



COMMISSION  
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# Governance of investments in infrastructure Energy networks in France

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# AGENDA

- General context
- Investment regulation in France

# GENERAL CONTEXT (1/2)

- Unbundling / independence of TSOs/DSOs
- Energy transition + digital transformation
  - Relocalisation of grid scale production (closure coal, nuclear, new offshore wind, etc)
  - Decentralization of production and flexibility
  - Increasing role of demand: demand response, storage, self-consumption, EV, etc
  - 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

- Value creation for shareholders by increasing the RAB

=> « biased » incentive to invest

- Examples

- 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

- 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

- 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

- 100% electricity, 96% gas

- First stages of market opening : the perceived risk was underinvestment

- National regulation has been favorable to investment
- 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

- **General principles of regulation :**

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

- **Regulatory rules for Capex**

- Reference costs for investments in distribution (elec and gas)
- Audit for big transmission projects (> 30 M€ elec, > 20 M€ gas)
- 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
- TSOs/DSOs must choose flexibility provided by third parties when it is more efficient than investments in the grid
- Distribution: local authorities 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 ?

• Unbundling: production and network investment processes are separate. Need to coordinate decisions in order to minimize global costs?

- Some decisions are part of public policies:
  - Rythm and choice of nuclear plant closure
  - Tenders for renewables, etc
- 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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