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The electricity market needs fixing – What can we do?

Fingrid proposals

FINGRID

The starting points for Fingrid's discussion paper published in May 2016

The electricity system is becoming a low-carbon system – we want to contribute to promoting the transition

We believe in the market mechanism, we want to reinforce the market's operational capacity as the electricity system changes

Subsidies that interfere with market activities should be eliminated regionally – emissions trading should guide towards the climate targets

Discussion paper:
(http://www.fingrid.fi/fi/ajankohtaista/Ajankohtaista%20liitteet/Lehdistötiedoteliitteet/2016/FINGRID-Electricity-Market-Needs-Fixing-2016-WEB.PDFlink

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Targets for development proposals

Day-ahead market

Intraday market

Strategic reserve

Balancing power and reserve markets

Imbalance settlement model

Consolidating the link between wholesale and retail markets

Day-ahead and intraday market development

The electricity market price has to be allowed to fluctuate –
We need political and market participant approval and hedging possibilities

Price caps should not affect price formation in electricity marketplaces. The level of price caps should reflect the value of lost load

Could part of the transmission capacity between bidding zones be allocated in a market-based way to intraday or balancing power markets

The intraday trading gate closure should be moved closer to the operating hour

The strategic reserve system supports power adequacy in the transition period

A target level for power adequacy must be determined for Finland

Target level for power adequacy	• Fingrid proposes that a target level for power adequacy be determined for Finland • The strategic reserve would be dimensioned according to the target level
Energy pricing	• In the future, energy produced with the strategic reserve should be priced to the value of the day-ahead price cap (currently 3000 €/MWh)

Balancing power and reserve market development: Value for flexibility on real-time markets

The objective is to increase supply, reduce barriers to entering the markets and improve transparency

We will lower the minimum size of the balancing power market bids to 5 MW in autumn 2016. We will look into the issue of lowering the minimum bid size requirement under 5 MW.

We will prepare a test period to study the possibilities to increase the transparency of the balancing power markets (for example, price publication during the operating hour in scarcity situations)

We will review aggregating small bids from more than one balance, and assessing the real-time measurement requirements to enable wider participation in the balancing power and reserve markets

Imbalance settlement model development

Imbalance power pricing to support and guide the real-time market

The ”polluter pays" principle	• How should the cost of imbalance power be allocated to participants? • Fingrid will review the possibilities of stronger application of the “polluter pays” principle in imbalance power pricing.
Pricing	• What costs should be included in the price of imbalance power? • Imbalance power pricing will be developed to take into account the full costs of power system balancing.
Length of the imbalance settlement period	• A shorter imbalance settlement period would increase the role that markets play in balancing the electricity system.

The link between wholesale and retail markets must be strengthened

Consumer focus - Retail consumer flexibility potential to the electricity markets

- How to increase the household consumers' participation in the demand response? Would more clear retail market roles (e.g. supplier centric model) promote demand response?
- Should we replace present time-of-use tariffs with load control with price based demand response?

Stakeholder response summary

Fingrid proposal	Pro	No clear response	Contra
Price caps raised in the day ahead market			•
XB capacity partly allocated for intraday market			•
Intraday gate closure closer to real time	•		
Target level for power adequacy	•		
Strategic reserves activation energy price higher		•	
Balancing market minimum bid size reduced	•		
Transparency of balancing price	•		
3rd party aggregator model introduced		•	

Stakeholder response summary

Fingrid proposal	Pro	No clear response	Contra
Polluter pays principle		●	
15 minute settlement		●	
Supplier centric model in demand response	●		
Power-based DSO tariffs	●		
From time-of-use demand control to price-based demand response	●		

Thank you for your interest!
More detailed responses and Fingrid's thoughts for independent reading after this slide

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Overview of the responses

- Total of 36 responses
  - DSOs, TSOs, electricity producers, sellers, consumers
  - industry associations, research projects
- The opening of the discussion was generally considered good and welcome
- Some of the respondents saw that Fingrid's viewpoints on energy policy issues and the price of electricity were beyond the scope of its role
- Many responses emphasized the continuation of open discussion and involvement of stakeholders into the further development of the measures

Price caps of the day-ahead market

- The majority of the respondents saw that the current values should remain intact
  - Higher prices were seen to increase the price risk of market actors as well as the risk of political intervention
  - If the price ceilings and floors were changed, they should be the same in the European market
- Some supported decreasing the price caps
  - At the same time they also supported the second auction applied e.g. in Germany
- VOLL (Value of Lost Load) was considered too undefined to apply it to set the price ceiling

Fingrid considers it important that market actors who have the ability react fast have an incentive to trade close to the time of delivery. In practice this means e.g. that close to the operating hour price ceilings should be higher than in the day-ahead market.

