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LECTURE

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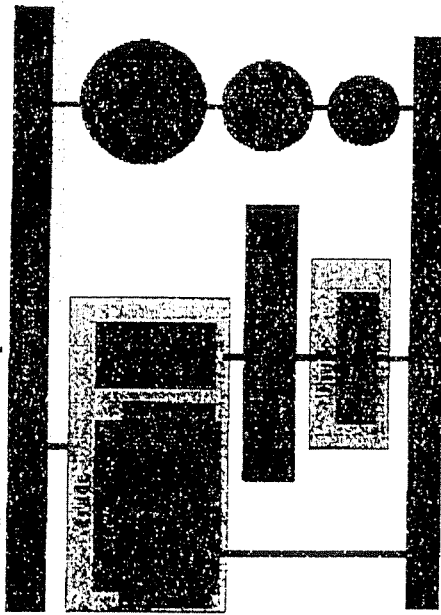
# Competition Aspects of the Norwegian Regulatory Reform

Einar Hope

## Outline

1. The structure of the Norwegian electricity market system
2. Lessons from the Norwegian electricity market reform
3. Competition and regulatory policy regimes
4. Some issues and problems in the present market system
  - Market concentration and market power
  - Ownership structure
  - Vertical integration
  - Price information, transaction costs, and information flows
  - Risk hedging facilities
  - Organization of the grid system, tariffs
5. A new regulatory model for natural monopolies
6. Concluding remarks

The current structure of the Norwegian electricity market



## Basic features of the Norwegian reform

- turning the former producers' market for interruptible power into a regular spot market for physical deliveries, and at the same time broadening the market scope and refining the pricing and settlement procedures
- opening up the grid for common carriage
- splitting the former Statkraft into a generating company and independent grid company (Statnett)
- introducing a split between generation (wholesale) activities and grid services in vertically integrated power companies in terms of divisionalization, but not requiring a full separation into legally independent entities neither at the wholesale nor the retail levels
- retaining public ownership as the main type of ownership, i.e. privatisation was not considered as part of the reform
- introducing competition policy in the market part of the system and a new regulatory regime for the natural monopoly part (the grid)

## **The Norwegian reform: Some lessons and results:**

- \* a reduction in the general price level of electricity
- \* absorption of excess capacity
- \* greater flexibility on the demand side; better understanding of consumer needs
- \* good preparatory work of the reform and policy consensus

## **Competition and regulatory regimes**

- \* A competition policy for competitively exposed activities
  - A regulatory policy for the natural monopoly (monopolies) part of the sector
  - \* A proper division of labour and responsibility between competition policy and regulatory agencies within and across countries:
    - Demarcation of functions
    - Exchange of information
    - Coordination, consultations
- Efficiency in supervisory functions, transparency and predictability of decisions

## **Market concentration and market power**

- \* Horizontal and vertical integration
- \* Dominant firm issues:
  - Vattenfall's position
- \* Tacit collusion
- \* Cross ownership
- \* Holding companies - concern model

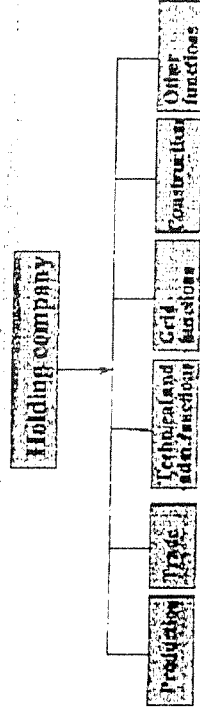
## **Ownership structure**

- \* Does ownership matter in competition?
- \* Public ownership issues:
  - corporatization of publicly owned electricity enterprises
  - objectives for and incentives in such enterprises
  - independence and arm-length distance from political influence
  - professionalism in management and decision-making
- \* Cross-ownership and concentration
- \* Privatization

## Vertical integration

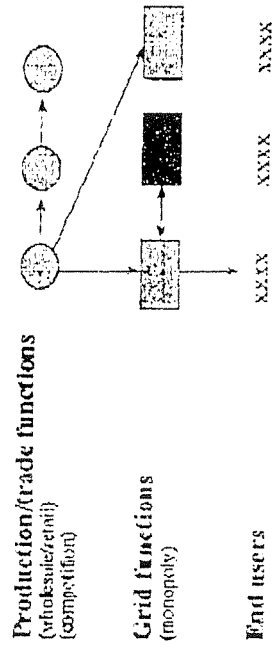
- \* Delineation of competitive functions (wholesale and retail) and natural monopoly functions (grid functions)
- \* Organizational forms according to proper demarcation
- \* Consequences of vertical integration
  - potential for strengthened market dominance
  - crosssubsidization
  - locking-in of customers in long-term contractual relationships
  - defining "own" and "foreign" customers according to geographical distribution area; price discrimination and closing of markets for households and small customers
- \* Concern model and vertical integration

## Concern model



Holding company model for diversified energy companies?

## Horizontal og vertical integration



## Price information

- \* Splitting up the total end user price in
  - a) power price, b) grid user prices, and
  - c) access price, with taxes etc. included
- \* Price information surveys
- \* Reductions in transaction costs/fees
- \* Asymmetric information between large and small actors, and between market participants and competition and regulatory authorities

### **Risk hedging instruments**

- \* Relationship between long-term contracts as risk hedging instruments and the financial futures market
- \* Scope for improvements of the financial futures market
- \* Risk hedging instruments for households and small consumers

### **Organization and operation of the grid system**

- \* Separation of market and grid activities, coordination of grid operations, and the grid system as a facilitating device for market transactions
- \* Harmonization of access principles and transmission tariffs
- \* Handling of capacity constraints (bottlenecks)
  - tariffs (peak-load pricing, priority pricing)
  - price areas
  - counter trading system

### **A new regulatory policy regime for grid companies as of January 1, 1997**

- \* Purpose: Efficient operations and pricing of grid services in the short and long runs. Equal treatment of all grid owners on all levels (local, regional and national)
- \* Regulation of each individual unit (approx. 230)
- \* Regulation model (incentive regulation)

### **Regulation model (incentive regulation)**

- Allowed income limit defined by NVE prior to the regulation year, covering the total costs of the entity, including a stipulated annual return on invested capital.
- Each regulation period has a duration of five years. The allowed income limit is adjusted each year according to certain rules.
- NVE stipulates an annual rate of return, called the NVE interest rate. This is based on a risk free rate, plus 2%. (For 1997 the NVE rate is 8.3%). Maximum and minimum rates of return are stipulated as the NVE-rate  $\pm$  7%.
- An annual efficiency factor or requirement is stipulated by NVE. For 1997 this is fixed at 2% for all grid owners. Next year the factor will be differentiated according to the actual efficiency level for each individual unit.
- Cross-subsidisation between competition and natural monopoly activities is not allowed.

## **Concluding remarks**

- \* The Norwegian-Swedish electricity market is a pioneering example of a common market ahead of EU-integration policies
- \* Will we have a common Nordic electricity market, and when?
- \* A challenge for competition and regulatory authorities
- \* Secure competition - creating conditions for efficiently functioning markets
- \* Structural policies - conduct regulation