



ENEDIS
L'ELECTRICITE EN RESEAU

Enedis - company overview



What is Enedis?

Subsidiary of the EDF Group

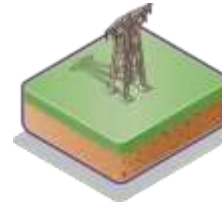


Independent DSO

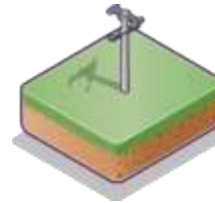


A few general information

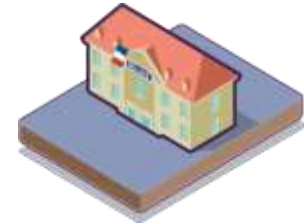
- TSO (63, 90, 225, 400kV)



- The French distribution network is owned by local authorities



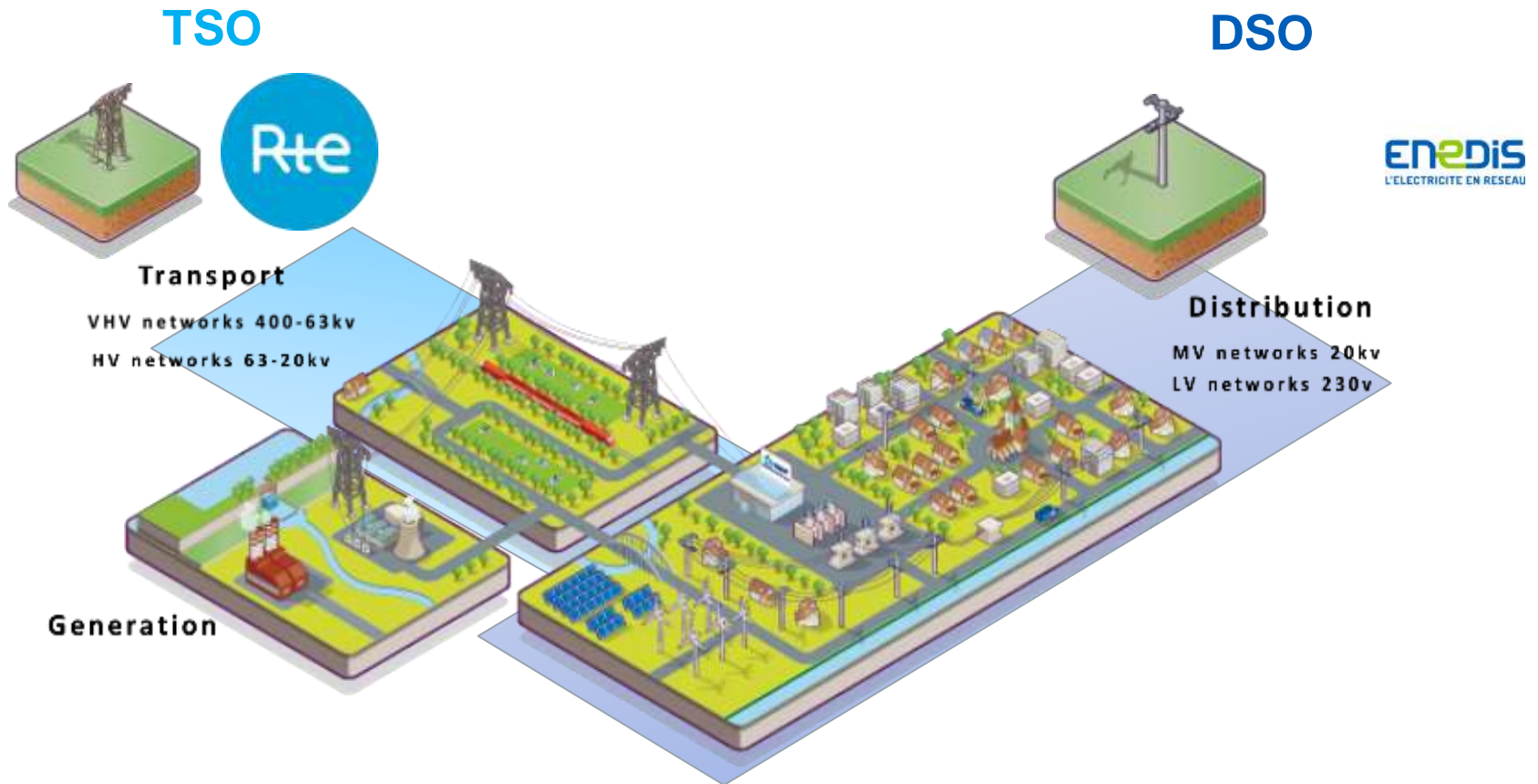
- Autorités concédantes / concessionnaire