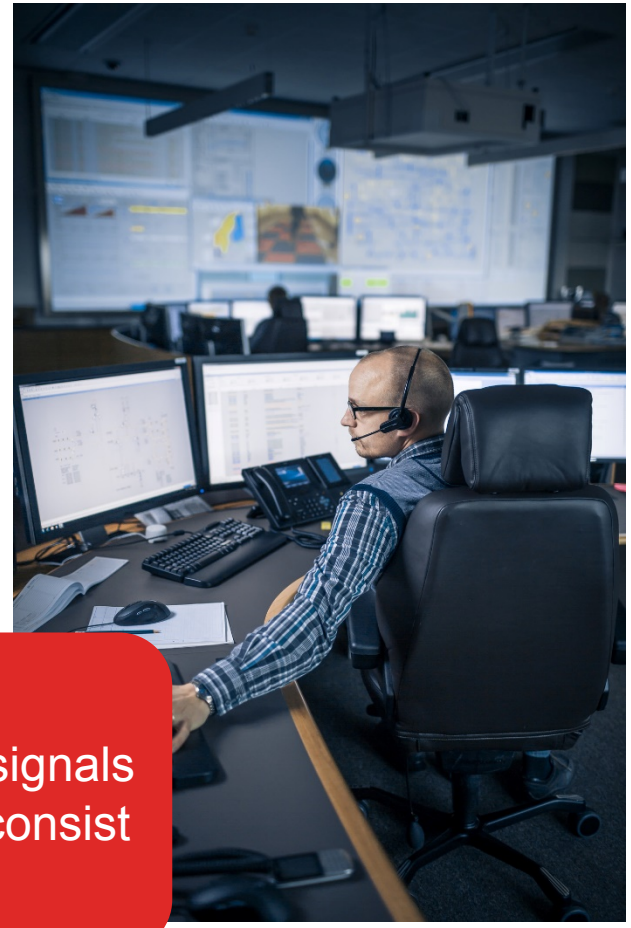
The value of transmission capacity and its allocation between various market time-units

- The respondents agreed that the value of transmission capacity can vary across various market time-units
- Wide agreement about the fact that the capacity should be allocated in the first place to the day-ahead market
  - The highest volume of trading
  - The day-ahead price is a reference for future prices
- The change of generation structure may affect this issue and it would be good to look into this

Fingrid considers it important to analyse what kind of effects the change in generation structure has on the allocation principles. In case more transmission capacity becomes available for allocation in the intraday market it is important to allocate it in a non-discriminatory way to all the market actors.

Strategic reserves

- Respondents widely supported the determination of a target level for security of supply
  - The target should be non-binding and it should not lead to the introduction of capacity mechanisms
- The activation price of the strategic reserve to the price cap of the day-ahead market (3 000 €/MWh) was both supported and opposed
  - The generators mainly supported and electricity consumers opposed
- There was a lot of support to improve the participation possibilities of demand side response, however, this requires changes to the current legislation
- The idea of customer-specific level of security of supply was raised



- Fingrid supports the discussion on the target level for security of supply
- The strategic reserve should not affect either the short term of long term price signals
- To prepare for longer electricity shortages the strategic reserve should mainly consist of generation capacity

Reserve and balancing markets

- The respondents saw that the measures proposed by Fingrid (smaller minimum size of bid increase in price transparency at the regulating power market) would increase liquidity and enable the market entry of new type of service providers, new type of business and energy services
- There were mixed views on whether an aggregator outside the open supplier chain should be allowed to act
- The pricing of imbalance energy has an effect on getting into balance and on the quality of production plans

- Fingrid's objective is a customer-centric model: the customer can choose whether to offer its demand response and whether to offer it through a retail supplier or a service provider. There should not be reimbursements from a service provider to an electricity seller or a balance responsible party.
- Fingrid will continue measures to reduce the bid sizes and to improve the possibilities fo aggregate bids together with market actors.

Shorter imbalance settlement period

- The change in the generation structure was seen as the main driver for reducing the imbalance settlement period
- Consumers did not regard it as necessary to have a shorter ISP
  - Some considered that a shorter ISP could reduce the possibilities for demand side response, some had the opposite view
- In case the ISP were shortened also the market time units need to be changed accordingly
- The ISP should be harmonised at least on a regional level
- Many respondents acknowledged that a shorter ISP is related to the low-carbon energy system but before introducing a shorter ISP current measures like the increased use of frequency-controlled reserves and change of hour regulation should be utilised

Fingrid considers the introduction of 15 minute imbalance settlement period an important part of making the market compatible with a green electricity system. A short imbalance settlement period is a market based way to improve the balancing of the power system.

Balancing energy and its pricing

- The current balancing model was considered a functioning one but many respondents wished that it would be developed further
- There was wide support that transparency could be increased: it would enable to support the balance of the whole system and increase trust in the balancing market
  - Generators supported moving into one-price system also in production balance: instead of imbalance one should pay attention to supporting the system balance, it would also facilitate the integration of RES and would imply European harmonisation.
- Allocation of reserve costs
  - Both the current model allocating costs among all market actors as well as a wider use of the Polluter pays principle receive support.
  - Electricity consumers raised the worry that this could lead to introduction of two-price system also in consumption balance
- Hedging of imbalance prices
  - Majority did not see the need, however, in any case this should be market-based.

Fingrid considers it important that all the flexibility potential in the system can be utilised and that the imbalance prices fully reflect the value of flexibility. This implies increasing the price ceiling for imbalance price.

The significance of retail market grows

Participation of small consumers in demand response important

- To advocate demand side response the roles of various actors need to be clarified
- Some of the respondents saw that a supplier-centric model would help to increase DSR
- Moving from time control of electricity consumption into price control was considered a measure towards the right direction as well as power-based network tariffs. The time control of electric heating and the controlling possibilities of AMR should be opened to competition.

- **Other issues**
  - The effect of demand side response to the retailers' balance risk
  - The treatment of PV in balance settlement
  - The development of rules for enabling wider participation of demand response in the market

- It is important to clarify the roles of various actors
- It is the task of retailers and service providers and not the DSOs to aggregate and offer demand side response from the retail market to the relevant electricity markets
- Fingrid supports the regional harmonisation of retail markets