-18 in its true up petition. It has not included delayed payment surcharge against the receivables of NTI. It has claimed that since these are the receivables from the consumers that are not received in time, and as there is a delay in receiving the revenue, the Nigam has to procure additional working capital. Therefore, the revenue received on account of delayed payment surcharges is not income of the Nigam and hence may not be a part of NTI. As per MYT regulations 2012 governing the tariff fixation, the following provisions have been laid down:

*“67.1 All incomes being incidental to electricity business and derived by the licensee from sources, including but not limited to profit derived from disposal of assets, rents, **delayed payment surcharge**, meter rent, income from investments other than contingency reserves, miscellaneous receipts from the consumers, etc shall constitute non-tariff income of the licensee;”*

In line with the above legal provisions, Commission also has been consistently disallowing deduction of late payment surcharges from Non tariff income time and again.

In view of the above justification and in line with the prevailing tariff regulations 2102 and also the Commission's own tariff orders and pure logic, Commission must disallow the claim of the discom and the amount collected as late payment surcharge will be considered as income of the discom and be deducted from the ARR.

Commission's View:

The Commission has already dealt with this issue earlier in the present Order.

2.2.4 Objections filed by M/s ASF Insignia Pvt. Ltd (SEZ Developer

Need for fixation of separate tariff for power supply to the Special Economic Zones in the State:

In the year 2010, the Electricity Act, 2003 was amended and following proviso was inserted under S. 14 of the Act, which read as under;

*Provided that the Developer of a Special Economic Zone notified under sub-section (1) of Section 4 of the Special Economic Zones Act, 2005, **shall be deemed to be a licensee for the purpose of this clause, with effect from the date of notification of such Special Economic Zone.*** (As incorporated under Notification No. S.O. 528(E) dated 03.03.2010)

With this amendment in the Electricity Act, 2003, the Special Economic Zones were declared as deemed licensees for the purpose of grant of license for distribution of electricity in the area of the SEZ.

There are certain important provisions under the Haryana Special Economic Zones Act, 2005 which relate to distribution of electricity to the residents of the SEZs. Some of these are reproduced hereunder,

S.8 Duties, functions and powers of Developer;

8. (1) Subject to the provisions of this Act, the Developer shall have the duty to secure planned development of the Special Economic Zone and provide for the establishment, construction, installation, operation, maintenance and management of the infrastructure and amenities in the zone.

(2) Without prejudice to the generality of the provisions contained in sub-section (1), the Developer shall exercise and perform the following powers and functions, namely: -

(g) for the purpose of providing, maintaining or continuing any amenity and infrastructure in the Special Economic Zone, the Developer may levy such charges, as he may consider necessary, in respect of any land, building, installations or any other infrastructure upon the user/occupier thereof; and

S.9 (2) Provision for Infrastructure or amenity by Developer;

(2) Where any infrastructure or amenity is provided, the Developer shall have the power to levy charges for the use of service so provided.

S.10 Generation and supply of electricity;

(1) (a) The Developer or the Co-Developer shall be permitted to generate electricity in or outside the Special Economic Zone for consumption in the Special Economic Zone.

(b) Units located in the Special Economic Zone, individually or in groups shall be permitted to generate electricity in or outside the Special Economic Zone for self-consumption.

(c) Units located in the Special Economic Zone, individually or in groups shall be permitted to avail of supply of electricity by sourcing it through open access from generators directly and wheel electricity to the Special Economic Zone for

consumption, subject to such payment as may be required for open access and wheeling of electricity.

(2) Groups of units in the Special Economic Zone will be considered a separate class of consumer and shall be permitted to avail supply of electricity at a determined tariff from the existing licensee.

In view of the above provision in the Haryana SEZ Act, 2005, the consumers in SEZs are to be treated as a separate class of consumers and a separate tariff is to be determined for these SEZs considering the SEZs as deemed Licensees under the Electricity Act, 2003.

Commission's View:

The Commission has taken note of the above and shall examine the same in the light of the Act as well as the Regulations in vogue. However, as far as the present Order is concerned, in the absence of any firm proposal from the Discoms, the Commission is not inclined to consider the suggestion for creating a separate tariff category for SEZs in Haryana.

I. PRESENT TARIFF APPLIED TO THE SEZs IN HARYANA:

As per the tariff schedule approved by Hon'ble Commission so far, there is no separate tariff determined for SEZs in Haryana. These are treated at par with other Single Point Connections and given power supply under the consumer category of Bulk Supply (Domestic) or Bulk Supply (NDS) or NDS (HT). Another condition applicable to such connections is that the Management of the Group Housing Society or Resident Welfare Association managing the power distribution is required to charge the tariff as approved for each category of consumers by the Commission. This condition may be workable for a Group Housing Society but certainly not for the SEZ where entire responsibility of a Distribution Licensee is hitherto discharged by the Developer of the SEZ.

The SEZ Developer is saddled with various responsibilities, which are otherwise performed by a Distribution Licensee i.e.

- (i) Laying of entire infrastructure for distribution of electricity,
- (ii) Arranging the purchase/generation, supply of electricity,
- (iii) Ensuring interruption free power supply with suitable backup source,
- (iv) Operation & Maintenance of distribution system,
- (v) Metering,
- (vi) Billing,
- (vii) Collection

There are identified set of duties and responsibilities of the SEZ Developer with respect to the supply of electricity. In this connection we may draw kind attention of the Hon'ble Commission to the special duties and responsibilities of the SEZ Developers under the relevant SEZ Act. For SEZs relating to Information Technology are required to provide certain special facilities to be created under Rule 5A of the Haryana SEZ Rules, 2006, which reads as under,

5A. Infrastructure requirements relating to Information technology:

In case of a Special Economic Zone relating to information technology, the following facilities shall be ensured, namely:—

- (a) *twenty-four hours uninterrupted power supply at stable frequency in the Zone;*
- (b) *reliable connectivity for uninterrupted and secure data transmission;*
- (c) *provision for central air-conditioning system; and*
- (d) *a ready to use, furnished plug and pay facility for end users.*

In view of the foregoing reasons it is most humbly prayed that the Hon'ble Commission may kindly consider the compelling circumstances under which the SEZ Developers have to function and urgent need to determine a separate tariff for supply of electricity to the SEZs in the State.

Commission's View:

The Commission has already dealt with this issue earlier in the present Order.

2.2.5 Objections filed by Delhi Metro Rail Corporation Ltd (DMRC)

That the instant objections have been filed inter-alia praying for determination of special tariff in respect of Objector namely Delhi Metro Rail Corporation Ltd inter-alia on the following grounds: -

Request for allowing the applicant/objector i.e. Delhi Metro Rail Corporation Ltd. A rebate of 9% (5+4) % for 66kv and 10 % (5+5) % for 220 kv for the energy supplied by the applicant to the commercial establishments within the footprints of dmrc premises:-

That the Applicant is engaged in the activity of providing Mass Rapid Transit System for National Capital Region of Delhi including Gurugram and Faridabad and is performing a public utility function having social benefits. In connection with the above activities, the Applicant requires electricity to run metro trains, for ancillary activities, for operational requirements, for supply to commercial, domestic and other establishments inside the metro stations and for real estate development outside the metro stations.

In order to ensure safety to its passengers, providing subsidized fares, reduction in financial burden upon the commuters, the Objector has established various metro stations having commercial establishments, which is being used by various entities including companies, individuals etc. In order to assist them, in running the establishments, the Applicant is providing electricity to such establishments situated within the premises of Metro Stations from the Applicant's own network of 33 KV/415 KV from sub-station situated at each metro station.

That the Applicant/objector takes power supply from DHBVN at 66 KV voltage level for running of metro trains and supporting auxiliary services of the stations, air conditioning, Lift & escalators and lightening etc, to run the amenities

of the stations. Further, a part of Applicant's power supply infrastructure is used to extend power supply to DMRC's commercial consumers.

That the Applicant has set up sub-stations and cable network to meet the station auxiliary power requirements. In case DHBVN has to extend the supply of power to commercial consumers of Applicant within the stations footprints, then, DHBVN would have to build additional infrastructure and incur capital cost for transformation of power from 66 KV voltage level to 415 KV voltage level for supplying the same to the commercial establishments of the Applicant. Presently, the Applicant has provided the entire requisite infrastructure for the purposes of transformation and supply of power from 66 KV voltage level to 415 KV incurred for its commercial establishments within the station footprints. The DISCOMS would further require the space for installation and erection of substations and ancillary equipments, if connected separately.

That the Applicant further operates and maintains the above-mentioned network, and hence all the O&M cost is borne by DMRC. Presently, DMRC borne distribution losses from 66 KV level to 33 KV and 33 KV to 415-volt levels.

It is submitted that DHBVN in its ARR for FY 2017-18 has considered its intrastate transmission loss for FY 2016-17 and FY 2017-18 as 3.82% and 2.46 % respectively, distribution losses for the same FYs has been projected as 21.70 % and 17.94 % respectively. If DHBVN has to supply power directly to DMRC's commercial consumer at LT level then DHBVN has to bear this additional loss also.

That the Applicant herein charges its commercial consumers as per prevalent tariff of commercial establishments decided by this Hon'ble Commission and collects the electricity charges as per applicable tariff as per HERC's Tariff order, which further relieves the DISCOMS from this exercise of collection of electricity charges etc. The Applicant also takes energy readings, raise bills and collect electricity bills from the commercial customers.

In view of above points, it is clear that provision of power supply to commercial establishments directly from stations is in the benefit of the DISCOMs as well.

It is thus submitted that the Applicant may kindly be allowed to retain an amount equivalent to 9% of the total charges received and calculated by the Applicant from the commercial establishments for 66kv and an amount equivalent to 10% of the charges calculated for 220kv customers as benefit for the services rendered by the Applicant i.e. erection of sub-station in DMRC premises, the costs saved by the DISCOMs against the same and supply of electricity by the Applicant to the commercial establishment's. The Applicant therefore prays that the balance amount after deduction of the aforesaid 9% or 10% of the total charges collected may be allowed to be deposited by the Applicant to the DISCOMs.

That the commercial tariff being on higher side than Traction Tariff, the Applicant was allowed to raise the bills for commercial establishments on behalf of the distribution licensee of Delhi and is allowed to retain a part of the total amount collected from the commercial establishment's against the supply of energy.

A copy of the relevant extracts of the Order on ARR and Tariff Petition of North Delhi Power Ltd. for FY 2004 -05 is attached hereto and marked as **Annexure P-**

That the same order was further made applicable to the other distribution companies in Delhi i.e. BSES Yamuna Power Ltd and BSES Rajdhani Power Ltd. vide Tariff Order for FY 2011-12 passed by the DERC. The Applicant is therefore collecting and depositing the energy charges collected from the commercial establishments and depositing the same with the distribution licensees after retaining a portion of amount so collected, against the services rendered by the Applicant.

That for all commercial consumers, the Applicant was allowed by DERC to retain 5% of tariff along with an additional retention amount of either 4% (for supply on 66 KV) or 5% (for supply on 220kv) vide order dated 29.02.2012 passed by DERC & read with Tariff order for FY 2018-19, w.e.f 01.04.2018.

A copy of the order dated 29.02.2012 passed by the DERC & relevant pages of Tariff order for FY 2018-19, w.e.f 01.04.2018 passed by DERC is attached hereto and marked as **Annexure P-2**.

It is submitted that the Applicant is allowed by DERC, inter-alia: -

- a. Meter and Charge its commercial consumers within the premises of the Petitioner for electricity consumption at rates prescribed by the DERC in Tariff Order along with electricity tax at applicable rates.
- b. Rebate of 5% of tariff applicable along with additional retention amount of either 4 % (for supply on 66 KV) or 5 % (for supply on 220kv) on account of the distribution network owned and operated by the Applicant herein i.e. NDLT (Non Domestic Low Tension) – I and MHLT on the basis of NDLT – II.
- c. Deposit the amount collected from such commercial establishments within the premises of the Applicant with DISCOM.

That the arrangement as approved by DERC and as proposed before this Hon'ble Commission is based on sound commercial principle as well as in line of object of Electricity Act, 2003 for promotion of efficient policies and economic use of resources by optimizing investments.

It may be noted that unlike other consumers, all infrastructure and requisite facilities after the point of interconnection with TRANSCO/DISCOM, the systems are maintained, established and operated by the Applicant at its own cost and the TRANSCO/DISCOM does not incur any additional expense or supply to the Applicant or the commercial establishments.

That the Applicant is collecting the consumption charges from such commercial establishments in Metro stations at commercial tariff as prescribed by this Hon'ble Commission from time to time. The calculated amount (differential amount) after deduction of the costs incurred by the Applicant for supply of power to the commercial establishments with the station footprints was attempted to deposit at DHBVN in the past which has not been accepted by DHBVN.

That the since the costs of establishment of necessary infrastructure and costs of recovery, is borne by the Applicant and no costs whatsoever is incurred by the DISCOMS in distribution or supply of electricity to the commercial consumers with the station foot prints of the Applicant herein, not only, the DISCOMS but the ultimate consumer of the DISCOMS would be benefited, if the Applicant is allowed to collect and deposit the collected differential amount after deduction of the costs as proposed above. The Applicant is not making any profit from the above arrangements.

That the Applicant vide its letter dated 01.11.2016 had submitted the aforesaid proposal to DHBVN, however, the said proposal was yet to be considered by the DHBVN.

That the Applicant herein further proposes that the Applicant herein shall be allowed to deposit the Electricity Duty and Municipal Tax which is applicable for commercial establishment within the station foot prints of DMRC premises with DHBVN for onward submission to state authorities.

That no prejudice shall be caused to the Discoms in case the instant objection is allowed by this Hon'ble Commission.

That the balance of convenience lies in favour of the Applicant/objector as the similar issues as has been raised by the Applicant by way of instant Application has already been allowed and implemented by the Delhi Electricity Regulatory Commission after examining and considering the fact that the services rendered by the Applicant in the National Capital Territory of Delhi

including the State of Haryana is a public service wherein the Applicant is providing safe and reliable mode of transport of the people of NCT of Delhi.

That the Applicant shall suffer irreparable loss and injury, in case the instant Application is not allowed by this Hon'ble Commission, as non-consideration of the issues raised by the Applicant by way of instant Application would result in serious prejudice to the Applicant and would also result in huge financial losses to the Applicant.

That the instant objections has been filed bonafide and in the interest of justice.

In view of the facts and the circumstances as detailed above, it is most respectfully prayed that this Hon'ble Commission may be pleased to:-

- i. Allow the objections filed by the Objector and thereby, permit the Applicant/Objector i.e. DELHI METRO RAIL CORPORATION LTD. a Rebate of 9% (5+4) % For 66KV AND 10 % (5+5) % for 220 kv for the energy supplied by the applicant to the commercial establishments within the footprints of DMRC premises.
- ii. permit the Applicant/objector to deposit the Electricity Duty and Municipal Tax, as applicable for commercial establishments within the station foot prints of the Applicant's premises, with DHBVN for onward submission of the said duties and taxes with the concerned state authorities; or
- iii. Pass such other order as this Hon'ble Commission may deem fit and proper in the facts and the circumstances of the case.

Commission's View:

The Commission has taken note of the above suggestions / observations.

2.3 Public Hearing

The public hearing in the matter was held as scheduled the interveners mostly reiterated the issues / objections that they had submitted in writing. The submissions made by the Interveners have already been reproduced earlier in the present order. Hence, for the sake of brevity the same are not being repeated here.

2.4 State Advisory Committee (SAC)

The 19th meeting of the State Advisory Committee was held on 25.02.2019 in the Conference Hall of HERC at Panchkula to seek views of the Members on the issues mentioned in the agenda. The agenda was sent to the SAC Members in advance. The proceedings mostly related to the Discoms are reproduced here under: -

The 19th meeting of the State Advisory Committee was held on 25.02.2019 at 11:15 A.M in the Conference Hall of the HERC at Panchkula, to seek views of the Members on the issues mentioned in the agenda. The agenda was sent to the SAC Members in advance. The list of participants is enclosed as Annexure.

At the onset, the Hon'ble Chairman, HERC welcomed the SAC members and representatives / participants present. The Chairman, given the fact that all the power utilities in Haryana have moved on to a sustainable growth path and achieved financial turnaround, appreciated the untiring efforts put in by the CMD (Discoms) and the Managing Directors of HVPNL and HPGCL as well as the officers concerned of the power utilities. He appreciated the work done by the CMD Shri Shatrujeet Kapur which has far reaching impact on the quality of supply of electricity and service to the electricity consumers in Haryana. The Chairman appreciated the role of all CMD and MDs of the Power Utilities and appreciated their work due to which the representatives of public also appreciated their work during the public hearing of ARR as they have succeeded in reducing the losses of UHBVNL & DHVBNL and the power plants of HPGCL are functioning well within the norms. HVPN has also successfully implemented augmentation of requisite infrastructure including upgrading of sub-stations as well as strengthening and augmentation of transmission lines for catering to additional load.

The Chairman further emphasised that due to positive developments in the power sector, the state is progressing fast as electricity is a key input across different segments of the State Economy. Due to the team work of the officers, the power utilities have performed well in comparison to the whole of the country. Therefore, all the officers of the power utilities who have contributed in the progress of the power sector which deserves appreciation.

The Chairman observed that a few comments have been received from the CMD (Discoms) on the draft minutes of meeting of the 18th SAC meeting circulated; accordingly, the MoM of 18th SAC meeting are approved along with the observations of CMD (Discoms) which are attached along with the present proceedings.

The CMD Shri Shatrujeet Kapur thanked the Chairman, HERC for appreciating the work of the power utilities and he also appreciated the role of the Commission in guiding and facilitating the power utilities with timely orders and appropriate regulations with the result that almost all the Regulations are updated and there is very low pendency of cases in the Commission. He also appreciated the fact that the working of the Commission is very pro-active and positive.

Shri Kapur informed that only about 30,000 electricity connections are pending for release in both the Discoms as on 31.01.2019. In the last ten months, the Discoms have released about 3.60 lacs new connections. He further stated that the remaining 30,000 connections will be released within a month as approximately they are releasing about 36,000 connection per month on an average basis during the last ten months. Hence, about 5417 MW non-agriculture tube-well load has been added which would take care of available power surplus to a certain extent.

On the issue of pendency of release of new connections, the Chairman observed that the timeline for release of new connections / load extensions in the HERC Standard of Performance Regulations has to be necessarily adhered to. He asked the CMD that the Discoms should collect the circle wise data by giving them 15 days time i.e. up to 15th March, 2019 for releasing the pending connections and then submit detailed report regarding the non-release of connections as per the Supply Code. Thereafter, the

Commission will hold circle wise meetings/hearings with the officers/concerned parties and the officers found responsible for not releasing the connection or to perform their duty efficiently where losses are not coming down due to any reason and lack of supervision by the officers, they would be suitably penalized by the Commission. It has further been observed that the officers, who are doing excellent work, should also be issued appreciation letters and targets should be given to all the officers in this regard.

The CMD further stated that they have added 5417 MW of load excluding AP load, thus, have succeeded in utilization of the surplus power to a considerable extent.

On the issue of surplus power the Chairman, HERC stated that other State Commissions have reviewed their PPAs which are not commercially viable and are adding to the financial burden of the electricity consumers. Accordingly, the Chairman asked the CMD, Discoms that they should also review all the PPAs which are creating hurdles for the Discoms by involving them in un-ending litigations in one forum or the other and some of them may not be generating power at present. Litigations at various levels resulting in tariff higher than agreed upon in the concluded PPAs ought to be reviewed and seasonal long term PPA should be preferred. The CMD pointed out that there the Discoms are having power supply deficit in the months of May to September only. He added that they have dropped Teesta PPA and also engaged KPMG, an international consultancy firm of repute, to advise them in the matter.

The Chairman, HERC, stated that GoI is pressing hard for installing smart grid and smart meters for progress of the power sector. Hence, the infrastructure including the communication system has to be put in place expeditiously. He further stated that the cost of Renewable Power is high. At present Bio-mass power is very expensive. The CMD informed that HAREDA has also suggested that they will not propose fresh bio-mass power procurement proposal. Only the four projects based on paddy straw / stubble of 50 MW selected through competitive bidding is being considered for entering into PPA. The CMD stated that the RPO target of 3% / 8% (Non Solar & Solar respectively), as per HERC Regulations, can be met with the PPAs in the pipeline.

However, meeting the targets as per GOI directions is difficult; the Commission may take a view on the same.

Shri Vineet Garg, CMD, HPGCL stated that the bench marking currently is as per the HERC Regulations in vogue. However, they can respond in case the Commission desires to have the view on any specific financial / operating norms including those of the CERC. The Chairman, HERC, stated that the Commission is preparing MYT Regulations for the next control period and the same will be hosted on the website for seeking comments. The MD stated that in the present ARR / Tariff petition of HPGCL the norms should be as per the previous bench marking and the MYT Regulations in vogue.

Shri Anurag Aggarwal, CMD, HVPNL informed that transmission tariff in Haryana cannot be benchmarked against that of the neighbouring States as the burden of pension of employees amounting to about Rs. 400 Crore per annum including that of the Discoms is borne by HVPNL and this amount is being revised further adding to the transmission cost. Thus, a significant factor responsible for comparatively higher transmission cost of HVPNL is the pension liability being borne by them. Additionally, he informed that as far as benchmarking is concerned all operating / technical parameters of HVPNL is well within the set norms. HVPNL is performing comparatively better than other Transco on parameters such as transmission system availability and intra – state transmission losses and the same is being reviewed on a regular basis. However, he added that reduction in transmission losses cannot go beyond the technical limits and the Commission should not increase our targets every year. During the current financial year HVPNL is expected to perform better than the norms and is expected to earn incentives for system availability.

Regarding benchmarking of the Discoms parameters, the CMD Shri Kapoor informed the SAC Members that about 80% of the cost of power supply in Haryana is on account of power purchase cost. This cost is cheaper in HP and Punjab etc. due to the fact that cheap source of hydro power is available to them as compared to Haryana.

On the issue of Tariff reduction, the CMD stated that they have not asked any tariff hike in the ARR / Tariff petition for the FY 2019-20. There are some components like interest cost including that on UDAY bonds, which was quantified but not allowed by the Commission, may be considered, thereafter, in case of any revenue surplus the Commission may consider giving appropriate relief in the tariff to the electricity consumers. The Chairman, HERC, stressed that firstly the discoms should start making provision for e-vehicle charging stations at the appropriate sub - station for charging the electric vehicle. Regarding FSA the Member Shri Chauhan desired that the calculation of the same ought to be made available to the electricity consumers on a quarterly basis and impression should not go that FSA continues at 37 Paise per unit forever. The CMD also suggested that the night time concession/rebate on incremental consumption including 15% in Panipat for the consumers covered under Smart Meter / Grid, as proposed by them, should be considered favourably as the Time of Day tariff has not only affected the revenue of the Discoms negatively but also did not result in shifting of load from peak to off-peak periods.

On the issue of Prepaid meters, the Chairman, HERC stressed that the Commission is of the view that smart meters/pre-paid meters be installed by removing the other meters and encouragement should be given to pre-paid meters. We are not in favour of giving free power to anyone. In rural areas there is loss due to meters. CMD assured that the target of Hemara Gao Jagmag Gao has been completed in 10 districts by providing 24 hrs light. Even in Gohana in 18 village we offered 24 hrs light but the villagers agreed that it should be 21 hours initially and they will certainly clear all the outstanding bills and will try that there is no theft and the revenue would increase. There is facility of pre-paid system in the smart meters.

On the issue of requirement of public hearing on proposal for power procurement / proposed capital expenditure, long term resource plan etc. the SAC Members were unanimously of the view that such practice is being followed in other SERCs and the no one has any objection to any such hearing(s) that the Commission may like to hold.

On the issue of RE Power the Chairman, HERC, suggested that Solar system should be encouraged on Canal including small hydro, water works, universities, PGI, Gaushalas and other similar buildings of the Govt. After exhausting all the remedies, land should be utilised for Solar power. The Chairman, HERC stated that we will amend the regulations, if required. The CMD Shri Kapur informed that encouraging Solar and Wind projects in Haryana given the cost and potential is expensive vis-à-vis procuring such power from resource rich States through SECI.

In order to upgrade the skills / knowledge of the Officers of the power utilities, the Chairman suggested that they should be regularly sent for participating in international seminars for gaining knowledge about the latest technologies and their report should also be sent to the Commission so that the Commission can incorporate some out of them for betterment of the power sector and international benchmarking of performance parameters and for adopting best practices.

Regarding Demand Side Management (DSM) the Chairman, HERC, opined that installation of smart meters / smart grid and associated infrastructure needs to be taken up on priority. The Chairman asked the CMD that at least one city should be completed first for smart meter/smart grid. The CMD assured that they are nearing the stage of completing smart meter/smart grid in Panipat, Karnal and Gurugram. In respect of HT connection (UHBVN) it was informed that 4500 connections have been brought under AMR and the remaining about 2000 connections shall be brought under AMR by March, 2019.

In the end, with the consent of the Chairman, HVPN made a detailed presentation on the functioning of the SLDC (Sewah) including that on the real time basis for load balancing.

HERC

Chapter 3

ANALYSIS OF ARR FILINGS AND COMMISSION'S ORDER

The Commission, while passing this Order for True-up of the FY 2017-18 Annual (Mid-year) Performance Review of the FY 2018-19 and determination of ARRs of the UHBVNL and DHBVNL for the FY 2019-20, has taken into account their respective Petitions, additional information/data provided by them from time to time, revised ARRs, objections / suggestions of the stakeholders, replies of distribution licensees thereto, views expressed by the objectors during the public hearing(s) and the suggestions of the State Advisory Committee.

3.1 True-up of the ARR for the FY 2017-18

The Discoms have submitted that their petition(s) for True-up of the ARR for the FY 2017-18 are based on the audited accounts. The True-up petitions have been examined by the Commission in the light of the MYT Regulations, 2012 and amendment thereof, relevant Orders of the Commission and the audited accounts for the FY 2017-18 made available to the Commission by the Discoms.

Regarding True-up of the ARR, the MYT Regulations, 2012 provide as under:-

"13. TRUING-UP

13.1 Truing-up of the ARR of the previous year shall be carried out along with mid-year performance review of each year of the control period only when the audited accounts in respect of the year(s) under consideration is submitted along with the application. In case audited accounts pertaining to the year, of which truing-up is to be undertaken, are not available, the generating company or the licensee as the case may be, shall submit the provisional account duly approved by the Board of Directors of the company/licensee.

13.2 Truing-up of uncontrollable items shall be carried out at the end of each year of the control period through tariff resetting for the

ensuing year and for controllable items shall be done only on account of force majeure conditions and for variations attributable to uncontrollable factors.

- 13.3 *The Commission shall allow carrying costs for the trued-up amount (positive or negative) at the interest rates specified in these regulations by adjusting the interest allowed on the working capital requirement for the relevant year of the control period.*

Provided that no carrying cost shall be allowed on account of delay in filing for True-up due to unavailability of the audited accounts;

Provided further that if the Commission determines an over recovery during the true-up, funding cost for such trued up amount shall be considered for the delayed period and adjusted accordingly as per provisions of this regulation.

- 13.4 *Over or under recoveries of trued-up amount in previous year(s) of the control period shall be allowed to be adjusted in the ensuing year of the control period by appropriate resetting of tariff. The unrecovered amount in the one control period shall be adjusted in the subsequent control period”.*

Accordingly, the True-up of each item of expenses is discussed in the paragraphs that follow.

3.1.1 O&M Expenses

The O&M expenses comprise of Employee cost, Terminal benefits, R&M expenses and A&G expenses. The MYT Regulations clearly provide for the methodology and principles to be considered for calculating the True-up amount. However, as the Jind Circle was transferred vide the State Government Notification dated 03.07.2013 from the licensed area of UHBVNL to DHBVNL in July 2013, the impact of the same has been taken into account by the Commission. Resultantly, the

approved expenses for both UHBVNL and DHBVNL have been adjusted to enable an appropriate comparison of actual expenditure with the approved expenditure for True-up exercise for the FY 2017-18.

In line with regulation 57.3 of the HERC MYT Regulations 2012, the Inflation factor for the FY 2016-17, is calculated as under:-

$$\text{INDX}_n = 0.55 * \text{Consumer Price Index (CPI)} + 0.45 * \text{Wholesale Price Index (WPI)}.$$

Table: Calculation of Weighted Annual Average Inflation for FY 2017-18 over FY 2016-17

Index = (0.55 * CPI + 0.45 * WPI)	
Index (n) for FY 2017-18	208.1229
Index (n-1) for FY 2016-17	201.9817
Weighted Average Inflation Factor (rounded off)	3.04%

UHBVNL

The Commission had allowed O&M expenses (excluding terminal benefits) amounting to Rs. 787.70 Crore for the FY 2016-17 as part of True-up in the ARR/Tariff Order for the FY 2018-19. Hence, the same shall now form the base year figures for calculating the admissible Employee and A & G Expenses for the FY 2017-18. The O & M expenses are calculated as per the MYT Regulations i.e. employee and A & G Cost are calculated after accounting for the increase (based on the inflation factor) and R & M cost is calculated based on 1.65% of average GFA of the FY 2017-18. Accordingly, normative O & M expenses, as per the MYT Regulations, works out to Rs. 775.13 Crore. However, the actual expenditure incurred by UHBVNL is Rs. 787.84 Crore as per the audited accounts for the FY 2016-17 as against Rs. 826.34 Crore approved by the Commission in the MYT Order for the FY 2017-18. The actual expenditure, therefore, is higher than the allowable O & M expenses as per the MYT Regulations and the increase is due to the higher R&M and A&G expenses. The licensee was directed to provide details regarding new recruitments during FY 2017-18. The details provided by the licensee show that the strength of its employees during the FY 2017-18 has increased to 12772 as compared to 12205 in the FY 2016-17. However, still the

employee cost has decreased from the amount of Rs. 617.66 Crore approved for the FY 2017-18 to the actual amount of Rs. 602.67 Crore. The increase in R&M and A&G expenses is mainly on account of higher expenditure on Repairs & Maintenance – Machinery & Legal charges etc. The licensee was directed to provide details for abnormal increase in Repairs & Maintenance – Machinery & Legal charges, so that the reasons behind additional cost incurred could be arrived at. In reply, the licensee submitted that in FY 2017-18, large number of damaged distribution transformer were repaired by outsourcing labour locally as well as from the private firms, due to which an increase has been observed in the R&M expenses of the concerned financial year. The licensee has not provided any explanation for seeking true up of A&G expenses beyond the normative increase to be allowed as per the MYT regulations. The Commission is therefore, constrained to restrict the true up of A&G expenses to normative amounting to Rs. 80.26 crores. Therefore, Rs. 775.13 Crore is now approved as the revised O&M expense for the FY 2017-18.

Table: O&M expenses of UHBVNL for FY 2017-18

(Rs. in Crore)

Particulars	True-up	HERC Approval	UHBVNL (actual as per Audited Accounts)	HERC (revised approval)
FY	2016-17	2017-18	2017-18	2017-18
Employees Expenses (excluding terminal benefits)	647.39	617.66	602.67	602.67
A & G Expenses	77.89	81.06	92.97	80.26
R & M Expenses	62.42	127.62	92.20	92.20
Total	787.70	826.34	787.84	775.13

DHBVNL

The O&M expenses (excluding terminal benefits) of DHBVNL for the FY 2016-17 approved by the Commission was Rs. 812.24 Crore. Hence, this shall be the base year figures for the purpose of calculating the normative Employee and A & G Expenses for the FY 2017-18. The O & M expenses are calculated as per MYT Regulations i.e. employee and A & G Cost are calculated after accounting for the increase (based on the inflation factor) and R & M cost is calculated based on 1.65% of average GFA of the FY 2017-18. Total allowable O & M Expenses, as per the MYT Regulations, work out to

Rs. 1097.23 Crore as against Rs. 982 Crore approved in the MYT Order for the FY 2017-18 and Rs. 1108.99 Crore actual expenditure incurred by DHBVNL as per audited accounts. The Commission observes that though the increase in employee cost is 26.71% over the previous year, the same is considered reasonable in view of the submissions of DHBVNL that only 13 number of employees have been recruited during the FY 2017-18 and the increase in employee cost is mainly attributable to increase in the cost of contractual employees and LTC claim of employees. The increase in A&G expenses is mainly on account of higher expenditure on legal and telephone charges. The Commission has sought from DHBVNL the reason for abnormal increase in Repairs & Maintenance- machinery, legal charges and telephone charges. In reply, DHBVNL submitted that Repair & Maintenance of machinery was increased due to special programme of preventive maintenance was carried out by the Nigam for repair & maintenance of the existing system. The legal charges are depending on the numbers of litigations and the fee of the Counsel which is fixed by the LR HPU as per Government instructions and there is a normal increase in legal charges i.e. Rs 3.63 Crore in FY 2016-17 to Rs 5.00 Crore in FY 2017-18. Further, expenditure on telephone charges includes the charges of telephone, postage, expenditure on maintenance of website and internet as well as reimbursement of mobile handsets etc. However, the licensee has not provided any explanation for seeking true up of A&G expenses beyond the normative increase to be allowed as per the MYT regulations. The Commission is therefore, constrained to restrict the true up of A&G expenses to normative amounting to Rs. 76.94 crores. Therefore, Rs. 1097.23 Crore is now approved as the revised O&M expense for the FY 2017-18.

Table: O & M Expenses of DHBVNL for FY 2017-18

(Rs. in Crore)

Particulars	True-up	HERC Approval	DHBVNL (actual as per Audited Accounts)	HERC (revised approval)
	2016-17	2017-18	2017-18	2017-18
Employees Expenses	669.34	790.12	912.29	913.29
A & G Expenses	74.67	77.72	88.70	76.94
R & M Expenses	68.23	114.16	107.00	107.00
Total	812.24	982.00	1108.99	1097.23

Further, in view of heavy expenditure on the establishment the four power utilities incurred and also the shortage of technical staff to maintain the system and over staffed clerical and non-technical posts, establishment needs re-structuring. The Commission in its earlier Orders had directed the discoms to examine the issue and take action for re-structuring. The status in this regard be updated and the matter may also be taken up with the State Government. Additionally, the Commission is of the considered view that vacancies (including consultants) ought to be filled up only against the sanctioned posts with approval of the Commission so that the employees cost can be reined in.