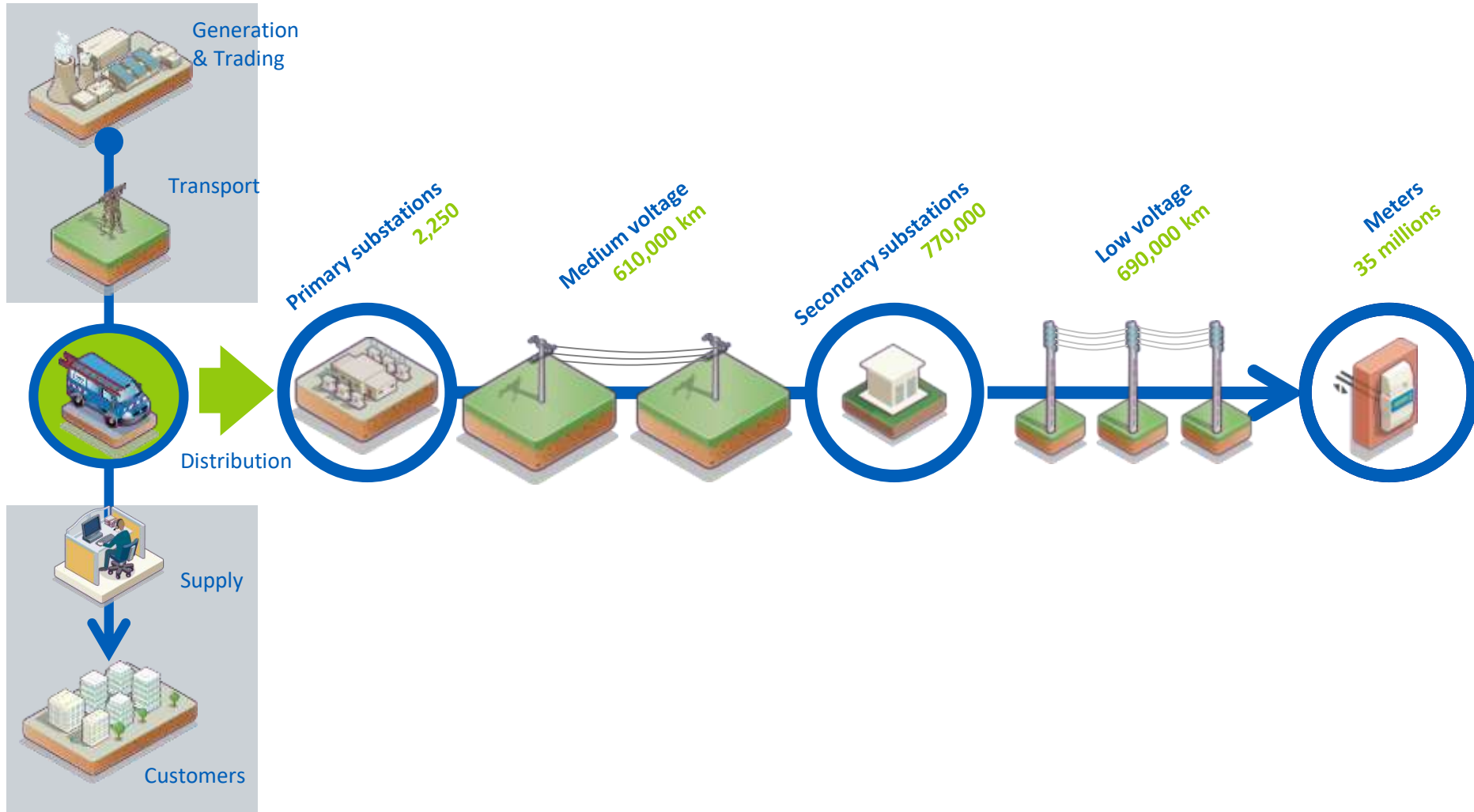
- Enedis: 95% of the French distribution network
Enedis



