The electricity market in Germany: RegTP or REGTP?

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Overview

- Institutional background
  - The road to rTPA and REGTP
- What happened?
  - The margin squeeze
- What can be expected next?
  - Competition, concentration and unbundling
  - New entry
    - CO2 prices as a capacity element?
- Concluding remarks
Institutional background

- **Energy Act 1998**
  - 100% end-user eligibility
  - low degree of unbundling, while high degree of V.I.
  - negotiated third party access (nTPA)
- **Competition Law / Federal Cartel Office**
  - essential facilities doctrine (clause 19.4.4):
    - access to networks
      - non-discriminatory, and,
      - fair and reasonable charges
- **nTPA**
  - Association Agreements: VVI, VVII, VVII+
  - soon VVIII?
Institutional background (cont’d)

• Cartel Office
  • Review of network access, April 2001
    • highly critical
    • expresses concern about ex-post control

• Ministry of Economics
  • Monitoring report: Aug. 2003
    • prepares way to regulated-TPA
    • nTPA in electricity “works”, but access charges very high
    • nTPA in gas disaster

• Energy Act 2004:
  • implementing the EU Directive 2003
  • rTPA as from July 2004 plus REGTP
Institutional background (cont’d)

• Energy Act 2004
• Legal and management unbundling as minimally required by EU directive
• Regulated-TPA
  • ex-ante approval of the method to calculate charges (thus control of level is ex post)
    • justified by existence of 900 network operators
  • following cost principles as in VVII+
  • basically RoR regulation (6.5%), but possibility for incentive regulation left open
What happened?

- VVI
  - very bad
- VVII
  - structure of network access (charges) good,
  - level left to network owners
- VVII+
  - following the 2001-Review of Cartel Office
  - self-regulation of level of network charges
  - allows comparison of network charges
What happened? - The margin squeeze

- Combination of
  - vertically integrated firms
    - i.e. network and competitive business
  - unregulated network charges

- leads to margin squeeze of competitive businesses
  - Violation of level playing field
  - Low competitive activity
  - Low entry activity
    - bad for investment
    - bad for security of supply
What happened? - wholesale prices (EEX)

Source: EEX
What happened? - End-user prices

Source: Eurostat
What happened? - Network charges

Averaged for different consumer profiles according to VDN. Post-VVII+
Source: VDN, various years.
What happened? - Network charges

• Some observations:
  • esp. LV very high
  • slightly decreasing LV, slightly increasing HV
  • large variation among network operators
    • spread smaller since VVII+
    • high prices go down, but low prices go up slightly (Growitsch/Wein, 2004)
  • LV networks owned by big four charged lower prices than independent networks
    • consistent with theory of regulatory threat
What happened? - The margin squeeze

- Mueller/Wienken (2003) calculate for Autumn 2002, that roughly 40% of dom. cust’s have lower than required minimal margin (i.e. sum of wholesale and retail).

Source: own calculation
What happened? - The margin squeeze

• Observation:
  • margins in wholesale and retail were very low,
  • then retail margin restored somewhat (as end-user prices went up a bit and wholesale price stayed low),
  • and meanwhile wholesale price goes up at expense of retail margin.

• New entry in generation almost none (except wind)

• Retail: Yello struggles; others (riva ares) gone
  • cum. switching rate 2003: 4.3% of households
What’s next? rTPA and REGTP

• REGTP
  • more than just a formality? Probably yes

• rTPA
  • ex-post control of ex-ante method
  • no regulatory gap (by mechanism)
  • hence typically cost-based regulation

• To be expected:
  • network charges should go down
  • competitive margins should increase
  • V.I. will become a problem
  • new entry?
Generation capacity and reserves

Source: Brunekreeft/Twelemann, forthcoming
Nuclear phase-out

Renewables

Renewables (% in TWh)

Source: Brunekreeft/Twelemann, forthcoming
Generation capacity

- Still sufficient capacity,
- .. but decreasing
  - security of supply is becoming an issue
  - lower excess capacity
    - reduction in competitive pressure
    - new entry
- What happens with nuclear?
  - Highly uncertain
- New renewables?
Investment

Source: Brunekreeft/Twelemann, forthcoming

In million euro

GB/TILEC/Jul04 19
ETS NAP

- German National Allocation Plan
- Free allocation of CO2 rights
  - incumbents & new entrants
  - old: historic emission
  - new: benchmarking with upper and lower limit
- free CO2 rights increase variable costs for all,
- but lower capital costs, and thus entry price
- Thus, CO2 price mimics capacity element for new plant
ETS and new gas

Source: Brunekreeft/Tweleman, forthcoming
Concluding remarks

- nTPA did not work
- rTPA likely
  - to improve competition
  - and to reduce prices
  - however, now high G-concentration and vertical integration will become a problem
- Regulation improves opportunities for necessary new investment
- ETS promotes competition (threat of new entry) and security of supply
- Institutional uncertainty should be reduced!