3.1.2 Terminal benefits

Terminal benefits are uncontrollable expenses as per the MYT Regulations, 2012. Hence, the same are trued-up based on the audited accounts of the Discoms i.e. **Rs. 696.20 Crore for UHBVNL and Rs. 429.00 Crore for DHBVNL.**

3.1.3 Depreciation

The Commission observes that actual opening Gross Fixed Assets (GFA) as on 1.4.2017 for UHBVNL is Rs. 6766.23 Crore i.e. lower than Rs. 7065.04 Crore estimated by the Commission for calculating depreciation for the FY 2017-18. While in the case of DHBVNL the actual opening GFA as on 1.4.2017 as per audited accounts for the FY 2017-18 is Rs. 7067.83 Crore i.e. lower than Rs. 7992.50 Crore estimated by the Commission for working out depreciation for the FY 2017-18 in the ARR Order dated 11.07.2017.

In view of the change in the opening balance of GFA and the composition of assets, the average rate of depreciation for FY 2017-18 works out to 4.66% as against 4.60% considered by the Commission for UHBVNL and 4.55% against 4.53% for DHBVNL in the ARR Order dated 11.07.2017.

The Gross depreciation for the FY 2017-18, as per the audited accounts, is Rs. 315.05 Crore and Rs. 321.86 Crore for UHBVNL and DHBVNL respectively. The net depreciation (net of depreciation on assets funded through consumers'

contributions/grants) is Rs. 277.40 Crore and Rs. 225.12 Crore respectively for UHBVNL and DHBVNL. Accordingly, the Commission approves the deprecation as per the audited accounts as above, the details are provided in the Table below:-

Table: Depreciation of UHBVNL for FY 2017-18 (Rs. Crore).

Particulars	Approved in the ARR Order dated 11.07.2017	Actual as per Audited accounts	HERC Revised approval for the FY 2017-18
Opening Gross GFA for the year	7065.04	6766.23	6766.23
Depreciation	325.13	315.05	315.05
Rate of Depreciation	4.60%	4.65%	4.65%
Less: depreciation on consumer contribution	14.96	37.65	37.65
Net Depreciation	310.17	277.40	277.40

Table: Depreciation of DHBVNL for FY 2017-18 (Rs. Crore)

Particulars	Approved in the ARR Order dated 11.07.2017	Actual as per Audited accounts	HERC Revised approval for the FY 2017-18
Opening Gross GFA for the year	7992.50	7067.83	7067.83
Depreciation	361.87	321.86	321.86
Rate of Depreciation	4.53%	4.55%	4.55%
Less: depreciation on consumer contribution	73.00	96.74	96.74
Net Depreciation	288.87	225.12	225.12

3.1.4 Interest on Consumers Security Deposit

The Commission, vide the ARR Order dated 11.07.2017, had approved interest on consumer security deposit at Rs. 103.75 Crore (UHBVNL) for the FY 2017-18, as proposed by the licensee.

UHBVNL has now intimated the actual interest paid on consumers' security deposit as per their audited accounts of the FY 2017-18 is Rs. 73.74 Crore, which is lower than the interest cost already approved by the Commission. The Commission, therefore, approves Rs. 73.74 crores as interest on consumer security deposit for the FY 2017-18 being the amount actually paid by the licensee.

Similarly, in the case of DHBVNL, the Commission had approved Rs. 93.02 Crore as interest on consumer security deposit while the actual expenses, as per the audited accounts, is Rs. 52.33 Crore. The actual expenditure of both the Discoms,

being lower than that allowed by the Commission in its ARR Order for the FY 2017-18, is therefore, approved for true-up of interest on consumers' security deposit for the FY 2017-18 for both UHBVNL and DHBVNL. The Commission observes that interest on consumers security deposit ought to be paid by the Discoms in time. The Discoms should evaluate the consumers security deposit vis-à-vis consumers average bills for say three months and accordingly align the same in case the security deposit is not adequate. Further, in case of defuters the security deposit can be increased.

3.1.5 Interest on Capex loans

UHBVNL

The Commission observes that UHBVNL has incurred an expenditure of Rs. 518.85 Crore on additions to capital works as against Rs. 800 Crore approved by the Commission for the FY 2017-18 in the ARR Order dated 11.07.2017. On this account, the actual interest cost on Capex loan incurred by the Discom is Rs. 139.57 Crore as against Rs. 119.98 Crore (net of IDC) proposed by the licensee and approved by the Commission in its ARR Order dated 11.07.2017 for the FY 2017-18. The Commission has examined the capital expenditure actually incurred by the licensee during the FY 2017-18 as against that approved by the Commission and observes that the same are within the approved limits. The increase in the interest cost (Rs. 19.58 Crore) i.e. from Rs. 119.98 Crore approved to Rs. 139.57 Crore actual, has been caused by decrease in IDC by Rs. 103.40 Crore (Rs. 152.69 Crore approved to Rs. 49.29 Crore actual). Therefore, the actual interest cost of Rs. 139.57 crore is considered for true up.

DHBVNL

The Commission observes that the licensee has incurred an expenditure of Rs. 808.34 Crore on additions to the capital works in the FY 2017-18 as against Rs. 1000 Crore approved by the Commission in the ARR Order dated 11.07.2017. The Commission had approved interest on capx loan amounting to Rs. 122.06 crores against which the licensee has incurred an expenditure of Rs. 80.53 crores (net of IDC). The Commission has examined the calculations and observes that the expenditure

incurred by the licensee on this account appears to be reasonable and therefore the same is approved for true up for the FY 2017-18.

Additionally, the Commisison is of the considered view that the Discoms ought to review its outstanding long-term loans and interest thereto. Hence, make an attempt to pre-pay cost loans and substitute the same with less costly loan in view of the improved credit ratings following UDAY.

3.1.6 Interest on Working Capital loan

As the total approved ARR has undergone a change on account of the true- up of expenses that has been approved by the Commission; the admissible working capital loan and interest thereto has been recalculated accordingly in line with the MYT Regulations. The Commission observed that base rate of State Bank of India (SBI) as on 01.04.2017 was 9.10%. The Commission has further allowed a margin of 1.25% on the SBI base rate. Accordingly, while calculating interest on working capital for the FY 2017-18, the rate of interest has been taken as 10.35%. The revised calculation of approved working capital borrowings and Interest cost thereto, for both UHBVNL and DHBVNL, is as under: -

Table: Interest on Working Capital Loan of UHBVNL (Rs. Crore)

Interest on working capital	FY 2017-18
O&M expenses for 1 month	122.61
Maintenance spares 1% of opening GFA	67.66
2 months receivables	1923.63
Uncollected revenue (1% of receivables)	115.42
Total	2229.32
Less	
Advance Consumers Security Deposit during the year	1142.88
Net working capital	1086.44
Interest rate	10.35%
Interest cost (rounded off)	112.45

Table: Interest on Working Capital Loan of DHBVNL (Rs.Crore)

Interest on working capital	FY 2017-18
O&M expenses for 1 month	127.19
Maintenance spares 1% of opening GFA	70.68
2 months receivables	2458.21
Uncollected revenue (1% of receivables)	147.49

Total	2803.56
Less: Advance Consumers Security Deposit during the year	1225.81
Net working capital	1577.75
Interest rate	10.35%
Interest cost (rounded off)	163.30
Actual Interest on working capital	88.28
Allowed Interest on working capital	88.28

The Commission observes that actual interest on working capital incurred by UHBVNL & DHBVNL is Rs. 164.14 Crore and Rs. 88.28 Crore, respectively. The Commission is constrained to allow interest on working capital to DHBVNL to the extent of actual interest on working capital paid. Accordingly, interest on working capital is approved for true – up as Rs. 112.45 Crore & Rs. 88.28 Crore, for UHBVNL & DHBVNL, respectively.

3.1.7 Interest on UDAY Bonds

Government of India has notified Ujwal Discom Assurance Yojana (UDAY) scheme for operational and financial turnaround of power distribution companies (DISCOMs), on 20th Nov 2015 under which State shall take over 75% of Discom debt as on 30th September, 2015 over two years i.e. 50% of Discom debt shall be taken over in FY 2015-17 and 25% in the FY 2017-18.

The Government of India, the State of Haryana and the DISCOMs of Haryana (Uttar Haryana Bijli Vitran Nigam Ltd. and Dakshin Haryana Bijli Vitran Nigam Ltd.) signed the tripartite Memorandum of Understanding (MOU) under the Scheme UDAY – “Ujwal DISCOM Assurance Yojana” on 11th March 2016 for operational and financial turnaround of the DISCOMs. The implementation of UDAY is expected to lead to changes in the projections of interest and finance charges for the Discoms and have a positive impact on the revenue requirement of the Discoms.

The turnaround is proposed to be achieved through:-

- Improving operational efficiencies of DISCOMs (AT&C Losses to be 15% & ACS ARR gap to be eliminated by 2018-2019)
- Reduction of cost of power

- Reduction in interest cost of DISCOMs
- Enforcing financial discipline on DISCOMs through alignment with State finances
- Salient Features of UDAY are listed below:
- States shall take over 75% of DISCOM debt as on 30 September 2015 over two years - 50% of DISCOM debt shall be taken over in 2016-17 and 25% in 2017-18
- Government of India will not include the debt taken over by the States as per the above scheme in the calculation of fiscal deficit of respective States in the financial years 2016-17 and 2017-18
- States will issue non-SLR including SDL bonds in the market or directly to the respective banks / Financial Institutions (FIs) holding the DISCOM debt to the appropriate extent
- DISCOM debt not taken over by the State shall be converted by the Banks / FIs into loans or bonds with interest rate not more than the bank's base rate plus 0.1%. Alternately, this debt may be fully or partly issued by the DISCOM as State guaranteed DISCOM bonds at the prevailing market rates which shall be equal to or less than bank base rate plus 0.1%.
- Reduction of cost of power.

The schedule of takeover of loan has been given as under:-

Break up of State Govt Takeover of Loans					
Particulars	FY 16	FY 17	FY 18	FY 19	FY 20
Grant (%)	11.25%	11.25%	11.25%	11.25%	11.25%
Grant (Cr)	3,892.5	3,892.5	3,892.5	3,892.5	3,892.5
Equity (%)	3.75%	3.75%	3.75%	3.75%	3.75%

Equity (Cr)	1,297.5	1,297.5	1,297.5	1,297.5	1,297.5
Debt (%)	35.00%	45.00%	30.00%	15.00%	0.00%
Debt (Cr)	12,109.9	15,569.9	10,379.9	5,190.0	0.0

The Commission observes that the UDAY scheme, if implemented properly, will result in all round benefit, ultimately resulting in lower tariff to the consumers once the State Government completes the committed infusion of funds by way of equity and grant by the end of five years. However, the Commission observes that as per the MoU dated 11.03.2016 the Operational Funding (OFR) has to be provided by the State Government. The interest on the UDAY bonds, as quantified by the UHBVNL & DHBVNL for the FY 2017-18 is Rs. 564.00 Crore & Rs. 480.33 Crore, respectively.

The Commission has retained the working capital borrowings to the normative or actual level, whichever is less and expects the balance to be met from the OFR support available under UDAY.

3.1.8 Cost of raising Finance and Bank Charges

The Commission had not allowed any expenditure towards cost of raising finance and bank charges to both the Discoms and the same was to be considered as part of the True-up exercise.

As per the audited accounts, UHBVNL has incurred a cost of Rs. 4.31 Crore while DHBVNL has incurred Rs.3.64 Crore on this account. As it is unavoidable cost required for raising the requisite funds, the Commission allows the same to be trued up.

3.1.9 Other Debits

UHBVNL in its ARR for FY 2017-18 as per its True-up petition has included other expenses of Rs. 359.99 Crore as per the details provided in the table below:

Table: Other Expenses UHBVNL (Rs. Crore)

1	Provision for bad and doubtful debts	90.89
2	Compensation for injury , death and damage and penalties	4.90
3	Infructuous Capital Exp. Written Off	1.23
4	Loss on Obsolescence of Stores & Spares	0.23
5	Sundry Debits balances Written Off	261.89

6	Provision for amount recoverable from employees / theft of property	0.85
	Total	359.99

The Commission has examined the submission of the licensee and observes that part of other expenses includes provisions for bad debts and other losses amounting to Rs. 353.63 Crore (Sr. No. 1,5 and 6) which are not admissible for true - up of actual expenditure. **Hence, after excluding these, the Commissions allows Rs. 6.36 Crore as other debits for True-up.**

DHBVNL has proposed a True-up of other debits of Rs. 19.57 Crore as given in table the table below: -

Table: Other expenses DHBVNL (Rs. Lakhs)

	Particulars	Amount (Rs. Lakhs)
1	Provision for bad and doubtful debts	19.53
2	Refund of revenue other than A.P.	0.04
	Total	19.57

The Commission has examined the above and observes that part of other debits includes provisions for bad debts (Sr. No. 1) amounting to Rs. 19.53 Crore which are not admissible for True-up of actual expenditure. **After excluding the said amount, the Commission allows Rs. 0.04 Crore as other expenses for True-up.**

3.1.10 Return on Equity (RoE)

UHBVNL and DHBVNL have proposed True-up of return on equity @ 14% for the FY 2017-18 amounting to Rs. 260.72 Crore and Rs. 234.45 Crore respectively. The Commission observes that the Equity share capital has also been used for Capital Work in Progress (CWIP). Accordingly, equity portion pertaining to assets not put to use as on 01.04.2017 needs to be excluded from the share capital as on 01.04.2017, at par with the procedure followed in the determination of ARR of other utilities.

In view of the above discussion, the return on equity @ 10% is allowed on the adjusted equity capital as under:-

UHBVNL	Rs. in Crore	
Particulars	Claimed in the Petition	HERC revised approval for the FY 2017-18

Share Capital Opening	3382.97	3382.97
Add: Share application money pending allotment (Opening)	26.52	26.52
Less: Equity received under UDAY	1586.24	1586.24
Net Equity for Distribution and retail supply assets as on 01.04.2017		1823.25
Less Share Capital for assets not put to use as on 01.04.2017 (20% of CWIP)		94.61
Net Equity eligible for Return on Equity as on 01.04.2017		1728.64
Add: Equity for Capex	78.10	78.09
Closing Equity	1901.35	1806.73
Equity for ROE (Op. Equity + Share application money + 50% of Equity for Capex)	1862.30	1767.69
Rate of Return on Equity	14%	10.00%
Total Return on Equity	260.72	176.77

DHBVNL

Particulars	Claimed in the Petition	HERC revised approval for the FY 2017-18
Share Capital Opening		2544.32
Add: Share application money pending allotment (Opening)		104.41
Less: Equity received under UDAY		1071.96
Net Equity for Distribution and retail supply assets as on 01.04.2017		1576.77
Less Share Capital for assets not put to use as on 01.04.2017 (20% of CWIP)		227.48
Net Equity eligible for Return on Equity as on 01.04.2017		1349.29
Add: Equity for Capex		139.09
Closing Equity		1488.38
Equity for ROE (Op. Equity + Share application money + 50% of Equity for Capex)	1674.64	1418.84
Amount of Equity as submitted by DHBVNL		
Rate of Return on Equity	14%	10%
Total Return on Equity	234.45	141.88

3.1.11 Non-tariff Income

The Commission had approved Rs. 197.25 Crore as non - tariff income for the FY 2017-18 as proposed by the UHBVNL and the actual non - tariff income as per audited accounts is Rs. 375.98 Crore. However, the licensee has now submitted that Rs. 77.60 crores, being delayed payment surcharge from the consumers may not be

considered as income of the licensee as the same is towards the cost of additional working capital required when the consumers do not pay on time for the bills raised to them. **Accordingly, the revised non- tariff income for the FY 2017-18 has been approved at Rs. 298.38 Crore.**

Similarly, in the case of DHBVNL, the Commission had approved Rs. 247.47 Crore as non - tariff income for the FY 2017-18 as proposed by them. The actual non - tariff income as per audited accounts is Rs. 582.03 Crore. The licensee has now submitted that Rs. 112.52 crores, being delayed payment surcharge from the consumers may not be considered as income of the licensee as the same is towards the cost of additional working capital required when the consumers do not pay on time for the bills raised to them. **Accordingly, the revised non- tariff income for the FY 2017-18 has been approved at Rs. 469.51 Crore.**

3.1.12 True-up of Power Purchase Cost

The Commission observes that difference in power purchase cost could arise either on account of variation in actual generating source wise quantum or rate of power vis-à-vis those allowed by the Commission on a projected basis. As per the MYT Regulations the Discoms are allowed to automatically recover FSA, without going through the regulatory process, in order to ensure financial viability of the licensees. However, the automatic recovery is subject to a cap and therefore shall necessitate a True-up. Also, the actual cost for the year can only be determined after the audited accounts are available.

In view of the aforesaid constraints, the actual power procurement cost is to be trued up based on the normative distribution losses approved by the Commission in the ARR / Tariff Order for the relevant year. Transmission losses are allowed as per actual since the Discoms have no control over these losses.

The details of True-up of power purchase cost of the Discoms for the FY 2017-18 is as per the table below.

Table: True-up of Power Purchase Cost (FY 2017-18)

Particulars			UHBVNL	DHBVNL	Total
Sales as per Audited accounts (excluding interstate and banking)	MU	1	15,444.04	22,791.67	38,235.71
Less AP sales included in above	MU	2	3,922.18	6,119.65	10,041.83
Sales as per audited accounts (net of AP sales)	MU	3	11,521.86	16,672.02	28,193.88
Add AP sales approved by the Commission	MU	4	3,960.47	5389.08	9349.55
Approved/Audited sales adjusted for AP	MU	5	15,482.33	22061.10	37,543.43
Approved Distribution losses	%	6	20.85%	17.94%	
Sales grossed up for Distribution losses	MU	7	19,560.74	26,884.11	46,444.86
Actual Interstate sales and banking	MU	8	1,522.40	2,305.74	3,828.14
Total power sold including inter-state sale and banking	MU	9	21,083.14	29,189.85	50,273.00
Intrastate & Interstate transmission losses as per audited accounts	MU	10	907.23	1,266.56	2,173.79
	%		4.13%	4.16%	
Approved power purchase volume (Sales grossed up for Intrastate & Interstate transmission losses)	MU	11	21,990.37	30,456.41	52,446.79
Actual Power Purchase Volume	MU	12	22,969.11	31,765.80	54,734.91
Disallowed Units	MU	13	978.74	1,309.39	2,288.12
Cost of disallowed units at variable cost submitted by DISCOMs @2.51	Rs. Crore	14	245.66	328.66	574.32
Two third to be borne by the Discoms	Rs. Crore	15	163.78	219.10	382.88
One third to be borne by the consumers	Rs. Crore	16	81.89	109.55	191.44
Thus, out of total power purchase cost incurred by DISCOMs, only 2/3rd determined above shall be disallowed and the remaining actual cost shall be allowed					
Calculation of actual cost to be considered by the Commission					
Actual cost incurred by DISCOMs during the FY 2017-18 (incl HVPNL and SLDC charges)	Rs. Crore	17	10338.55	14215.60	24554.15
Less Reactive Energy Charges forming part of power purchase cost		18	5.10	-0.19	4.91
Less Cost of procurement of Mittal Hydro RE Power disallowed		19	0	0	0
Net cost to be considered		20	10333.45	14215.79	24549.24
Less two third cost of losses to be borne by the Discom	Rs. Crore	21	163.78	219.10	382.88
Net power purchase cost admitted by the Commission	Rs. Crore	22	10169.67	13996.69	24166.36
Less: Revenue from Inter-state Sale and Banking, as per audited a/cs	Rs. Crore	23	591.42	895.98	1487.40
Net power purchase cost admitted by the Commission, after accounting for revenue from inter-state sale and banking	Rs. Crore	24	9578.25	13,100.71	22678.96
			4.36	4.30	
Power purchase cost allowed in the ARR order 11.07.2017:-					
Approved power purchase cost after accounting for inter-state sale and banking (incl HVPNL and SLDC)	Rs. Crore	25	9146.57	11925.87	21072.44
			4.16	3.92	4.02
True up of Power purchase cost	Rs. Crore		431.68	1174.84	1606.52

The Commission has observed the submission of the licensees that increase in average power purchase cost of FY 2017-18 is due to unavailability of energy from HPGCL plants and purchase of energy from other generating sources in excess to the quantum approved by the Commission. However, the Commission observed that HPGCL has recovered full fixed cost by showing availability above the norms. In this regard, DISCOMs are directed to furnish details of the period when HPGCL plants were not available.

3.1.13 Revenue from Sale of Power for the FY 2017-18

As per audited accounts for FY 2017-18, the two distribution licensees have recovered revenue from sale of power of Rs. 20758.25 Crore as against Rs. 18603.79

Core estimated by the Commission. The True-up of revenue from sale of power for the FY 2017-18 is as given in the table below.

Table: Revenue from sale of power for the FY 2017-18 (Rs. Crore)

Revenue for the FY 2017-18	UHBVNL	DHBVNL	TOTAL
Revenue from sale of power as per audited accounts	7134.99	10585.01	17720.00
Revenue from Fixed Charges	644.57	985.92	1630.49
FSA	587.71	820.05	1407.76
Total	8367.27	12390.98	20758.25

3.1.14 Revised ARR for the FY 2017-18

In view of the above analysis, the Commission approves the revised ARR for UHBVNL and DHBVNL as per the details provided in the table(s) below.

Table: True-up of UHBVNL for the FY 2017-18 (Rs. Crore)

Particulars	Approved	Actual	Revised ARR for FY 2017-18
Power purchase cost	9146.58	9747.13	9578.25
Operations and Maintenance Expenses	1226.34	1484.04	1471.33
Employee Expense	617.66	602.67	602.67
A&G Expense	81.06	92.97	80.26
R&M Expense	127.62	92.20	92.20
Terminal Liability	400.00	696.20	696.20
Depreciation	310.17	277.40	277.40
Net Interest on term loan	119.98	139.57	139.57
Interest on Security Deposit	103.75	73.74	73.74
Interest on Working Capital	112.72	164.14	112.45
Cost of raising finance and bank charges	0.00	4.31	4.31
Interest on Bonds			
-HVPNL Bond	0.00	75.76	0.00
-FRP Bond	0.00	134.96	0.00
-UDAY	0.00	564.00	0.00
Total Interest and Finance Charges	336.45	1156.48	330.07
True up of expenses of previous year	0.00	0.00	0.00
Other Debits	0.00	360.00	6.36
Prior period debits/ credits	0.00	0.00	0.00
Return on Equity Capital	191.56	260.72	176.77
Total Expenditure	11211.10	13285.77	11840.18
Income/Receipts			
Non Tariff Income	-197.25	-375.98	-298.38
Revenue subsidy from Govt. (excluding FSA subsidy)	0.00	-4560.00	0.00
ARR	11013.85	8349.79	11541.80

Table: True-up of DHBVNL for FY 2017-18 (Rs. Crore)

Particulars	Approved	Actual	Revised ARR for FY 2017-18

Power purchase cost	11925.87	13319.61	13100.71
Operations and Maintenance Expenses	1367.00	1537.99	1526.23
Employee Expense	790.12	913.29	913.29
A&G Expense	77.72	88.70	76.94
R&M Expense	114.16	107.00	107.00
Terminal Liability	385.00	429.00	429.00
Depreciation	288.87	225.12	225.12
Net Interest on term loan	122.06	80.53	80.53
Interest on Security Deposit	93.02	52.33	52.33
Interest on Working Capital	125.91	88.28	88.28
Cost of raising finance and bank charges	3.00	3.64	3.64
Interest on Bonds			
-HVPNL Bond	0.00	74.80	0.00
-FRP Bond	0.00	0.00	0.00
-UDAY	0.00	480.33	0.00
Total Interest and Finance Charges	343.99	779.91	224.78
True up of expenses of previous year	0.00	0.00	0.00
Other Debits	0.00	19.57	0.04
Prior period debits/ credits	0.00	0.01	0.00
Return on Equity Capital	173.16	234.45	141.88
Total Expenditure	14098.89	16116.66	15218.76
Income/Receipts			
Non Tariff Income excl. delaymet pmt surch	-247.47	-582.03	-469.51
Revenue subsidy from Govt. (excluding FSA subsidy)	0.00	-3043.32	0.00
ARR	13851.42	12491.31	14749.25

3.1.15 True-up of RE Subsidy for the FY 2017-18

The Commission had determined RE subsidy of Rs. 6550.86 Crore payable by the State Government to the Discoms for the FY 2017-18 based on an estimated CoS of Rs. 7.25 (CoS on LT supply) per unit for A.P. supply of 9193 MU. As the total ARR has now been revised because of the True-up of the FY 2017-18 and the quantum of power supplied to AP consumers during the FY 2017-18 has also been revised to 9349 MUs, based on actual; the subsidy for AP supply payable by the State Government also needs to be revised to reflect the corresponding changes in the quantum and cost of the AP tube-well consumers.

Further, in view of the Order of the Commission dated 22.02.2019 on the review petition filed by DISCOMs (HERC/RA-01 of 2019), revenue gap for the FY 2016-17 is revised as under:-

Sr. no.		As per Order dated 15.11.2018	Revised in accordance with Order dated 22.02.2019
1	UHBVNL	10887.52	10887.52
2	DHBVNL	13148.00	13148.00
3	Total ARR for FY 2016-17	24035.52	24035.52
4	Revenue gap for FY 2014-15	403.40	672.14
5	Carrying cost on above for 1 year six months	75.64	168.04
6	Total Revenue requirement for FY 2016-17	24514.56	24875.70
7	Revenue at current tariff	0.00	
8	Total Sales for FY 2016-17	33699.48	33699.48
9	Average COS	7.27	7.38
10	Cost of Supply for AP consumers		
11	AP Sales	8989	8989
12	Adjusted Cost of Supply for AP consumers	7.46	7.57
13	Revenue from AP consumers	163.02	163.02
14	Subsidy for AP supply	6539.82	6645.74
15	Revenue from sale of power	17404.86	17404.86
16	Net revenue gap for the FY 2016-17	405.86	825.10
17	Unrecovered FSA as on 31.3.2017 as per Order dated 3.3.2017	828.40	

The revenue gap of Rs. 825.10 Crore is carried forward to the True-up for the FY 2017-18, since the recovery of FSA for the FY 2016-17 has been affected in the FY 2017-18.

Accordingly, the true-up for the FY 2017-18 has been determined as under:-

Sr. no.	Total ARR for FY 2017-18	As per Order	Revised
1	UHBVNL	11013.85	11541.80
2	DHBVNL	13851.42	14749.25
3	Total ARR for FY 2017-18	24865.27	26291.05
4	Revenue gap for FY 2015-16 Non AP	1106.25	1106.25
5	Carrying cost on above 2 years @ 8.8% p.a.	194.70	194.70
6	Total Revenue requirement for FY 2017-18	26166.22	27592.00
7	Revenue at current tariff	18603.79	20758.25
8	Total Sales for FY 2017-18 (MUs)	36573.41	37543.43
9	Average COS	7.15	7.35
10	Adjusted Cost of Supply for AP consumers		
11	AP Sales for the FY 2017-18 (MU)	9193	9349.55
12	Revenue from AP consumers	114.07	169.37
13	CoS for AP Supply as per HERC Order (CoS for	7.25	

	LT supply)		
14	Adjust CoS for AP consumers		7.45
15	Subsidy for AP supply	6550.86	6793.32
16	Revenue from sale of power	25154.65	27551.57
17	Net revenue Surplus/(Gap) for the FY 2017-18	-1011.58	-40.42
18	Add Revised Revenue Gap for the FY 2016-17		-825.10
19	Net Revenue Surplus/ (gap) for the FY 2017-18 to be recovered along with the ARR for the FY 2019-20		-865.12

3.2 ARR Determination for the FY 2019-20

The ARR for the FY 2019-20 filed by the Discoms have been considered and Commission's analysis and Order on each of the expenditure items are given in the paragraphs that follow.

3.2.1 Agriculture Tube Well Sales for the FY 2017-18, FY 2018-19 (revised) & the FY 2019-20 (projected).

The Commission has examined the submissions of the Discoms (UHBVNL and DHBVNL) regarding AP sales for the period mentioned above and observes that in the present Order too the Commission shall continue with the same methodology as adopted in its previous Order based on data emanating from AP segregated feeders for assessing AP Sales.

3.2.2 Agriculture Pump (AP) Sales

Accordingly, the Commission has analysed true up for FY 2017-18, revised estimated for the FY 2018-19 and projected for FY 2019-20 in respect of AP sales of the Petitioners as under:-

3.2.3 True up of AP Sales for FY 2017-18

The Petitioners, based on the revised AP Sales, have prayed that the Commission may approve Rs. 111.57 Cr. As RE Subsidy outstanding for the FY 2017-18. The data now submitted for AP sales (FY 2017-18) is reproduced below:-

Table: AP sales as submitted by DISCOMs (MU)

Sr. No.	AP sales	FY 2017-18
1	UHBVNL	3960.48
2	DHBVNL	5389.09
3	Total AP Sales of two DISCOMs (1+2)	9349.57

On preliminary scrutiny of the present petition the Commission observed that month wise data of AP consumptions recorded on segregated AP feeders and consumption of AP consumers fed from other feeders has not been submitted. Accordingly, the Commission, vide its Memo No. 4632-33/HERC/Tariff dtd. 9/1/2019, had sought the said information from the Petitioners. The Petitioners, subsequently, submitted the month-wise AP sales data for the period from FY 2013-14 to FY 2018-19 (H1), which has been taken into account for the purpose of True up of FY 2017-18 and estimations for FY 2018-19 & FY 2019-20. Based on the data submitted by the Petitioners, the AP consumption of the two Distribution Licensees has been computed as under:-

Table 77: AP sales as trued up by Commission for FY 2017-18 (MU)

AP consumption	UHBVN (2017-18)	DHBVN (2017-18)
AP units as recorded on segregated AP feeders	4,688.38	6,336.73
Loss @ 16%	750.14	1,013.88
Net consumption from AP feeders	3,938.24	5,322.86
Add AP units on other feeders	48.18	134.44
Less Consumption of other category consumers on segregated AP feeders	25.95	68.21
Total AP consumption	3,960.48	5,389.09
Total AP consumption of two DISCOMs (rounded off)	9,349.57	
Total AP consumption approved by Commission in its Tariff Order dated 11/07/2018	9193	

It is observed from the above table that the actual AP consumption (9349.57 MU) for FY 2017-18 is higher than the AP consumption approved by the Commission in the Order dated 11/07/2017 for FY 2017-18 i.e.9193 MU. Accordingly, the total AP sale in

respect of both the DISCOMs is now approved as 9349.57 MU (UHBVNL- 3960.48 MU and DHBVNL- 5389.09 MU) for FY the 2017-18.

Further, the Commission in its Tariff Order dtd. 11/07/2017 had taken in to account RE Subsidy of Rs. 6550.86 Cr. for estimated 9193 MU of AP sales for the FY 2017-18 to UHBVN and DHBVN as a whole. As against this, the Commission has approved AP sales for the FY 2017-18 at 9349.55 Mus. Accordingly, the agricultural subsidy is considered for True-up at Rs. 6793.32 Crore at adjusted CoS for AP consumers @ Rs. 7.45/unit.

Additionally, the Commission observes that UHBVNL in its Note No. 18.1 for Audited Accounts of the FY 2017-18 & FY 2016-17 has indicated Sales under Agriculture category as 3922.18 MU & 4026.71 MU respectively. However, the Agricultural Sales computed as per the Commission's methodology works out as 3960.48 MU & 4066.68 MU for FY 2017-18 & FY 2016-17 respectively. **The Commission, in its Tariff Order dtd. 15/11/2018, had directed the Petitioners to engage a third party for authenticating the AP sales data for FY 2017-18 and supply hours vis-a-vis reasons of variance in supply hours and to submit analysis report at the time of next ARR filling. However, the said directive remained un-complied as the requisite report is still awaited. The Commission now directs the Petitioners to include the FY 2018-19 AP Sales data as part of the same scope of work and submit its report within 3 months from the date of this Order. In its absence the Commission shall be constrained to consider true-up of AP sales.**

3.2.4 AP Sales Estimation for FY 2018-19.

The Discoms have submitted that they have considered 5% growth rate on the base year sales of FY 2017-18 for projecting Agriculture consumption for the FY 2018-19 and FY 2019-20 as follows:

Table 78: AP sales projected by DISCOMs for FY 2018-19 & FY 2019-20 (MU)

Sr. No.	AP sales	FY 2018-19	FY 2019-20

Sr. No.	AP sales	FY 2018-19	FY 2019-20
1	UHBVNL	4,158.50	4,366.43
2	DHBVNL	5,658.55	5,941.47
3	Total AP Sales of two DISCOMs (1+2)	9,817.05	10,307.90

The Commission in its Tariff Order dated 15/11/2018 had considered annual load growth of 2.404% for projecting the AP sales. The 2.404% growth rate was the CAGR derived considering AP sales from FY 2014-15 to FY 2017-18. The relevant extract of the said Tariff Order is as follows:

“In view of the above, the Commission considers it appropriate to take into account an annual load growth of 2.404 %, as worked out from the AP consumption data projected by the DISCOMs for projecting the future AP sales for the FY 2018-19. Accordingly, the Commission allows following revised AP sales for the two Distribution Licensees for the FY 2017-18 and FY 2018-19”

The Commission had sought actual month-wise AP sales from the Petitioners. Based on the data submitted by the Petitioners, the Commission has first projected AP Sales for H2 FY19 (Oct’18-Mar’19) by computing 2 to 4 year CAGR upon actual Sales of H2 period (Oct-Mar) from FY 2013-14 to FY 2017-18.