The French electric systems and operators



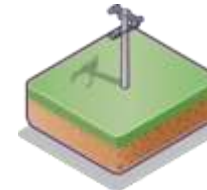
Enedis manages the french distribution network



Enedis manages the French distribution network



- 38,000 Employees
- 35 millions Customers
- 1.3 million km of network
- 3 billion € investment
- 11 million field-operations



Enedis's governance

EXECUTIVE COMMITTEE



President of the executive committee
appointed by the Supervisory Board

25 Direction-regions

38 000 employees



Supervisory Board
15 members appointed or
elected for five years

8 Members
appointed by the General
Assembly

1 Government Representative
appointed by decree
1 representant of local/regional
authorities appointed by decree

5 Employee representatives
elected by employees

Organization is based on an operation competency scheme



Specialised units in region

- 25 regional units
- Network & Assets units (ACR, BEX, 7CAD...)
- Territory Direction (département)

- 24 Customers Suppliers
- 8 Support Logistic Units

Five National Units

Supply chain, Account (UCN), Purchase (UOA), IT (UOI), Training (UOF)



Electricity system and supervision

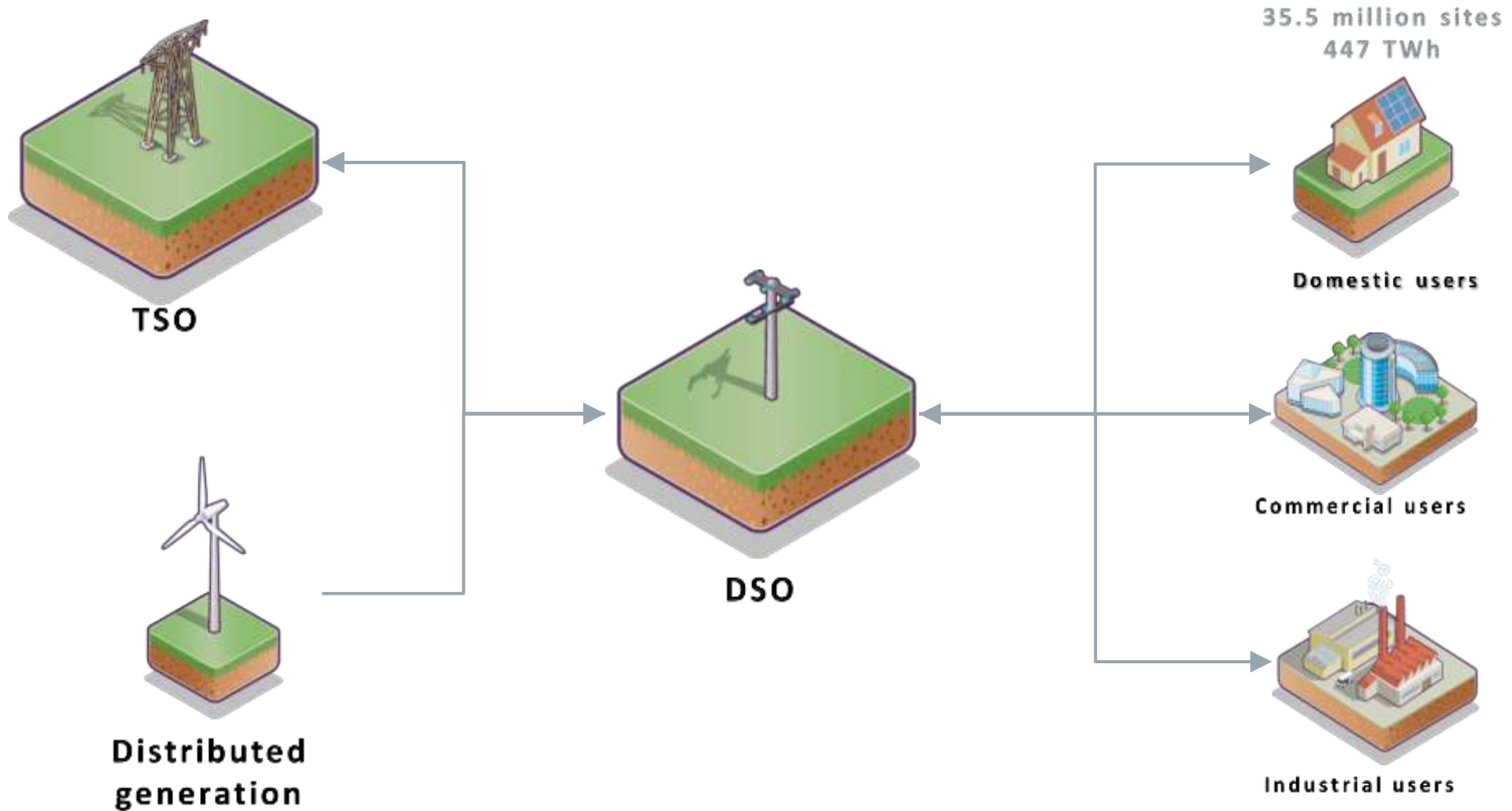
- 1- The French electricity market
- 2 - Enedis relationships with the French State
- 3 - The energy regulation commission (CRE)
- 4 - Tariffs principles
- 5 - Electricity distribution concessions



