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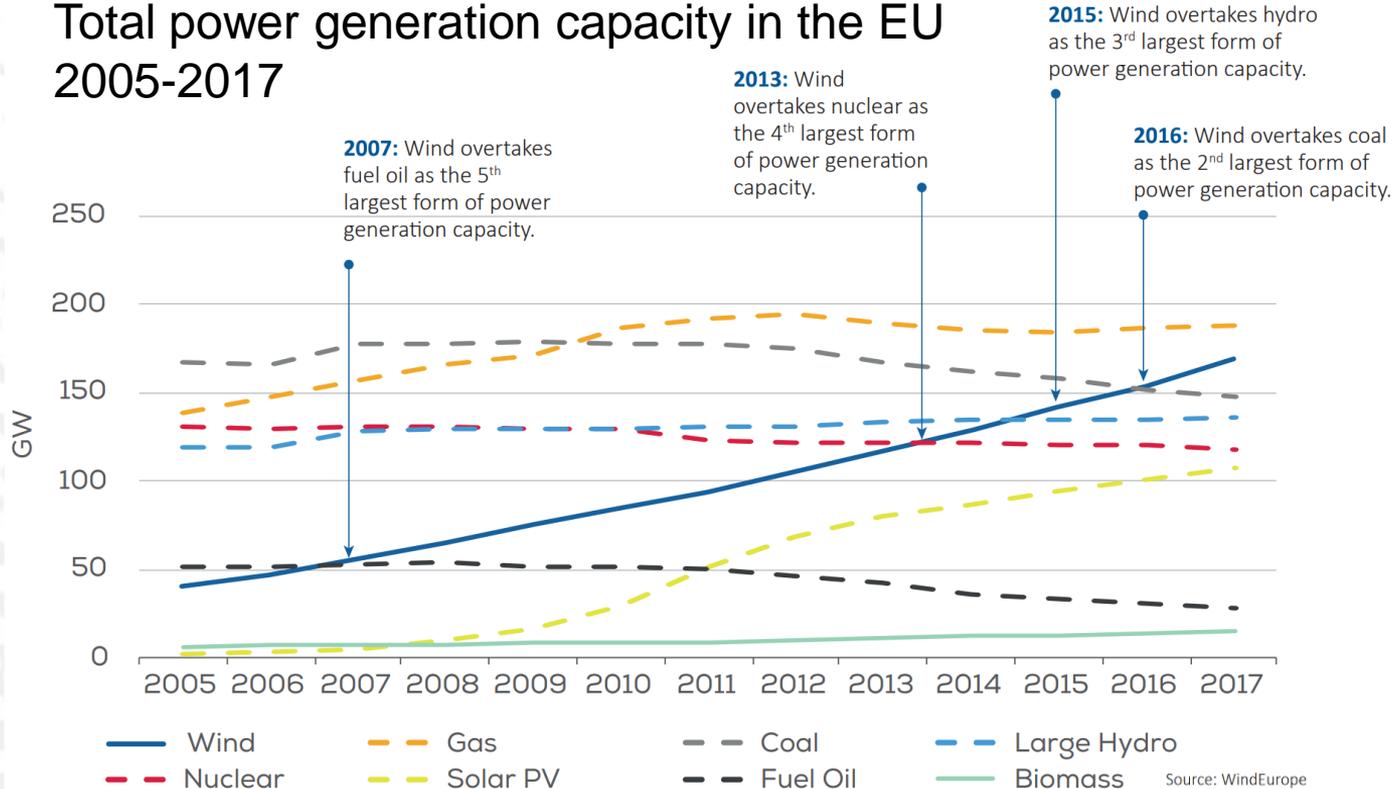
AST