The AP Sales for FY 2018-19 is then derived by summing the actual sales for H1 FY19 and Projected Sales for H2 FY19. 4 Year CAGR at the rate of 2.18% and 5.86% has been considered for projecting AP Sales for H2 FY19 for UHBVNL & DHBVNL respectively. The relevant calculation in this regard is as follows:

Table 79:AP Sales Projection FY 2018-19 of UHBVNL (MU)

AP Sales Projections	Oct-March					CAGR for H2 FY19				FY 2018-19 (H2) Proj	FY 2018-19 (H1 Actual + H2 Proj)
	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	4	3	2	1		
AP consumption of segregated AP feeders	1,551.06	1,671.08	2,056.70	1,866.83	1,690.99	2.18%	0.40%	-9.33%	-9.42%	1727.90	4,564.59
Normative AP consumption considering 16% of loss	1,302.89	1,403.71	1,727.63	1,568.14	1,420.43					1451.43	3,834.26
<i>AP Billing of consumers on feeder other than AP feeder</i>	68.17	39.31	19.46	27.29	24.79					25.33	49.25
<i>Consumption of other category consumers on AP Feeders</i>	-	-	7.51	10.01	17.37					17.75	27.23
Net Normative AP Consumption	1,371.06	1,443.02	1,739.58	1,585.42	1,427.85					1459.02	3,856.27

Table 80:AP Sales Projection FY 2018-19 of DHBVNL (MU)

AP Sales Projections	Oct-March					CAGR for H2 FY19				FY 2018-19 (H2) Proj	FY 2018-19 (H1 Actual + H2 Proj)
	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	4	3	2	1		
AP consumption of segregated AP feeders	2,454.22	2,504.21	2,929.79	2,897.18	3,082.35	5.86%	7.17%	2.57%	6.39%	3,263.05	6,445.39
Normative AP consumption considering 16% of loss	2,061.55	2,103.54	2,461.02	2,433.63	2,589.17					2,740.96	5,414.13
<i>AP Billing of consumers on feeder other than AP feeder</i>	51.21	53.15	46.66	62.20	71.00					75.16	151.97
<i>Consumption of other category consumers on AP Feeders</i>	56.02	48.13	53.29	44.76	30.14					31.91	59.37
Net Normative AP Consumption	2,056.74	2,108.55	2,454.39	2,451.07	2,630.03					2,784.21	5,506.74

3.2.4 AP Sales Estimation for FY 2019-20

The Commission observes that 5% growth rate considered by the Petitioners is on the higher side. Therefore, the Commission has computed 2 to 5 year CAGR for the period from FY 2013-14 to FY 2018-19 and has considered 5 Year CAGR at the rate of 1.43% and 5.38% for projecting AP Sales for FY 2019-20 for UHBVNL & DHBVNL respectively. The Commission is of the view that this method is more realistic and scientific in nature. The relevant calculation in this regard is as follows:

Table 81: AP Sales Projection FY 2018-19 of UHBVNL (MU)

AP Sales Projections	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19 (H1 Actual + H2 Proj)	CAGR from FY 19 to FY 14					FY 2019-20 Projected
							5	4	3	2	1	
AP consumption of segregated AP feeders as per CMRI (MU)	4,252.12	4,713.89	4,650.09	4,795.75	4,688.38	4,564.59	1.43%	-0.80%	-0.62%	-2.44%	-2.64%	4,629.79
Normative AP consumption considering 16% of loss	3,571.78	3,959.67	3,906.07	4,028.43	3,938.24	3,834.26						3,889.02
AP Billing of consumers on feeder other than AP feeder (MU)	133.31	98.07	45.98	56.67	48.18	49.25						49.95
Consumption of other category consumers on AP Feeders (MU)	-	-	15.96	18.42	25.95	27.23						27.62
Net Normative AP Consumption (MU's)	3,705.09	4,057.73	3,936.09	4,066.68	3,960.48	3,856.27						3,911.36

Table 82: AP Sales Projection FY 2018-19 of DHBVNL (MU)

AP Sales Projections	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19 (H1 Actual + H2 Proj)	CAGR from FY 19 to FY 14					FY 2019-20 Projected
							5	4	3	2	1	
AP consumption of segregated AP feeders as per CMRI (MU)	4,959.33	5,564.28	5,916.52	5,950.72	6,336.73	6,445.39	5.38%	3.74%	2.90%	4.07%	1.71%	6,792.26
Normative AP consumption considering 16% of loss	4,165.84	4,673.99	4,969.87	4,998.60	5,322.86	5,414.13						5,705.50
AP Billing of consumers on feeder other than AP feeder (MU)	101.88	110.61	106.60	129.40	134.44	151.97						160.15
Consumption of other category consumers on AP Feeders (MU)	130.56	101.13	105.83	93.05	68.21	59.37						62.56
Net Normative AP Consumption (MU's)	4,137.17	4,683.47	4,970.65	5,034.95	5,389.09	5,506.74						5,803.09

In view of above, the Commission has approved the AP sales for the FY 2018-19 & FY 2019-20, as follows:

Table 83: AP sales projected by Commission for FY 2018-19 & FY 2019-20 (MU)

Sr. No.	AP sales	FY 2018-19	FY 2019-20
1	In respect of UHBVNL	3,856.27	3,911.36
2	In respect of DHBVNL	5,506.74	5,803.09
3	Total AP Sales of two DISCOMs (1+2)	9,363.01	9,714.45

Sales Estimation (Metered other than AP Tube-well)

The Commission observes that the Discoms have relied on CAGR of previous year's sales data for projecting consumer category wise sales and connected load.

The Commission has considered the above and is of the view that CAGR of time series data is a realistic estimate; hence, the methodology is in line with the previous order (s) of the Commission. The Commission, however, has used CAGR of 4 years so as to capture the recent growth trend in sales with appropriate adjustments in sales as well as connected load in case of major aberrations in the underlying data.

The connected load and inter-se allocation of sale between sub-categories has been considered based on information made available by the Discoms.

Accordingly, the Commission approves consumer category wise energy sales for the FY 2019-20 as per the details provided in the table below.

Table: Approved Sales FY 2019-20 (MUs)

Consumer Category	Discoms Projection (MU)		HERC Approved (MU)	
	UHBVN	DHBVN	UHBVN	DHBVN
Domestic (DS)	4622.36	5394.16	4636	5418
Non Domestic	1499.70	3123.33	1474	3138
HT Industry	4765.06	7558.81	4678	7583
LT Industry	1089.65	1143.59	1024	1101
Lift Irrigation	66.51	213.08	66	212
Agriculture	4366.43	5941.47	3911.36	5803.09
Bulk Supply	304.63	926.92	302	952
Railway Traction	17.43	76.67	24	90
Street Light	99.60	100.49	103	106

Consumer Category	Discoms Projection (MU)		HERC Approved (MU)	
	UHBVN	DHBVN	UHBVN	DHBVN
MITC	1.87	-	2	-
Public Water Works	469.30	673.63	472	691
Total	17302.53	25152.15	16692.36	25094.09

The consumer category wise sales approved by the Commission are based on CAGR as previously mentioned. Further, given the power availability including the new PPAs approved, there may not be any need to purchase short-term power or drawl under UI mechanism. **However, in case such purchase is required to manage day-to-day exigencies, the power purchase rate should not exceed the average per unit cost of power approved by the Commission in the present Order.**

3.2.5 Power Purchase volume

3.2.5.1 Projections by UHBVNL / DHBVNL

The Discoms have submitted that the energy availability in Haryana State periphery has been projected based on the allocated share to Haryana form the Central Generating Stations, State Generation, Independent Power Producers and other Generating Stations. It has been further submitted that the energy availability from all these sources have been estimated based on the average PLF of the last three years. The impact of Interstate losses on the Interstate Generating stations has also been taken while calculating the availability at the State periphery.

3.2.5.2 Commission's Estimate of Power Purchase Quantum

The Commission has considered the methodology for projecting power purchase quantum for the FY 2019-20 by the Discoms based on averages and observe that the same may not provide an accurate measure of power availability. The Commission, as per past practice, is of the considered view that each year the Central Electricity Authority (CEA) publishes annual generation programme i.e Gross Generation Programme from conventional sources (Thermal, Hydro and Nuclear) stations of 25 MW and above which is also available in the public domain i.e. www.cea.nic.in/reports/others/god/opm/targets_1819.pdf. The said, power station wise monthly Generation Programme is prepared by CEA, based on the actual generation by the Stations during previous years, R&M of Units, annual overhaul / boiler, capital overhaul, units likely to be commissioned and other maintenance works furnished by the Generators. Despite the fact that there could be variations in

the actual month wise actual generation vis-à-vis the targets due to various factors including forced shutdowns and changes in individual Station's actual maintenance schedules as well as actual commissioning of new capacities and constraints in availability of specific sources like hydro or gas etc. The Commission believes that the generation programme determined by the CEA is the most reliable option for estimating power availability in the present case. Hence, for estimating the power availability in Haryana for both the distribution licensees (UHBVNL and DHBVNL) in the FY 2019-20, the Commission has considered the following:-

- (a) Since the annual generation programme for the FY 2019-20 is still not available in the public domain. CEA's generation target for FY 2018-19 for thermal power stations, hydro and nuclear power stations for which generation targets have been determined has been considered with appropriate adjustments.
- (b) Allocated share of Haryana in the respective generating stations have been considered for arriving at the quantum of power that is expected to be available to Haryana from various sources.
- (c) Past trend of actual generation achieved including those of the FY 2018-19 vis-a-vis CEA's generation targets.
- (d) HPGCL's generation targets is as approved by the Commission for FY 2019-20.
- (e) Expected generation targets from new generating stations as proposed by the Discoms.
- (f) CEA's gross generation targets, wherever considered, has been adjusted for auxiliary energy consumption and home state share (hydro) as per norms.

In line with the broad methodology set out above, the Commission, for the FY 2019-20, has proceeded as follows.

It is presumed that the Discoms have a valid PPA duly approved by the Commission for all the proposed sources of power for which approval has been sought. Hence, in no manner the sources, as considered by the Commission, in its

present Order, should be construed as approval of PPA unless the Commission, vide a specific order has accorded approval to the PPAs.

i) Availability of power from HPGCL

The Commission has considered power availability at the bus bar from HPGCL sources as per its Order dated 7th March, 2019 in Case No. HERC/PRO- 59 of 2018 in the matter of HPGCL's Petition on determination of HPGCL's Generation Tariff for the FY 2019-20 the details / assumptions of the same are mentioned in the said Order. Hence, for the sake of brevity, they are not being re-produced here.

The power availability (ex-bus energy in MUs) from HPGCL's Power Plants as determined by the Commission in its Order dated ibid Order is presented in the table below: -

Particulars	HERC Approval
HPGCL	17288

ii) Availability of Power from Faridabad FGPP

The Discoms Power Purchase Agreement (PPA) with 432 MW Faridabad gas-based power station of NTPC expired on 31.12.2015. On the petition filed by the HPPC the Commission passed the Order dated 5.10.2106 as under: -

".... the Commission considers it appropriate to approve the PPA with Faridabad Gas Power Plant (NTPC) up to 31st December, 2025, as proposed by the HPPC/NTPC subject to the following conditions: -

i) Draft PPA for the above period shall be amended suitably as per the observations communicated by the Commission in the matter.

ii) HPPC/Discoms shall schedule power on APM Gas only.

iii) NTPC shall be free to sell, to a third party outside Haryana, any power that may be generated by NTPC using fuel other than APM Gas. To that extent, the fixed cost liability of HPPC shall be accordingly reduced. The condition 4.0 (para 4) of the PPA shall be modified suitably".

In view of the ibid order it is reiterated that other than generation to the extent of APM gas usage / available NTPC may sell power to a third party

under intimation to HPPC / Discoms and pass on the requisite benefits in reduction of fixed cost to HPPC / Discoms. The Discoms are directed to get an assessment APM Gas available to NTPC in the FY 2018-19 and the FY 2019-20 for its various gas based power plants in which Haryana has allocated share i.e. Anta, Auraiya, Dadri, Faridabad Gas etc.

As FGPP is a generating station dedicated to Haryana, the Commission, based on generation target finalized by CEA net of auxiliary energy consumption, has considered 926 MUs to be available to the Discoms in the FY 2018-19. This approval is subject to the ibid Order of the Commission. The Commission's approved volume of power from FGPP is as under:-

Faridabad Gas Power Project (NTPC) (MU)

Particulars	HERC Approval
Faridabad CCGT	984

iii) Availability of power BBMB (Bhakra, Dehar & Pong)

The Discoms have share (to the extent of shares owned by HVPNL) in capacity entitlement to the extent of 33.02% in Bhakra, 32.02% in Dehar, 16.67% in Pong (all BBMB stations). The Commission has considered the CEA's generation targets for the BBMB Stations, adjusted for auxiliary energy consumption, for the FY 2018-19 available separately for Bhakra & Upratings, Dehar and Pong, Accordingly, the Commission approves as under: -

Power Availability from BBMB (MUs)

Particulars	HERC Approval
BBMB	2890.55

iv) Availability of power from NTPC Power Stations

The Commission has considered the station wise gross generation targets fixed by the CEA for the FY 2018-19 and reduced the same by normative auxiliary energy consumption. Accordingly, corresponding to the allocated share of Haryana in the various power stations of NTPC, with a few adjustents for the actual drawl in the FY 2018-19, the Commission approves the quantum of power as per table under:-

Power Purchase Volume from NTPC

NTPC	HERC Approval (MU)
Singrauli STPS	1296
Rihand STPS I	431
Rihand STPS II	378
Rihand STPS III	372
Unchhahar TPS I	63
Unchhahar TPS II	131
Unchhahar TPS III	68
Unchhar TPS IV	104
Anta CCPP	14.30
Auraiya CCPP	16.03
Dadri CCPP	36.08
Farakka STPS	62.44
Kahalgaon I STPS	150.72
Kahalgaon II STPS	419.97
Kol Dam HPS	318.94

v) Availability of Power from NHPC Power Plants

The Commission, for projecting power availability from NHPC sources in the FY 2018-19 has relied upon generation targets fixed by the CEA after adjusting the same for auxiliary energy consumption and home State share. The generating station wise details are as under: -

Power purchase volume from NHPC (Hydro)

NHPC	HERC Approval (MU)
Salal I HPS	469
Bairasiul HPS	190
Tanakpur HPS	18.54
Chamera I HPS	415.53
Chamera II HPS	79.83
Chamera-III HPS	139.30
Dhauliganga HPS	54.72
Dulhasti HPS	120
Uri HPS	141.66
Sewa II HPS	28.59

vi) Availability of Power from NPCIL sources

The Commission observes that the CEA has determined generation targets for the FY 2018-19 in the case of power stations of the Nuclear Power Corporation. Hence, power availability from NPCIL (NAPP and RAPP) to the Discoms have been accordingly approved as under: -

Power Purchase Volume from NPCIL

Particulars	Discoms Proposal (MU)	HERC Approval (MU)
NAPP		180
RAPP (3,4,5,6)		545

vii) Power Purchase from Other Sources

(a) Power Procurement from a few other sources proposed by the Discoms include CGPL, Mundra (UMPP), Sasan UMPP, APCL, DVC (Mejia B, Koderma & Raghunathpur), Adani Power Ltd., Mundra, THDC, MGSTPS (CLP), Lanco Amarkantak, Teesta III etc. The Commission has considered the CEA generation targets for the FY 2018-19 wherever available. In cases where generation targets are not available the proposals of the Discoms / past trend have been approved.

(b) The Commission has not considered the power from Pragati Gas Power Plant, Bawana, Delhi being costly on the merit order and also the PPA, so far, has not been approved by the Commission. Further power availability from Teesta III HEP (Sikkim) and Unchahar IV (NTPC under shut down), Parbati II, Kishanganga and Kotlibhel has not been considered for the purpose of estimating power availability in the present case.

(c) Availability of Power from Independent Power Producers/PTC

In addition to the power available from Central Sector, State Sector and Shared Utilities, the Discoms have projected availability of power from PTC Tala, PTC J&K, PTC Karcham Wangtoo and Lanco Amarkantak etc. The Commission has estimated availability of power from these sources as per the generation targets fixed by CEA for the FY 2018-19. In case the same is not available for any generating station(s) the same has been taken as per Discoms projections. The generating station wise details provided are as per table that follows.

Availability of Power from PTC & Other Long-Term Sources

Particulars	Discoms Proposal (MU)	HERC Approval (MU)
PTC J&K (Baglihar HEP)		263.72
PTC Lanco Amarkantak TPS (Unit – 2)		1857.43
PTC JSW Karcham Wangtoo HEP		803.72

PTC JSW Karcham Wangtoo HEP New		649.15
PTC GMR Kamalanga TPS		1611
Tala HPS		45.07
DVC Mejia		466
DVC Koderma		336
DVC Raghunathpur		636
CGPL Mundra UMPP		2561.43
Sasan UMPP		3000
IGSTPP (Aravali) Jhajjar		2406
Adani Power Ltd.		9300
MGSTPS (CLP) Jhajjar		5628
SJVNL – Nathpa Jhakri HEP		292.38
SJVNL – Rampur HEP		69
New Projects		1189.86
THDC - Tehri		196.60
THDC - Koteswar		48.14

viii) Availability of Power from Renewable Energy Sources

The Commission is committed to encourage cogeneration and non-conventional fuel-based generation including solar generation projects. Hence, the power purchase volume from such sources has been determined keeping in view the power availability from renewable sources in the FY 2019-20 for which the Commission has approved PPAs. The Discoms should, however, meet the solar and non-solar RPO as provided in the HERC RE Regulations in vogue. The power availability from renewable energy sources approved by the Commission is per details provided below:

Availability from Renewable Energy Sources

Particulars	Discoms Proposal (MU)	HERC Approval (MU)
P&R Gogripur HEP		9.726
Bhoruka Power HEP		29.14
Puri Oil Mills HEP		13.60
Co-gen (Baggasse)		226.63
Biomass Power Projects		217.14
Solar Power Projects		209.40

3.2.6 Total Approved Power Purchase Quantum

In view of the above source wise approvals of quantum of power expected to be available in the FY 2019-20, the Commission determines power availability both from inter-state and intra-state generators of 59471 MUs (rounded off).

3.2.7 Power Purchase Cost

The cost of power purchased by the Discoms is mostly a known parameter as the same is governed by the Power Purchase Agreement(s) with the IPPs/electricity traders. In the case of Central Power Sector Units (CPSU's) or generators supplying power to more than one State, the tariffs as approved by the Central Electricity Regulatory Commission (CERC) are applicable. While in the case of State Projects, i.e. HPGCL the generation tariff is determined by the HERC. Most of the elements constituting the total cost of generation i.e. capacity charges, base energy related charges, adjustment of base energy charges for cost of fuel and other factors, taxes, duties, incentive payments etc. are well defined and can be estimated with a reasonable degree of accuracy.

In view of the above, the cost of allowed power purchase for the FY 2019-20 has been determined largely keeping in view the provisions of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 read with the subsequent amendments.

- (i) Generating Station wise fixed cost of power is based on the actual fixed cost incurred by the Discoms in the FY 2018-19.
- (ii) Generating Station wise Fuel / Variable Cost is based on the average of the actual variable charges / energy charges incurred by the Discoms from April, 2018 to March, 2019.
- (iii) The cost of power purchase from HPGCL has been considered as per the Commission's Generation Tariff Order for the FY 2019-20.

In order to cushion the impact of FPA/FSA that generally arise as seen from past experience, the Commission has considered it appropriate to escalate the power purchase cost by 5% in the FY 2019-20.

The details of approved power purchase rates (Rs/kWh), cost (Rs. Million) and quantum (Million Units), from various sources for the FY 2019-20 are presented in the table below.

Power Purchase Quantum and Cost Approved for FY 2019-20

Source	Quantum (MU)	Energy Charge (Rs/kWh)	Energy Ch (Rs Mln)	Fixed Ch (Rs Mln)	Total (Rs. Mln)
NTPC					
Singrauli STPS	1296	1.50	1945.94	975.24	2921.18
Rihand STPS I	431	1.43	615.47	410.655	1026.12
Rihand II	378	1.43	539.78	374.115	913.90
Rihand III	372	1.45	539.03	652.26	1191.29
Unchhahar TPS I	63	3.02	190.51	90.615	281.13
Unchhahar TPS II	131	3.03	397.52	170.94	568.46
Unchhahar TPS III	68	3.10	210.63	119.595	330.23
Unchhahar TPS IV	104	2.64	274.09	109.935	384.03
Anta CCPP	14.30	8.60	122.97	128.205	251.18
Auraiya CCPP	16.03	4.48	71.87	205.485	277.36
Dadri CCPP	36.08	3.81	137.52	178.185	315.70
Faridabad CCPP	984.00	3.87	3812.51	2464.455	6276.96
Farakka STPS	62.44	2.47	154.07	83.79	237.86
Kahalgaon I STPS	150.72	2.45	368.74	196.665	565.40
Kahalgaon II STPS	419.97	2.23	934.85	579.495	1514.35
Kol Dam HPS	318.94	2.72	867.36	798.735	1666.09
NHPC					
Salal I HPS	469.00	0.67	315.17	838.005	1153.17
Bairasiul HPS	190.00	1.11	211.47	232.68	444.15
Tanakpur HPS	18.54	1.80	33.29	52.815	86.10
Chamera I HPS	415.53	1.25	603.35	631.785	1235.13
Chamera II HPS	79.83	1.09	87.17	99.75	186.92
Chamera-III HPS	139.30	2.32	361.10	420.525	781.62
Dhauliganga HPS	54.72	1.32	72.39	112.665	185.06
Dulhasti HPS	120.00	3.00	360.36	387.87	748.23
Uri HPS	141.66	0.89	126.43	181.44	307.87
Sewa II HPS	28.59	2.36	67.54	89.46	157.00
SJVNL (Nathpa Jhakri)					
SJVNL (Nathpa Jhakri) HPS	292.38	1.32	386.82	397.11	783.93
Rampur HPS	69.00	1.76	121.72	169.575	291.29
THDC					0
Tehri (THDC) HPS	196.60	2.90	569.75	605.535	1175.28
Koteshwar HPS	48.14	2.13	102.61	105.945	208.56
NPC					0
NAPP (Narora)	180.04	3.50	629.51	0	629.51
RAPP (3-4)	545.00	4.00	2180.27	0.21	2180.48
RAPP (5-6)		0.00	0.00	0	0.00
HPGCL (as per HERC order)	17288	3.53	61108.58	17513.097	78621.68
Shared Project			0.00		0
BBMB HPS	2890.55	0.65	1881.75	0	1881.75
DVC					
Mejia TPS	466	2.61	1218.36	918.645	2137.00

Power Purchase Quantum and Cost Approved for FY 2019-20

Source	Quantum (MU)	Energy Charge (Rs/kWh)	Energy Ch (Rs Mln)	Fixed Ch (Rs Mln)	Total (Rs. Mln)
Koderma TPS	336	2.08	698.54	1145.235	1843.78
Raghunathpur TPS	636	2.48	1576.01	380.835	1956.84
UMPP					
CGPL Mundra UMPP TPS	2561.43	2.15	5513.48	2524.725	8038.20
Sasan UMPP TPS	3000	1.37	4095.00	545.475	4640.48
Others					
Tala, HPS	45.07	2.36	106.48	0	106.48
PTC GMR Kamalangs TPS	1611	1.54	2486.58	3167.85	5654.43
PTC Baglihar HPS	263.72	4.06	1071.63	0	1071.63
PTC Lanco Amarkantak TPS	1857.43	2.29	4251.66	2507.19	6758.85
PTC Karchamwangtoo HPS	803.72	1.95	1569.67	2290.575	3860.24
PTC Karchamwangtoo HPS New	649.15	1.94	1260.97	0	1260.97
IGSTPP, Jhajjar (Aravali) TPS	2406	3.48	8362.05	7892.85	16254.90
Pragati Gas Bawana CCGT	0	0.00	0.00	1041.915	1041.92
Adani Power Ltd. TPS	9300.00	2.50	23240.70	11327.61	34568.31
Teesta III HPS	0.00	0.00	0.00	0	0.00
MGSTPS, CLP, Jhajjar TPS	5628	3.41	19205.55	8701.56	27907.11
Bhoruka HPS	29.14	3.33	96.99	0	96.99
P&R Gogripur HPS	9.726	4.17	40.54	0	40.54
Puri Oil Mill HPS	13.6	3.99	54.26	0	54.26
Biomass Projects	217.14	8.40	1823.98	0	1823.98
Cogeneration Plants	226.63	4.25	963.74	0	963.74
New Plants (Hydro)	1189.86	5.04	5996.89	0	5996.89
Solar Projects	209.4	5.97	1251.06	0	1251.06
	59471.22		165286.29	71821.30	237107.59
Cost per unit			2.78	1.21	3.99

In accordance with the source wise volume and cost of power purchase approved by the Commission as indicated in the table above, the total volume of power available in the FY 2019-20 is approved at 59471 million units (kWh) (rounded off) at a fixed cost of Rs. cost of Rs. 71821 millions and variable cost of Rs. 165286 millions. Hence, the allowed total cost of power purchase in the FY 2019-20 is pegged at Rs. 237107 million. **The average rate of power purchase (APPC), without transmission charges, for the FY 2019-20 works out to Rs. 3.99/kWh (rounded off).**

It is reiterated that the Discoms should ensure that power is procured only from those sources for which the Commission has approved PPA's or where the

source approval has been accorded. Additionally, any power from Central Generating Stations, beyond the quantum for which the PPA has been signed and specifically approved by the Commission must be surrendered in case the Discoms have to back down any approved long-term source of power. It is made clear that any power procured from sources not specifically approved by the Commission and/ or excess quantum vis-à-vis the approved PPA purchased by the Discoms shall be disallowed by the Commission.

In addition to the above and keeping in view the surplus power availability scenario prevailing in Haryana, the Commission directs that the Discoms shall not procure any additional power over and above the quantum approved in the PPA that may be available to it from the un-allocated share / share relinquished by any other State in the Central Generating Power Stations in case it does not fall in the merit order despatch. The Commission thereto shall disallow all such power procurements and the cost thereto. **Additionally, while resorting to bidding or calling for expression of interest for power procurement the Discoms must ensure that the power under PPAs already approved by the Commission materialises and also the intra-State generator i.e. HPGCL's power plants are scheduled atleast upto the critical minimum threshold before considering backing down.**

In the surplus power scenario, the DISCOMs are directed to perform cost benefit analysis before rushing in the decision to procure RE Power just to comply with the RPO obligations so as to ensure the logical trade off between the REC and purchase of RE power.

3.2.8 Transmission Losses

As the Distribution licensees do not have any control over the either transmission losses inter or intra, the transmission loss levels as proposed by the licensees has been retained for working out energy available for sales to the two Discoms in the FY 2019-20.

3.2.9 Interstate Transmission Charges

The Commission has examined the proposal of the Discoms and finding it appropriate, approves the same. The approved amount, shown separately in the table that follows, shall form part of the combined power purchase cost of the Discoms for the FY 2019-20.

3.2.10 Inter-State sale of Power and Power purchase cost for Distribution licensees

The Commission, in its earlier Orders, had directed the licensee to explore the possibility of the surrendering expensive long-term power that is in excess of its requirement. In case the licensee is unable to sell its contracted power at the rate of its energy cost, it is expected to back down the units to that extent so that the loss on account of power purchase is minimised. It has been observed that, at times, the Licensees are forced to back down its contracted long-term power due to less demand whereas the licensees have been agreeing to the additional allocation done by the Ministry of Power out of the unallocated portion of the Central Generating Stations which is not at all justified. Any such allocation must be surrendered at the earliest and a compliance report be filed in the Commission within one month. However, the Commission observes that no such report has been filed by the licensee. The Commission reiterates its directions and expects the licensee to comply with all directions at the earliest.

Regarding trading loss on account of sale of surplus power it is worthwhile to note the observations of the Hon'ble Aptel's Judgement dated 28th April, 2016 in Appeal No. 269 of 2014 is as under: -

“41.3) We are happy to note that the State Commission in a separate review order dated 14.07.2014, seeking review of an earlier tariff order dated 30.03.2013, has expressed its concern that the Discoms have already tied up with power which is in excess of requirement for at least 5 to 7 years without having a system of power procurement planning and for load optimum power cost and accordingly the State Commission has rejected the relief sought by the Discoms for recovering its trading loss from the consumers.”

As per Commission estimates, the availability of energy is considerably in excess of the estimated requirement during the FY 2019-20. In view of the above observation, the Discoms must gear up its power purchase procurement planning and strengthen its trading activities for disposal of surplus power. It would be appropriate for the licensee to closely monitor, on daily basis, the surplus capacity, which could neither be backed down nor sold off even at variable cost and is therefore leading to trading losses. The Discoms must fine tune its projection model and ensure that surplus energy available is disposed of in cost effective manner.

Based on the projected sales, approved distribution losses, estimated interstate and intrastate transmission losses, the Commission estimates is presented below: -

Energy available for Sale to the Distribution Licensees for the FY 2019-20					
Sr. No.	Particulars	Units	UHBVNL	DHBVNL	Total
1	Gross energy procured from outside the state sources	MUs	9739.95	14642.33	24382.28
2	Interstate sale / banking	MUs	3598.75	5410.10	9008.85
3	Energy procured from outside the state sources net of interstate sale / banking	MUs	6141.20	9232.23	15373.43
4	Inter-state transmission losses	%	3.82%	3.82%	3.82%
5	Inter-state transmission losses	MUs	234.59	352.67	587.26
6	Net energy available from outside the state	MUs	5906.60	8879.56	14786.16
7	Add energy generated within the state	MUs	14016.92	21072.02	35088.94
					49875.10
8	Net energy available for use in Haryana/ Total energy at Haryana Boundary	MUs	19923.52	29951.58	49875.10
9	Intra-state transmission losses	%	2.42%	2.42%	2.42%
10	Intra-state transmission losses	MUs	482.15	724.83	1206.98
11	Energy available for sale to distribution licensee	MUs	19441.37	29226.75	48668.12
12	Distribution loss	%	14.14%	14.14%	14.14%
13	Distribution loss units	MU	2749.01	4132.66	6881.67
14	Units available for sale by DISCOMS/ Discom approved sales	MU	16692.36	25094.09	41786.45
15	Total Power Purchase from all sources	MU	23756.86	35714.35	59471.22
16	Power Purchase Cost	Rs. Millions	94176.95	142390.64	237107.59
17	Average rate (rounded off)	Rs./kWh	3.99	3.99	3.99
18	Interstate Sale at av. Variable cost of Rs. 2.78 per unit	Rs. Millions	10001.88	15036.10	25037.98
19	Fixed cost	Rs. Millions			71821.30
20	Total variable cost of sold units of DISCOMS net of interstate sale at variable cost per unit	Rs. Millions			140248.30
21	Total cost	Rs. Millions	84715.07	127354.53	212069.60
22	Interstate Transmission and other charges	Rs. Millions	9092.50	12801.70	21894.20
23	Intrastate Transmission charges	Rs. Millions			13397.20
24	Total Power purchase cost incl. transmission charges	Rs. Million			247361.00
25	Units purchased by units sold by DISCOMS	MUs			50462.36
26	Average bulk supply rate (24/25)	Rs. /kWh			4.90

3.2.11 Renewable Purchase Obligation (RPO)

Section 86 (1) (e) of the Electricity Act, 2003 mandates the Commission to promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, a percentage of the total consumption of

electricity in the area of distribution licensee, for mandatory purchase of electricity from such sources.

In accordance with the Regulation 64 of HERC (Terms and Conditions for determination of Tariff for Renewable Energy Sources, Renewable Purchase Obligation and Renewable energy Certificate) Regulations, 2010 the RPO for the FY 2011-12 to FY 2017-18 as approved by the Commission were as under:-

Financial year	Energy Consumption (MU)	%age of Non Solar RPO	Renewable energy (other than Solar) required to be purchased as per overall RPO (MU)	%age of solar RPO (as a %age of overall RPO)	Energy required to be purchased as per Solar RPO (MU)	Total renewable energy required to be purchased (MU)
2011-12	36075	1.50%	541	0.31%	1.69	543
2012-13	40000	2.00%	800	0.05%*	20	820
2013-14	41086	2.90%	1191.49	0.10%*	41.09	1232.58
2014-15	45028	3.00%	1350.84	0.25%*	112.57	1463.41
2015-16	41202	2.75%	1133.05	0.75%*	309.01	1442.06
2016-17	46827	2.75%	1287.74	1.00%*	468.27	1756.01
2017-18	39209*	2.75%	1078.25	1.25%	490.11	1568.37

* Solar power purchase obligation is 0.05%, 0.1%, 0.25%, 0.75% & 1.00% of total energy consumption for the financial years 2012-13, 2013-14, 2014-15, 2015-16 & 2016-17, respectively.

** Energy available for sale by DISCOMs excluding energy purchased from RE sources and Hydro.

However, the Commission has replaced the existing Regulations with Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2017, notified on 24.07.2018. Regulation 54 of ibid Regulations, has revised the RPO obligation. Accordingly, RPO obligation for the FY 2017-18 (revised) & FY 2018-19, as approved by the Commission in its Order dated 15.11.2018, is as under:-

Financial year	Energy Consumption for 2017-18 (MU)	%age of Non solar RPO of energy Consumption	Non solar RPO (MU)	Solar RPO as %age of energy sales	Solar RPO (MU)	Total renewable energy required to be purchased (MU)

2017-18	39209.18	2.75%	1078.25	2.50%	980.23	2058.48
2018-19	38231.92	3.00%	1146.96	4.00%	1529.28	2676.23

As per data provided by the State Nodal Agency vide memo 775 dated 18.05.2018, the shortfall in meeting the RPO for the aforesaid years has been worked out as under: -

(In Mus)

Type of RE source	RPO backlog till FY 2016-17	Shortfall FY 2017-18	Total Shortfall
Solar	377	271	648
Non-Solar	405	582	987
Total	782	853	1635

Further, the State Nodal Agency vide its Memo no.790 dated 05.03.2019 has intimated that the RPO compliance status of DISCOMs till Dec, 2018, wherein shortfall of 1032 Mus has been reported for Solar RPO and Non-solar RPO has been complied with.

