The liberalisation of the electricity market in France

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Electricity – state of market opening

Regulated prices: now ≈40% of the volumes sold (vs. 70% in mid-2015)

Market share of incumbent supplier:
- now ≈75% on average (vs 85% in mid-2015)
- ≈90% for residential consumers
- ≈60% for big consumers

As a comparison, situation on the gas market:

Regulated prices: now ≈15% of the volumes sold

Market share of incumbent supplier:
- now ≈50% on average
- ≈80% for residential consumers
- ≈30% for big consumers
The opening of the French electricity market was historically a challenge

- A dominant actor on the production and on the supply side, with access to competitive generation (nuclear plants)

- Depending on wholesale prices, alternative suppliers were or were not able to make competitive offers

- Difficulty to explain to consumers the added-value of market liberalisation

- This showed the need for structural reforms of the French electricity market, which have been implemented since then, to:
  - Allow all consumers to continue to benefit from the competitiveness of existing nuclear power plants, whatever their supplier;
  - Allow alternative suppliers to compete with the incumbent supplier;
  - Partially phase-out regulated tariffs and reform their construction.
Regulated access to nuclear electricity

- Regulated access to nuclear electricity (ARENH) for alternative suppliers
  - Aim: guarantee that consumers will continue to benefit from the competitiveness of the historic nuclear fleet, whatever their supplier
  - Allow alternative suppliers to compete with EDF
  - Asymmetric regulation
  - Price reflective of nuclear production costs
  - 42€/MWh since January 2012

- Demand for ARENH: around 60-70TWh/yr between 2012 and 2014, now close to 0 in a context of low wholesale prices.

- ARENH remains an option for the future (guarantee for alternative suppliers that they will still be able to compete with EDF in case wholesale prices increase).
Phase-out of regulated tariffs, except for small consumers

- Regulated tariffs for big and medium-sized consumers (>36kVA) have been phased out:
  - Effective 31 December 2015
  - 400,000 consumers, ≈120TWh

- Small consumers still have a choice between regulated tariffs and market offers

- New methodology for regulated tariffs to ensure their contestability:
  - Formerly, regulated tariffs used to be calculated on the basis of EDF’s accounting costs, contestability not systematically ensured, depending on wholesale prices
  - New methodology: replicates the formation of market offers: price of energy (ARENH / market), plus transmission/distribution costs, plus commercial costs, plus margin. => ensures contestability

- Regulated tariffs still useful for the time being for small consumers to help build confidence in the market.
The market remains concentrated but the situation is improving

- As of 31 December 2015, 4.7 million sites have opted for a market offer (60% in terms of volumes)
- Market share of incumbent supplier now 75% (vs. 85% one year ago)
- More competitive market offers (-10% vs. regulated tariff) as the fall of wholesale prices has created significant economic space for alternative suppliers
- New (electricity) suppliers are entering the market: TOTAL, ENI, Hydroption, …
- 50,000 to 70,000 supplier switches each month since the beginning of 2015 (vs. 20-30,000 two years ago)
- Collective tenders organised by consumer associations to get better prices
- Liquidity on wholesale markets is quickly improving. Volumes have increased by 70% in 2014 and 60% in the first half of 2015.
Ensuring security of supply in a liberalised market: peak demand remains an important challenge for France

- Peak load has grown 2.5 times as fast as average load between 2002 and 2014.
- Variability of peak demand: $\Delta=20\text{MW}$ between 2012 and 2014, corresponding to 40 CCGT!
- France represents half of EU thermosensitivity: $-1^{\circ}\text{C} \Rightarrow +2400\text{MW}$
Capacity mechanism: ensuring security of supply in a liberalised context

- **RTE adequacy forecast:** reduced margins at peak load, growing uncertainties linked to the possible decommissioning of coal/gas power plants. Fuel-oil peak power plants will be closed by 2018.

- **No guarantee that the energy-only market will fulfill the standard fixed by the government** (loss of load expectation $\leq$ 3 hours)
  - In the context of the opening of the market, need to redefine the responsibilities of each market player regarding security of supply.

- **At current wholesale prices**, no power plant can cover their costs $\Rightarrow$ no investment is possible, and some existing plants could be mothballed.

- Scarcity pricing could help, but doubts it will –in itself- be sufficient to ensure security of supply.

- France is planning to introduce a capacity mechanism.

- Discussions underway with DG COMP in the context of a in-depth inquiry.
The mechanism is a decentralised market, relying on three pillars:

- Obligation for all capacity owners in metropolitan France to commit on their forecasted availability during « peak periods » (3 years in advance for existing capacities);
- Obligation for suppliers to own capacity certificates corresponding to the consumption of their own clients located in metropolitan France during “peak periods”, also taking into account an extreme reference temperature and the contribution of interconnections;
- Exchange of “capacity certificates”, beginning 4 years ahead of delivery year.

The elaboration of the rules paid careful attention to five main objectives:

- Equal treatment of each stakeholder
- Peak demand management
- Participation of demand response
- Competition issues, in a concentrated market
- Compatibility of the mechanism with the IEM

No impact on merit order (capacity certificates are traded apart from the energy market), nor on cross border energy flows
Measures to enhance flexibility

- New framework to develop demand side response (DSR):
  - Regulatory/technical barriers to the participation of DSR in system services / balancing / day ahead market have been removed
  - Development of independent DSR operators (Energy Pool, Smart Grid Energy, Actility…)
  - Demand response activation does not require the consent of the supplier any longer

- New support scheme for renewables (instead of feed-in tariffs)

- Continuous development of interconnections
  - RTE manages 47 interconnections with neighbouring countries, for an average interconnection capacity of 14 GW; potentially 10 additional GW in the 10 years coming.

- Deployment of smart meters for small consumers (to be completed by 2021)
The energy transition as a chance for further market opening

- **On the generation side:**
  - By 2030, electricity generation in France will have a new face: 50% of nuclear and 40% of renewables => an opportunity for new players.
  - New framework that allows demand-side response to compete with production on all markets (system services, balancing, day ahead), and facilitates the emergence of independent DSR operators.

- **On the supply side:**
  - Starting from this year, deployment of the « Linky » smart meter (to be completed by 2021)
  - More differenciation between suppliers (smart pricing, remote displays, new services)