01

The French electricity market

Electricity distribution in France



Distribution networks

1st DSO in size in Europe



MV 610 000 km



LV 690 000 km

Enedis is an unbundled company:
Since 1st January 2008



ENEDIS
L'ELECTRICITE EN RESEAU

It is Mature with a moderate growth rate:

Below 2%

Enedis does not own the network:

Assets are property of local authorities

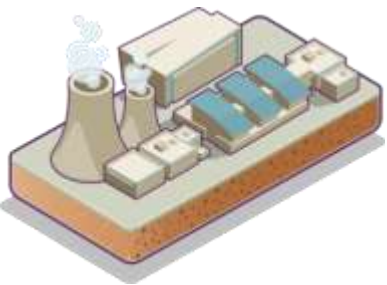


Excluding primary substations



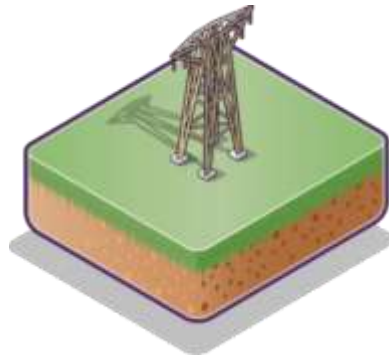
The rules of the game

Open to
Competition

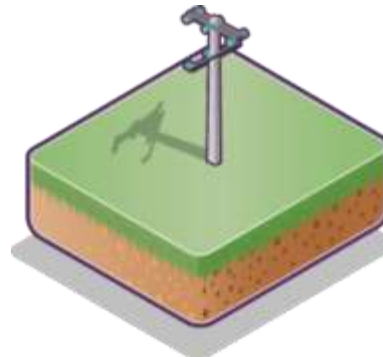


Production

REGULATED



TSO



DSO

Open to
Competition



Supply

Key Dates

1946

EDF

200 private power companies have merged to rebuild electricity system after WW2



2004

RTE

Creation of a specific legal structure and EDF Group subsidiary to manage transmission system



2005

EDF SA

EDF privatisation







2008

Enedis

Creation of a specific legal structure and EDF Group subsidiary to manage distribution



The opening of the electricity market

			Number of sites	Market share
1999	Major industrial customers (over 16 GWh per year)		1300	30%
2003	Average size industrial customers (over 7 GWh)		3500	37%
2004	All professional customers		4,5 million	70%
2007	All private customers		30 million	100%