The Commission observes that the shortfall in meeting the RPO obligations of the DISCOMs is not reducing. DISCOMs are advised to ensure that the Solar RPO data provided by them to HAREDA includes energy generated by Rooftop solar Power also. Accordingly, the Commission in its Order dated 22.03.2018 in case nos. HERC/PRO-26 of 2015 & HERC/PRO-28 of 2015 after examining the compliance report filed by the Nodal Agency (HAREDA) and observed that *“there have been instances when the mandated reports have not been filed with the Commission in compliance of the RPO regulations. The Commission directed HAREDA and the obligated entities to strictly comply with the RPO through purchase of RE power and / or REC in case of power surplus scenario and also the filing requirements. Further, HAREDA was also directed to ensure that its website is kept upto-date with the information filed by the obligated entities. **The Commission further directed that HPPC and other obligated entities shall assess the shortfall in meeting RPO for the FY 2016-17 and take suitable action to meet at least 50% of the shortfall so determined by purchase of REC’s. DISCOMs are directed to file the compliance report of the same within 45 days from the date of issue of this Order.**”*

In accordance with the provisions of the amended regulations, the RPO for the FY 2019-20 is 8.50% of the total energy consumption of the Discoms. The approved RPO for the FY 2019-20 is as under:-

Energy Consumption for 2019-20 (MU)	%age of Non solar RPO of energy Consumption	Non solar RPO (MU)	Solar RPO as %age of energy sales	Solar RPO (MU)	Total renewable energy required to be purchased (MU)
39538.18*	5.50%	2174.60	3.00%	1186.15	3360.75

* Energy available for sale by DISCOMs has been taken net of intra-state transmission losses, excluding energy purchased from RE sources and Hydro.

The volume of energy to be purchased from renewable energy sources as per above table is the total RPO of the Discoms for the financial year 2019-20. Therefore, the volume of renewable energy purchase as approved by the Commission as above shall be adjusted against the total RPO of the Discoms. Further, RPO backlog up to 31st March 2019 shall be part of total power purchase volume approved by the Commission for the FY 2019-20 and set off against the costliest power in the merit order.

The Commission has noted from the submissions of HPPC during the public hearing that they have made some progress regarding meeting the RPO targets set by the Commission, hence the shortfall as indicated above, especially for non-solar RPO, has reduced. The Commission directs the Discoms to purchase renewable energy or RECs to meet with the RPO targets set for the FY 2019-20 and also to make up for the shortfall of RPO compliance carried forward for the previous years, on actual basis. In view of Haryana Government's mandate to promote RE energy especially roof top solar and Waste to Energy, Discoms are directed to meet the maximum RPO targets from these sources.

The State government is promoting generation of solar power in the state through various initiatives. However, it is observed that the Discoms and HAREDA are unable to realise the potential of solar generation in the State in the absence of proper infrastructure. The Discoms are directed to submit an action taken report in furtherance of the latest solar policy issued by the State Government within three months of this order.

The State Nodal Agency i.e. HAREDA shall continue submitting quarterly status of RPO met by the obligated entities for the last quarter, separately for overall

RPO and solar RPO, in accordance with the provisions of regulations 56 (3) of the Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2017 in the format given below:-

Total no. of units generated/Purchased through Open Access (MTOA,LTOA)	1 MUs	-
Total No. of units utilized for captive consumption	2	-
Total	3=1+2	-
RPO Required (Solar %)	4	-
RPO Required (Non Solar %)	5	-
RPO Required (Solar - Units)	6 = 3*4/100	-
RPO Required (Non Solar - Units)	7 = 3*5/100	-
No. of units generated/purchased from solar renewable energy sources	8	-
No. of units generated/purchased from Non-solar renewable energy sources	9	-
Balance Units (Solar)	10= 6-8	-
Balance Units (Non Solar)	11=7-9	-
No. of RE unit purchased (Solar)	12	-
No. of RE unit purchased (Non-Solar)	13	-
No. of REC purchased (Solar)	14	-
No. of REC purchased (Non-Solar)	15	-
Shortfall (Solar) Units	16=10-12-14	-
Shortfall (Non Solar) Units	17=11-13-15	-

Note: Details of Solar RPO and Other RPO and compliance to be reported separately.

The State Agency may suggest appropriate action to the Commission for non-compliance of the renewable purchase obligation by the obligated entities.

The Discoms and other obligated entities are directed to provide requisite information to the State Agency on monthly basis by 10th of every month for the previous month to enable the State Agency to submit quarterly report to the Commission. Additionally, an effort shall be made to encourage consumers like medical colleges / institutions / hospitals etc. to fulfil its RPO through self generation of RE Power. Further, before purchase of RE Power the other option of fulfilling RPO i.e. through REC mechanism must also be explored so as to minimise the impact of RPO on the average cost of power procured by the Discoms.

Notwithstanding anything else contained in any Regulations of the Commission, the consumers shall be allowed to install Rooftop solar power plant irrespective of their sanctioned load. However, tariff benefit of net metering shall be allowed upto the sanctioned load, as per notification issued by the Govt. of Haryana. Further, in order to enable the DISCOMS to fulfil their RPO benefits, DISCOMS are directed to accept all the solar power so generated in their grid. However, only 25% of the excess generation over and above the sanctioned load of the consumer shall be allowed as net off from the consumption of the consumer. The excess generation

injected into the grid above this limit shall lapse and no tariff benefit shall be allowed to such consumer.

3.2.12 Intrastate Transmission Charges & SLDC Charges

The Commission, vide its Order dated 7.03.2019 on HVPNL's Transmission Tariff and SLDC charges petition for the FY 2019-20, has approved Transmission tariff and SLDC charges for the FY 2019-20 to be recovered by HVPNL from UHBVNL and DHBVNL. The intrastate transmission charges approved include the unitary charge arising out of transmission project commissioned through Public Private Partnership (PPP) between HVPNL and M/s Jhajjar KT Transco Private Limited. The details including monthly recovery of the transmission and SLDC charges from various beneficiaries including the Discoms are given in the ibid order. Hence, the same is not being reproduced here. The transmission and SLDC Charges, as determined by the Commission in the ibid Order, shall form part of the ARR of the Discoms for the the FY 2019-20.

3.2.13 Employee Cost / A&G Expenses

The Employee cost, A&G expense and Repair & Maintenance expenses together comprise the O&M expenses of the Distribution Licensee. The O&M expenses as per the MYT Regulations, 2012 are considered as controllable costs except for Terminal Benefits (TBs) which are considered uncontrollable. The O&M expenses as per these Regulations are to be worked out for the Distribution and Retail Supply Business for each year of the control period as under:-

"The actual audited O & M expenses for the financial year preceding the base year, subject to prudence check, shall be escalated at the escalation factor of 4% to arrive at the O & M expenses for the base year of the control period. The O&M expenses for the nth year of the control period shall be approved based on the formula given below:

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) * (1 - X_n) + \text{Terminal Liabilities}$$

Where,

- R&M_n – Repair and Maintenance Costs of the Distribution Licensee(s) for the nth year;
- EMP_n – Employee Costs of the Distribution Licensee(s) for the nth year excluding terminal liabilities;
- A&G_n – Administrative and General Costs of the Distribution Licensee(s) for the nth year;

The above components shall be computed in the following manner.

(a) $R\&M_n = K * GFA * INDX_n / INDX_{n-1}$

(b) Where,

- 'K' is a constant (expressed in %) governing the relationship between O&M costs and Gross Fixed Assets (GFA) for the nth year. The value of K will be 1.65% for DHBVN and UHBVN respectively for the entire control period;
- 'GFA' is the average value of the gross fixed asset of the nth year.
- 'INDX_n' means the inflation factor for the nth year as defined herein after.

(c) $EMP_n \text{ (excluding terminal liabilities)} + A\&G_n = (EMP_{n-1} + A\&G_{n-1}) * (INDX_n / INDX_{n-1})$

(d) Where,

- $INDX_n$ – Inflation Factor to be used for indexing the Employee Cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year and shall be calculated as under:
- $INDX_n = 0.55 * CPI_n + 0.45 * WPI_n$.

It has further been provided in these Regulations vide Note 1 appended below Regulation 57.3 that "For the purpose of estimation, the same $INDX_n$ value shall be used or all years of the control period. However, the Commission shall consider the actual values of the $INDX_n$ at the end of each year during the annual performance review exercise and True-up the employee cost and A&G expenses on account of this variation."

In the MYT Order dated 29.05.2014 for Distribution Retail Supply Business for FY 2014-15, the Employee Cost (excluding TBs) and A&G expenses for FY 2014-15, FY 2016-17 and FY 2016-17 were worked out based on audited expenses under these heads for FY 2012-13 using an indexation factor (INDX) of 9.21%. The projected employee cost and A&G expenses as proposed by UHBVNL and DHBVNL for the FY 2019-20 are based on audited cost for the FY 2017-18 and escalated by

indexation factor of 3.04% per annum, as against the inflation factor of 3.79% considered by DISCOMs. However, any variation in the employees cost because of either the inflation or on account of increase in DA shall be allowed to both the Discoms separately at the time of True-up. The Commission, therefore, approves Rs. 1139.87 crores as employee cost for the FY 2019-20 inclusive of Terminal benefits amounting to Rs. 300 crores as against Rs. 1151.81 Crore proposed by UHBVNL. For DHBVNL, the Commission approves Rs. 1396.41 crores as employee cost for the FY 2019-20, inclusive of Terminal benefits amounting to Rs. 426.75 crores, as against Rs. 1410.52 Crore proposed by the licensee. **The Commission directs that the amount of terminal benefit contribution approved must be deposited with the appropriate trusts on time.**

3.2.14 A&G Expenses

The A&G expenses for FY 2019-20 have also been worked out based on the inflation indexation factor of 3.79% per annum on the same lines as Employee Cost by the DISCOMS. However, the Commission approves the same based on audited cost for the FY 2017-18 and escalated by indexation factor of 3.04% per annum. Accordingly, the Commission approves A&G expenses at Rs. 85.21 crores and Rs. 81.69 crores for UHBVNL and DHBVNL for the FY 2019-20, respectively.

3.2.15 Repair & Maintenance

UHBVNL and DHBVNL have proposed R&M expenses of Rs. 142.82 Crore and Rs. 165.34 Crores respectively for the FY 2019-20 @ 1.65% of average GFA for the FY 2019-20 based on the estimated capital expenditure for FY 2019-20 in accordance with the MYT Regulations. Further, the escalation factor of 3.79% has been applied by DISCOMs to determine R&M expenses.

The Commission has restricted the proposed capital expenditure for the FY 2018-19 and FY 2019-20 for UHBVNL & DHBVNL in view of the reasons recorded in the present Order at relevant paragraph. The resultant calculations of R&M expenses have justified the claim of licensees. The R&M expenses for UHBVNL & DHBVNL is approved as proposed i.e. Rs. 142.82 Crore & Rs. 165.34 Crores, respectively.

3.2.16 Terminal Benefits

The Commission approves the expenditure towards terminal benefits for the FY 2018-19 as proposed by UHBVNL and DHBVNL respectively at Rs. 500 Crore and Rs. 426.75 Crores, as the proposed expenditure is considered reasonable.

3.2.17 O&M Expenses

Based on the above calculation, the O & M expenses approved by the Commission for FY 2019-20 are Rs. 1367.90 crore & Rs. 1643.44 Crore as against Rs. 1394.77 Crore & 1671.53 crore proposed by UHBVNL & DHBVNL, respectively, in accordance with the methodology prescribed in the MYT regulations. The minor difference between the proposed and approved figures is due to the inflation factor used for calculation of Employee and A&G expenses. **However, the Commission directs the licensee ensure that the actual O&M expenses for the FY 2019-20 are within the O&M expenses approved by the Commission.** The details of O&M expenses of UHBVNL and DHBVNL are provided in the tables that follow.

O & M expenses of UHBVNL for the FY 2019-20 (Rs. Crore)

Particulars	Audited expenses For the FY 2017-18	UHBVNL filing	HERC Approved
Employee Expense	602.67	651.81	639.87
A&G Expense	92.97	100.14	85.21
R&M Expense	92.20	142.82	142.82
Terminal Liability	296.20	500.00	500.00
Total	1484.04	1394.77	1367.90

O & M expenses of DHBVNL for the FY 2019-20 (Rs. Crore)

Particulars	Audited expenses For the FY 2017-18	DHBVNL filing	HERC Approved
Employee Expense	913.29	983.77	969.66
A&G Expense	88.70	95.67	81.69
R&M Expense	107.00	165.34	165.34
Terminal Liability	429.00	426.75	426.75
Total	1537.99	1671.53	1643.44

3.2.18 Depreciation

UHBVNL has proposed depreciation of Rs. 390.77 crore in their ARR petition for FY 2019-20 based on opening balance of GFA as on 01.04.2018 and its projections of capital expenditure for FY 2018-19 and FY 2019-20.

The Commission has restricted the Capital expenditure for UHBVNL for the FY 2018-19 and FY 2019-20 in view of the reasons recorded at the relevant paragraphs of this order. Based on the audited average rate of depreciation of 4.66%

and the approved capital expenditure for FY 2018-19 and FY 2019-20, the depreciation for FY 2019-20 for UHBVNL is approved at Rs. 379.13 crore. The Depreciation on assets funded through consumer contribution Rs. 46.42 crore is reduced from the above amount to arrive at net approved depreciation of Rs. 332.72 crore for FY 2019-20.

Depreciation of UHBVNL for FY 2019-20 (Rs. in crore)

Particulars	FY 2019-20
Gross Fixed Assets (GFA)	HERC approval
Opening GFA	8142.39
Opening GFA funded through consumer contribution/ grants	975.68
Depreciation Rate	4.66%
Depreciation amount	379.13
Less depreciation on assets funded through consumer contribution	46.42
Net depreciation for the year	332.72

Similarly, DHBVNL has proposed depreciation of Rs. 383.19 crore in their ARR petition for the FY 2019-20 based on opening balance of GFA as on 01.04.2018 and its projections of capital expenditure for FY 2018-19 and FY 2019-20. Based on the audited average rate of depreciation of 4.55% for FY 2017-18 and the approved capital expenditure for FY 2018-19 and FY 2019-20, the Commission approves Rs. 406.34 crore as depreciation for FY 2019-20 for DHBVNL. The Depreciation on assets funded through consumer contribution Rs. 99.33 Crore is reduced from the above amount to arrive at net approved depreciation of Rs. 307.01 crore for the FY 2019-20 as given in table below:-

Depreciation of DHBVNL for the FY 2019-20 (Rs. Crore)

Particulars	FY 2019-20
Gross Fixed Assets (GFA)	HERC approval
Opening GFA	8922.91
Opening Assets funded through consumer contribution/ grants	2181.22
Depreciation Rate	4.55%
Depreciation amount	406.34
Less depreciation on assets funded through consumer contribution	99.33
Net depreciation for the year	307.01

3.2.19 Interest on Term Loan

The UHBVNL and DHBVNL have proposed to recover Rs. 164.39 crore and Rs. 140.77 crore as interest on term loan for the FY 2019-20. The Commission has examined the calculation of term loan interest proposed by the Licensees and finding them reasonable, approves the same.

3.2.20 Interest on Consumers' Security Deposit

The Commission, in its earlier Orders has directed the licensees to ensure that the interest on consumer security deposit is duly paid on time. The Consumer security deposit is a source of cheap working capital finance for the licensee and adequate security ensures consumer compliance in timely payment of bills. Therefore, it is imperative that the interest due on these deposits, if not paid on time, does not become a source of dissatisfaction for the consumers. Further, the Commission had directed the licensees time & again to ensure that interest on consumer security deposit is paid strictly on time and in accordance with the regulations and directions of the Commission. Therefore, in order to ensure compliance of the Act and the regulations, the Commission approves Rs. 84.58 crores for UHBVNL and Rs. 87.12 crores for DHBVNL as interest on consumer security deposit for the FY 2019-20, as proposed by them.

3.2.21 Interest on Working Capital

Working capital borrowings have been calculated in accordance with the methodology prescribed in the MYT regulations. However, the rate of interest has been taken at 9.50% based on the base rate of State Bank of India (SBI) as on 01.04.2018 i.e. 8.70% and a margin of 0.80% on the same. The Commission, in accordance with the MYT Regulations, approves the interest on working capital borrowings for the FY 2019-20 as under:-

Approved Interest on Working Capital Loan of UHBVNL (Rs. in Crore)

Interest on working capital	FY 2019-20
O&M expenses for 1 month	113.99
Maintenance spares 1% of opening GFA	81.42
2 months receivables	2004.09
Uncollected revenue	120.25
Total	2319.75
Less:	
ACD	1353.22
Net working capital	966.53
Interest Rate	9.50%
Interest cost (rounded off)	91.82
Interest cost claimed by the licensees	381.62
Interest cost approved	91.82

Approved Interest on Working Capital Loan of DHBVNL (Rs. Crore)

Interest on working capital	FY 2019-20
O&M expenses for 1 month	136.95
Maintenance spares 1% of opening GFA	89.23
2 months receivables	2796.75
Uncollected revenue	167.81
Total	3190.74
Less:	
ACD	1483.29
Net working capital	1707.45
Interest rate	9.50%
Interest cost	162.21
Interest cost claimed by the licensees	126.70
Interest cost approved	126.70

3.2.22 Interest on UDAY Bonds

The discoms have, in their petition stated that as per the financial arrangement under UDAY scheme, 75% of the borrowings as on 30.9.2015 were to be taken over by the State Government within 5 years by conversion into equity and grant. Until such time the arrangement is completed, the interest is to be borne by the Distribution licensees.

The Discoms have proposed to recover all their interest costs from the consumers by way of interest on borrowings for capital expenditure and the balance through interest on working capital borrowings inclusive of UDAY bonds. However, the Commission observes that the interest cost borne by the licensee is recovered from the consumers of the state by way of interest on borrowings for capital expenditure, interest on working capital borrowings; interest on Advanced Consumption Deposit and also some interest is recovered as part of FSA. The interest being recovered as part of FSA has not been accounted for by the licensees while calculating the financial burden of interest as part of the UDAY scheme.

Interest on UDAY borrowings for the FY 2019-20

As per the information provided by the Discoms, the interest payable for UDAY bonds for the FY 2019-20 is as under:-

Rs. Crore			
Interest to State Govt. for UDAY Bonds	UHBVNL	DHBVNL	Total
	125.54	95.99	221.53

The total cost for the FY 2019-20 adds up to Rs. 221.53 Crore.

The Commission has addressed the issue in detail in the Order dated 11.07.2017 (HERC/PRO-39 of 2016 & HERC/PRO-40 of 2016), 15.11.2018 (HERC/PRO-83 of 2017 and HERC/PRO-85 of 2017), as well as in the Review Petition Order dated 14.12.2018 (HERC/RA-06 of 2017) & 22.02.2019 (HERC/RA-01 of 2019). The relevant part of the Order of the Commission dated 14.12.2018 is reproduced as under: -

“Accordingly, the Commission orders that in case on true up of the FY 2017-18, there is any surplus, the interest on UDAY bonds can be met out of the same to that extent. However, shortfall, if any, in the revenue on account of true up for the FY 2017-18 shall be met out of OFR by the State Government in accordance with the UDAY scheme approved by the Commission.”

In line with the earlier Orders of the Commission, interest on UDAY Bonds shall be met out of OFR available under the UDAY. The Commission, in view of the UDAY, is of the considered view that in the present Order distribution loss trajectory has been pegged at levels specified in the said scheme and has not allowed any additional working capital loan and interest thereto on account of UDAY. Further, fresh Equity is expected to be infused in the Discoms under UDAY. Hence, in order ensure financial turnaround of the Discoms in line with the objectives of UDAY, the Commission has considered it appropriate to allow 10% RoE in the FY 2019-20 i.e. at the same rate as allowed to HPGCL and HVPNL.

3.2.23 Return on Equity

UHBVNL and DHBVNL have proposed return on equity @ 14% for the FY 2019-20 amounting to Rs. 318.46 Crore and Rs. 285.24 Crore respectively. The Commission, while calculating the true up of return on equity for the FY 2017-18 has decided to calculate RoE on the admitted equity after excluding the equity portion pertaining to assets not put to use as on 01.04.2017. Accordingly, going forward, the approved equity as on 31.3.2018 has been calculated by the Commission at Rs. 1806.73 Crore and Rs. 1488.38 Crore for UHBVNL and DHBVNL, respectively. Further, 20% of the approved additions to fixed assets for the FY 2018-19 & 2019-20 has been considered as funded from Equity. Accordingly, the calculation of equity

and return on the same @ 10% p.a., at par with the rate allowed to other utilities, for the FY 2019-20 is given below:

In view of the above discussion, the return on equity @ 10% is allowed on the adjusted equity capital as under:-

UHBVNL

Rs. in Crore

Particulars	Claimed in the Petition	HERC revised approval for the FY 2019-20
Share Capital Opening	3713.47	2028.26
Add: Share application money pending allotment (Opening)	26.52	0
Add: Equity for Capex	241.95	246.13
Less: Equity received under UDAY in FY 2015-16 & FY 2016-17	1586.24	0
Closing Equity	2274.73	2274.39
Equity for ROE (Op. Equity + Share application money + 50% of Equity for Capex)	2274.73	2151.32
Rate of Return on Equity	14%	10.00%
Total Return on Equity	318.46	215.13

DHBVNL

Particulars	Claimed in the Petition	HERC revised approval for the FY 2019-20
Share Capital Opening	1904.33	1736.18
Add: Share application money pending allotment (Opening)	0	0
Add: Equity for Capex	266.18	390.73
Less: Equity received under UDAY in FY 2015-16 & FY 2016-17	0	0
Closing Equity	2170.51	2126.91
Equity for ROE (Op. Equity + Share application money + 50% of Equity for Capex)	2037.42	1931.54
Rate of Return on Equity	14%	10.00%
Total Return on Equity	285.24	193.15

3.2.24 Total Expenditure

As per the item wise expenditure approved by the Commission the total expenditure works out to Rs.12221.81 Crore (UHBVNL) and Rs. 17250.04 Crore for (DHBVNL) for the FY 2019-20 as against Rs. 14022.54 Crore proposed by UHBVNL and Rs. 18314.95 Crore proposed by the DHBVNL, respectively.

3.2.25 Non-Tariff Income

Non-tariff income is approved as proposed by the discoms at Rs. 197.25 Crore for UHBVNL and Rs. 469.51 Crore for DHBVNL respectively.

3.2.26 ARR of UHBVNL & DHBVNL for the FY 2019-20

In view of the above, the total ARR stands approved at Rs. 12024.56 Crore for UHBVNL as against Rs. 13825.29 Crore proposed by UHBVNL and Rs. 16780.53 crores for DHBVNL as against Rs. 17845.44 Crore proposed by it. Power purchase cost has been considered net of interstate sale at variable cost per unit.

ARR of UHBVNL for the FY 2019-20 (Rs. in Crore)

Sr. No.	Particulars	UHBVNL Proposal	HERC Approval
1	Power Purchase Expenses	11117.85	9989.26
1.1	Power purchase cost	9341.40	8471.51
	Interstate transmission charges	909.25	909.25
1.2	Intrastate transmission charges & SLDC Charges	867.20	608.50
2	Operations and Maintenance Expenses	1394.77	1367.90
2.1	Employee Expense	651.81	639.87
2.2	A&G Expense	100.14	85.21
2.3	R&M Expense	142.82	142.82
2.4	Terminal Liability	500.00	500.00
3	Depreciation	390.77	332.72
4	Interest Cost		
4.1	Interest on Consumer Security Deposit	84.58	84.58
4.2	Interest & Finance Charges (term loan)	164.39	164.39
4.3	Interest & Finance Charges (Working capital)	381.62	91.82
4.4	Interest on UDAY Bonds	125.54	0
4.5	Guarantee Fees	26.00	26.0
4.6	Interest cost of jind loans	-23.99	-23.99
5	Return on Equity Capital	318.46	215.13
6	Other Expenses	42.56	-
A	Total Expenditure	14022.54	12221.81
B	Income/Receipts		
7	Non Tariff Income	197.25	197.25
C	Aggregate Revenue Requirement = (A - B)	13825.29	12024.56

ARR of DHBVNL for the FY 2019-20 (Rs. Crore)

Sr. No.	Particulars	DHBVNL Proposal	HERC Approval
1	Power Purchase Expenses	15450.51	14746.84
1.1	Power purchase cost	13152.73	12735.45
1.2	Interstate transmission charges	1280.17	1280.17
1.3	Intrastate transmission charges & SLDC Charges	1017.61	731.22
2	Operations and Maintenance Expenses	1671.53	1643.44
2.1	Employee Expense	983.77	969.66
2.2	A&G Expense	95.67	81.69
2.3	R&M Expense	165.34	165.34
2.4	Terminal Liability	426.75	426.75
3	Depreciation	383.19	307.01
4.1	Interest on Security Deposit	87.12	87.12
4.2	Interest & Finance Charges (term loan)	140.77	140.77
4.3	Interest & Finance Charges (Working capital)	126.70	126.70
4.4	Interest on UDAY Bonds	95.99	0
4.5	Cost of raising finance	5.00	5.00
5	Return on Equity Capital	285.24	193.15
6	Provision for Bad & Doubtful Debts	68.91	-
A	Total Expenditure	18314.95	17250.04
B	Income/Receipts		
7	Non Tariff Income	469.51	469.51
C	Aggregate Revenue Requirement = (A - B)	17845.44	16780.53

3.2.27 Revenue Requirement for the FY 2019-20

The total ARR of the two Discoms for the FY 2019-20 is as given in the table above. Power purchase cost has been taken net of Inter-state Sales/Banking, therefore, revenue from interstate sale has not been considered separately. The revenue surplus/ gap for the FY 2019-20 is as per the table below:-

ARR for FY 2019-20 at Current Tariff (Rs. Crores)

Total ARR for FY 2019-20	Revenue gap at current tariff
UHBVNL	12024.56
DHBVNL	16780.53
Total ARR for FY 2019-20 (Rs. in Crore)	28805.08
Revenue at current tariff on intrastate sale (Rs. in Crore)	22596.84
Total Sales for FY 2019-20 (MU)	41786.45
COS at LT level	7.17
AP Sales for the FY 2019-20 (MU)	9714.45
Estimated Revenue from AP Sales	111.05
Subsidy for AP supply at LT COS	6854.21
Total revenue including RE Subsidy	29451.05
Revenue Surplus /(Gap) for FY 2019-20 at current tariff	645.97
Revenue gap for FY 2017-18	-865.12
Holding cost for 1.5 years @ 9.5%	-127.82
Net Revenue Gap for the FY 2019-20	-346.98

Net revenue gap for the FY 2019-20 shall be met through operational funding (OFR) available under UDAY, as proposed by the licensees.

DISCOMs are directed to explore the possibilities of reducing their expenses by restructuring all the available resources including manpower and report the saving so made within 3 months. Further DISCOMs shall abolish all the posts remained vacant for the last three years.

3.3 Capital Expenditure

3.3.1 True-up of Capital Expenditure for the FY 2017-18

UHBVN

The Petitioner in its petition for true-up of FY2017-18, APR of FY 2018-19 and ARR for FY 2019-20 submitted that The Hon'ble Commission had approved a Capital Expenditure of Rs. 800.00 Cr for UHBVN for FY2017-18. As per the audited accounts of UHBVN for FY2017-18; the Capital Expenditure for UHBVN for FY 2017-18 is Rs. 518.86 Cr. UHBVN, thus requests the Hon'ble Commission to approve the same.

The Commission observes that vide its Order on ARR for FY 2018-19 and Annual Performance Review for the FY 2017-18 on the request of the petitioner, had approved a revised capital expenditure of Rs 394.72 Cr. against its approved Capital expenditure of Rs. 800 Cr. for FY 2017-18. The licensees submitted work wise details vide his letter no. CH-77/SE/RA/N/F-25/Vol-(73) dated 13.02.2019. A perusal of the same revealed that the actual capital expenditure incurred during FY 2017-18 is Rs. 518.86 Cr. The details of the Capex approved by the Commission as under:

Capital Expenditure for FY 2017-18 (UHBVN, Rs. in Cr.)

Sr. No.	Name of work	Planned for FY 2017-18		Status of completed works		
		Physical Target (Units)	Expenditure (Rs. in Cr.)	Physical Achievement (Units)	Expenditure Incurred during FY 2017-18 (Rs. in Cr.)	Reason for over/ under expenditure
1	Creation of new 33 kV sub-stations (Nos.)	86	57.5	21	63.40	The work has been allotted during FY 2017-18
2	Augmentation of existing 33 kV sub-stations (Nos.)	116	55.0	14	26.33	
3	Erection of new 33 kV lines (km)	485	16.67	177.1	21.01	
4	Erection of new 11 kV lines (km)	560	8		17.83	
5	Bifurcation/Trifurcation of overloaded 11 kV feeders	478	10		2.72	
6	Augmentation of existing 33 kV lines (km)	276	6.45		1.86	
7	Construction of UHBVNL Office Building at Panchkula		10		10.08	
8	Civil Works (Sub-division office Munak, Amin, Pundri, Gharaunda, Division office Naraingarh & Circle Office Kurukshetra, Panipat, Sonapat, 2 nd Office Building at Rohtak, Renovation of M&T Lab & TRW/Store, Cash Collection Centers,	Allied Civil Works	10		8.63	

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Sr. No.	Name of work	Planned for FY 2017-18		Status of completed works		
		Physical Target (Units)	Expenditure (Rs. in Cr.)	Physical Achievement (Units)	Expenditure Incurred during FY 2017-18 (Rs. in Cr.)	Reason for over/ under expenditure
	Boundary Wall)					
9	Shifting of 33 kV dangerous Lines (CM Announcement)	20	2			
10	Shifting of 11 kV dangerous Lines (CM Announcement)		10			The case is pending with the State Govt. for approval of funds
11	Works to be carried out under DDUGJY scheme for system strengthening including SAGY		20			The work has been allotted during FY 2017-18
12	Works to be carried out under IPDS scheme for system strengthening		15			The work has been allotted during FY 2017-18
13	LRP works to be carried out under MGJG scheme and urban feeder sanitization Scheme on Turn Key Basis (Uday)		285		9.30	The work has been allotted during FY 2017-18
14	Mahatma Gandhi Gramin Basti Yojana (MGGBY)		5		8.03	
15	Release of tube well connections	4200 (Tentative)	30	3975	18.91	
16	Relocation of energy meters of DS & NDS consumers outside their premises.(Procurement of MCBs and 2cx10 mm ² LT PVC armored/ un-armored cables	MCBs - 300000 Cables armored- 4500 km Cables un-armored - 4500 km	0		52.29	
17	Procurement of LT AB Cables for loss reduction plan	120+70 mm ² - 1000 95+70 mm ² - 1501 50+35 mm ² - 1411	0			
18	Re conducting / augmentation of 11kV lines/ LT lines with 100mm ² in urban areas and 80/50 mm ² in rural areas in kms (in addition to 0quantity covered in serial number 16.)	50 mm ² - 6000	0			
19	Material required for release of non-AP connections, replacement of old assets and system improvement Budget		200		257.41	
20	Procurement of power T/F and allied equipments such as 33	15 Nos. 12.5 MVA 30 Nos. 33	23.72			

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Sr. No.	Name of work	Planned for FY 2017-18		Status of completed works		
		Physical Target (Units)	Expenditure (Rs. in Cr.)	Physical Achievement (Units)	Expenditure Incurred during FY 2017-18 (Rs. in Cr.)	Reason for over/ under expenditure
	kV CTS (current transformers), 33 kV PTs (potential transformers), 33 kV and 11 kV VCBs (Vacuum Circuit Breakers), 33 kV Control and Relay Panels etc.	kV CTS 30 Nos. 33 kV PTs 10 Nos. 33 kV VCBs 80 Nos. 11 kV VCBs 10 Nos. 33 kV C&R Panel				
21	Procurement of single phase meters for replacement of defective meters and release of new connections.	600000	0		16.93	
22	Procurement of three phase meters for replacement of defective meters and release of new connections.	140000	0			
23	R-APDRP (Part-A) including DT Metering		31		2.44	
24	Engagement of IT firm for Roll out of R-APDRP Application to Non R-APDRP Areas, Procurement and installation of IT hardware at end locations of Sub-Divisions, Providing MPLS connectivity at end location		2			Work order has been issued for installation of IT infra on dated 10.09.2018. NIT for Data migration & GIS indexing floated and the same are under process.
25	Shifting of Meters in Pillar Boxes		0			
26	Annual maintenance Contract of Automatic Power Factor Correctors		0			
27	Compulsory metering on Feeders, DTs, Boundary Meters for Villages in Rural Areas		0			
28	Consumer indexing and GIS mapping of losses		0		1.39	
29	Installation of meter on 33 kV Incomer for energy auditing		0			
30	Setting up of a new testing lab for materials, i.e. cable, conductors, transformer oil, distribution transformers, etc.		0			
31	Revamping of existing M&T (Meter Testing) labs at (Kaithal, Yamunanagar, Karnal,		0		0.30	

Sr. No.	Name of work	Planned for FY 2017-18		Status of completed works		
		Physical Target (Units)	Expenditure (Rs. in Cr.)	Physical Achievement (Units)	Expenditure Incurred during FY 2017-18 (Rs. in Cr.)	Reason for over/ under expenditure
	Dhulkote & Rohtak)					
32	Pilot Project (Smart Grid in Panipat) NEDO funded Nigam's expenditure 3 Cr. (MoP)	1	2		0.002	
33	Site testing of DS, NDS consumers upto 20 KW in urban area		0			
34	Rural Feeder Monitoring System (AMR of new Rural Feeders) Being implemented by RECPDCL		0.66			
	Grand Total		800		518.86	
Note:- To carry out the mentioned works ,UHBVN is taking loans from various financial institutes like PFC/REC and external fundings agencies such as JICA The debt equity ratio for loans from REC/PFC is 90:10 and for loans from JICA is 81.8:18.2. Budget provision against new /augmentation of 33kV substations and new / augmentation of 33kV lines includes expenditure of the substations to be floated in the FY 2017-18. Same has been recived as per the e-mail recived from Sr. A.o./ A&R dated 24.01.2019						

Regulation 9.9 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 specifies as under:-

“In case the capital expenditure is required due to Force Majeure events for works which have not been approved in the capital investment plan or for works that may have to be taken up to implement new schemes approved by the State/Central Govt., the generating company or the licensee shall submit an application containing all relevant information along with reasons justifying emergency nature of the proposed work seeking approval by the Commission. In the case of works or schemes, other than those required on account of Force Majeure events, the Commission shall consider to give approval only in those cases where the works/schemes are wholly/substantially financed by the State/Central Government or, in view of the Commission, shall benefit a large mass of consumers of the State. The generating company or the licensee may take up the work prior to the approval of the Commission only in case the delay in approval will cause undue loss and such emergency nature of the scheme has been certified by the Board of the Directors and intimated to the Commission”.