# Empowered Customers: Regulator's Role in Improving Demand-Side Dynamics

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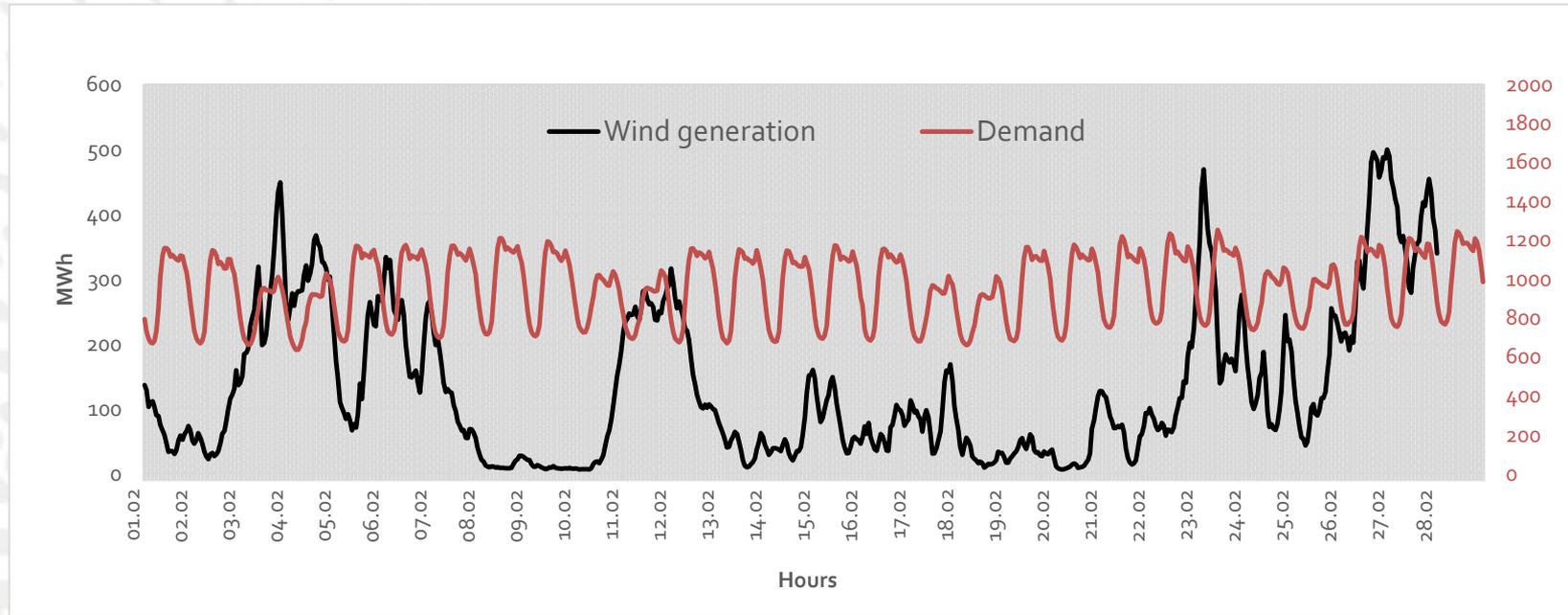
# Intermittent generation replaces conventional

## Total power generation capacity in the EU 2005-2017



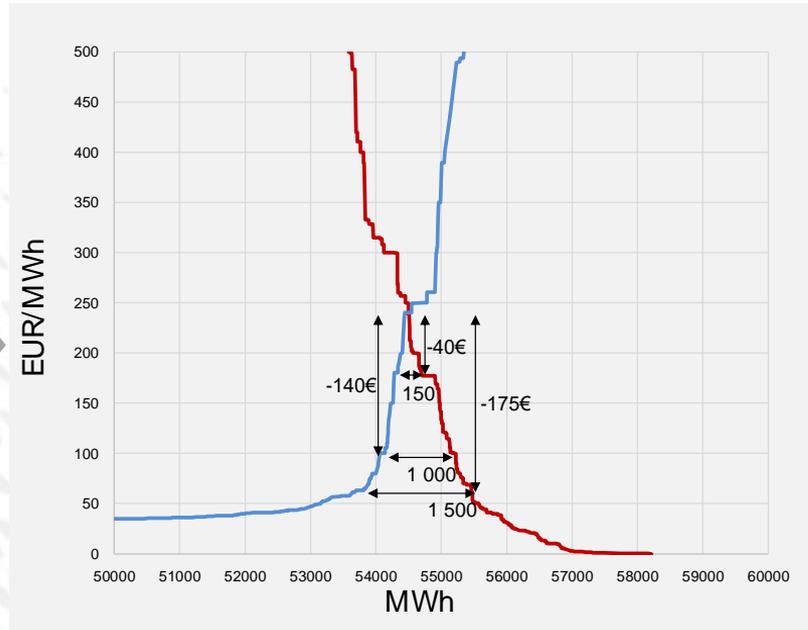
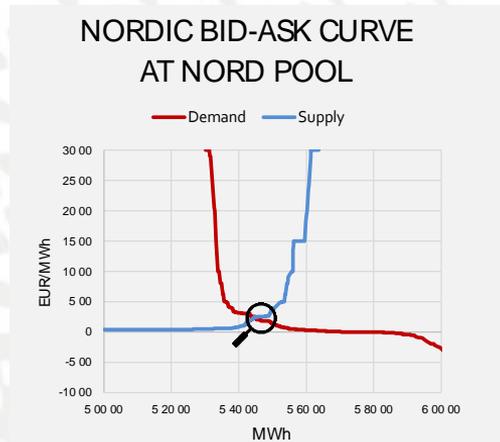
# Ensuring power balance - increasingly challenging

Baltic wind generation and demand in Latvia in 2018 February



# Demand response is another source of flexibility

Consumer response to prices adds real resources to the system, potentially saving expensive generation or transmission investment and improving reliability.