A market open to competition



BtoB only





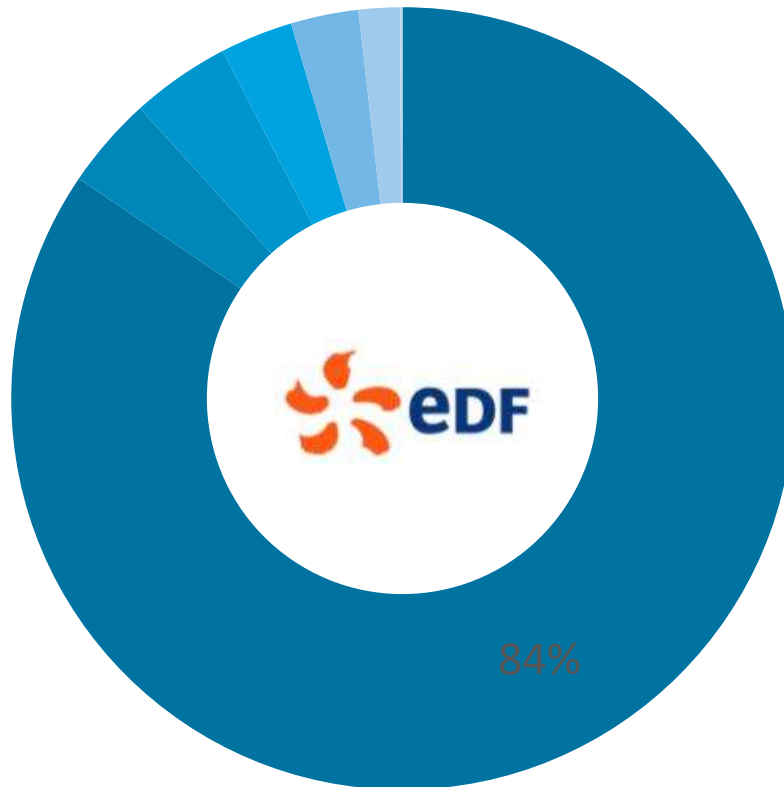
02

Enedis's relationships with the French State

The French State : major shareholder

Relationship with Ministries

The French State : major shareholder



- State
- Europe institutional (excluding France)
- Worldwide institutional (excluding Europe)
- France institutional
- Individual shareholding
- Shareholders employees
- Self shareholding

As a consequence, the State has 1 representative at the board of Enedis



Relationship with Ministries

- Enedis has a small team that coordinates relationships with ministries. The staff of those ministries are in charge of preparing laws and decrees.
- Before being published, decisions are discussed with experts working for Enedis. A wide variety of topics are discussed : smart grids, smart metering...

Relationship with Ministries

Enedis has developed relationships with all ministries making decisions related to its activity