Further, as per Regulation 8.3 (b) of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling

and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012, capital expenditure is a controllable item. As such the licensee should have exercised proper control over the item wise capital expenditure approved by the Commission.

Regulation 9.10 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 further specifies as under:-

“In case the capital expenditure incurred for approved schemes exceeds the amount as approved in the capital expenditure plan, the generating company or the transmission or the distribution licensee, as the case may be, shall file an application with the Commission at the end of control period for truing up the expenditure incurred over and above the approved amount. After prudence check, the Commission shall pass an appropriate order on case to case basis. The True-up application shall contain all the requisite information and supporting documents”.

Provided that any additional capital expenditure incurred on account of time over run and / or on unapproved schemes not covered under Regulation 9.9 or unapproved changes in scope of approved schemes shall not be allowed by the Commission unless the generating company or the licensee, as the case may be, is able to give adequate justification for the same”.

It has been observed that the licensee has not been able to start 6 works during the year for which an amount of Rs. 49.66 Cr. was approved. Further, in respect of the works mentioned at Sr. No.1,3,4,14,19 & 20, the expenditure has been incurred more than the approved expenditure and in respect of the works mention at Sr. No. 16 to 18,21 to 22,28 &31 the expenditure has been incurred without approval of the Commission. In respect of Sr. 13,merely 9.3 Cr. Has been spent on LRP works to be carried out under MGJG scheme and urban feeder sanitization Scheme on Turn Key Basis (Uday) against approved Capex 285 Cr.

The licensee has incurred only 64.86% expenditure of the approved Capex for FY 2017-18. It is a matter of concern that the licensee has not been able to utilize the capital expenditure even when the focus is primarily on system strengthening and loss reduction under UDAY scheme. Such scenario defeats the very purpose of expenditure approved and objective of providing reliable and quality power to the consumers is not achieved. There seems to be lack of proper planning and execution of the Capital works on the part of the licensee. The licensee needs to exercise proper monitoring of execution of capital works and control over the item wise expenditure approved by the Commission.

DHBNL

The licensees in its petition the ARR for FY 2017-18 had projected its capital expenditure as Rs. 1200 Cr. and later revised to Rs. 1260 Cr. Vide its submissions. However, Commission allowed Rs. 1100 Cr. Capital expenditure for FY 2017-18

The Petitioner in its True up Petition for FY 2017-18 has submitted the actual expenditure for FY 2017-18 as Rs. 808.36 Cr. against Rs. 1100 Cr. approved by the Commission. The licensee has provided the detail of the actual expenditure.

Capital Expenditure for FY 2017-18 [(DHBNL) (Rs. in Cr.)]

Sr. No.	Categories	Proposed CAPEX (Rs. In Cr)	Actual CAPEX (Rs. In Cr)
	AT&C loss reduction plan		
1	Procurement of single phase meters for replacement of defective meters and release of new connections.	34.78	30.71
2	Procurement of three phase meters for replacement of defective meters and release of new connections	16.80	14.74
3	LT Connectivity of already executed HVDS works	3.62	2.96
4	Power Factor Improvement (Providing automatic power factor correctors)	6.40	0.88
	Load Growth schemes		
5	Creation of new 33 kV sub-stations alongwith associated 33 kV & 11 kV lines	82.03	124.29
6	Augmentation of existing 33 kV sub-stations	15.00	
7	Augmentation of existing 33 kV lines	6.00	
8	Bifurcation of 11 kV feeders (Work of bifurcation of feeders, augmentation of ACSR) and segregation of Rural Urban load	95.18	100.94
9	Material required for release of Non-AP connections & replacement of old assets	116.16	118.98
10	Release of Tube well connection on turnkey basis and segregation of AP load from Rural Urban feeders	80.00	78.11
11	Procurement of power transformers and allied equipment such as 33 kV CTs, 33 kV PTs, 33 kV and 11 kV VCBs, 33 kV Control and Relay Panels etc	20.00	18.26
12	Release of BPL connections under RGGVY schemes	9.60	13.92
	R-APDRP schemes		
13	Implementation of R-APDRP (Part-A) including SCADA	8.00	-
14	Implementation of SCADA under R-APDRP (Part-B) in Faridabad town	-	-

Sr. No.	Categories	Proposed CAPEX (Rs. In Cr)	Actual CAPEX (Rs. In Cr)
	System Strengthening Works under IBRD loan and IBRD equity		-
15	Under IBRD Loan	-	9.29
16	Under IBRD Equity	-	-
	Other Works		
17	Setting up of a new testing lab for materials i.e. cable, conductors, transformer oil, distribution transformers etc. at Hisar	6.11	-
18	Revamping of existing Meter Testing labs. at Dadri, Sirsa, Hisar, Faridabad & Gurgaon	1.42	1.19
19	Maintenance free earthing using 'Ground Enhancing Material' for Distribution Transformers, Meter Pillar Boxes and H-pole etc	2.65	0.58
20	Installation of meters on 33 kV Incomers at sub-stations for energy auditing.	3.20	5.48
21	Relocation of energy meters of DS & NDS consumers outside their premises in Meter Pillar boxes	6.84	23.63
22	Civil Works	16.08	13.95
23	Shifting of HT line (33 kV), passing over authorized/un-authorized colonies under jurisdiction of DHBVN.	13.20	4.75
24	Improvement works under loss reduction plan , replacement of iron pole and providing of PAT	26.93	60.21
25	Mahara gaon jagmag gaon scheme for rural area and feeder sanitization for Urban area	150.00	146.67
26	Other works for system improvement - Procurement of IT Equipment & Softwares	8.00	0.34
27	Smart City Gurgaon	200.00	1.62
28	Door Step Services for Ease of Doing Buisness under DHBVN jurisdiction	10.00	-
29	Implementation of SMART GRAM- an initiative of HE President of India	10.00	-
	Total	948.00	771.49
	CAPEX under UDAY (Ujjwal DISCOM Assurance Yojana)		
30	Compulsory Feeder and Distribution Transformer metering Feeder meters have been provided on 100% feeders. AMR is already implemented on 1078 feeders. AMR on 4535 Number feeders is to be provided	1.60	0.00
31	DT meters with AMR have been provided on DTs in	8.80	0.00

Sr. No.	Categories	Proposed CAPEX (Rs. In Cr)	Actual CAPEX (Rs. In Cr)
	areas under RAPDRP Part - A for 17535 meters. DT Meters for left out urban areas is to be provided approx. 2000 DTs		
32	Boundary meters for Villages in Rural Areas (3648 number of villages i.e. 7296 meters)	30.40	0.00
33	DT Meters for rural areas is to be provided for reduction of AT&C losses to 30%	16.00	0.00
34	Engagement of IT firm for Roll out of R-APDRP Application to Non R-APDRP Areas, Procurement and installation of IT hardware at end locations of Sub-Divisions, Providing MPLS connectivity at end location	24.00	0.00
35	Consumer indexing and GIS mapping of losses		0.00
36	Replacement of bare conductor with LT-AB cable in theft prone areas	35.20	23.01
37	Replacement of defective meters and Relocation of energy meters of DS&NDS consumers outside their premises in MCBs (Procurement of 1X1 & 4X1 MCBs for 1 Ph Meters, 1X1 MCBs for 3 Ph Meters, 2cx10 mm2 and 4cx16 mm2 LT PVC armoured/un-armoured cables and meters).	24.00	13.86
38	Smart metering of consumers consuming above 200 units AMI Project for smart meters already under implementation in Gurgaon and Faridabad City for about 100000 consumers and is expected to be completed by December 2017 (under World Bank Project). Further Roll out will be based on the results. Expected Cost for the project is around Rs 105 Crore)	12.00	0.00
	Total	1,100.00	808.36

The Commission observed that the DHBVNL could achieve the capax progress during FY 2017-18 to the tune of 73.49% of its approved capital expenditure in its ARR order for FY 2017-18.

From the details of Capital expenditure incurred during FY 2017-18 it is observed that the scheme wise expenditure incurred for the schemes mentioned at sr. No. 5 to 7 has not been given by the licenses. Further, on schemes mentioned at Sr. No. 8, 9,12,20,21 & 24, the expenditure has been incurred higher than the capital expenditure approved by the Commission & No expenditure has been incurred on the schemes mentioned at Sr. No. 30 to 35 & 38. Licensee has not specified any reason for these deviations.

Further, as per Regulation 8.3 (b) of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012, capital expenditure is a controllable item. As such the licensee should have exercised proper control over the item wise Capital Expenditure approved by the Commission.

Regulation 9.10 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 further specifies as under:-

“In case the capital expenditure incurred for approved schemes exceeds the amount as approved in the capital expenditure plan, the generating company or the transmission or the distribution licensee, as the case may be, shall file an application with the Commission at the end of control period for truing up the expenditure incurred over and above the approved amount. After prudence check, the Commission shall pass an appropriate order on case to case basis. The True-up application shall contain all the requisite information and supporting documents”.

Provided that any additional capital expenditure incurred on account of time over run and / or on unapproved schemes not covered under regulation 9.9 or unapproved changes in scope of approved schemes shall not be allowed by the Commission unless the generating company or the licensee, as the case may be, is able to give adequate justification for the same”. The licensee is directed to adhere to the Regulations.

3.3.2 Review of Capital Investment Plan for FY 2018-19

Regulation 9.7 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012, specifies that in the normal course, the Commission shall not revisit the approved capital investment plan during the control period. However, during the mid-year performance review and True-up, the Commission shall monitor the year wise progress of the actual capital expenditure incurred by the generating company or the licensee vis-à-vis the approved capital expenditure and in case of significant difference between the actual expenditure vis-a-vis the approved expenditure, the Commission may True-up the capital expenditure, subject to prudence check, as a part of annual True-up exercise on or without an application to this effect by the generation company/licensee. The generating company and the licensee shall

submit the scheme-wise actual capital expenditure incurred along with the mid-year performance review and True-up filing.

Accordingly, both the distribution licensees, through filing of their Annual Performance Review petitions for FY 2018-19 and subsequent submissions, submitted revised capital investment plan for FY 2018-19. After examining these, the Commission allows following revised capital investment plans.

UHBVNL – the licensee through its Annual Performance Review Petition and further submissions has indicated that the expenditure upto Dec. 2018 is Rs. 348.22 Crore against the approved expenditure of Rs.1262 Crore. The licensee has further intimated that for FY 2018-19 the Capital expenditure is expected to be Rs. 551.91Crore as per the details provided as under :-

Progress of revised Capital Investment Plan for FY 2018-19								
	Categories	Unit Rate (In Rs.)	Revised Quantity	Revised CAPEX as approved by HERC (Rs. in Cr.)	Achievement of FY 2018-19 upto 31.12.2018	Expenditure incurred upto 31.12.2018 as per Cash flow statement	Funding Agency	Remarks
	MM Wing							
a	Procurement of single phase meters for replacement of defective meters & release of new connections.	683	500000 Nos.	34.15	270000	16.44	REC	
b	Procurement of three phase meters for replacement of defective meters & release of new connections.	1687	140000 Nos.	23.61	64666	8.63	REC	
c	Procurement of Power Transformers - 30 Nos. and allied equipment such as 33 kV CTs - 90, 33 kV PTs - 30, 33 kV VCBs - 30 and 11 kV VCBs-240, 33 kV Control and Relay Panels - 30 etc.			19.00			JICA	
d	Release of Tube well connection on turnkey basis and segregation of AP load from Rural Urban feeders.	125000	3680 Nos.	46.00	1805	22.56	Consumer cost/Deposit work	

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e	Material required for release of Non-AP connections & replacement of old assets			230.00		115.35	REC	
	Total			352.76		162.98		
	PD&C Wing							
a	Power Factor Improvement (Providing automatic power factor correctors)			0.00			REC	Works are under execution and payments are being made as per the provisions in the contracts
b	Providing of LT Capacitors on 400 KVA and above Distribution Transformers		1100 Nos.	0.00				
c	Creation of new 33 kV sub-stations alongwith associated 33 kV & 11 kV lines	30000000	40 Nos.	150.00	15	27.80	REC, JICA & DDU	
d	Augmentation of existing 33 kV sub-stations	8000000	120 Nos.	96.00	89	54.36	REC, JICA & DDU	
e	Augmentation of existing 33 kV lines	725000	110 Km.	7.97	46	3.30	REC, JICA & DDU	
f	Bifurcation of 11 kV feeders (Work of bifurcation of feeders, augmentation of ACSR).		240 Nos.	0.00			JICA	

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g	Release of BPL connections under DDUGJY schemes. Work under Distt. Ambala, Kaithal, Karnal, Yamunanagar, Kurukshetra & Sonapat (22206 BPL Connections)	3000	5542 Nos.	1.66	5419	1.62	DDU
h	11 kV Lines		290 Km.	14.36	103	3.49	DDU & IPDS
i	Distribution Transformer (63,100, 200 kVA)		1650 Nos.	37.55	534	10.61	
j	LT ABC & LT Armoured Cable Line		580 Km.	32.67	134	6.80	
k	Augmentation- DTR, Existing line on conductor to ABXLPE, Augmentation of 11kV lines		367 / 239.63 / 122.32 Nos./Km./K m.	9.46	108	4.75	
l	Energy Meters allied alongwith material		7910 Nos.	5.20	17038	3.25	
m	Solar Project		320 Kwp	1.71	315	1.51	
n	Implementation of R-APDRP (Part-A)			13.22			PFC
o	Maintenance free earthing using 'Ground Enhancing Material' for Distribution Transformers, Meter Pillar Boxes and H-pole etc.	5000	4800 Nos.	0.00			Nigam's Fund
p	Civil Works			24.80		14.00	Nigam's Fund
q	Shifting of HT line (33 kV), passing over authorized/un-authorized colonies under jurisdiction of UHBVN			3.70			
r	Shifting of 11 kV lines passing over residential areas under UHBVN			15.03			REC
s	Mahara Gaon			300.00		53.75	REC

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	Jagmag Gaon scheme for rural area and feeder sanitization for Urban area/LRP/Replacement of iron pole.							
	Total			713.33		185.24		
	IT Wing							
a	Other works for system improvement - Procurement of IT Equipment & Software			5.00			REC	
b	Smart City Karnal (HT & LT Lines, DTs, U/G Cables, RMUs and FRTUs Etc.) and SCADA Kundli			50.00			REC	
c	Smart City Panchkula (HT & LT Lines, DTs, U/G Cables, RMUs and FRTUs Etc.)			35.00			REC	
d	Smart City Panipat (HT & LT Lines, DTs, U/G Cables, RMUs and FRTUs Etc.)			35.00			REC	
e	Industrial Area Kundli (HT & LT Lines, DTs, U/G Cables, RMUs and FRTUs Etc.)			10.00			REC	
f	Works under EESL (Smart Meters)	2500	220000 Nos.	55.00				
g	Setting up of a new testing lab for materials, i.e. cable, conductors, transformer oil, distribution transformers, etc. at Karnal			0.00			JICA	
h	Revamping of existing M&T (Meter Testing) labs at (Kaithal, Yamunanagar, Karnal, Dhulkote & Rohtak)			0.00			JICA	
	Total			190.00				
	B) CAPEX under UDAY (Ujjwal DISCOM Assurance Yojana)							
a	Scaling of IT project to Non R-APDRP areas covering the following:- 1. Establishment of IT infra in SDO & Other offices and its connectivity with Data Center. 2.AMR for HT & LT CT operated meters.			5.91				
	Total			5.91				
	Grand Total			1262.00		348.22		

The Commission has observed that no expenditure has been incurred on scheme at Sr. No. c under heading MM wing, at Sr. q & r and heading PD&C wing, IT wing & CAPEX under UDAY for which an amount of Rs. 233.64 was approved. The licensee is required to give reason for nil program against these works during FY 2018-19.

b) DHBVNL

The licensee in his petition to ARR of FY 2018-19 had projected its Capital Expenditure as Rs. 1300 Cr. However, the Commission allowed Rs. 1700 Cr. Capital expenditure for FY 2018-19.

DHBVNL in its instant Petition for Annual Performance Review of FY2018-19 has submitted the capital expenditure incurred during FY 2018-19 of Rs. 428.01 Cr. Up to ending nov. 2018 against the approved CIP of Rs. 1170 Cr. And likely expenditure to be incurred up to 31.03.2019 as 975 Cr.the detail of which is as under:-

Sr. No.	Categories	Proposed CAPEX (In Crores)	Total Expenditure incurred upto 30.09.2018	Likely Expenditure to be incurred upto 01.10.18 to 31.03.19.	CAPEX for FY 2018-19
1	AT&C loss reduction plan				
a	Procurement of single-phase meters for replacement of defective meters & release of new connections.	50.00	7.48	25.87	33.35
b	Procurement of three phase meters for replacement of defective meters & release of new connections.	30.00	3.05	12.43	15.48
c	Power Factor Improvement (Providing automatic power factor correctors)	16.00	0.00	0.00	0.00
d	Providing of LT Capacitors on 400 KVA and above Distribution Transformers	33.00	0.00	0.00	0.00
2	Load Growth schemes				
a	Creation of new 33 kV sub-stations along with associated 33 kV & 11 kV lines	150.00	70.39	31.13	101.52
b	Augmentation of existing 33 kV sub-stations	14.00	10.50	3.55	14.05
c	Augmentation of existing 33 kV lines	5.00	2.49	3.41	5.90
d	Bifurcation of 11 kV feeders (Work of bifurcation of	50.00	3.86	42.00	45.86

Sr. No.	Categories	Proposed CAPEX (In Crores)	Total Expenditure incurred upto 30.09.2018	Likely Expenditure to be incurred upto 01.10.18 to 31.03.19.	CAPEX for FY 2018-19
	feeders, augmentation of ACSR).				
e	Material required for release of Non-AP connections & replacement of old assets	171.00	128.74	35.50	164.24
f	Release of Tube well connection on turnkey basis and segregation of AP load from Rural Urban feeders.	62.00	4.60	37.56	42.16
g	Procurement of power transformers and allied equipment such as 33 kV CTs, 33 kV PTs, 33 kV and 11 kV VCBs, 33 kV Control and Relay Panels etc.	28.00	11.73	12.51	24.24
h	Release of BPL connections under RGGVY schemes. Work already awarded for Palwal (9163 BPL Connections), Gurugram (2882 BPL Connections) and Faridabad (1494 BPL Connections) Circles.	4.00	0.00	4.00	4.00
i	11 kV Lines	21.98	3.95	123.29	135.00
j	Distribution Transformers (25, 63, 100, 200 kVA)	15.20	1.40		
k	LT ABC Line	8.49	3.27		
l	Augmentation - DTR, existing line on conductor to ABXLPE, Augmentation of 11kV lines	11.90	3.09		
m	Metering (3-Phase), Solar Energy Meter	1.46	0.00		
n	Solar Project	0.84	0.00		
3	R-APDRP schemes				
a	Implementation of R-APDRP (Part-A)	8.80	53.78	34.97	88.75
4	Other works				
a	Maintenance free earthing using 'Ground Enhancing Material' for Distribution Transformers, Meter Pillar Boxes and H-pole etc.	3.00	5.73	0.37	6.10
b	Installation of meters on 33 kV Incomers at sub-stations for energy auditing. Work already awarded on 02.06.2017. Approximately 40% work already completed and provision has been made for taking care of remaining works.	2.00	0.79	0.02	0.81
c	Civil Works	10.00	0.56	8.44	9.00
d	Shifting of HT line (33 kV), passing over authorized/un-authorized colonies under jurisdiction of DHBVN.	5.00	6.43	3.96	10.39
e	Mhara Gaon Jagmag Gaon scheme for rural area and feeder sanitization for Urban area/LRP/Replacement of	190.00	102.67	17.07	119.74

Sr. No.	Categories	Proposed CAPEX (In Crores)	Total Expenditure incurred upto 30.09.2018	Likely Expenditure to be incurred upto 01.10.18 to 31.03.19.	CAPEX for FY 2018-19
	iron pole.				
f	Other works for system improvement - Procurement of IT Equipment & Software	8.00	3.50	5.50	9.00
g	Smart City Gurgaon (HT & LT Lines, DTs, U/G Cables, RMUs and FRTUs Etc.) including SCADA Project, IMT, Manesar.	235.00	0.00	138.00	138.00
h	Smart City Faridabad, Hisar & Rewari (HT & LT Lines, DTs, U/G Cables, RMUs and FRTUs Etc.)	68.00	0.00	0.00	0.00
i	Shifting of 11 lines passing over residential areas under DHBVN.	20.00	0.00	5.00	5.00
j	Works under EESL (Smart Meters)	55.00	0.00	0.00	0.00
	Total	1277.67	428.01	544.58	972.59
	B) CAPEX under UDAY (Ujjwal DISCOM Assurance Yojana)				
1	Scaling of IT project to Non R-APDRP areas covering the following:- 1. Establishment of IT infra in SDO & Other offices and its connectivity with Data Center. 2. AMR for Non R-APDRP feeders. 3. DT metering for 2953 in Non R-APDRP areas. 4. AMR for HT & LT CT operated meters. 5. Procurement of Computer Furniture for Office under IPDS town and balance in Non-R-APDRP areas.	12.33	0.00	2.41	2.41
2	Boundary meters for Villages in Rural Areas (3648 number of villages i.e. 7296 meters)	10.00	0.00	0.00	0.00
	Total	22.33	0.00	2.41	2.41
	Grand Total	1300.00 (Rs. 1170 Cr. Approved by the Commission)	428.01	546.99	975.00

The Commission observes that there has not been any expenditure on the works mentioned in CIP at Sr. No. 1(c),1(d),2(h),2(m),2(n),3(g) to 3(j),and CAPEX under UDAY for which an amount of Rs.455.65 Cr. was approved. The licensee is required to give the reason for nil progress against these works during FY 2018-19.

3.3.3 Capital investment plan for FY 2019-20

The licensees through their Petition for true up of FY 2017-18, annual performance review for FY 2018-19 and ARR for FY 2019-20 has submitted the capital investment plan for FY 2019-20. The details are as under:-

A) UHBVNL

Capital Expenditure

The Petitioner UHBVNL has submitted that in order to achieve the loss targets as proposed in the following chapters, UHBVN proposed to incur a Capital Expenditure of **Rs 1209.75 Cr.** In the FY 2019-20.

The funding of capital expenditure in FY 2018-19 and FY 2019-20 is being arranged by debt from REC, PFC and supported further from equity and consumer contribution. The table below reflects the funding arrangement of capital expenditure during the control period.

Further, the details of Scheme wise CAPEX for the FY 2019-20 has been given in the table below:

Scheme Wise details for the FY 2019-20

Capital Investment Plan of UHBVNL for FY 2019-20					
Sr. No.	Name of the Scheme	Quantity	Unit Rate (In Rs.)	Proposed CAPEX (Rs. in Cr.)	Funding Agency
1	Creation of new 33 kV sub-stations alongwith associated 33 kV & 11 kV lines	40 Nos.	3,60,00,000	144.00	REC & JICA
2	Augmentation of existing 33 kV sub-stations	50 Nos.	90,00,000	45.00	REC
3	Augmentation of existing 33 kV lines	80 km	7,25,000	6.00	REC
4	Bifurcation/Trifurcation of overloaded 11 kV feeders	498 Nos.		76.19	JICA
5	Release of tube well connections	5000	1,25,000	62.50	Consumer Cost / Deposit work
6	Construction of UHBVN Buildings			20.00	REC
7	Civil Works			15.00	REC
8	Works to be carried out under			68.82	DDU

Capital Investment Plan of UHBVN for FY 2019-20					
Sr. No.	Name of the Scheme	Quantity	Unit Rate (In Rs.)	Proposed CAPEX (Rs. in Cr.)	Funding Agency
	DDUGJY scheme for system strengthening including SAGY				
9	Works to be carried out under IPDS scheme for system strengthening			20.00	IPDS
10	LRP works to be carried out under MGJG scheme and urban feeder sanitization Scheme on Turn Key Basis (Uday)			180.00	REC
11	Shifting of 11 kV lines passing over residential areas under UHBVN	595.58 km		28.45	
12	Shifting of HT line (33 kV), passing over authorized/un-authorized colonies under jurisdiction of UHBVN	84.38 km		8.36	
13	Smart City Karnal (HT & LT Lines, DTs, U/G Cables, RMU and FRTUs etc)			72.00	PFC/REC
14	Smart City Panchkula (HT & LT Lines, DTs, U/G Cables, RMU and FRTUs etc)			46.00	
15	Smart City Panipat (HT & LT Lines, DTs, U/G Cables, RMU and FRTUs etc)			41.00	
16	Scaling of IT project to Non R-APDRP areas covering the following:- 1. Establishment of IT infra in SDO & Other offices and its connectivity with Data Center. 2. Data Migration (IPDS & Balance Areas) 3. GIS Indexing (IPDS & Balance areas)			5.47	PFC/REC
				2.61	
				8.31	
17	RT-DAS SAIFI/SAIDI Measurement System in Non-SCADA, R-APDRP, Non-RAPDRP and IPDS Towns of UHBVN			11.63	PFC
18	AMR of HT Industrial consumers			0.55	Nigam's Funding
19	Procurement of single phase meters for replacement of defective meters & release of new connections.	300000 Nos.	683	20.49	REC
20	Procurement of three phase meters for replacement of defective meters & release of new connections.	60000 Nos.	1687	10.12	REC
21	Material required for release of Non-AP connections & replacement of old assets			253.00	REC
22	Procurement of Power Transformers alongwith allied equipment, APFC			20.00	REC/PFC
23	Strengthening of 11 kV lines and augnemtation of DTs alongwith Spill Over				
	Zone-1			33.89	REC
	Zone-2			10.36	REC
Gross proposed investment				1,209.75	

B) DHBVNL

The Petitioner DHBVNL has submitted that in order to achieve the loss targets as proposed in the following chapters, DHBVN propose a Capital Expenditure of Rs 1355.89 Cr for FY 2019-20.

The funding of capital expenditure in FY 2018-19 and FY 2019-20 is being arranged by debt from REC, PFC and supported further from equity and consumer contribution.

Further, the Details of Scheme wise CAPEX for the FY 2019-20 has been given in the table below:

Scheme Wise details for the FY 2018-19

Sr. No.	Categories	Quantity (In No.)	Unit Rate (In Rs.)	CAPEX (Rs. In Cr)
1	AT&C loss reduction plan			
a	Procurement of single-phase meters for replacement of defective meters & release of new connections.	650000 Nos.	683.5	44.43
b	Procurement of three phase meters for replacement of defective meters & release of new connections.	120000 Nos.	1687.5	20.25
c	Power Factor Improvement (Providing automatic power factor correctors)			16.00
d	Providing of LT Capacitors on 400 KVA and above Distribution Transformers			10.00
2	Load Growth schemes			
a	Creation of new 33 kV sub-stations along with associated 33 kV & 11 kV lines	30 Nos.	30000000	90.00
b	Augmentation of existing 33 kV sub-stations	50 Nos.	3000000	15.00
c	Augmentation of existing 33 kV lines	20 KM	700000	1.40
d	Bifurcation of 11 kV feeders (Work of bifurcation of feeders, augmentation of ACSR).	150 Nos.	2500000	37.50
e	Material required for release of Non-AP connections & replacement of old assets			175.00
f	Release of Tube well connection on turnkey basis and segregation of AP load from Rural Urban feeders.	6000 Nos.	125000	75.00
g	Procurement of power transformers and allied equipment such as 33 kV CTs, 33 kV PTs, 33 kV and 11 kV VCBs, 33 kV Control and Relay Panels etc.	45 Nos. (10 MVA) 05 Nos. (12.5 MVA)	4200000 (10 MVA) 5300000 (12.5 MVA)	28.00
h	11 kV Lines			123.85
i	Distribution Transformers (25, 63, 100, 200 kVA)			
j	LT ABC Line			
k	Augmentation – DTR, existing line on conductor to ABXLPE, Augmentation of 11kV lines			
l	Metering (3-Phase), Solar Energy Meter			
m	Solar Project			
3	Other works			

Sr. No.	Categories	Quantity (In No.)	Unit Rate (In Rs.)	CAPEX (Rs. In Cr)
a	Maintenance free earthing using 'Ground Enhancing Material' for Distribution Transformers, Meter Pillar Boxes and H-pole etc.	6000 Nos.	5000	3.00
b	Civil Works			10.00
c	Shifting of HT line (33 kv), passing over authorized/un-authorized colonies under jurisdiction of DHBVN. Note:- <u>Hon'ble Chief Minister has made an announcement on the floor of Haryana Vidhan Sabha that all dangerous wires of 33 KV and above levels passing over the various colonies shall be removed. Accordingly, Worthy ACS/Power, Govt. of Haryana, Power Deptt. directed to prepare the detailed scheme in this regard. Also, Worthy ACS/Power, Govt. of Haryana, Power Deptt. has desired that it may be made part of the CAPEX Plan and approval of HERC be obtained.</u>	7 Nos. 33 KV lines under Rewari and Narnaul Circles		5.00
d	Mhara Gaon Jagmag Gaon scheme for rural area and feeder sanitization for Urban area/LRP/Replacement of iron pole.			125.00
e	Other works for system improvement - Procurement of IT Equipment & Software			3.00
f	Smart City Gurgaon (HT & LT Lines, DTs, U/G Cables, RMUs and FRTUs Etc.) including SCADA Project, IMT, Manesar			300.00
g	Smart City Faridabad, Hisar & Rewari (HT & LT Lines, DTs, U/G Cables, RMUs and FRTUs Etc.)			50.00
i	Shifting of 11 lines passing over residential areas under DHBVN.			49.60
	Total			1182.03
	B) CAPEX under UDAY (Ujjwal DISCOM Assurance Yojana)			
1	Scaling of IT project to Non R-APDRP areas covering the following:- 1. Establishment of IT infra in SDO & Other offices and its connectivity with Data Centre. 2. AMR for Non R-APDRP feeders. 3. DT metering for 2953 in Non R-APDRP areas. 4. AMR for HT & LT CT operated meters. Total DPRs cost for the above works is Rs. 20.55 Crores and approximately, 60% expenditure is likely to be incurred during FY 2018-19.			40.11
2	Implementation of ERP Application			33.75
3	Laying of Infrastructure in Gurugram (Sector-58 to Sec-115) and Faridabad (Sector-75 to Sector-89)			100.00
	Total			173.86
	Grand Total			1355.89

Licensees have not submitted details regarding financial tie ups to carry out the proposed Capital Expenditure plan and has not given the status of NITs/ tenders and activities undertaken to implement the CIP during FY 2019-20.

UHBVNL, who have proposed an ambitious capital expenditure plan of Rs. 1209.75 Cr. the Commission feels that it seems to be on higher side in view of their past experience. As UHBVNL had only been able to incur an expenditure of Rs. 368.52 Cr, 371.71 Cr. and 518.86 Cr. during, FY 2015-16, FY 2016-17 and FY 2017-18 respectively and expected to incur an expenditure Rs. 551.91 Cr. during FY 2018-19. The Commission, however, views that adequate capital expenditure shall be required to meet the loss reduction targets envisaged under UDAY scheme and to strengthen the distribution system. The Commission also observes that expenditure to tune of 180 Cr. (at sr. no. 10) has been proposed for Mara Gaon Jagmag Gaon (MGJG) scheme and Urban feeder sanitization scheme seems to be optimistic targets. In view of above, **the Commission approves an overall Capital Expenditure plan of Rs. 1028 Cr. for UHBVNL for FY 2019-20 which includes Rs. 159 Cr. for implementation of smart grid initiatives for smart city of Karnal, Panchkula, Panipat, Yamunagar and Ambala as per CIP approved.**

The Licensee is directed to revised its Capital expenditure plan accordingly and submit the scheme wise details of the proposed expenditure to the Commission within one month of the order.

Further, in case of DHBVNL the actual capital expenditure for FY 2016-17 and FY 2017-18 has been Rs. 640.93 Cr. and Rs. 808.63 Cr. respectively. For the FY 2019-20, DHBVNL had proposed a capital expenditure of Rs. 1355.89 Cr. which included Rs. 300 Cr. towards the Smart Grid project of Gurgaon and Rs. 50 Cr. towards smart city project of Faridabad, Bhadurgarh, Hisar and Rewari. The expenditure of Rs. 125 Cr. for MGJG scheme and sanitisation of urban feeders. The Commission approved the overall capital expenditure plan for Rs. 1170 Cr. only for FY 2018-19. However as per the ARR Petition for true up of FY 2017-18, annual performance review for FY 2018-19 and ARR for FY 2019-20 filed by the petitioner the licensee has submitted the actual Capital Expenditure for 2017-18 to be Rs. 808.36 Cr. In view of the licensee past performance on Capital expenditure, Commission approves the Capital expenditure of **Rs. 1220 Cr.** for FY 2019-20 for DHBVNL and further direct the licensee to **revise their capital expenditure plan accordingly and submit the scheme wise details of proposed expenditure to the Commission within one month from the data of issue of this Order.** The Commision directs the DISCOMs to utilise the CAPEX approved for Smart Grid

& Smart meters in these projects itself and not to divert the funds in other schemes. Further, the Commission decides that DISCOMs should encourage GHS, HT/LT Industrial, B&R, Tourism, Roadways to install their own Smart Meters.

Both the licensees are further directed that they shall regulate their capital expenditure plans for FY 2019-20 as per Regulations 9.7 to 9.12 of the Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.

3.4 Review of Technical Parameters

The Commission has reviewed the performance of the distribution system of the Petitioners i.e., UHBVNL and DHBVNL, based upon the details made available for FY 2017-18 & FY 2018-19 and has also examined the projected performance for FY 2019-20 based upon filing of their True up for FY 2017-18, Revised Aggregate Revenue Requirement of 2018-19 & proposed Aggregate Revenue Requirement for FY 2019-20 including subsequent submissions thereof as per Multi Year Tariff mechanism. The observations of the Commission in this regard are as follows:-

3.5 Distribution Losses

The year-wise position of Distribution Losses as per the information provided by the Petitioners is tabulated below:

Table 84: Distribution Losses as submitted by the Petitioners

Financial Year	UHBVNL	DHBVNL
2014 – 2015	30.58%	24.47%
2015 – 2016	31.49%	24.47%
2016-17 (Actual)	29.86%	22.50%
2017 – 2018 (Actual)	24.81%	19.16%
2018 - 2019 (Projected)	20.00%	14.14%
2019-2020 (Projected)	14.14%	14.14%

The Commission observes from the above table that Distribution Losses of UHBVNL & DHBVN have decreased from FY 2014-15 onwards. The Commission observes that the distribution losses reduction is one of the key factors for financial revival of Distribution Licensees. The Commission expects from Distribution

Licensees to make all efforts to achieve the Distribution Loss targets as prescribed by the Commission by capital expenditure on loss reduction, system strengthening / up gradation, energy meters, IT interventions etc. The Commission appreciates the efforts being made by UHBVNL & DHBVN for decreasing the Distribution Loss. However, the Commission expects that Distribution Licensees should try to over-achieve the Distribution Loss target every year.