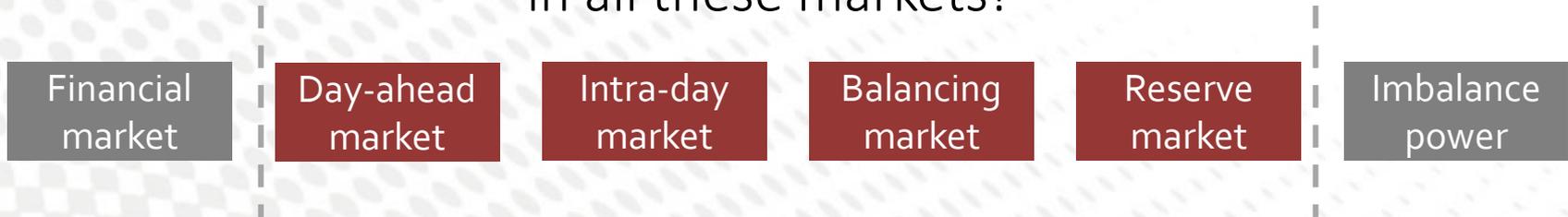


Source: Nord Pool

# DSR will be one of the building blocks of future markets

The European Commission stated that “any review of the market design must [...] create conditions [...] allowing for the cost-effective integration of new types of flexible demand into the market”<sup>1)</sup>

Demand response can participate  
in all these markets!

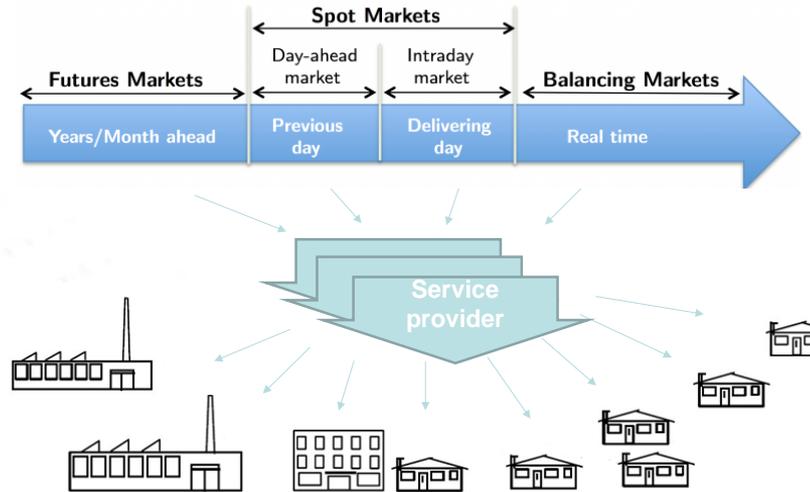


1) Communication from the Commission launching the public consultation process on a new energy market design, 15/07/2015.

# Empowering the Consumer

One effect of the still often supply focused market design is the failure to bring wholesale market prices to the doorsteps of consumers.

So far only limited DSR opportunities. Demand is price-elastic: the challenge is to lower transaction costs sufficiently to justify participation for consumers.



# Key requirements for unleashing the potential of DSR

1. Price signals need to reveal the value of flexibility for the electricity system.
2. Efficient use of DSR is based on an economic choice between the value of consumption and the market value of electricity. This choice arises when the consumer is exposed to variable prices.
3. Access to price information, consumption awareness and DSR activation require strong consumer involvement, which can be facilitated with automation or by delegating the DSR process from the consumer to a DSR service aggregator.

# Key requirements for unleashing the potential of DSR 2

4. Regulatory barriers need to be removed to unlock full DSR potential, including barriers related to the relationship between independent aggregators and suppliers.
5. DSR should develop itself based on viable business cases. Subsidies should remain limited and clearly identified.
6. Communication and control technologies need to enable DSR for small consumers and provide guarantees on their reliability.

# Conclusions

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1. Matching supply and demand is becoming more challenging and the electricity system needs more flexibility.
2. DSR can deliver different types of products and participate in the associated markets.
3. Lack of demand participation remains one of the most serious challenges.
4. Further market integration of DSR, removal of regulatory barriers, including barriers related to the independent DSR aggregators is crucial to enable its efficient use and economic viability.

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