03

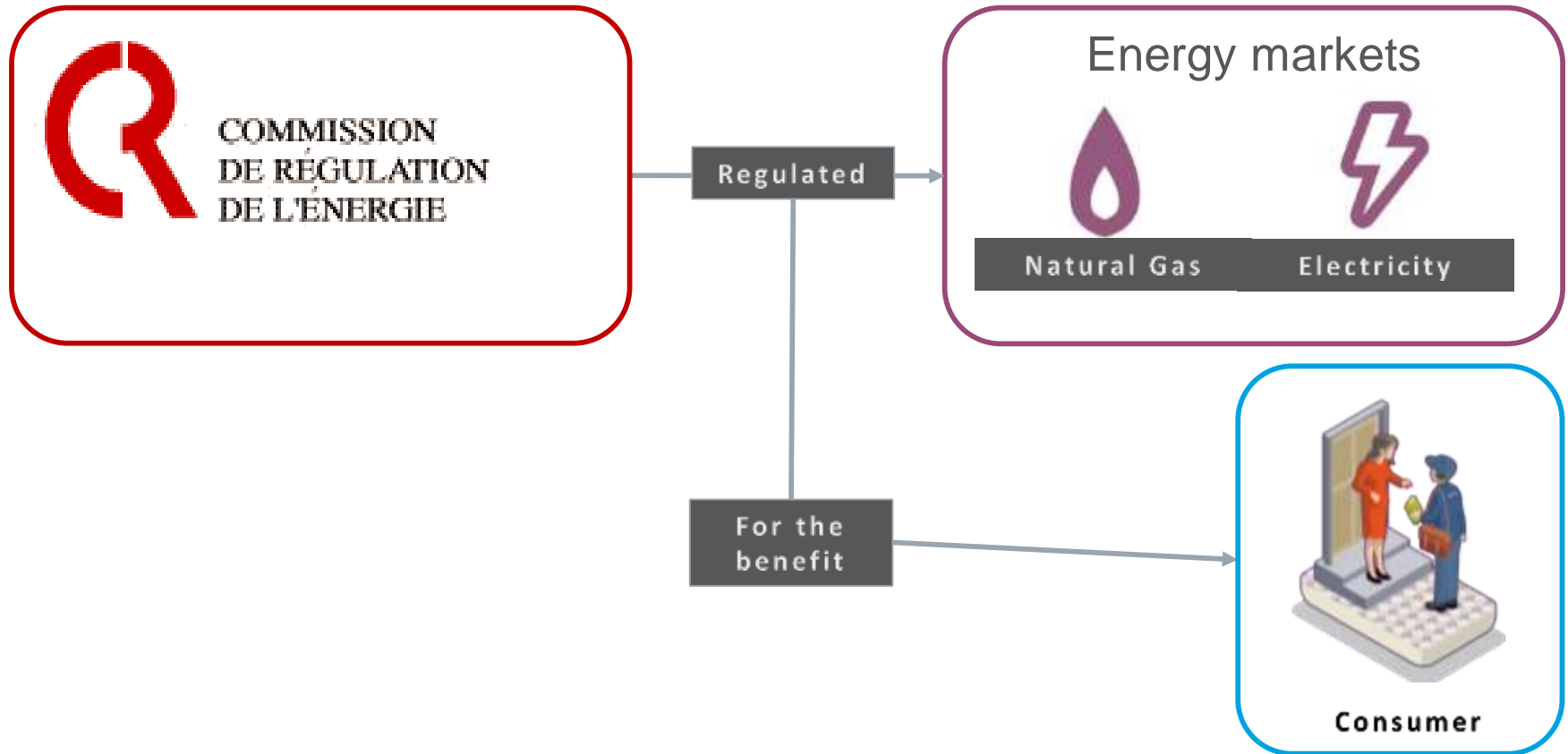
The energy regulation commission (CRE)

What is CRE?

How is it governed ?

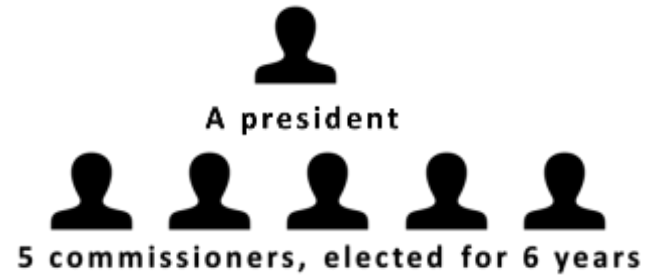
Regulator's Missions

The energy regulation commission (CRE)



How is it governed ?

Board



Commissioners must be appointed according to their specific skills regarding :



- Protection of personal data



- Consumer protection and help for vulnerable consumers



- Local public services



- Renewable energy and energy conservation



- Non interconnected-zones (Corsica and overseas territories)



The Commission



**Jean-François
CARENCO**

President
Appointed by the President of the Republic for a term of 6 years (ending February 2023).



**Christine
CHAUVET**

Commissioner
Appointed by the President of the Senate for a term of 6 years (ending January 2021).



**Catherine
EDWIGE**

Commissioner
Appointed on proposal of the Ministry of the overseas territories for 6 years (ending February 2023).



**Jean-Laurent
LASTELLE**

Commissioner
Appointed by the president of the National Assembly for a term of 6 years (ending June 2023).