The year-wise position of the line losses on 11kV Rural and Urban feeders of the licensees, as per the information provided by UHBVN and DHBVN, is provided in the following table: -

Table 85: Feeder Losses-Urban & Rural of UHBVN & DHBVN

Distribution Licensee	Urban Feeders (Nos.)				Rural Feeders (Nos.)			
	Feeders with losses > 25% ending FY2016-17	Feeders with losses > 25% ending FY2017-18	Feeders with losses > 25% Apr.17 to Dec.17	Feeders with losses > 25% Apr.18 to Nov.18	Feeders with losses > 50% ending FY2016-17	Feeders with losses > 50% ending FY2017-18	Feeders with losses > 50% Apr.17 to Dec.17	Feeders with losses > 50% Apr.18 to Nov.18
UHBVNL	193 out of 684	74 out of 683	126 out of 653	94 out of 720	793 out of 861	704 out of 882	721 out of 902	643 out of 921
DHBVNL	159 out of 728	112 out of 736	-	125* out of 773	562 out of 887	502 out of 924	-	472* out of 963

* Apr. '18 to Oct. '18 for DHBVN

An examination of the data of 11 kV feeders under UHBVNL made available for the period of FY 2018-19, reveals that 94 number feeders out of total 720 i.e., 13.06% number feeders in urban areas were having losses above 25% and 643 number feeders out of total 921 i.e., 69.82% number feeders in rural areas were having losses above 50%. Further, it is observed that in case of UHBVNL, the number of rural feeders having losses above 50% for the corresponding period of FY 2017-18 vis-a-vis FY 2018-19 have reduced from 721 (79.93%) to 643 (69.82%), whereas, number of urban feeders having losses above 25% have decreased from 126 (19.30%) to 94 (13.06%).

Similar data of DHBVNL for the period April, 2018 to October, 2018 reveals that 125 number feeders out of total 773 i.e., 16.17% number feeders in urban areas were having losses above 25% and 472 feeders out of total 963 i.e., 49.01% number feeders in rural areas were having losses above 50%. The Commission observes that in totality, DISCOMs have managed marginal improvement, however, still far behind the targets set by the Commission vide its Tariff Order dated 15/11/2018 in this respect in spite of incurring huge capital expenditure on system

strengthening schemes/activities and Mhara Gaon Jagmag Gaon (MGJG) scheme. The Commission also noted with concern that even after implementation of MGJG scheme on RDS feeders, the number of Rural feeders with losses above 50% has not marked any significant reduction.

During Public Hearing as well as in their written objections, consumers and other stakeholders expressed their concern over high distribution loss levels both in UHBVNL and DHBVNL also stakeholders submitted during Public Hearing that consumers pay for the high loss levels but no responsibility & recovery of the high loss levels have been recovered from the concerned officers/officials. Even, their ACRs do not record the same. Further, the consumers also pointed out that the concerned authorities have not taken any punitive action in this regard as per Haryana Civil Services Punishment Rules, 2016/CSR Rules. Accordingly, the Commission has decided to include penal provisions leviable to the concerned officers/officials in the Standard of Performance Regulations, so that the financial losses may be recovered from the defaulting officers/officials and concerned parties.

They pointed out that cost of service has increased significantly due to unreasonably high distribution loss level and it would be extremely difficult for the licensees to remain financially viable unless immediate effective steps are taken to control the same.

The Commission in its Tariff Order dtd. 15/11/2018 had directed the Petitioners to file, within two (2) months, detailed reasons for not achieving the targets determined by the Commission in its Tariff Order dated 11/07/2017 along with action taken/plan to achieve the same. The relevant extract of the Tariff Order dtd. 15/11/2018 is as follows:

“The distribution licensees are again directed to file, within two (2) months, detailed reasons for yet not achieving the targets determined by the Commission in its tariff Order dated 11.07.2017 along with action taken/plan to achieve the same. The Commission also directs the distribution licensees to bring down the total number of rural feeders with line losses above 50% as on 31.03.2018 to half and to bring down the losses of all urban feeders below 25% by the time of next ARR/APR filing. Failure to do so shall attract action under Section 142 of the Electricity Act, 2003.”

However, it is observed that the Petitioners have neither filed the same before the Commission nor has indicated the compliance of the said direction in its Tariff Petition. Accordingly, the Commission vide its Memo No. 4632-33/HERC/Tariff &

4789-90/HERC dated 9/01/2019 & 22/01/2019 respectively had sought replies on the said directives.

Accordingly, UHBVNL vide its Memo No. Ch-30/SE/RA/N/F-173/Vol-VIII dtd. 18/02/2019 has submitted as follows:

“From perusal of the compliance report it may kindly be seen that there has been considerable progress in reduction of feeder losses, distribution loss reduction, replacement of defective meters and release of pending connections. The number of urban feeders with losses above 25% has come down from 271 ending FY 2015-16 to 74 ending FY 2017-18. Similarly, the number of RDS feeders with losses above 50% has come down from 813 ending FY 2015-16 to 704 ending FY 2017-18. The improvement is quite significant in respect of urban feeders although there has not been as significant improvement in respect of RDS feeders. One of the reasons for the same is that there is lot of resistance in rural areas against relocation/shifting of meters outside consumers’ premises and other activities being undertaken under MGJG scheme for reduction of feeder losses. A more aggressive approach for reduction of losses in rural areas can lead to law and order problem and can be counterproductive. The Nigam, however, is steadfastly implementing various schemes for feeder loss reduction as detailed in the enclosed Memo besides continuing with intensive drive against theft of electricity. With further progress in the implementation of various schemes, it is expected that the losses will further come down.”

Further, DHBVNL has submitted as follows:

“From perusal of the compliance report it may kindly be seen that there has been considerable progress in reduction of feeder losses, distribution loss reduction, replacement of defective meters and release of pending connections. The number of urban feeders with losses above 25% has come down from 159 ending FY 2016-17 to 125 ending October of FY 2018-19. Similarly, the number of RDS feeders with losses above 50% has come down from 562 ending FY 2016-17 to 472 ending October of FY 2018-19. The improvement is quite significant in rural and urban feeders considering resistance in rural areas against relocation/shifting of meters outside consumers’ premises and other activities being undertaken under MGJG scheme for reduction of feeder losses. A more aggressive approach for reduction of losses in rural areas can lead to law and order problem and can be counterproductive. The Nigam, however, is steadfastly implementing various schemes for feeder loss reduction as detailed in the enclosed Memo besides

continuing with intensive drive against theft of electricity. With further progress in the implementation of various schemes, it is expected that the losses will further come down”

The Commission has analysed the submissions of the Petitioners and is of judicious view that UHBVNL shall achieve the target as prescribed by the Commission for FY 2019-20. Any slippage on account of the target shall lead to penalty as deemed fit and appropriate by the Commission as per various provisions of the Act and Regulations framed thereunder.

3.6 Loss Reduction Trajectory

The Commission observes the progress of the Petitioners under UDAY scheme for the period from FY 2014-15 to FY 2017-18 as follows;

Table 86: Progress under UDAY by DISCOMs (AT&C Loss Level)

Particulars	FY 2014-15		FY 2015-16		FY 2016-17		FY 2017-18	
	DHBVNL	UHBVNL	DHBVNL	UHBVNL	DHBVNL	UHBVNL	DHBVNL	UHBVNL
AT&C Loss trajectory as per UDAY (MoU)	26.12%	34.04%	25.22%	31.61%	22.48%	25.94%	18.76%	21.64%
Actual AT&C Loss	26.11%	34.04%	26.45%	33.88%	21.14%	30.76%	17.90%	25.62%
Gap	-0.01%	0.00%	1.23%	2.27%	-1.34%	4.82%	-0.86%	3.98%

In their True-up Petitions for FY 2017-18 (including revised Aggregate Revenue Requirement for FY 2018-19 and Aggregate Requirement for FY 2019-20) as per Multi Year Tariff mechanism, the two licensees submitted the following revised distribution loss trajectory considering the tripartite MOU agreement under UDAY:-

Table 87: Distribution Loss trajectory projected by the DISCOMs during ARR filing for FY 2019-20

Distribution Licensee	FY 2015-16 (Actual)	FY 2016-17 (Actual)	FY 2017-18 (Actual)	FY 2018-19 (Projected)	FY 2019-20 (Projected)
DHBVNL	24.47%	22.50%	19.16%	14.14%	14.14%
UHBVNL	31.49%	29.86%	24.81%	20.00%	14.14%

Further, Regulation 57.2 of HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 specifies the following

norms for Collection Efficiency for the Distribution Licensees.

Table 88: Norms for Collection Efficiency specified by the Commission

Distribution Licensee	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
DHBVNL	98%	98.5%	99%	99%
UHBVNL	98%	98.5%	99%	99%

Further also the Commission in its Tariff Order for FY 2018-19 dated 15/11/2018 had considered the Collection Efficiency norms as 99% for FY 2018-19. The same norms of collection efficiency are also considered for FY 2019-20. It has been specified in Regulation 12 of *HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012* that any over achievement or under achievement in respect of Collection Efficiency shall be subject to incentive and penalty framework. From the perusal of information on Collection Efficiency submitted by the Distribution Licensees in their True-up Petitions for FY 2017-18 (including revised Aggregate Revenue Requirement for FY 2018-19 and Aggregate Requirement for FY 2019-20) as per Multi Year Tariff mechanism, the Commission observes that DHBVNL has over achieved the normative level of Collection Efficiency during the FY 2017-18 i.e., 101.55%, whereas UHBVNL failed to achieve the normative level of Collection Efficiency during the FY 2017-18 i.e., 98.91%.

The Collection Efficiency in some of the rural area and urban has been reported as low as 81.14% for Rohtak Circle of UHBVN and 92.81% for Ambala Circle of UHBVN respectively. Constant under recovery of revenue attributes to financial losses on account of addition borrowings by the licensees to meet their revenue shortfall besides accumulation of debts which in turn may turn into bad debts.

The Commission had sought Actual AT&C Loss and Actual Collection Efficiency for FY 2017-18 from the Petitioners vide its Memo No. 4632-33/HERC/Tariff dated 09.01.2019. Accordingly, the Petitioners had submitted the said information as follows:

Table 89: AT&C Loss Calculation for FY 2017-18

Particulars	UHBVNL	DHBVNL
Net Input Energy (In MU)	20539.49	28,193.50
Net Billed energy (In MU)	15444.04	22,791.70
Distribution Loss	24.81%	19.16%

Particulars	UHBVNL	DHBVNL
Collection Efficiency	98.91%	101.55%
AT&C Losses	25.62%	17.90%

Further, the Petitioners in their Tariff Petitions have submitted the AT&C loss trajectory for FY 2018-19 & FY 2019-20 as follows:

Table 90: AT&C Loss Trajectory projected by DISCOMs

Particulars	FY 2018-19		FY 2019-20	
	DHBVNL	UHBVNL	DHBVNL	UHBVNL
AT&C Loss as submitted by the Petitioners in their Tariff Petition	15.00%	20.80%	15.00%	15.00%

The Commission observes that the AT&C target proposed by the Petitioners for FY 2018-19 is same as that approved by the Commission in its Tariff Order dated 15/11/2018 for FY 2018-19.

However, for FY 2019-20, DHBVNL has not indicated any reduction in AT&C loss trajectory and has considered the same as that of FY 2018-19. UHBVNL has shown reduction rate of 5.80% in AT&C loss level for FY 2019-20 with respect to the loss level for FY 2018-19.

Based upon actual performance during for FY 2017-18 and that projected for FY 2018-19 & FY 2019-20, the AT&C losses of the two licensees works out as follows:

Table 91: Loss trajectory projected by the DISCOMs

Particulars	FY 2017-18 (Actual)		FY 2018-19 (Projected)		FY 2019-20 (Projected)	
	DHBVNL	UHBVNL	DHBVNL	UHBVNL	DHBVNL	UHBVNL
Distribution Losses	19.16%	24.81%	14.14%	20.00%	14.14%	14.14%
Collection efficiency	101.55%	98.91%	99.00%	99.00%	99.00%	99.00%
AT&C Losses	17.90%	25.62%	15.00%	20.80%	15.00%	15.00%
AT&C Loss trajectory as per UDAY (MoU)	18.76%	21.64%	15.00%	15.01%	No targets	
Gap	-0.86%	3.98%	0.00%	5.79%		

From the preceding paras, following is inferred:-

a) FY 2017-18

From the data it is evident that UHBVNL has failed to achieve the AT&C Loss Target. DHBVNL has over-achievement in AT&C Loss level of 0.86% whereas UHBVNL has under-achievement of AT&C Loss level of 3.98%.

b) FY 2018-19

From the data it is evident that both DHBVNL & UHBVNL have submitted in their Petitions to achieve the AT&C targets as specified by the Commission in its Tariff Order dtd. 15/11/2018 i.e., 15.00% & 20.80% respectively. However, UHBVNL has projected AT&C Loss Level (20.80%) less than that indicated under UDAY (15%) for FY 2018-19.

Further, the Commission in its Tariff Order dtd. 15/11/2018 had directed UHBVNL as follows:

“UHBVNL is directed to explain, within three months, from the date of this order, the reason of under achievement even after re-fixing of their AT&C loss trajectory envisaged under UDAY scheme and submit an action plan to achieve the target for the FY 2018-19.”

However, it is observed that the Petitioner has neither filed the same before the Commission nor has indicated the compliance of the said direction in its Tariff Petition. Accordingly, the Commission vide its Memo No. 4632-33/HERC/Tariff & 4789-90/HERC dated 9/01/2019 & 22/01/2019 respectively had sought replies on the said directives u/s 142 of the Act. Accordingly, UHBVNL vide its Memo No. Ch-30/SE/RA/N/F-173/Vol-VIII dtd. 18/02/2019 has submitted as follows:

“... The AT&C losses of UHBVN have come down from 34.17% in FY 2015-16 to 25.46% in FY 2017-18 which cannot be said to be a small achievement by any yardstick despite the same being not exactly as per the trajectory of AT&C loss reduction for the UHBVNL set by the Hon’ble Commission. It may be appreciated that reduction of AT&C losses from the then existing level of 34.17% ending FY 2015-16 to 21.64% in FY 2017-18 as per the target given by the Hon’ble Commission was an extremely difficult task, almost impossible. Still the UHBVNL have achieved a reduction of around 9% in AT&C losses over a period of only 2 years which is quite commendable. If the UHBVNL can maintain the same tempo, it would be able to achieve AT&C loss level of 15% by FY 2019-20. There is, therefore, no case for any action against UHBVNL u/s 142 of the Electricity Act 2003 on account of non-achievement of AT&C losses Targets”

The Commission has analysed the submissions of UHBVNL and is of judicious view that UHBVNL shall achieve the target as prescribed by the Commission for FY 2019-20. Any slippage on account of the target shall lead to penalty as deemed fit and appropriate by the Commission as per various provisions of the Act and Regulations framed thereunder.

c) FY 2019-20

The AT&C losses have been pegged in line with the losses envisaged under UDAY scheme. Considering the past performance huge efforts shall be required to meet the AT&C loss targets pegged by the Licensees.

DHBVNL is directed to explain, within three months, from the date of this Order, the reason of consideration of same AT&C Loss Level for FY 2019-20 as that of FY 2018-19 i.e., 15.00% with no reduction rate. However, they have sought CAPEX for reduction of AT&C Loss Level during FY 2019-20.

The Commission observes that there are no AT&C Loss target for FY 2019-20 under UDAY - Tripartite MoU among Ministry of Power, GoI; Govt. of Haryana and Haryana DISCOMs signed on 11/03/2016. Therefore, the Commission has analysed the reduction rates in Actual AT&C loss level for FY 18 v/s FY 17 and reduction rates in AT&C loss level for FY 19 v/s FY 18 as projected by the DISCOMs. Considering the fact that there is saturation in Loss Levels as the trajectory declines, the Commission is of the judicious view that AT&C Loss Level Target for FY 2019-20 be **1.50% & 5.80%** lower than the projection for DHBVNL & UHBVNL for FY 2018-19 respectively. With this target, UHBVNL will get 1 extra year to reach to the levels of AT&C as mandated under UDAY for FY 2018-19.

As specified under Regulation 12 of *HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012*, any overachievement and underachievement of the loss trajectory and the collection efficiency specified by the Commission shall be subject to incentive and penalty framework and that the distribution licensees shall provide a statement to this effect in the mid-year performance review and True-up.

The Distribution licensees as stipulated under Regulation 57.1 (f) of *Haryana*

Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012 and as per the directive in Commission's Order on ARR of the two licensees for the control period FY 2014-15 to FY 2016-17 and also in Order on their Annual Performance Review Petition for FY 2014-15 have to submit the computation of supply voltage wise and consumer category wise distribution and AT&C losses. However, in compliance to above, the distribution licensees have submitted the voltage wise losses only. The Commission is of the considered view that a scientific methodology needs to be developed to calculate voltage wise and category wise losses so as the COS of respective category could be calculated precisely.

Further, the Commission in its Tariff Order dtd. 15/11/2018 had directed the Petitioners as follows:

“Accordingly, licensees are directed to finalize the methodology for Cost of supply (CoS) / voltage wise and category wise cost of services and submit the proposal to the Commission for its approval at the earliest without any further delay.”

The Commission is under examination of the proposals submitted by the Petitioners.

3.7 Distribution Transformers (DTs) failure rate

HERC vide its Regulation (*Standards of Performance for Distribution Licensee) Regulations 2004*, has specified the failure rate of distribution transformers as maximum 5% for urban area DTs and maximum 10% for rural area DTs.

In case the maximum permissible failure rate of distribution transformers exceeds the limits specified above, the Return on Equity (RoE) shall be reduced as specified under Regulation 65.1 (ii) of *HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012*.

The year-wise status of damage rate of distribution transformers, as per the information provided by UHBVNL and DHBVNL is given in the table below:-

Table 92: Distribution Transformers failure rate

Sr. No.	Year		DHBVNL		UHBVNL	
			Failure including transformers damaged within warranty period (%)	Rate excluding transformers damaged within warranty period (%)	Failure including transformers damaged within warranty period (%)	Rate excluding transformers damaged within warranty period (%)
1	2009-10	Urban	5.79	4.58	8.95	6.56
		Rural	12.52	9.36	15.84	10.78
		Overall	11.74	8.81	15.06	10.30
2	2010-11	Urban	7.21	6.09	13.38	9.14
		Rural	12.36	9.46	10.01	6.75
		Overall	11.81	9.09	10.29	6.95
3	2011-12	Urban	7.21	5.54	10.83	7.76
		Rural	9.98	7.31	10.01	6.38
		Overall	9.71	7.14	10.08	6.49
4	2012-13	Urban	6.66	5.17	10.83	7.76
		Rural	10.30	7.36	10.01	6.38
		Overall	9.94	7.14	10.08	6.49
5	2013-14	Urban	8.53	6.50	10.93	7.81
		Rural	10.61	7.14	9.49	6.25
		Overall	10.42	7.08	9.60	6.37
6	2014-15	Urban	7.15	5.22	9.87	6.31
		Rural	10.53	6.65	9.59	5.63
		Overall	10.22	6.52	9.62	5.68
7	2015-16	Urban	5.63	3.98	7.18	4.46
		Rural	9.70	6.14	9.3	5.38
		Overall	9.32	5.94	9.13	5.38
8	2016-17	Urban	4.96	3.26	4.62	1.69
		Rural	10.53	6.67	7.53	3.67
		Overall	9.95	6.31	7.27	3.50
9	2017-18	Urban	4.65	3.35	7.06	5.28
		Rural	9.41	5.90	9.84	6.65
		Overall	8.82	5.58	9.59	6.52
10	2018-19*	Urban	4.47	3.02	4.21	2.96
		Rural	7.69	4.71	7.59	5.06
		Overall	7.29	4.50	7.27	4.86

* till Nov'18

The DT damage rate is to be analyzed on the basis of total number of DTs damaged, irrespective of the fact whether the transformer damaged was within warranty period or not, as all these DTs were part of the system. The Commission considered it appropriate to consider the total damage DT irrespective of damaged within warranty or not. The high level of transformer damage rate not only affect the continuity of supply adversely but also reflects upon poor monitoring and maintenance of distribution system which in turn also impact the finances of the distribution licensees adversely.

From the analysis of the data indicated in the above table, it is observed that Failure Rate of DTs in urban area of UHBVNL during FY 2017-18 is 7.06 which is above the maximum limit prescribed by the Commission. Rest for all cases, the

failure rate within the norms prescribed by the Commission. Accordingly, the Commission has reduced Return of Equity.

Both the distribution licensees have succeeded in reducing the overall damage rate of DT, however marginally, in comparison to previous year. The excess damage rate of DT in urban areas is a matter of serious concern and concrete steps in order to reduce the same.

The Commission also noted it with concern that licensees are not consistent in achieving the damage rate within limits prescribed by the Commission considering the fact that the prescribed limits are far relaxed in comparison of international standards and even standards achieved by Tata Power and other power utilities in India.

The licensees have reported that measures such as routine checking, load balancing, regular checking of oil level, proper earthing of DTs, installation of proper size of fuse at HT and LT side, maintaining of LT lines to ensure proper working of DTs, augmentation of overloaded DTs, mandatory visit to field by senior officers etc. are being taken to reduce the damage rate of DTs. However, in spite of observations of the Commission in its Order dated 1st August, 2016 on APR petition of the licensees for the FY 2015-16 and revised ARR for FY 2016-17, licensees have not examined and reported the cause of damage of DTs in the areas attributing higher damage rate.

Further, the Commission in its Tariff Order dtd. 15/11/2018 had directed the Petitioners as follows:

“The Commission again directs the licensees to examine the cause of damage of DTs in the areas where it is above the norms and endeavour to bring down the distribution transformer damage rate below the prescribed limits by ensuring proper maintenance and protection. Further, the reasons for excessive damage of DTs which are in warranty period be examined separately and intimated to the Commission along with the action taken thereof in the matter. Discoms are also directed to submit the year wise details of Power Transformers damaged along with ARR filing.

...

The Discoms are again directed to ensure that quarterly reports be submitted regularly without fail and to host the circle wise information on its website regularly.”

However, it is observed that the Petitioners have neither filed the same before the Commission nor has indicated the compliance of the said direction in their Tariff Petitions. Accordingly, the Commission vide its Memo No. 4632-33/HERC/Tariff & 4789-90/HERC dated 9/01/2019 & 22/01/2019 respectively had sought replies on the said directives. Accordingly, UHBVNL vide its Memo No. Ch-30/SE/RA/N/F-173/Vol-VIII dtd. 18/02/2019 has submitted as follows:

“

(i) Discom submits that the damage rate of distribution transformer is higher mainly in Rural areas which is because of the unauthorized use of electricity which eventually leads to overloading of the Distribution transformer and hence, their damages besides high Distribution losses. Discom time and again have taken various initiatives like replacement of bare conductor with LT AB cables, shifting of meters outside the premises in MCBs etc to curb such happenings. A special scheme “Mhara Gaon Jagmag Gaon” was started wherein all initiatives to eliminate any instance of stealing of electricity are ensured and thereby help in reducing the distribution losses along with reduction of DTs failure rate. During such activities regular maintenance of distribution transformer were also ensured.

(ii) The Year wise details of Power Transformer damaged are mentioned as under: -

Year	Transformer damaged out of warranty period	Transformer damaged within warranty period	Total No. of Power Transformer installed
FY 2017-18	5	7	562
FY 2018-19(till Nov’18)	5	4	619

(iii) Direction of the Commission has been noted by the Discom and will be complied as per the given direction.

”

Further, DHBVN has not submitted the replies to this directive but has only submitted the data indicated in the above table. Therefore, DHBVN is directed to submit the responses within 15 days from the issuance of this Tariff Order.

The Commission has analysed the submissions of the Petitioners again directs the licensees to bring down the distribution transformer damage rate below the prescribed limits by FY 2019-20. Any slippage on account of the timeline shall lead to penalty as deemed fit and appropriate by the Commission as per various provisions of the Act and Regulations framed thereunder.

As per Regulation 65.1 (iii) of *HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations 2012*, the distribution licensee shall maintain a proper record of failure of the distribution transformers and submit the same in the quarterly report to the Commission. The DISCOMs are again directed to ensure that quarterly reports be submitted regularly without fail and to host the circle wise information on its website regularly.

3.8 Non replacement of defective energy meters by the distribution licensees

The two Distribution Licensees, in connection with their Petition for True up for FY 2017-18 (including revised ARR for FY 2018-19), have subsequently submitted the following details with regard to defective energy meters.

Table 93: Status of Defective meters

Meter category	No. of defective meters (ending March, 2018)			No. of defective meters (ending Nov. '18)		
	Rural	Urban	Total	Rural	Urban	Total
In respect to UHBVNL						
Single Phase Meters	59167	7495	66662	57589	6759	64348
Three Phase Meters	1460	619	2079	1330	613	1943
Total	60627	8114	68741	58919	7372	66291
In respect to DHBVNL						
Single Phase Meters	105980	8734	114714	4691	502	5193
Three Phase Meters	55023	3326	58349	15587	280	15867
Total	161003	12060	173063	20278	782	21060
Grand Total	221630	20174	241804	79197	8154	87351

The Commission observes that the total number of defective meters of two licensees have decreased to 87351 (ending Nov. 2018) from the last year figures of

241804 (ending March, 2018). In respect of UHBVNL these were 66291 and in respect of DHBVNL these were 21060 nos. This status in respect of UHBVN indicates that the licensee have not made any concrete efforts to clear the backlog of defective meters. This is a matter of great concern and reflects badly on the operations and functioning of the Licensees.

Accurate metering is an important aspect of distribution business as revenue for sale of electricity directly depends upon the bills generated against the metered consumption. It has been pointed out again and again that supply of electricity through defective/dead stop meter for a long time will not only results in harassment to the consumer but also lead to leakage of revenue for the licensees, on account of improper billing and improper measurement of power supplied. Non-accounting further results in misuse and wastage of power.

The Commission had been observing the position with concern ever since a long time, but the position did not improve. The Commission, therefore, as per powers conferred to it under Sub-section (3) of Section 55 of the Electricity Act 2003, passed an Order on 10th January 2013, in the matter of non-replacement of defective energy meters by the distribution licensees. Vide this Order, both the distribution licensees were directed to replace all the meters lying defective as on 10th January, 2013 in the Municipal Areas by 30th April, 2013, but the job has not yet been accomplished.

The Commission's Order dated 07th May, 2015, further assigned the following targets to the licensees for replacement of defective energy meters.

- a) Single phase meters: The number of defective energy meters should not exceed 10,000 at any time after December, 2015.
- b) Three phase meters: The number of defective energy meters should not exceed 500 at any time after December, 2015.

The licensees vide Commission's Order dated 07th May, 2015 were also informed that failure to comply with the above targets set by the Commission shall attract the penal provision of Section 142 of the Electricity Act, 2003 against the XEN and above responsible for the lapse. However, both the licensees failed miserably in achieving the targets for replacement of defective meters set by the Commission.

The licensees vide Commission's Order dated 01st August, 2016 were again, directed to submit a detailed report within two months from the date of issue of Order, indicating the detailed reason for not meeting with the targets assigned failure to do so shall attract penal action as per the Electricity Act, 2003. Distribution licensees, however, again failed to keep the defective meters in the system within the specified targets. The Commission observed that sincere efforts are not made instead for replacement of defective energy meters and accordingly in its tariff order date 11.07.2017, as a last chance, directed the distribution licensees to submit a detailed report indicating the detailed reason for not meeting with the targets assigned along with action plan to achieve the targets and failure to do so shall attract penal action as per the Electricity Act, 2003. The licensees were also directed to intimate the average time taken for replacement of defective meter along with area wise and age wise defective meters pending for replacement.

The Licensees in their reply has submitted that the replacement of meter is an ongoing/continuous process and substantial meters have been replaced during the current year as well as in the previous year. UHBVNL in its plan envisaged to replace all single phase and three phase defective and electromechanical meters by the end of FY 2018-19 and FY2019-20 respectively. It has further been assured that the all pending defective meters till date shall be replaced within next six months. DHBVNL has submitted that the initiatives like flagging of the defective meter status in the billing system, Meter Reading Agencies (MRA) at Sub-Division level formulated to keep a track on defective meters within its area and replacement of defective meters in MGJG/feeder sanitisation (LRP) schemes are being taken to meet the targets envisaged by the Commission for replacement of defective meters.

The Commission however is not satisfied with the progress made by both the distribution licenses for replacement of defective meters during year 2016-17 and year 2017-18. The Commission observes that Standard of Performance Regulations notified on 16th July, 2004 provides for normative level of defective energy meter as 1% of total energy meters and the licensees have even failed to achieve the same. The Regulations further provides for replacement of defective meters within 7 days after the same is established defective on checking and delay in doing so attracts penalty of Rs.100 for each day of delay subject to a maximum of Rs 3000/-.

The Commission is of considered view that that sincere efforts has not been

made by the distribution licensees for replacement of defective energy meters. The licensees should ensure availability of energy meters at Nigam's stores, empower its officials and plan its activities suitably in order to achieve the envisaged targets.

Further, the Commission in its Tariff Order dtd. 15/11/2018 had directed the Petitioners as follows:

“Accordingly, the licensees are directed to intimate the number of defective electricity meters pending for replacement on the date of issue of this Order within one month and get them replaced with healthy meters within a period of six months from the date of issue of this Order, failure to do so shall attract penal action as per the Electricity Act, 2003. The licensees are further directed to submit quarterly report briefing the number of circle wise defective meter replaced, average time taken for replacement of defective meter along with circle wise and age wise defective meters pending for replacement”

However, it is observed that the Petitioners have neither filed the same before the Commission nor have indicated the compliance of the said direction in their Tariff Petitions. Accordingly, the Commission vide its Memo No. 4632-33/HERC/Tariff & 4789-90/HERC dated 9/01/2019 & 22/01/2019 respectively had sought replies on the said directives. Accordingly, UHBVNL vide its Memo No. Ch-30/SE/RA/N/F-173/Vol-VIII dtd. 18/02/2019 has submitted as follows:

“In the context of replacement of defective meters, it is submitted that in compliance of the directive of the Commission as given in the Order dated 11.07.2017, the Discoms had duly submitted the plan for replacement of all defective meters wherein it was projected that all three phase defective meters will be replaced by the end of FY 2018-19 and all pending single phase defective meters will be replaced by the end of FY 2019-20. The Hon'ble Commission would appreciate that meters replacement is a continuous process. The Discom continues replacing defective meters but at the same time some more meters get defective necessitating replacement. Therefore, at any point of time, some percentage of defective meters viz- a - viz the total number of meters installed is inevitable.”

Further, DHBVNL has submitted as follows:

“In the context of replacement of defective meters, it is submitted that in compliance of the directive of the Commission as given in the Order dated 11.07.2017, the Discoms had duly submitted the plan for replacement of all defective meters wherein it was projected that all three phase defective meters will be replaced by the end of FY 2018-19 and all pending single phase defective meters will be replaced by the end of FY 2019-20. The Hon’ble Commission would appreciate that meters replacement is a continuous process. The Discom continues replacing defective meters but at the same time some more meters get defective necessitating replacement. Therefore, at any point of time, some percentage of defective meters viz- a - viz the total number of meters installed is inevitable.”

The Commission is of the firm view and also as per the mandate of the Act that no power ought to be supplied without accurate meter. Hence, in urban areas the effort should be to install smart meters and the normal meters (in healthy condition) may be installed in the rural areas. The dead / defective meters shall be installed within a month. In case the Discoms fails to do so the Consumer concerned shall do so. However, in case the consumer fails to replace the dead / defective meter after expiry of one month, the consumer shall be liable to pay twice the normal tariff of the category that the consumer falls in.

3.9 Non-replacement of Electro-mechanical meters

Besides the defective energy meters, following Electro-mechanical meters are yet to be replaced by the two Distribution Licensees.

Table 94: Details of Electro-mechanical meters yet to be replaced

Meter Category	Electro-mechanical meters in respect of UHBVNL (ending Oct, 2018)			Electro-mechanical in respect of DHBVNL (ending Dec, 2018)			Total Electro-mechanical meters
	Rural	Urban	Total	Rural	Urban	Total	Grand Total
Single Phase Meters	305654	108	305762	203447	17580	221027	526789
Three Phase Meters	0	0	0	19898	1759	21657	21657
Total	305654	108	305762	223345	19339	242684	548446

Total number of Electro-mechanical meters pending for replacement as on September, 2015 as per the ARR Order dated 01.08.2016 were 825978 nos. i.e. 429040 nos. and 396938 nos. with respect of UHBVNL and DHBVNL respectively. It reveals that merely 123278 and 154254 nos. Electro-mechanical meters have been replaced by UHBVNL and DHBVNL respectively since from October, 2015 to Oct'18 (UHBVNL) & Dec'18 (DHBVNL).

Section-55 (1) of the Electricity Act, 2003 provides that no licensee shall supply electricity, after the expiry of two years from the appointed date, except through installation of a correct meter in accordance with the regulations to be made in this behalf by the Central Electricity Authority. The Central Electricity Authority vide its Regulations notified on 17th March, 2006 called as the Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, under Section-4 (1) provides that all interface meters, consumer meters and energy accounting and audit meters shall be of static type. As such by March 2008, the distribution licensees should have replaced all the Electro- mechanical meters with static meters. But even after 10 years of the expiry of appointed date, more than Five (5) lakh Electro-mechanical meters are still in use. These Electro- mechanical meters being very old may not be recording energy accurately and may be one of the reasons of under assessment of energy sold.

