Internal Energy Market

Filip Černoch
cernoch@mail.muni.cz

Is energy a „special“ commodity?

- A crucial imput to the economy (strategic in economic and military terms)
- A highly capital intensive (entry barriers, difficult operation)
- Dependency on fixed networks (natural monopoly)
- A limited number of suppliers

= Tendency to vertical and horizontal monopolisation – substantial economies of scale, benefits of co-ordination of production, transmission and distribution → political leverage.

Traditional (pre-liberalization) paradigm

- Model of govt-energy industry relations, that emphasizes stability, reliability of supply, and public service, it is a model of technical organization involving the central control over a synchronized network.
- The certain way of organizing government relations with electricity and gas industries, a set of ideas about the scope of competition and the appropriate legal and institutional methods to achieve public policy aims.
- Role of a consumer is limited

Traditional (pre-liberalization) paradigm

- Essential characteristics
  - Exclusive rights to build and operate networks
  - Closure to competition
  - Detailed regulation
  - Remuneration based on historical costs
  - Centralized control over planing
  - Limited participation of consumers

Ownership model of utilities

State-owned enterprises (a separate part of the govt, no independent regulator)

- Taxpayers bear most investment risks
- Poor accountability to consumers or shareholders, low sensitivity to customers needs, limites incentives to improve services
- Different govt arms engaged in business
- Low sensitivity to customers needs
- Limited incentives to engage in technology innovation
- In growing economies govts with no sufficient resources

Ownership model of utilities

Privately owned, regulated monopolies

- Over-investment in a rate base
- Security of supply
- Risks borne by suppliers
- No customer choice
- Price disparities
- Price subsidies
- Manipulation by politicians
- Nuclear energy

Liberalization

Economic liberalization: refers to fewer govt. regulations and restrictions in the economy in exchange for greater participation of private entities. Arguments for economic liberalization include greater efficiency and effectiveness that would provide greater profit for everybody. Thus, liberalization in short refers to the removal of controls, to encourage economic development.

- Advantages of liberalized (= competitive) market:
    - Allocative efficiency – the resources invested in direction preferred by consumers. To reduce the risk of low or non-existing demand.
    - Innovation - adjustment to changes of consumer preferences.
    - Cost reduction – to keep the costs and prices down.
    - Progress – country commited to competition enjoys advances in efficiency and utilisation of resources.

Drivers of change in regulatory paradigm

- Ideology and politics

- Sympathetic regulators
- Technology (gas turbines)
- Public debt
- Inadequate investment in infrastructure
- Poor accountability
- Decentralized decision-making

Liberal paradigm

- Liberal paradigm stresses a greater reliance on markets. It sought to introduce competition whenever possible, encouraging openness, decentralized production with network access, and profit based on the market prices, not costs (regulation for competition)

- Some basic characteristic:
    - Separation of activities to facilitate the competition (unbundling)
    - Freedom of entry and investment into competitive activities, instead of a centrally-planned approach
    - Freedom of contract and competitive formation of prices
    - Access to the network and infrastructure
    - Supervision of the model by an independent regulator

Liberalization – pros and cons

- Prices are set by the market and competition drives prices lower vs market pricing (manipulations with prices)
- Prices are ´real´, reflects the costs, demand and supply vs. inability of some customers to buy them (public service obligation)
- Stress on profit (effective alocation of sources) may weaken the incentives to some investments vs. long-term stability, reliability and security of supply
- Sources are not wasted on non-profitable projects vs. private utilities don´t reflects the interests (social, environmental) of state.

Specific features of gas and electricity industry

- Network (grid) = natural monopoly
- Some specific characteristic of electricity:
    - Lack of storage potential
    - High cost of outages
    - Fluctuation
    - Lack of import dependence (in the EU) – but interconnectors are poor and missing
- Some specific characteristic of gas:
    - Geopolitics
    - Gas chain
    - Storage and timing of actions