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Marekt Design and Capacity Instruments

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Agenda



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- A Dialogue
- Regulatory Objectives
- Capacity Elements in Today's Markets
- Problems of Capacity Mechanisms
- Conclusions



A Dialogue(1)

- *In a perfect world competitive energy-only markets will secure sufficient investment*
- But....
 - The inelastic demand produces major price spikes, which may not be sustainable politically or for regulators
 - Market players are risk averse, which increases demand for capacity but reduces supply
 - Price caps (sometimes well below VOLL) reduce return on capital for peaking capacity
 - Investors do not trust in stable regulation

A Dialogue(2)



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- *However...*
 - *In most markets we face a high level of concentration where oligopolists have an incentive to invest well beyond pure economics of individual projects*
 - *There exists a portfolio of power stations of different age; no investor in such a system invests in a station to run for 400 hrs.*
- *But...*
 - *More and more intermittent generation reduces the „residual demand“ on the electricity market*
 - *More volatility increases the risk for generators*
 - *Steeper load curves will even require higher price spikes*
- *However...*
 - *Do trust in sustainable regulation! Load serving entities procure most of their energy via forward contracts...price spikes are interesting for news papers but not so much for regulators*

A Dialogue(3)



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- But...
 - Why not remunerate capacity in a separate market as a means to indicate scarcity and trigger timely investment...“energy-only markets“ will not work in reality!
- *Would you mind proving that?*
- Etc. Etc....*
- Voice (Almost unknown)...
 - What about re-introducing franchise areas for retail markets...

Objectives of Capacity Mechanisms



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- Investment in new facilities
 - Spain, UK,...
- Bringing mothballed stations back into the market
 - Discussion in Nordic Market
 - SSRT (Suppl. Standing Reserve Tender) by NGT
- Participation of demand side
 - SSRT (Suppl. Standing Reserve Tender) by NGT



Regulatory Objectives

- „Cross Border Market Integration
 - Markt Coupling spreads more and more
 - Markets are still national (exception might be Germany/Austria)
 - Development of a Target Model
 - After many successes of Regional Initiatives it becomes clear that a common vision has to be elaborated
 - One critical point is how to incorporate network issues in wholesale markets (nodal, zonal, etc)
 - Increasing the size of the market and level as well as efficiency of usage of interconnection
- Capacity markets would have to be introduced on a European scale (except in quite isolated systems)!

Capacity Elements in Many of Today's Markets



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- Formal (insuring system security):
 - Capacity payments in balancing energy markets
 - Market makers in balancing energy markets
 - Capacity payments in control energy markets
- Informal (more medium to long-term):
 - „Sticky customers“ → enable long term contracts

Problems of Capacity Mechanisms



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- Regulator's Perspective
 - Heavy handed regulation in terms of NRAs having to set adequate level of capacity margin to be contracted, instead of the market
 - Question of responsibility and risk
 - In a non-coordinated world...problem of free-riding
 - Different effects on base-load and peak-load capacity, which in itself will make agreement very hard
 - Effect on forward price formation is not yet clear, i.e. on some 85% of the market
 - EU is just now working towards more demand responsiveness (smart metering,...)

Conclusions



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- L. De Vries:
 - „A limited degree of overinvestment“ better than service disruptions
 - The EU is moving towards a model of „organised disruptions“, i.e. of much more involvement of demand-side than in the past.
 - The evidence that investment is generally insufficient is not clear.
 - Markets today provide some capacity tools and incentives, which could be extended, if necessary.



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