In Commission's Order 7th May, 2015 on APR petitions of the licensees for FY 2014-15, the licensees were directed to replace these Electro-mechanical meters by 31st March, 2016 by making all necessary arrangements. Further, not satisfied with the progress reported during the ARR filing of previous year, the Commission vide in its ARR Order for FY 2016- 17 directed the licensees to file, within 3 months, the detailed reasons for not complying with the directive of the Commission.

In this respect, the licensees however, have informed that most of the EM meters are located in rural area where they have to face lot of resistance in replacing the EM meters. DHBVNL in its reply has further emphasised that being located in rural area theses EM meters contributes only 7 - 8% of total revenue and due to practical reasons focus is preliminary on urban areas. But as per reported progress, large numbers of EM meters are still pending for replacement even in urban areas. The Commission, however, is of view that progress of replacement of electromechanical meters can improved significantly by simultaneous execution of

same with MGJG and other schemes targeting rural area.

Further, the Commission in its Tariff Order dtd. 15/11/2018 had directed the Petitioners as follows:

“The Commission is not satisfied with the progress and the reasons imparted by the distribution licensees. The Commission, however, feels appropriate to revise the time lines as a last measure and therefore directs the licenses to replace the existing EM meters in following manner:-

1. All the EM meters exist in the urban areas should be replaced by June, 2019.

2. 50 % of EM meters exist in rural areas should be replaced by June, 2019 and remaining by March, 2020. The licensee should endeavour to replace the EM in a systematic manner by taking a specific area/circle at a time.

The distribution licensees are also directed to submit the detailed action plan for replacement of defective meters and electromechanical meters consistent with the time lines set by the Commission in the matter.”

However, it is observed that the Petitioners have neither filed the same before the Commission nor have indicated the compliance of the said direction in their Tariff Petitions. Accordingly, the Commission vide its Memo No. 4632-33/HERC/Tariff & 4789-90/HERC dated 9/01/2019 & 22/01/2019 respectively had sought replies on the said directives u/s 142 of the Act. Accordingly, UHBVNL vide its Memo No. Ch-30/SE/RA/N/F-173/Vol-VIII dtd. 18/02/2019 has submitted as follows:

“1) The pendency of Electromechanical meters is shown in table below: -

Status	Single Phase			Three Phase		
	Rural	Urban	Total	Rural	Urban	Total
UHBVN	3,05,654	108	3,05,762	-	-	-

- *In Urban area, there are only 124 single phase electromechanical meters pending for replacement. Discom will ensure that these are replaced with healthy electronic meters by March, 2019.*
- *It may also be noted that there is no three phase electromechanical meters pending for replacement whereas 3,05,762 single phase electromechanical meters are pending as on 31.10.2018 which are planned to be replaced with electronic meters*
- *As the meters are located in scattered areas and there is resistance in rural area for replacement of electro-mechanical meters and relocation thereof.*
- *Further, the necessary instructions regarding replacement of EM meters within the timeframe given by the Hon'ble Commission has been issued to the field offices."*

Further, DHBVN has not submitted the replies to this directive but has only submitted the data indicated in the above table. Therefore, DHBVN is directed to submit the responses within 15 days from the issuance of this Tariff Order.

The Commission has analysed the submissions of the Petitioners and is satisfied with the progress related to replacement of electromechanical meters. However, the petitioners are again directed to 100% replace the electromechanical meters before filing of next year's Tariff Petition i.e., True up of FY 2018-19 & ARR of FY 2020-21.

3.10 Procurement of single phase and three phase LT meters.

The Commission observes that the licensees are envisaging installations of smart meters in their specific area of jurisdiction however still procuring normal static meters. The technical specifications for smart meters already stand issued by the Central Electricity Authority. The revised Tariff Policy, 2016 stands issued by the Govt. of India vide Notification dated 28th January, 2016. This Tariff Policy specifies that the Commission shall mandate for smart meters for consumers having monthly consumption above 500 units at the earliest but not later than 31.12.2017 and for consumers having monthly consumption above 200 units by 31.12.2019.

The Commission feels that use of smart meters as envisaged under NTP, 2016 is imperative to avoid human interface in meter reading and has the potential to generate huge information/data which can efficiently be utilized for the system strengthening, theft detection, system planning, best utilization of resources, implementation of DSM schemes etc. The licensees are, therefore, directed to plan their requirement for the smart meters, which can be configured both for pre-paid and post-paid functions, so as the time lines as envisaged under NTP, 2016 for roll out of smart meters across mentioned categories can be met.

The Commission is of the opinion that Smart Metering can resolve several issues. Hence the Commission hereby directs the DISCOMs to implement Smart Metering along with AMI as envisaged under the National Tariff Policy, 2016. This would ensure avoidance of human interface in meter reading and would enable generation of relevant data / information which can be in turn efficiently utilised for system strengthening, theft detection, resolution of billing disputes, system planning, best utilisation of resources, implementation of DSM schemes etc. leading to increased consumer satisfaction.

Accordingly, the Licensees are directed to plan their requirement of smart meters which can be configured for both pre and post paid functions so that time lines envisaged under NTP 2016 for roll out of smart meters across mentioned categories can be met.

DISCOMs are further directed to finalize the specifications of smart meters in line with functional requirement formulated by CEA and the same along with the list of approved vendors be provided on its website to facilitate consumers to purchase the meter if required. The necessary infrastructure for providing the smart meters in certain category of consumers such as telecom towers, street lighting, bulk supply and temporary connection be also created to plug the revenue leakages due to reading billing disputes.

The Commission is of the view that purchase of static meters be stopped henceforth. Any Order, if already given, be cancelled. The healthy static meters dismantled thereof by installing the smart meters can be utilized in the other rural areas/tubewell connections in order to avoid new purchases of static meters.

Further, the Commission in its Tariff Order dtd. 15/11/2018 had directed the

Petitioners as follows:

“The Discoms are directed to prepare a comprehensive plan considering the already purchased smart meters/future purchase of smart meters and submit the same within one months from the issue of this order. The Commission has observed that revenue loss is being suffered by DISCOMs due to unmetered supply of electricity and supply of electricity due to defective meters. Accordingly, the replaced meters should be re-installed in a time bound manner not more than two months..”

However, it is observed that the Petitioners have neither filed the same before the Commission nor have indicated the compliance of the said direction in their Tariff Petitions. Accordingly, the Commission vide its Memo No. 4632-33/HERC/Tariff & 4789-90/HERC dated 9/01/2019 & 22/01/2019 respectively had sought replies on the said directives u/s 142 of the Act. Accordingly, UHBVNL vide its Memo No. Ch-30/SE/RA/N/F-173/Vol-VIII dtd. 18/02/2019 has submitted as follows:

“Installation of 10 Lacs smart meters (5 Lacs in UHBVN and 5 Lacs in DHBVN) is being done by the system integrator M/s L&T selected by EESL through open tender. Approval from State Govt. has already been obtained for installation of 10 Lacs smart meters through EESL. EESL has supplied 5000 smart meters in UHBVN & 5000 smart meters in DHBVN and installation of the same shall commence shortly after the backend integration work is completed which is under progress. After the installation ten thousand meters, mentioned above, the road map of installation of complete 10 Lac meters will be finalized by EESL alongwith Meter manufacturer and System Integrator and accordingly submitted the hon'ble Commission.

The necessary direction with respect to reutilisation of healthy electronic meters, dismantled after installation of smart meters, has been issued by the Discoms to the field Offices.”

Further, DHBVN has not submitted the replies to this directive. Therefore, DHBVN is directed to submit the responses within 15 days from the issuance of this Tariff Order.

The Commission has analysed the submissions of the Petitioners and is not satisfied with the progress related to installation of Smart Meters in the State. The petitioners are directed to expedite the installation of all the smart meters along with backend integration work by FY 2019-20. The Commission advise that DISCOMs should not outsource this type of work and do the necessary work at the department level. Further, the help may be taken from the Electronics/Electrical students of technical institutions of Haryana, which would impart training to the students also. A roadmap for the installation of smart meter may be prepared by the concerned

S.E/Xen after holding discussion with the head of the concerned institutions. Such step shall lead to minimisation of the financial impact, provide relief to the consumers and message will convey to the public consumers that DISCOMs/Govt. is working in their interest.

3.11 Pending electricity connection/load

The DISCOMs, in connection with their petition for Annual Performance Review petition for FY 2018-19 (including revised Annual Revenue Requirement for FY 2019-20), have subsequently submitted information pertaining to connection/load pending for release.

From the data provided by the UHBVNL, the Commission observes that at the end of FY 2017-18 the number of pending applications were 30427 with applied load of 344151 kW.

Similarly, in DHBVNL the number of pending application, at the end of Nov.'18 was 48093 with an applied load of 1563047 kW. Thus, in both the DISCOMs, the total load pending for release works out to 1907198 kW or 1907.20 MW.

The Commission has taken serious note of the fact that on the one hand the DISCOMs are projecting surplus power during most of the year while on the other hand there are pending applications for release of new connections. Timely release of pending connection could have taken care of the surplus power available to the DISCOMs to a certain extent, which otherwise is proposed for selling in the inter-State market at 20% below the average cost of power purchase and in turn adding to the financial losses on account of trading of surplus power. The Commission in its previous tariff Order dated 01.08.2016 made it clear that such trading losses shall not be passed on to the electricity consumers of Haryana. The Commission again in its tariff Order dated 15/11/2018 and 11/07/2017 directed the distribution licensees to expedite the release of pending connections/load and to remove the backblock within three months from the date of Order. However, the pendency has increased instead of going down which represents adversely on the working of both the distribution licensees. The Commission also observed that DISCOMs are not executing the release of connection to AP consumers under tatkal scheme within the time specified by the Commission even after collecting a premium for early execution of work.

The Commission in its Tariff Order dtd. 15/11/2018 had directed the Petitioners as follows:

“It is directed that pending connections be released within one month, otherwise interest at State Bank of India MCLR rate with one year tenor applicable on 01.04.2018 shall be payable from the date of deposit of tatkal premium amount.

In view of the above, the Commission again directs the distribution licensees to expedite the release of pending applications for new connections as well as load enhancement. The present backlog should be removed within two months from the date of this Order and the distribution licensees shall submit a report on the same thereafter. In case backlog is not cleared within two months, it shall be deemed to be a notice under section 142 against the erring Officer/Official and the penalty so levied shall be paid to the sufferers. The hearing for taking action under Section 142 shall be held in the month of February, 2018. Distributions licensees are directed to submit the circle-wise & age wise pendency of new as well as extension of load cases along with reasons for not expediting the same within the given time frame. Compensation paid to the applicants, as specified by the Commission in its Regulations, for delay in expediting new connection or release of extended load shall also informed within two months from the date of this Order. The details of pending connections be uploaded on the website of the DISCOMs on monthly basis along with action plan to release the same.”

However, it is observed that the Petitioners have neither filed the same before the Commission nor have indicated the compliance of the said direction in their Tariff Petitions. Accordingly, the Commission vide its Memo No. 4632-33/HERC/Tariff & 4789-90/HERC dated 9/01/2019 & 22/01/2019 respectively had sought replies on the said directives u/s 142 of the Act. Accordingly, UHBVNL vide its Memo No. Ch-30/SE/RA/N/F-173/Vol-VIII dtd. 18/02/2019 has submitted as follows:

“1) The directions of the Hon’ble Commission were communicated to all Superintending Engineers ‘OP’ for strict and meticulous compliance vide this office memo No. Ch-8/TR-95(90)/TW/Tatkal/Loose-II/CE/C-I dated 06.12.18. It may please be noted that there are only 37 No. connections left to be released under Tatkal scheme in the entire jurisdiction of UHBVN. The circle wise detail is as under: -

Name of Circle	No. of T/Well connections pending under Tatkal as on 31.12.18
Rohtak	1
Jhajjar	0
Sonepat	2
Panipat	15
Karnal	6
Kaithal	8
Kurukshetra	0
Yamunanagar	4
Ambala	1
UHBVN	37

2) New connections are being released timely as per the guidelines of Commission. The pendency is being monitored regularly through online monitoring system and due emphasis is given to release the connection well within timelines. It may be appreciated that the order of the Hon’ble Commission came on 15.11.2018, on that day 13579 connections were pending and after two months of the order i.e. upto 15.01.2019, 38959 new connections have been applied. Out of these connections, a total of 31758 connections have been released (7800 Nos. cancelled) by the Nigam in these two months, leaving only 12980 pending. AS per HERC regulations 30 days is given for general LT consumers, 71 days for 11KV consumer and 97 days for 33kV. Out of 12980 pending applications as on 15.01.2019, only 1673 Nos. applications were overdue, which is only around 12.89%. Hon’ble Commission is informed that most of the applications are being released within prescribed timelines except applications where there are some issues pertaining to ROW, Non-compliance of demand notice, requires new lines /augmentation of the system.

Circle wise pendency of new connection as on 15.01.2019 is as under: -

Name of Circle	Total Pending Application as on date of the Order i.e, 15.11.2018	New application received during 15.11.2018 to 15.01.2019	Application cancelled during 15.11.2018 to 15.01.2019	Connections released during 15.11.2018 to 15.01.2019	Pending Application as on 15.01.2019
Ambala	1626	4011	1094	3217	1326
Jhajjar	1229	2969	705	2735	758
Kaithal	1977	6187	762	5082	2320
Karnal	2110	6141	1214	5194	1843
Kurukshetra	911	3071	543	2485	954
Panipat	1036	3802	806	2735	1297
Rohtak	1460	3326	837	2564	1385

Name of Circle	Total Pending Application as on date of the Order i.e, 15.11.2018	New application received during 15.11.2018 to 15.01.2019	Application cancelled during 15.11.2018 to 15.01.2019	Connections released during 15.11.2018 to 15.01.2019	Pending Application as on 15.01.2019
Sonipat	1262	4206	810	3105	1553
Y/nagar	1968	5246	1029	4641	1544
Grand Total	13579	38959	7800	31758	12980

* Above figures are excluding AP new connection applications.

Circle wise pendency of load extension cases (without AP) as on 15.01.2019 is as under: -

Circle Name	Total Pending Application as on date of the Order i.e, 15.11.2018	New application received during 15.11.2018 to 15.01.2019	Application cancelled during 15.11.2018 to 15.01.2019	Connections released during 15.11.2018 to 15.01.2019	Pending Application as on 15.01.2019
Ambala	132	289	110	208	103
Jhajjar	94	156	57	152	41
Kaithal	53	120	21	113	39
Karnal	109	221	77	208	45
Kurukshetra	32	142	49	87	38
Panipat	122	169	53	175	63
Rohtak	109	113	45	119	58
Sonipat	222	333	91	176	288
Y/nagar	203	212	77	247	91
Grand Total	1076	1755	580	1485	766

It is also informed to the Hon'ble Commission that pending connection details are available on the website of Discom.

”

Further, DHBVNL has submitted as follows:

“Regarding pendency of connections, it is submitted that, as brought out in the enclosed memo, connections to all applicants for new connections are mostly being released timely as per the guidelines specified by the Hon'ble Commission. The pendency is being monitored regularly through online monitoring system and lot of emphasis is being given to release the connections well within timelines. In its Order dated 15.11.2018, the Hon'ble Commission had directed that the backlog as on 15.11.2018 may be cleared within 2 months from the date of Order. There were 42601 connections pending as on 15.11.2018 and another 121949 applications were received

during next two months. The Nigam have released 56526 new connections in a period of two months with 87164 pending applications as on 15.01.2019. It may be noted that some number of applications will always be pending at any time as this is a continuous process. It is submitted that while most of the applicants are released connections within the prescribed time, the delay occurs only in some cases where there are certain issues pertaining to right of way, non-compliance of demand notice by the applicant, requirement of new lines /augmentation of the system etc.”

The Commission has analysed the submissions of the Petitioners and observes that remarkable efforts have been made by DISCOMs in releasing the pending connections upon the persistent persuasion the Commission, specially by UHBVNL which has total number of 12980 (766 other than AP) pending applications as on 15.01.2019. Still there are pending connections which hampers the revenue of the Petitioners. The Commission has great sympathy for the farmer community. Keeping this in view, the Commission had, vide its Order dated 07.01.2019 (HERC/PRO-46 of 2018), approved the procurement of 400 MW power by observing that “DISCOMs may also be able to release around 30000 pending AP tube well connections, electricity supply to e-vehicles, electric crematorium etc. with the availability of this power.”

DISOCOMs are directed to grant connection to all the applicants whose applications are pending upto 31st March, 2019 within one month from the date of this Order. The officer /official who fails to comply with the time-lines shall be liable to pay a fine of Rs 6000 (Rupees six thousand) per day per person for each day of delay subject to Rs 1,00,000 (Rupees one Lakh) maximum, in each case and such fine shall be payable by officers in equal proportion out of their own pockets. The concerned Drawing & Disbursing Officer (DDO) of the Licensee to ensure that fine is deducted from the salary of officer/official and deposited with the DDO of the Commission. The defaults shall be recorded in the ACR of the responsible officer/official with remarks as “honesty doubtful”.

In the case of Tatkall scheme, the DISCOMs are directed to refund the amount deposited by the consumer within three months from the date of receipt of this Order at interest rate of Bank Rate prevailing as on 1st April of the relevant financial year.

Accordingly, the Commission in the interest of justice directs the distribution licensees to award compensation as per HERC Regulations wherever the delay in releasing the AP connections under Tatkall Scheme is beyond thirty days. It is directed that pending connections be released within one month, otherwise interest at State Bank of India MCLR rate with one-year tenor applicable on 01.04.2018 shall be payable from

the date of deposit of tatkal premium amount.

Further, the Commisison observed that various stakeholders submitted during Public Hearing that in case of Single point supply connections, Bank Guarantee equal to 1.5 times as per the applicable Regulations is payable which may be recovered in maximum of 4 (four) phases spanning over a period of 5 (five) years. Such type of instalment facility shall promote release of early connections .

In view of the above, the Commission again directs the distribution licensees to expedite the release of pending applications for new connections as well as load enhancement. The present backlog should be removed within two months from the date of this Order and the distribution licensees shall submit a report on the same thereafter. In case backlog is not cleared within two months, it shall be deemed to be a notice under section 142 against the erring Officer/Official and the penalty so levied shall be paid to the sufferers. Compensation paid to the applicants, as specified by the Commission in its Regulations, for delay in expediting new connection or release of extended load shall also informed within two months from the date of this Order. The details of pending connections be uploaded on the website of the DISCOMs on monthly basis along with action plan to release the same.

The Commission directs the Distribution Licensess to pass Speaking Order in case they are not able to provide AP connection due to reasons attributable to Natural Calamities including flood, cyclone, ground water level etc.

Further, in case, DISCOMs do not provide load enhancement to the consumers due to technical constraints or force majeure events then DISCOMs shall refund the amount deposited by the consumers at Bank Rate of RBI as on 1st April of the relevant financial year for consumers having existing load above 20 kW.

Chapter 4

DISTRIBUTION AND RETAIL SUPPLY TARIFF DETERMINATION FOR THE FY 2019-20

4.1 Tariff Proposal filed by the UHBVNL & DHBVNL (Discoms)

UHBVNL, in its present Petition, has submitted that the resultant revenue gap with the current level of tariff and FSA shall be met through the Operational Funding Requirement (OFR) as available under UDAY.

4.2 Cost of Service (CoS)

In the absence of a comprehensive consumer category wise CoS filed by the Discoms, the Commission, in line with the APTEL's judgement dated 30.05.2011 in Appeal No. 102,103 & 112 of 2010 had adopted the methodology suggested by the Hon'ble APTEL in the ibid judgement dated 30.05.2011 for broadly working out voltage wise CoS for the FY 2019-20. However, the amended National Tariff Policy, 2016 has provided for a revised CSS Formula. Hence, the Commission has considered it appropriate to estimate Cross-Subsidy Surcharge in line with the National Tariff Policy, 2016.

4.3 Method to address the Projected Revenue Surplus/ (Gap)

The Commission, has retained the tariff at the existing levels. Hence, the tariff and charges shall broadly continue as per the Order of the Commission dated 15.11.2018 in case no. HERC / PRO – 83 of 2017 and HERC / PRO – 85 of 2017 in the matter of Petition for True-up of the ARR for the FY 2016-17, Annual (Mid-Year) Performance Review for the FY 2017-18 and determination of ARR and Distribution and Retail supply tariff for the FY 2018-19 for Uttar Haryana Bijli Vitaran Nigam Limited (UHBVNL) and Dakshin Haryana Bijli Vitaran Nigam Limited (DHBVNL), except for the followings:-

- i) The tariff for Electric Charging Station shall be Rs. 6.20/kWh or Rs. 5.58/KVAH and Rs. 100/KW/month as fixed charges.
- ii) The tariff for electric crematorium in Haryana shall be Rs. 5.80/KVAH. There shall not be any fixed charges.

Sr. No.	Tariff for 2018-19 (W.E.F 01.11.2018)				Tariff for 2019-20 (W.E.F. 01.05.2019)			
	Category of consumers	Energy Charges (Paisa / kWh or/ kVAh)	Fixed Charge (Rs. per kW per month of the connected load / per kVA of sanctioned contract demand (in case supply is on HT) or as indicated	MMC (Rs. per kW per month of the connected load or part thereof)	Category of consumers	Energy Charges (Paisa / kWh or/ kVAh)	Fixed Charge (Rs. per kW per month of the connected load / per kVA of sanctioned contract demand (in case supply is on HT) or as indicated	MMC (Rs. per kW per month of the connected load or part thereof)
1	Domestic Supply				Domestic Supply			
	Category I: (Total consumption up to 100 units per month)				Category I: (Total consumption up to 100 units per month)			
	0 - 50 units per month	270/kWh	Nil	Rs. 115 up to 2 kW and Rs. 70 above 2 kW	0 - 50 units per month	270/kWh	Nil	Rs. 115 up to 2 kW and Rs. 70 above 2 kW
	51-100	450/kWh	Nil		51-100	450/kWh	Nil	
	Category II: (Total consumption more than 100 units/month and up to 800 units/month))				Category II: (Total consumption more than 100 units/month and up to 800 units/month))			
	0-150	450/kWh	Nil	Rs 125 upto 2 kW and Rs.75 above 2 kW	0-150	450/kWh	Nil	Rs 125 upto 2 kW and Rs.75 above 2 kW
	151-250	525/kWh	Nil		151-250	525/kWh	Nil	
	251-500	630/kWh	Nil		251-500	630/kWh	Nil	
	501-800	710/kWh	Nil		501-800	710/kWh	Nil	
	Category III:				Category III:			
	801 Unit and above	710/kWh (flat rate no telescopic benefits)	Nil	Rs. 125up to 2 kW and Rs.75 above 2 kW	801 Unit and above	710/kWh (flat rate no telescopic benefits)	Nil	Rs. 125up to 2 kW and Rs.75 above 2 kW
2	Non Domestic (including Independent Hoarding / Decorative Lightning)				Non Domestic (including Independent Hoarding / Decorative Lightning / Decorative Lightning / Temporary Metered supply and others)			
	Upto 5 kW (LT)	635/kWh	Nil	Rs. 235/kW	Upto 5 kW (LT)	635/kWh	Nil	Rs. 235/kW
	Above 5 kW and Up to 20 kW	705/kWh	Nil		Above 5 kW and Up to 20 kW	705/kWh	Nil	
	Above 20 kW and upto 50 KW (LT)	660/kVAh	160 / kW	Nil	Above 20 kW and upto 50 KW (LT)	660/kVAh	160 / kW	Nil
	Existing consumers above 50 kW upto 70 kW (LT)	695/kVAh	160 / kW	Nil	Existing consumers above 50 kW upto 70 kW (LT)	695/kVAh	160 / kW	Nil
	Consumers above 50 kW (HT) New	675/kVAh	160 / kW		Consumers above 50 kW (HT) New	675/kVAh	160 / kW	
3	HT Industry (above 50 kW)				HT Industry (above 50 kW)			
	Supply at 11 KV	665/kVAh	170/kVA	Nil	Supply at 11 KV	665/kVAh	170/kVA	Nil
	Supply at 33 KV	655/kVAh	170/kVA	Nil	Supply at 33 KV	655/kVAh	170/kVA	Nil
	Supply at 66 kV or higher	645/kVAh	170/kVA	Nil	Supply at 66 kV or higher	645/kVAh	170/kVA	Nil
	Supply at 220 kV	635/kVAh	170/kVA	NIL	Supply at 220 kV	635/kVAh	170/kVA	NIL
	Supply at 400 kV	625/kVAh	170/kVA	NIL	Supply at 400 kV	625/kVAh	170/kVA	NIL
	Arc furnaces/ Steel Rolling Mills also applicable to Open Access	695 Paisa per kVAh if supply is at 11 kV (See note 2 below)	170/kVA	Nil	Arc furnaces/ Steel Rolling Mills also applicable to Open Access	695 Paisa per kVAh if supply is at 11 kV (See note 2 below)	170/kVA	Nil
4	LT Industry - upto 50 kW				LT Industry - upto 50 kW			
	Upto 10 KW	635/kVAh	Nil	Rs. 185/kW	Upto 10 KW	635/kVAh	Nil	Rs. 185/kW

Sr. No.	Tariff for 2018-19 (W.E.F 01.11.2018)				Tariff for 2019-20 (W.E.F. 01.05.2019)			
	Category of consumers	Energy Charges (Paisa / kWh or/ kVAh)	Fixed Charge (Rs. per kW per month of the connected load / per kVA of sanctioned contract demand (in case supply is on HT) or as indicated	MMC (Rs. per kW per month of the connected load or part thereof)	Category of consumers	Energy Charges (Paisa / kWh or/ kVAh)	Fixed Charge (Rs. per kW per month of the connected load / per kVA of sanctioned contract demand (in case supply is on HT) or as indicated	MMC (Rs. per kW per month of the connected load or part thereof)
	Above 10 KW & upto 20 kW	665/kVAh	Nil	Rs. 185/kW	Above 10 KW & upto 20 kW	665/kVAh	Nil	Rs. 185/kW
	Above 20 KW and upto 50 KW	640/kVAh	Rs 160 on 80% of CL	Nil	Above 20 KW and upto 50 KW	640/kVAh	Rs 160 on 80% of CL	Nil
	Existing consumers above 50 kW upto 70 kW (LT)	665/kVAh	Rs 160 on 80% of CL	Nil	Existing consumers above 50 kW upto 70 kW (LT)	665/kVAh	Rs 160 on 80% of CL	Nil
5	Agriculture Tube-well Supply				Agriculture Tube-well Supply			
	Metered: (i) with motor upto 15 BHP	10/kWh	Nil	Rs. 200 / BHP per year	Metered: (i) with motor upto 15 BHP	10/kWh	Nil	Rs. 200 / BHP per year
	(ii) with motor above 15 BHP	8/kWh	Nil		(ii) with motor above 15 BHP	8/kWh	Nil	
	Un-metered (Rs. / Per BHP / Month): (i) with motor upto 15 BHP	Nil	Rs. 15 / Per BHP / Month	Nil	Un-metered (Rs. / Per BHP / Month): (i) with motor upto 15 BHP	Nil	Rs. 15 / Per BHP / Month	Nil
	(ii) with motor above 15 BHP	Nil	Rs. 12 / Per BHP / Month	Nil	(ii) with motor above 15 BHP	Nil	Rs. 12 / Per BHP / Month	Nil
6	Public Water Works / Lift Irrigaion / MITC / Street Light	735/kWh	180/kW or BHP except street Light	Nil	Public Water Works / Lift Irrigaion / MITC / Street Light	735/kWh	180/kW or BHP except street Light	Nil
7	Railway Traction				Railway Traction			
	Supply at 11 KV	655/kVAh	160/kVA	Nil	Supply at 11 KV	655/kVAh	160/kVA	Nil
	Supply at 33 KV	645/kVAh	160/kVA		Supply at 33 KV	645/kVAh	160/kVA	
	Supply at 66 or 132 kV	635/kVAh	160/kVA		Supply at 66 or 132 kV	635/kVAh	160/kVA	
	Supply at 220 kV	625/kVAh	160/kVA		Supply at 220 kV	625/kVAh	160/kVA	
8	DMRC				DMRC			
	Supply at 66 kV or 132 kV	625/kVAh	160/kVA		Supply at 66 kV or 132 kV	625/kVAh	160/kVA	
9	Bulk Supply				Bulk Supply			
	Supply at LT	650/kVAh	160/kW or Rs. 160/kVA as applicable (see note 4)	Nil	Supply at LT	650/kVAh	160/kW or Rs. 160/kVA as applicable (see note 4)	Nil
	Supply at 11 kV	640/kVAh		Nil	Supply at 11 kV	640/kVAh		Nil
	Supply at 33 kV	630/kVAh		NI	Supply at 33 kV	630/kVAh		NI
	Supply at 66 or 132 kV	620/kVAh		Nil	Supply at 66 or 132 kV	620/kVAh		Nil
	Supply at 220 kV	615/kVAh		Nil	Supply at 220 kV	615/kVAh		Nil
10	Bulk Supply				Bulk Supply			

Sr. No.	Tariff for 2018-19 (W.E.F 01.11.2018)				Tariff for 2019-20 (W.E.F. 01.05.2019)			
	Category of consumers	Energy Charges (Paisa / kWh or/ kVAh)	Fixed Charge (Rs. per kW per month of the connected load / per kVA of sanctioned contract demand (in case supply is on HT) or as indicated	MMC (Rs. per kW per month of the connected load or part thereof)	Category of consumers	Energy Charges (Paisa / kWh or/ kVAh)	Fixed Charge (Rs. per kW per month of the connected load / per kVA of sanctioned contract demand (in case supply is on HT) or as indicated	MMC (Rs. per kW per month of the connected load or part thereof)
	(Domestic)							
	For total consumption in a month not exceeding 500 units/ flat/dwelling unit (DU).	525 /kWh	Rs. 100 /kW of the recorded demand	Nil	For total consumption in a month not exceeding 800 units/ flat/dwelling unit (DU).	525 /kWh	Rs. 100 /kW of the recorded demand	Nil
	For total consumption in a month exceeding 500 units/flat/ DU.	620 /kWh	Rs. 100 /kW of the recorded demand	Nil	For total consumption in a month exceeding 800 units/flat/ DU.	620/kWh	Rs. 100 /kW of the recorded demand	Nil

Notes:

1. The incentive on installation of rooftop solar system as per HAREDA guidelines, shall be Rs. 1/- per unit only for all DS consumers/Bulk supply (domestic) consumers, installing solar system. In case the solar system is accompanied by battery storage system of the equivalent capacity, additional incentive of Rs. 1/- per unit shall also be provided, for Bulk Supply (Domestic) consumers only.
2. Energy charges in case of Domestic consumers are telescopic in nature up to the consumption of 800 Units / month. In case of consumption more than 800 units/month, no slab benefit shall be admissible and tariff applicable will be 710 paisa/kWh for total consumption.
3. In case of Arc furnaces/ Steel Rolling Mills for supply at 33 kV and above, the HT Industrial tariff at the corresponding voltage level shall be applicable.
4. Fixed charges for HT Industrial supply and Bulk Supply category are in Rs./kVA of Contract Demand. For Railways and DMRC, the fixed charges are in Rs./kVA of the billable demand.
5. In case of Bulk Supply Consumers (other than Bulk Supply – DS), the fixed charges are in Rs./kW of the connected load where contract demand is not sanctioned and in Rs./kVA of contract demand where contract demand is sanctioned.

6. 80% of the connected load shall be taken into account for levying fixed charges where leviable in case of LT industrial Supply. In case of LT industry above 20 KW where MDI meter is installed the fixed charges shall be Rs. 160/kw/month of recorded demand if it is in kW or Rs. 144/kva/month of recorded demand if the same is in kVA.
7. Fixed charges for Bulk Supply Domestic are in Rs. / kW of the recorded demand.
8. The above tariff does not include Electricity Duty, Municipal Tax and FSA.
9. The consumers who will deposit advance payment online through RTGS/NEFT in the banks authorized by the Discoms equivalent to 120% of energy charges paid in the previous year, within two months of this Order, shall be given a discount of equivalent to Savings Bank rate till the time entire advance is adjusted.
10. Fixed charges for unmetered AP consumers, MITC and Lift Irrigation category are in Rs. / BHP / month. For MITC and Lift Irrigation, DISCOMs are directed to install smart meter as per DISCOMs norms, within three months from the date of this Order. In case the DISCOMs are unable to do so, it may authorize the consumers accordingly, under intimation to the Commission. This exercise be completed within a period of six months from the date of this Order, otherwise tariff equivalent to three times of the normal tariff shall be applicable. AP consumption shall also be metered by utilizing the meter replaced by smart meter. It should be ensured that no supply is un-metered.
11. Under Bulk Supply (Domestic) category no benefit of lower slab shall be admissible in the higher consumption slabs. Total consumption shall be charged at a single tariff depending upon the average consumption/flat/residential unit for that month.
12. Bulk Supply Tariff shall be applicable to orphanage, old-age home, kushtrog ashram and working women hostel. The tariff for Electric Charging Station shall be Rs. 6.20/kWh or Rs. 5.58/kVAh and Rs. 100/kW/month as fixed charges. The tariff for electric crematorium in Haryana shall be Rs. 5.80/kVAh. There shall not be any fixed charges.
13. Certain consumers, during public hearing and other-wise, have expressed the views that sometimes it is difficult to deposit additional consumer security deposit and additional demand charges on enhancement of load. The Commission Orders that in case of enhancement of load where the additional ACD is higher than Rs. 10,000/-, the existing consumer (Panchayat/Nagar Palika/any other social society installing electric crematorium with Smart Meter/Smart Grid as per

DISCOMs norms, cremation ground, orphanage, old-age home, kushtrag ashram, working women hostel and E-Vehicle charging station) may be allowed to deposit ACD in 12 equal installments, without payment of any interest. However, facility of depositing additional demand charges/ connection charges in 12 installments along with interest at an appropriate rate not less than 12% p.a., may also be extended to the existing consumers with good payment record. Both the amount as above may form part of energy bills in the next 12 months.