**Jean-Pierre
SOTURA**

Commissioner
Appointed by the President of the Republic for a term of 6 years (ending March 2019).



**H el ene
GASSIN**

Commissioner
Appointed by the President of the Republic for a term of 6 years (ending March 2019).

Organization : committee for dispute settlement and sanctions



- ▶ This committee was established by the law of 7 December 2006. It is composed of 4 members : two state councillors appointed by the vice-president of the council of state, and two councillors appointed by the chief justice.

They are appointed for 6 years and their contract can not be renewed.

- ▶ 98% of disputes are related to network access conditions.

Regulator's Missions

Regulating electricity networks



Regulating the electricity market



Regulating electricity networks

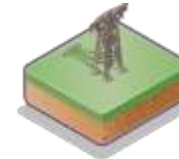
Guaranteeing the right of access to public electricity grids



Ensuring the independence of system operators



Producer



TSO



DSO



Supply



04

French network tariffs

Principles

Incentive regulation

French network tariffs – Principles



CRE sets the tariffs for the use of public electricity grids, and related services to the ministers. Government can stop new tariffs from being implemented if they do not comply with the State energy policy..

o

Two contractual schemes exists

- Client paying network access through its supplier (99% of clients)



Client paying network access directly to Enedis, generation and supply to its supplier (1% of clients)

Guiding principles are the following :

- The network tariff covers the costs of transmission and distribution
- It is unique on the French territory : tariff has no geographical
- It is based on a postage stamp rate : tariff is not distance-related
- It applies to all network users, except generators
- It does not include connection charges and extra services which are billed separately

French networks tariffs – principles



<p>Fixed for:</p> <p>4 years</p>	<p>Increase every years with :</p> <p>Inflation</p> 	<p>Costs include</p> <ul style="list-style-type: none">• Network• Metering• Overheads 	<p>Tariffs structure includes :</p> <ul style="list-style-type: none">• Flat rate• Variable Feed <p>depending on consumption</p>
<p>Price can be differentiated according to time or season</p>	<p>“Regulation account for costs and incomes”</p> <p>CRCP</p>	<p>such costs correspond to those of an</p> <p>efficient network operator</p>	

French network tariffs – Incentive regulation

The aim of incentive regulation is to ensure DSOs offers the best service at the lowest cost.

Encompassed Costs

+

Capital charges

+/-

Incentive Regulation

=

Regulated revenue

Transmission fees, Purchase of network losses, Outsourced expenses, Fees to local authorities, Taxes, Manpower

Regulated Asset Basis X 2,6%

+

Owned Regulated Asset Basis X 4,1%

+

Asset depreciation & Reserve for renewal

+

Debt interest (if any) X 3,1%

/

**Assessed Quantities
(kVA, kWh)**

=

Tariffs

French network tariffs – Incentive regulation

The aim of incentive regulation is to ensure DSOs offers the best service at the lowest cost.

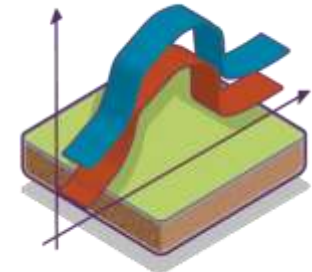
Quality of service



Efficiency



Quality of distribution





05

Electricity distribution concessions

Electricity distribution concessions



**Electricity distribution is
based on a concession
system**



**Concessions are granted
either by towns/cities, or
groups of towns**



**+ 525 electricity
distribution concession**

Institutions



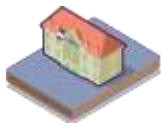
French State

- Sets objectives (i.e. quality of distribution) through legislative framework
- Is shareholder of the company



CRE

- Guarantees the right of access to public electricity networks
- Sets the tariffs for the use of the grids and related services
- Ensures independence of system operators



Local Authorities

- Own distribution networks
- Sign concession contracts with concession holders (i.e. Enedis)
- May act as owner engineers
- Monitor the activity of the concession holder

EDF group



EDF

- Parent company
- Supplier



TSO

- Transmission system operator



Non-state players



Clients

- Expect high level quality of service and fair prices
- Pay the network operator for services provided



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