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

Company presentation of Enedis and its position - 22/09/2017
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

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

25 Direction-regions

38 000 employees

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)

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

TSO

Distributed generation

DSO

35.5 million sites
447 TWh

Domestic users

Commercial users

Industrial users

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# Distribution networks

<table>
<thead>
<tr>
<th>1st DSO in size in Europe</th>
<th>Enedis is an unbundled company: Since 1st January 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>MV 610 000 km</td>
<td></td>
</tr>
<tr>
<td>LV 690 000 km</td>
<td></td>
</tr>
</tbody>
</table>

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
Electricity distribution in France
The rules of the game

Open to Competition

Production

REGULATED

TSO

DSO

Open to Competition

Supply

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# Key Dates

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1946</td>
<td>EDF 200 private power companies have merged to rebuild electricity system after WW2</td>
</tr>
<tr>
<td>2004</td>
<td>RTE Creation of a specific legal structure and EDF Group subsidiary to manage transmission system</td>
</tr>
<tr>
<td>2005</td>
<td>EDF SA EDF privatisation</td>
</tr>
<tr>
<td>2008</td>
<td>Enedis Creation of a specific legal structure and EDF Group subsidiary to manage distribution</td>
</tr>
</tbody>
</table>
The opening of the electricity market

<table>
<thead>
<tr>
<th>Year</th>
<th>Category</th>
<th>Number of sites</th>
<th>Market share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>Major industrial customers (over 16 GWh per year)</td>
<td>1300</td>
<td>30%</td>
</tr>
<tr>
<td>2003</td>
<td>Average size industrial customers (over 7 GWh)</td>
<td>3500</td>
<td>37%</td>
</tr>
<tr>
<td>2004</td>
<td>All professional customers</td>
<td>4.5 million</td>
<td>70%</td>
</tr>
<tr>
<td>2007</td>
<td>All private customers</td>
<td>30 million</td>
<td>100%</td>
</tr>
</tbody>
</table>

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A market open to competition

BtoB only

- alterna
- direct énergie
- énergem
- lampiris
- proxelia
- ENEDIS
- ENGIÉ
- Enel
- ALPIQ
- VATTENFALL
- Edenkia
- LUCIA
- EDF
- enel
Enedis’s relationships with the French State

The French State: major shareholder

Relationship with Ministries
The French State: major shareholder

- State: 84%
- 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
The energy regulation commission (CRE)

What is CRE?

How is it governed?

Regulator’s Missions
The energy regulation commission (CRE)

Energy markets

Regulated

Natural Gas  Electricity

For the benefit

Consumer

Company presentation of Enedis and its position - 22/09/2017
How is it governed?

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).

Hélène GASSIN
Commissioner
Appointed on proposal of the Ministry of the overseas territories for 6 years (ending February 2023).
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 states 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 cannot 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.

Two contractual schemes exist
- 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

<table>
<thead>
<tr>
<th>Fixed for:</th>
<th>Increase every years with:</th>
<th>Costs include</th>
<th>Tariffs structure includes:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4 years</strong></td>
<td><strong>Inflation</strong></td>
<td><strong>Network</strong></td>
<td><strong>Flat rate</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Metering</strong></td>
<td><strong>Variable Feed</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Overheads</strong></td>
<td>depending on consumption</td>
</tr>
</tbody>
</table>

Price can be differentiated according to time or season

“Regulation account for costs and incomes”

CRCP

such costs correspond to those of an efficient network operator
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

/ Assessed Quantities (kVA, kWh) = Tariffs

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

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**EDF group**

- **EDF**
  - Parent company
  - Supplier

- **TSO**
  - Transmission system operator

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**Non-state players**

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

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Direction de la Régulation et des Affaires Juridiques

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Retrouvez-nous sur Internet

[logos de enedis.fr, enedis.official, enedis.officiel, YouTube]

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