14. In case of Single point supply connections, Bank Guarantee equal to 1.5 times as per the applicable Regulations shall be payable which may be recovered in maximum of 4 (four) phases spanning over a period of 5 (five) years. Such type of instalment facility shall be provided only to those consumers/developer which install Smart meter along-with Smart Grid technologies both internally as well as the main meter. Also consumers/developer should provide undertaking for installation of Roof top Solar as per HAREDA norms.
15. In addition to the tariff as above, the Discoms shall levy FSA as per HERC (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2012.
16. The surcharge of 45 paise/ per unit arc furnace/ steel rolling mills shall also be applicable on Open Access power.
17. Mobile/Telephone towers/Street light of Municipal Corporation be provided circle wise single bill.
18. The consumers of all categories may download their bills from Discoms website. The consumers shall be provided bills through SMS alerts and/ or e-mail without any charge, wherever AMR meter reading has been started. Urban domestic consumers above 10 KW, where AMR reading has started, opting for hard copy of the bill shall have to pay Rs. 20/- per bill. All other consumers of the urban area, opting for hard copy of the bill, shall have to pay Rs. 100/- per bill. However, no charges on account of distribution of hard copy of the bill shall be levied on the consumers below 10 KW, AP consumers, BPL consumers and consumers in Rural area.
19. Transaction charges (MDR) for payment through payment gateway on the website of the discoms by way of credit card, debit card, net banking and also

the transaction charges for payment through POS machines at the discoms counters and e-wallets etc. shall be borne by the discoms, as per earlier Order.

The consumers of urban areas under Municipal Corporations/Municipal Committee shall pay their bills for amount of Rs. 5000/- and above through above mode of payment including RTGS/NEFT and the banks authorized by the Discoms. Consumers of Urban area with bill amount less than Rs. 5,000/-, shall pay the same only with the bank designated by the DISCOMs for the purpose.

Note: No benefit/concession provided in this Order shall be applicable to those consumers whose bill is outstanding for more than two billing cycles.

4.4 Agriculture Pump Set Supply (AP Supply)

For the A.P. consumers, the tariff, in the FY 2019-20 has been determined equal to the CoS of L.T. Supply i.e. in line with the previous Order of the Commission.

AP Tariff Determined by the Commission (FY 2019-20)

A.P. Metered /unmetered	Rs. 7.17/ kWh

As the State Government has been traditionally providing subsidised supply to the AP consumers, the concessional tariff for AP consumers' category for the FY 2019-20 considering the subsidy as estimated by the Commission and payable by the State Government, shall continue at the exiting rates.

As a consequence of retaining the existing subsidised tariff for supply of power to AP consumers, the subsidy payable by the State Government calculated as the difference between the revenue at approved tariff i.e. Rs. 7.17 /kWh which is equivalent to the CoS of L.T. Supply for the FY 2019-20 and the subsidy for the FY 2019-20 shall be as per table below. The same shall be borne by the State Government as subsidy support to the AP consumers and shall be payable to Discoms in accordance with Section 65 of the Electricity Act, 2003 i.e. in advance.

The Calculation of Subsidy to be paid by the State Government for the FY 2019-20 as earlier stated is as per table given below.

Calculation for AP subsidy (FY 2019-20)

	Subsidy calculation for AP supply	unit	value

	Subsidy calculation for AP supply	unit	value
1	Total units supplied to AP	MU	9717
2	Cost/ Tariff per unit	Rs/kWh	7.17
3	Estimated cost of service	Rs. Crores	6967.09
4	Revenue at subsidized tariff	Rs. Crores	111.05
5	Subsidy required to keep the tariff at current levels = 3-4	Rs. Crores	6856.04

The State Government shall release the RE Subsidy and also subsidy for concessional tariff extended to DS Consumers in accordance with Section 65 of the Electricity Act, 2003.

The AP subsidy is to be released by the State Government in advance to the DISCOMs. Delay in the release of AP subsidy including arrear thereof, shall attract interest @ 9% p.a. and shall be deducted from the Return on Equity (RoE) allowed in the ARR.

Chapter 5

WHEELING CHARGES AND CROSS-SUBSIDY SURCHARGE

5.1 Wheeling Charges for the FY 2019-20

Segregated accounts including voltage wise assets and losses for the distribution and retail supply business are a pre –requisite for determination of wheeling charges and cross-subsidy surcharge. The Commission observes that the network establishment and operation cost as distinct from retail supply business including the power purchase cost is about 9.51% of the net ARR of the Discoms. Accordingly, the same has been considered by the Commission for working out the wheeling tariff for the FY 2019-20 as under:-

Approved Wheeling Charges for the FY 2019-20

1 Network expenses (per kWh)		
a.	Network establishment and operation cost (9.51% of the net ARR of the distribution licensees for the FY 2019-20)	27393.6
b.	Allowed gross volume of power purchase by the Discoms at State Periphery (MUs) excluding inter-state sales and losses.	49875.10
c.	Expenses (Rs / kWh) (a/b)	0.55
2. Cost of losses in the system		
a	Approved Energy available for sale to Discoms (MU)	48668.12
b	Distribution system losses (technical) %	5.93%
c	Losses (MU) (2a X 2b))	2886.33
d	Bulk supply power purchase rate for the Discoms (Rs. / kWh)	4.90
e	Total cost of losses (2dx2c) Rs. million	14143
f	Cost per unit of losses (Rs. /unit) (2e/1b)	0.28
3. Wheeling Charges (Rs. / kWh) (1c+2f) rounded off		0.83

5.2 Cross-Subsidy Surcharge (CSS)

The MYT Regulations, 2012 (regulation 63) provides that the cross-subsidy surcharge shall be payable by all intra-State open access consumers except those persons who have established captive generating station and are availing open access for carrying the electricity to a destination for their own use. Cross-subsidy surcharge shall also be payable by such Open Access consumer who receives supply of electricity from a person other than the distribution licensee in whose area of supply he is located, irrespective of whether he avails such supply through transmission/distribution network of the licensee or not. The consumers located in the area of supply of a distribution

licensee but availing Open Access exclusively on inter-State transmission system shall also pay the cross-subsidy surcharge as determined by the Commission.

Section 42 of the Electricity Act, 2003 provides that the surcharge and the cross-subsidies shall be progressively reduced. The Commission has worked out CSS in line with the formula provided in the National Tariff Policy, 2016. The National Tariff Policy dated 28.01.2016 provides as under: -

“SERCs may calculate the cost of supply of electricity by the distribution licensee to consumers of the applicable class as aggregate of (a) per unit weighted average cost of power purchase including meeting the Renewable Purchase Obligation; (b) transmission and distribution losses applicable to the relevant voltage level and commercial losses allowed by the SERC; (c) transmission, distribution and wheeling charges up to the relevant voltage level; and (d) per unit cost of carrying regulatory assets, if applicable”.

The above is subject to the proviso that the surcharge shall not exceed 20% of the tariff applicable to the category of the consumers seeking open access.

The Commission has considered the methodology prescribed by the National Tariff Policy dated 28.01.2016, while working out cross-subsidy surcharge in the present Order. The relevant provision of the NTP is reproduced below: -

“Surcharge formula:

$$S = T - [C / (1 - L/100) + D + R]$$

Where

S is the surcharge

T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation.

C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation.

D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level.

L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level.

*R is the per unit **cost of carrying regulatory assets** (emphasis added).*

***Above formula may not work for all distribution licensees, particularly for those having power deficit** (emphasis added), the State Regulatory Commissions, while keeping the overall objectives of the Electricity Act in view, may review and vary the same taking into consideration the different circumstances prevailing in the area of distribution licensee.*

*Provided that the **surcharge shall not exceed 20%** (emphasis added) of the tariff applicable to the category of the consumers seeking open access.*

*Provided further that the Appropriate Commission, in consultation with the Appropriate Government, shall **exempt levy of cross subsidy charge on the Railways**, as defined in Indian Railways Act, 1989 being a deemed licensee, on electricity purchased for its own consumption.*

8.5.2 No surcharge would be required to be paid in terms of sub-section (2) of Section 42 of the Act on the electricity being sold by the generating companies with consent of the competent government under Section 43(A)(1)(c) of the Electricity Act, 1948 (now repealed) and on the electricity being supplied by the distribution licensee on the authorisation by the State Government under Section 27 of the Indian Electricity Act, 1910 (now repealed), till the current validity of such consent or authorisation.

8.5.3 The surcharge may be collected either by the distribution licensee, the transmission licensee, the STU or the CTU, depending on whose facilities are used by the consumer for availing electricity supplies. In all cases the amounts collected from a particular consumer should be given to the distribution licensee in whose area the consumer is located. In case of two licensees supplying in the same area, the licensee from whom the consumer was availing supply shall be paid the amounts collected”.

The Commission has carefully examined the formula for working out cross-subsidy surcharge and observes as under:-

The voltage wise technical losses filed by the Discoms and that estimated by the Commission for working out voltage wise CoS is as under:-

Voltage level losses		
Voltage Levels	Discoms Estimates	
	UHBVNL (%)	DHBVNL (%)
33 kV line losses	0.44	0.38
33 kV Transformation Losses	0.27	0.18
11 kV line losses	7.21	4.19
11 kV Transformation Losses	1.06	0.83
LT Line Losses	5.84	4.64
Total Losses upto LT Level	14.18	10.23
Losses Except LT Line		3.93

The Commission, for the purpose of estimating voltage wise CoS has considered the voltage wise losses as estimated above.

Based on the voltage-wise loss calculations based on the data submitted by the Discoms, it is possible to work out the total losses up to 11 kV level and overall losses at LT levels. However, working out losses at different HT voltage levels i.e. 66 kV, 132 kV, 220 kV etc. is not possible till such time similar data is made available at these voltages by the Utilities. Hence, for calculating voltage wise losses, the Commission has broadly considered only two categories i.e. HT (11 kV level and above) and LT voltage levels. In line with the National Tariff Policy, the Commission has calculated the voltage wise CoS and Cross Subsidy Surcharge. The difference between technical losses so determined and actual total distribution system losses are considered to be on account of reasons other than technical losses and are therefore taken as commercial losses. The commercial losses so determined have been apportioned between HT and LT voltage levels in proportion to annual gross energy sales at these voltage levels. The annual gross energy sales at the given voltage levels has been taken as the sum of energy consumption of all consumer categories connected at that voltage plus the technical distribution losses corresponding to that voltage level as worked out in the voltage wise loss calculations as per the details provided in the table below: -

Calculation of Voltage wise losses for the FY 2019-20

		UHBVNL	DHBVNL	Total
1a	HT sales	5070.00	8837.00	13907.00
1b	LT sales	11622.36	16257.09	27879.45
1	Total Sales	16692.36	25094.09	41786.45
2	Losses %			
2a	HT	7.92	4.75	
2b	LT	14.18	10.23	
3	Loss units			
3a	HT	436.08	440.69	876.77
3b	LT	1920.36	1852.62	3772.98
4	Sales grossed up by Technical losses (1+3)			
4a	HT	5506.08	9277.69	14783.77
4b	LT	13542.72	18109.71	31652.43
5	Combined Technical losses			
5a	HT			5.93%
5b	LT			11.92%
5	Total			10.01%
6	Total Distribution Losses	2749.01	4132.66	6881.67
7	Total Commercial losses (6-3)	392.57	1839.35	2231.92
8	Commercial losses allocated to HT and LT based on grossed up units (4)			
8a	HT	113.47	623.09	736.57
8b	LT	279.10	1216.26	1495.35
9	Total Voltage level distribution losses (3+8)			
9a	HT	549.55	1063.78	1613.34
9b	LT	2199.45	3068.88	5268.33
10	Combined Technical and Commercial losses at Distribution level			
10a	HT			10.39%
10b	LT			15.89%
10	Total			14.14%
11	Units sent out after accounting for Technical and Commercial Losses			
11a	HT	5619.55	9900.78	15520.34
11b	LT	13821.81	19325.97	33147.78
11	Total	19441.37	29226.75	48668.12
12	Transmission Losses			
	Inter state	234.59	352.67	587.26
	Intra state	482.15	724.83	1206.98

		UHBVNL	DHBVNL	Total
	Total Transmission Losses	716.74	1077.50	1794.24
13	Transmission losses allocated to HT and LT based on grossed up units (4)			
	HT	207.18	365.01	572.19
	LT	509.57	712.49	1222.06
14	Total Losses (Transmission and distribution)			
	HT	756.73	1428.79	2185.53
	LT	2709.02	3781.37	6490.39
	Total	3465.75	5210.16	8675.91
15	Total Units purchased incl transmission losses			
	HT	5826.73	10265.79	16092.53
	LT	14331.38	20038.46	34369.84
	Total	20158.11	30304.25	50462.36
16	Voltage level Total loss percentage			
	HT	12.99%	13.92%	13.58%
	LT	18.90%	18.87%	18.88%
	Total	17.19%	17.19%	17.19%

Accordingly, based on the voltage level distribution losses as worked out above, the calculations for CSS as per National Tariff Policy formula for the FY 2019-20 are as under: -

Calculations of CSS

Cost of Service as per National Tariff Policy		
	Elements of cost of service	
1	Per Unit Weighted average cost of power per unit at State periphery) (Paise/kWh)	476
2	Aggregate of transmission, distribution and wheeling charges applicable to the relevant voltage level	
	Intrastate Transmission cost at consumers end (Paise/kWh) (Transmission and SLDC cost/ sales) (Paise/kWh)	32
	Distribution (net of power purchase cost) and Wheeling cost at consumers end (Paise/kWh)	98
3	Aggregate of transmission distribution and commercial losses applicable to the relevant voltage level	
	HT	13.58%
	LT	18.88%
	Cost of Service	
	$C/(1-L/100) + D + R$	

Cost of Service as per National Tariff Policy		
	Elements of cost of service	
	HT (Paise / kWh)	681
	LT (Paise/kWh)	717

The above loss allocation is reflected in the energy allocators at HT and LT voltage levels i.e. lower cost attributed to the HT consumers and higher cost attributed to the LT Consumers. Thus, the Cost of Service in the case of HT Consumers is comparatively lower than that of the consumers receiving electricity supply at LT voltage. The CSS has been worked out as the difference between the average consumer category-wise average revenue realisation per unit and the voltage-wise CoS of HT or LT as the case may be. The Cross-subsidy surcharge for the FY 2019-20 as per the NTP formula shall be as per the table that follows: -

Cross-subsidy surcharge for FY 2019-20 (Rs/kWh)

Particulars	CoS (Rs./kWh)	Tariff (EC+FC) (Rs./kWh)	Cross Subsidy Surcharge (Rs./kWh)
	1	2	3= 2-1
HT industry	6.81	7.59	0.78
Bulk Supply (other than DS)	6.81	7.38	0.57
Railways (Traction)/DMRC	6.81	7.24	0.43
LT Industry	7.17	7.63	0.46
NDS (HT)	6.81	7.71	0.90

The applicable CSS worked out above is within 20% (+/-) limit in accordance with the National Tariff Policy.

Chapter 6

Additional Surcharge

6.1 Summary of the petition

6.1.1 The licensees submitted that Regulation Clause No. 22 of Haryana Electricity Regulatory Commission (Terms and conditions for grant of connectivity and open access for intra-State transmission and distribution system) Regulations, 2012 provides as under:

"Additional Surcharge – (1) An open access consumer, receiving supply of electricity from a person other than the distribution licensee of his area of supply, shall pay to the distribution licensee an additional surcharge in addition to wheeling charges and cross-subsidy surcharge, to meet out the fixed cost of such distribution licensee arising out of his obligation to supply as provided under subsection (4) of Section 42 of the Act.

Provided that such additional surcharge shall not be levied in case open access is provided to a person who has established a captive generation plant for carrying the electricity to the destination of his own use.

(2) This additional surcharge shall become applicable only if the obligation of the licensee in terms of power purchase commitments has been and continues to be stranded or there is an unavoidable obligation and incidence to bear fixed costs consequent to such a contract. However, the fixed costs related to network assets would be recovered through wheeling charges.

(3) The distribution licensee shall submit to the Commission, on six monthly basis the details regarding the quantum of such stranded costs and the period over which these remained stranded and would be stranded. The Commission shall scrutinize the statement of calculation of such stranded fixed costs submitted by the distribution licensee and determine the amount of additional surcharge. Provided that any additional surcharge so determined shall be applicable to all the consumers availing open access from the date of determination of same by the Commission.

(4) The consumers located in the area of supply of a distribution licensee but availing open access exclusively on inter-State transmission system shall also pay the additional surcharge.

(5) Additional surcharge determined on per unit basis shall be payable, on monthly basis, by the open access customers based on the actual energy drawn during the month through open access".

6.1.2 The DISCOMs have further submitted as under: -

- a. That the petitioners have a universal obligation to supply power to all the consumers, they have to enter into long term agreements for purchase of power from various generating stations for meeting entire demand of the State. As such, when these Open Access consumers draw power from any other mode under Open Access i.e. through collective transaction or bilateral transaction, the fixed cost of such stranded power is still payable by the Petitioner, while making it a stranded capacity for the petitioner.
- b. That in accordance with the Haryana Electricity Regulatory Commission (Terms and Conditions for grant of connectivity and open access for intra-State transmission and distribution system) Regulations, 2012, Nigam the calculation of additional surcharge based on 100% data of all days in first half of FY 2018-19 i.e. April-18 to September-18 has been submitted.
- c. The methodology for computation of Additional Surcharge is explained below: -
 - (i) In order to ensure that only such power surrendered is taken for calculating additional surcharge, which corresponds to power stranded because of open access consumers, the lower quantum of open access power per slot and surrendered power for corresponding slot is taken as quantum of the stranded power for slot due to open access.
 - (ii) The Discoms have calculated slot wise stranded power due to open access and total open access power availed in that particular time slot.

- (iii) Based on slot-wise quantum eligible for calculation of Additional Surcharge and slot wise total open access power availed, the corresponding slot wise units have been calculated for all the days in First half of FY 2018-19.
- (iv) The petitioner further has calculated total units (MU), which corresponds to the stranded power due to Open Access and total Open Access units availed for the first half of FY 2018-19.
- (v) Subsequently, the total Additional Surcharge for First half of FY 2018-19 is calculated by multiplying the Units evaluated above with the per unit effective fixed charge as calculated below:-

Source	Estimated Units in MU	Annual Fixed Charges Rs. Mn.
NTPC		
Singrauli STPS	1,296.00	92.88
Rihand I	431.00	39.11
Rihand II	378.00	35.63
Rihand III	372.00	62.11
FGTPS Unchhahar I	74.00	8.63
FGTPS Unchhahar II	155.00	16.28
FGTPS Unchhahar III	79.00	11.39
Anta CCGT	36.00	12.21
Auraiya CCGT	28.00	19.57
Dadri CCGT	92.00	16.97
Faridabad CCGT	926.00	234.69
Farakka STPS	80.00	7.98
Kahalgaon I	109.00	18.72
Kahalgaon II	331.00	55.19
Kol Dam HEP	152.00	76.07
NHPC		-
Salal I	442.00	79.80
Bairasiul	133.00	22.16
Tanakpur	25.00	5.02
Chamera I	330.00	33.06
Chamera II	73.00	9.50
Chamera-III	80.00	23.97
Dhauliganga	55.00	10.73
Dulhasti	103.00	36.94
Uri	142.00	17.27
Uri-II	63.00	27.11
Sewa II	28.00	8.52
Parbati-III	56.00	16.08
SJVNL HEP	280.00	37.82
Rampur HEP (SJVNL)	69.00	16.15

THDC		-
Tehri Stage I HEP	197.00	57.66
Koteshwar HEP	48.00	10.09
NPCIL		-
NAPP	180.00	-
RAPP (3-4)	545.00	0.02
RAPP (5-6)		
HPGCL	17,234.00	1,727.95
Shared Project		-
BBMB HEP	2,891.00	-
DVC		-
DVC Mejia-B	491.00	87.49
Koderma DVC HEP	274.00	109.06
DVC Raghunathpur TPP	636.00	36.27
UMPP		-
CGPL Mundra UMPP	2,425.00	250.31
Sasan UMPP	3,000.00	53.77
Others		-
PTC Tala, HEP	51.00	-
PTC GMR Kamalanga TPS	1,611.00	267.63
PTC Baglihar HEP	264.00	-
PTC Lanco Amarkantak	1,840.00	238.76
PTC Karchamwangtoo JSW HE	818.00	218.13
IGSTPP, APCPL (Aravali)	2,406.00	751.66
Pragati Gas Bawana	-	99.23
Adani Power Ltd. Mundra TPS	9,824.00	977.02
Teesta III HEP	-	-
MGSTPS, CLP, Jhajjar	3,441.00	828.69
Bhoruka HEP	29.00	-
P&R Gogripur HEP	10.00	-
Puri Oil Mill HEP	14.00	-
Biomass Projects	143.00	-
Cogeneration Plants	162.00	-
Solar projects	198.87	
Naraingarh Sugar Mills	111.00	-
PGCIL Transmission		
Total	55,261.87	6,765.33
Average Fixed Cost of Power Purchase exc. PGCIL Charges		1.22

- d. Finally, the Per Unit Additional Surcharge is determined by dividing the total additional surcharge with the estimated Open Access Units for first half of FY 2018-19 (considering same open access scenario).
- e. The Petitioner has submitted that the details of the backing down owing to Open Access in MW and MU for calculation of additional surcharges and Open Access availed is given in the table below:-

Months	Average Quantum to be considered for Additional Surcharge in MW	Total Quantum to be considered for Additional Surcharge in MU	Average Quantum of Open Access in MW	Total Quantum of Open Access in MU
April	9.55	6.87	9.64	6.94
May	12.12	9.02	12.41	9.24
June	41.44	29.84	49.16	35.40
July	71.44	53.15	72.75	54.13
August	71.21	52.98	71.61	53.28
September	35.78	25.76	35.78	25.76
Grand Total	241.55	177.63	251.35	184.74

- f. UHBVNL, has further submitted the total additional surcharge of Rs. 1.18/unit may be allowed to be levied upon open access consumers, which has been calculated based on details of slot wise surrendered power and slot wise open access power considering data of all days of 1st half of FY 2018-19, as detailed below:-

Total Units of Power in MUs to be considered for Additional Surcharge	in MU	177.63
Effective Approved Fixed Cost considered for the purpose of Evaluating Additional Surcharge	Rs/ Unit	1.22
Total Additional Surcharge for the 1st half of FY 2018-19	In Rs Million	217.46
Open Access Units estimated	in MU	184.74
Per Unit Additional Surcharge applicable on the same Quantum of Open Access (Rs. /unit)	Rs/ Unit	1.18

- g. The Petitioner has requested the Commission to allow additional surcharge at a rate of Rs 1.18 per unit to be levied on open access consumers which has been calculated based on details of slot wise surrendered power and slot wise open access power considering data of all days.

Commission's Analysis & Order

The Commission had advised the DISCOMs to take timely action for submission of supporting data / details for the next six months and also host the same on its website. The said Order also provided that the Additional Surcharge shall continue to be effective till the same is revised / amended by the Commission. However, the Commission observes that the DISCOMs have not filed the requisite data & hosted the same on their website. The Commission has taken serious note of the non-compliance and observes that the Open Access Consumers who are paying such additional surcharge ought to know the details of the underlying data which forms the basis of

claiming additional surcharge. **The Commission directs that all such data / details should be posted on the Discoms website without any further loss of time. The data/details of 2nd half of FY 2018-19, as and when these are finalized, should also be hosted on their website for information/perusal of/by all open access consumers. This is essential for transparent working out of additional surcharge.**

The crux of the Regulations cited by the Discoms as well as the issues raised by the Intervener has been examined by the Commission at length. As per the Regulation occupying the filed additional surcharge becomes applicable if the obligation of the distribution licensee in terms of power purchase commitment has been and continues to be stranded (emphasis added) and / or there is an un-avoidable obligation and incidence to bear fixed cost consequent to such contract (emphasis added). Hence, the issue germane to levy of additional surcharge is that the fixed cost of power, contracted under long – term power purchase agreement, due to drawl of power under Open Access mechanism from the sources other than the distribution licensee(s) of the area should remain un-recovered.

The Commission has examined the aforesaid issue at length and observes that the monthly average of power brought under Open Access mechanism during the six months (April to September, 2018) as reported by the Discom is only about 30.79 million units i.e. 187.74 million units. As against this, in case just one source of long-term power is taken for the purpose of illustration i.e. HPGCL, it is observed that the Commission had approved purchase of 17,234 million units at a fixed cost of Rs. 1727.95 Crore in the FY 2018-19 (cf. from the table filed by the Discoms reproduced earlier in the present Order). As against this the Discoms actually purchased 12,291 million units i.e. 4,943 million units lower than the approved quantum wherein the generator was available for dispatch. Whereas, on an annual basis only about 378 million units may have come in under Open Access mechanism. Going forward, in line with the MYT Regulations in vogue, the fixed cost stranded will also get recovered through the Fuel Price Adjustment (FPA) mechanism from the embedded Open Access consumers as well. This illustration holds good for all other approved sources of long-term power purchase where the PPA provides for two-part tariff i.e. energy charges based on actual energy drawl and fixed cost irrespective of the fact whether power was drawn on not as determined by the appropriate Commission.

In addition to the above, the Commission observes that the Discoms, on the basis of anticipated power deficit, have tied up thermal power of for eight months and round the clock hydro power of more than 500 MW. This is in addition to a lot of power tied up from Solar and Wind. Hence, about 6000 to 9000 kWh of surplus power is upfront available to the Discoms even if the banked power to be drawn during peak season is not considered. Hence, it is observed that a large quantum of power is stranded because of the mismatch in demand – supply including the large variation in the peak load and off-peak load hours / season. In conclusion it is observed that during the period under consideration only a miniscule quantum of power is backed down and attributable to the open access consumers which can said to be un-avoidable obligation under the contract as per the statute. Hence, to this extent additional surcharge is leviable. The Commission has examined at length the contention of the intervener that there is multiple charging as the embedded open access consumers who are also consumers of the distribution licensee, are paying transmission / wheeling charges as well through the applicable tariff (s). The Commission, after due deliberations, observes that in the true-up as well as FSA the embedded consumers including open access embedded consumers do bear the fixed cost by way of demand charges based on contract demand in the respective tariff. However, incidence of FSA in terms of Rs. / kW or kVAh is levied on the quantum of energy actually drawn by such consumers from the Discoms. Hence, in case of reduced quantum drawn from the Discoms, the amount of FSA recovered by the Discoms also reduces.

In view of the above discussions, the Commission is of the considered view, as also observed in the previous order(s), that the multiplicity of recovering the same cost from the same set of consumers ought to be avoided. The Commission has accordingly proceeded to estimate the additional surcharge to be recovered from the Open Access embedded consumers.

The Commission, while approving Additional Surcharge, has considered fixed cost approved for the FY 2019-20 i.e. Rs. 7182.13 Crore and divided the same by approved volume from all approved sources i.e. 59,471.22 Million. Resultantly, the per unit fixed cost works out to Rs. 1.21 / kWh that shall form the basis of estimating additional surcharge as per the computational details provided below: -

1	Fixed Cost for Power Procurement	Rs. Million	71821.30
2	Approved Power Purchase Quantum	Million Units	59471.22

3	Per Units Fixed Cost	Rs / Unit (1/2)	1.21
4	Approved Sale (HT & LT Industry)	Million Units	14386.00
5	FC attributable to HT/LT Indust.	Rs. Million (3X4)	17373.47
6	Ratio of Power Purchase Cost to FC		
	ARR approved 2019-20 (a)	Rs. Crore	28805.08
	Power Purchase Cost out of above (b)	Rs. Crore	21206.96
7	Ratio of b to a	%	73.62
8	Fixed Cost Recovered from HT/LT Indust.	Rs. Million	15054.64
9	Recovery of FC from HT/LT Indust.	Rs. Million (8 X 7%)	11083.57
10	Short Recovery of FC	Rs. Million (5-9)	6289.90
11	Additional Surcharge	Rs. / Unit (10/4)	0.44

The Additional Surcharge of Rs. 0.44/kWh shall be applicable to the consumers of Uttar Haryana Bijli Vitran Nigam (UHBVN) and Dakshin Haryana Bijli Vitran Nigam (DHBVN) (form the date of this Order) who avail power under the Open Access mechanism in terms of Haryana Electricity Regulatory Commission (Terms and Conditions for Grant of Connectivity and Open Access for Intra-State Transmission and Distribution System) Regulations, 2012, from any source other than the distribution licensees.

Chapter 7

Time of Use Tariff / Time of Day (ToD) Optional

The Commission had introduced the following Time of Use Tariff/Time of Day (ToD) tariff in its ARR Order dated 11.07.2017, as an option. The dispensation under the ToD tariff including terms and conditions were amended by the Commission vide its Order dated 15th November, 2018 in Case No. HERC / PRO – 83 of 2017 and HERC / PRO – 85 of 2017. The revised ToD tariff is tabulated as under:-

Period	Charge	Time
Off-Peak Demand (October to March)	10 % rebate on the normal energy charges as approved by the Commission. *	Will be decided by the concerned SE with the approval of the Managing Director and shall be widely publicised through local newspapers, local television channels, e-mail, sms etc.
Peak Demand (October to March)	19% premium over the energy charges determined by the Commission	
Normal Demand (October to March)	Normal Tariff	
Demand Charges	As determined by the Commission - shall be the same for all categories of consumers including ToU. PLEC shall continue to be applicable for Open Access Power.	

* Note: This rebate shall be allowed only to the consumers who install Smart Meter/Smart Grid, irrespective of the consumer category. The same may be installed by the DISCOMs as well as by the consumer themselves as per the directions of DISCOMs. Further, if such consumer install rooftop solar system also then the rebate shall be increased to 15% and in case the rooftop solar system is accompanied by battery storage system (minimum 15% of Sanctioned Load), the rebate shall increase to 20%. The consumers may be allowed to avail these benefits by giving an undertaking to comply with the terms and conditions mentioned herein above within seven months of the date of undertaking. In case any consumers fails to comply with the undertaking within the period of seven months, the benefits so availed shall have to be refunded immediately alongwith the interest of 17% per annum. The ToD tariff shall not be applicable to the consumers, who source their power from Captive Generation or Open Access at any point of time after 15.06.2019.

Further, the consumers having Smart Meter/Smart Grid (as per DISCOM's norms) and Rooftop Solar system (as per HAREDA norms), may apply for availing supply under Single Point Supply and shall be eligible for ToD benefits also.

The DISCOMs should make efforts to sell the surplus power to Industry in the State at ToD tariff and not to sell through the power exchange. DISCOMs are directed to upload on their website on daily basis, the power purchase details (sources, rate, UI etc), overdrawl, underdrawl, power backed down summarised into energy available, energy scheduled, energy consumed and energy lost.

Provided further that all consumers opting for ToD facility with smart meter / smart grid, the additional rebate of 2% shall be allowed on the additional consumption i.e., consumption over and above its consumption during the corresponding period of the previous year, except for Load enhancement cases during the year. In case the Discoms fail to provide smart meter / smart grid within two months of receipt of Order, the consumer / industry association may opt for self execution to avail the concession provided under ToD tariff.

The Discoms are directed to submit a comprehensive proposal for ToD tariff including night time concessional tariff in order to utilise the surplus power available to them so as to reign in the trading losses in disposing of the surplus power during off – peak hours / seasons.

The DISCOMs are directed to provide the rebate on the current billing cycle of the respective consumer. There should not be any arrear in respect of such rebate, pending for settlement. In case of arrears of such rebate, the responsibility of the concerned officer/official shall be fixed and the consumer shall be given the rebate along with interest @ 9% p.a.

DISCOMs are advised to popularise ToD scheme promoted by GoI within the consumers in their area of supply so that maximum consumers avail this benefit, thereby reducing the burden of Surplus Power.

Chapter 8

DIRECTIVES

The Commission has reviewed the directives issued to the Petitioner and point-wise observations on the said directives and observes as under.

- 1) The Commission in its Tariff Order dtd. 15/11/2018 had directed the Petitioners regarding engaging third party for authenticating the AP sales. Accordingly, DHBVNL & UHBVNL have submitted as follows:

UHBVNL

"It is submitted that all AP feeder meter are being provided with AMR metering facility and the energy received on AP feeders shall be recorded through AMR itself. However, as per the direction of the Haryana Government, UHBVN has already taken one feeder from each circle to study the AP sales data and other related parameters. Thereafter, based on the outcomes the above study a plan for authentication of AP sales and supply hours will be worked out by the DISCOMs."

DHBVNL

"It is submitted that as per the directions of Hon'ble Commission, the process for engaging Third Party firms for this purpose would be initiated shortly. "

In view of above, the Commission directs the Petitioners to submit detailed report indicating cost-benefit analysis for engaging such party in this regard within 1 month from the receipt of the Tariff Order. Further, DISCOMs are directed to meter all agricultural connections.

- 2) The DISCOMs are directed to coordinate with Haryana Roadways, Municipal Corporation, Haryana Tourism, PWD (B&R), Court/District Bar Associations etc. for electricity connection on single point supply and further explore the possibility of providing the facility of E-charging station on bus stands / Petrol pumps, Haryana tourism complex, Court/District Bar Associations etc.
- 3) The Discoms, in line with the HERC DSM Regulations, are directed to identify

- DSM programmes / plan and submit the same for consideration of the Commission.
- 4) The DISCOMs are directed to submit half-yearly report of progress made under UDAY scheme.
 - 5) DISCOMs shall submit a complete action plan with target dates for introduction of new metering technologies such as smart pre-paid meters/smart meters for different classes of consumers by 31st Aug. 2019. Such meters shall be installed mainly in the Rural areas/high theft prone areas.
 - 6) AP consumers whose annual income other than Agriculture is in excess of Rs. 20 lakh may be requested to voluntary Give-up the subsidy on the electricity consumed at tubewells so as to reduce the RE subsidy payable by the State Government which has reached an unsustainable levels. DISCOMs are advised to find out such consumers and host the list on their website. Further, DISCOMs to ensure wide publicity of such campaign.

The Tariff and charges for Distribution & Retail Supply of electricity in Haryana by the distribution licensees i.e. UHBVNL & DHBVNL as well as CSS and Additional Surcharge as determined in the present Order shall be applicable from 01.05.2019 and shall remain effective until these are revised / amended by the Commission.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 7th March, 2019

Date: 07.03.2019
Place: Panchkula

Pravindra Singh Chauhan
Member

Jagjeet Singh
Chairman