Increased political focus on demand side flexibility

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Agenda

- Regulations in Norway – A brief description
- Increased political focus
- Why focus on demand flexibility?
- What is necessary to achieve demand response?
- Is regulation necessary?
- Preliminary conclusions
Regulations in Norway

- Compulsory hourly meetering of customers with an annual consumption exceeding 400 MWh, 100 MWh from 1 January 2005 - Cost covered by the GridCo
  - The GridCo may require hourly meetering of a customer, but must cover all costs
  - The customer may require hourly meetering, but must then cover all costs
- The GridCo shall offer interruptible transmission at reduced tariffs where...
  - Capacity conditions are such that there is a particularly high risk of disconnection of customer(s)
  - The customer has operational electric boilers with an optional fuel source available
- To achieve optimal utilisation of the network, interruptible transmission tariffs may be offered to consumers with reduced requirements as to regularity of supply
Increased political focus I


- The Minister’s answer to a request from the Parliament regarding development of regulations on tariffs and direct communication
  - No compulsory solution for all customers at this moment
    - Exploit the potential from the 60% with AMR first
    - Technology still under development
  - Only socio-economic profitable projects should be carried out
    - The decision-maker should pay the cost
    - Await for cost/benefit results from research

Treated by the Parliament 3rd December 2003

- Increased focus on AMR and Load Control is required
  - Labour-saving for the customers
  - More easy to implement models for differentiated prices
  - Investment savings – Reduction of peak loads

- If the research project shows good results...
  - All customers should be offered the technology
  - The Parliament will give it’s principled support to a further expansion of AMR and Load Control technology
Increased political focus II

  - The Minister’s statement to the Parliament regarding the power situation
    - The Government’s policy for reduced vulnerability because of water shortage will focus on ......
      - Increased demand side flexibility
        » New types of power purchase contracts
        » AMR and Load Control
        » More frequent metering and billing during strained water situations
  - To be treated by the Parliament 18th May 2004
Why focus on demand side flexibility?

- Customers’ perspective
  - Better information – Better data
  - Better choices
    - Cost minimization
    - Utility maximization

- Transmission and distribution companies’ perspective
  - Cost savings – O&M + Investments
  - Better tools for controlling abnormal situations

- System operators’ perspective
  - Cost savings – Balancing costs
  - Better tools for controlling abnormal situations

- Suppliers’ perspective
  - Reduced settlement risk – Better data
  - Product development – New types of contracts
What is necessary to achieve demand response?

- Technology
  - Communication System
  - Load Control System

- Information
  - Frequent metering data
  - Prices (network tariffs, power purchase prices)

- Motivation
  - Customers
  - Suppliers
  - GridCos
Is regulation necessary?

- Hopefully not!
  - Those who benefit should cover the costs
    - Customers, GridCos, Suppliers, System Operator
- Regulators’ major concerns are:
  - Efficient power markets
  - Efficient operations and development of grids
  - A reliable T & D system with an acceptable quality of supply
  - Tools for handling strained situations
- Regulations may be necessary if willingness to pay is less than costs
  - Large extent of external effects
  - Large extent of public goods
  - High degree of transaction costs (R. Coase)
Preliminary conclusions

- AMR and Load Control for everybody is probably not socio-economic beneficial
  - Lack of potential
  - Lack of motivation
- The cost/benefit ratio is too uncertain at the moment to take a policy decision about further expansion of technology
  - How much of the potential will be realised?
  - Who benefits, and how much?
  - How much is it going to cost?
- NVE is following up on development of new power purchase contracts
- NVE is awaiting research results
  - Will advise the Ministry by the end of this year
Thank you for your attention!