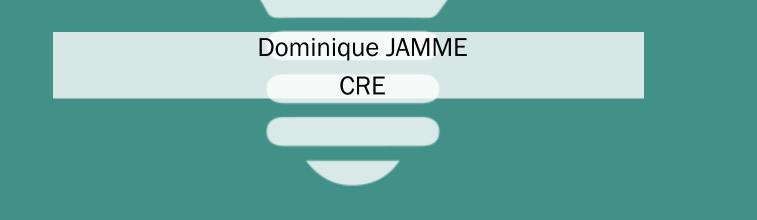


10 AVRIL 2018

Governance of investments in infrastructure Energy networks in France





General context

Investment regulation in France

GENERAL CONTEXT (1/2)

<u>Unbundling / independence of TSOs/DSOs</u>

Energy transition + digital transformation

- Relocalisation of grid scale production (closure coal, nuclear, new offshore wind, etc)
- $_{\odot}\,\text{Decentralization}$ of production and flexibility
- Increasing role of demand: demand response, storage, selfconsumption, EV, etc
- o Stabilisation of electricity demand
- Decrease of gas demand: Risk of stranded costs

=> Acceleration of the pace of change

GENERAL CONTEXT (2/2)

Market value of TSOs/DSOs : RAB x 1,2 – 1,3

 \odot Value creation for shareholders by increasing the RAB

=> <u>« biased » incentive to invest</u>

Examples

- $\,\circ\,$ TSOs are generally very « pushy » for new regulated interconnexions
- European TSOs/Dsos are willing to own electricity storage infra, whereas the « obvious » business model for storage is to add up different revenue streams, which network operators are not entitled to do
- $\circ_European$ policy :
 - Favorable to new interconnections (Projects of common interest, European subsidies, etc)
 - Clean energy package : debate on the ownership of storage facilities

INVESTMENT REGULATION IN FRANCE (1/4) CONTEXT

TSOs/DSOs in EVI

- $\circ\,$ RTE (50,1% EDF), Enedis (100% EDF)
- GRTgaz (75% Engie), GRDF (100% Engie)
- One exception : Terega (gas TSO) in O.U. statute

National perequation of distribution tariffs

 $\,\circ\,$ 100% electricity, 96% gas

First stages of market opening : the perceived risk was underinvestment

- $\circ\,$ National regulation has been favorable to investment
- \circ Results in gas:
 - all interconnexions have been reinforced (Belgium, Germany, Spain)
 - 2 LNG terminals built (Fos, Dunkirk)
 - from 5 market zones in 2005 to 1 in 2018

INVESTMENT REGULATION IN FRANCE (2/4) PRESENT REGULATION

• <u>General principles of regulation :</u>

- Incentive regulation for Opex/quality of service/losses
- \circ Rate of return for Capex
- Regulatory period 4 years

<u>Regulatory rules for Capex</u>

- Reference costs for investments in distribution (elec and gas)
- Audit for big transmission projects (> 30 M€ elec, > 20 M€ gas)
- $_{\odot}$ Totex regulation for real estate, vehicles, IT

To avoid inefficient arbitrages opex/capex

INVESTMENT REGULATION IN FRANCE (3/4) CHALLENGES AHEAD

How to avoid over-investment?

The selection of projects must be efficient

- Interconnexions : must rely on robust cost-benefit analyses (Ex : gas interco France-Spain = what shouldn't be done)
- Other projects: regulator must better understand TSO's decision process without going into micro-management
- \odot TSOs/DSOs must choose flexibility provided by third parties when it is more efficient than investments in the grid
- $\,\circ\,$ Distribution: local autorities role / tariff perequation

The execution of projects must be efficient

• Reference costs for transmission projects?

• Extension of the scope of Totex?

INVESTMENT REGULATION IN FRANCE (4/4) CHALLENGES AHEAD

How to deal with the relocalisation of production?

- <u>Unbundling: production and network investment processes</u> are separate. Need to coordinate decisions in order to minimize global costs?
 - o_Some decisions are part of public policies:
 - Rythm and choice of nuclear plant closure
 - Tenders for renewables, etc
 - ${\rm \circ}$ When decisions are made by private parties:
 - Economic signals via connection tariffs or participation to network reinforcement costs?
 - Locational signals?

THANK YOU FOR YOUR ATTENTION

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