



Integrating energy, transport and ICT infrastructure

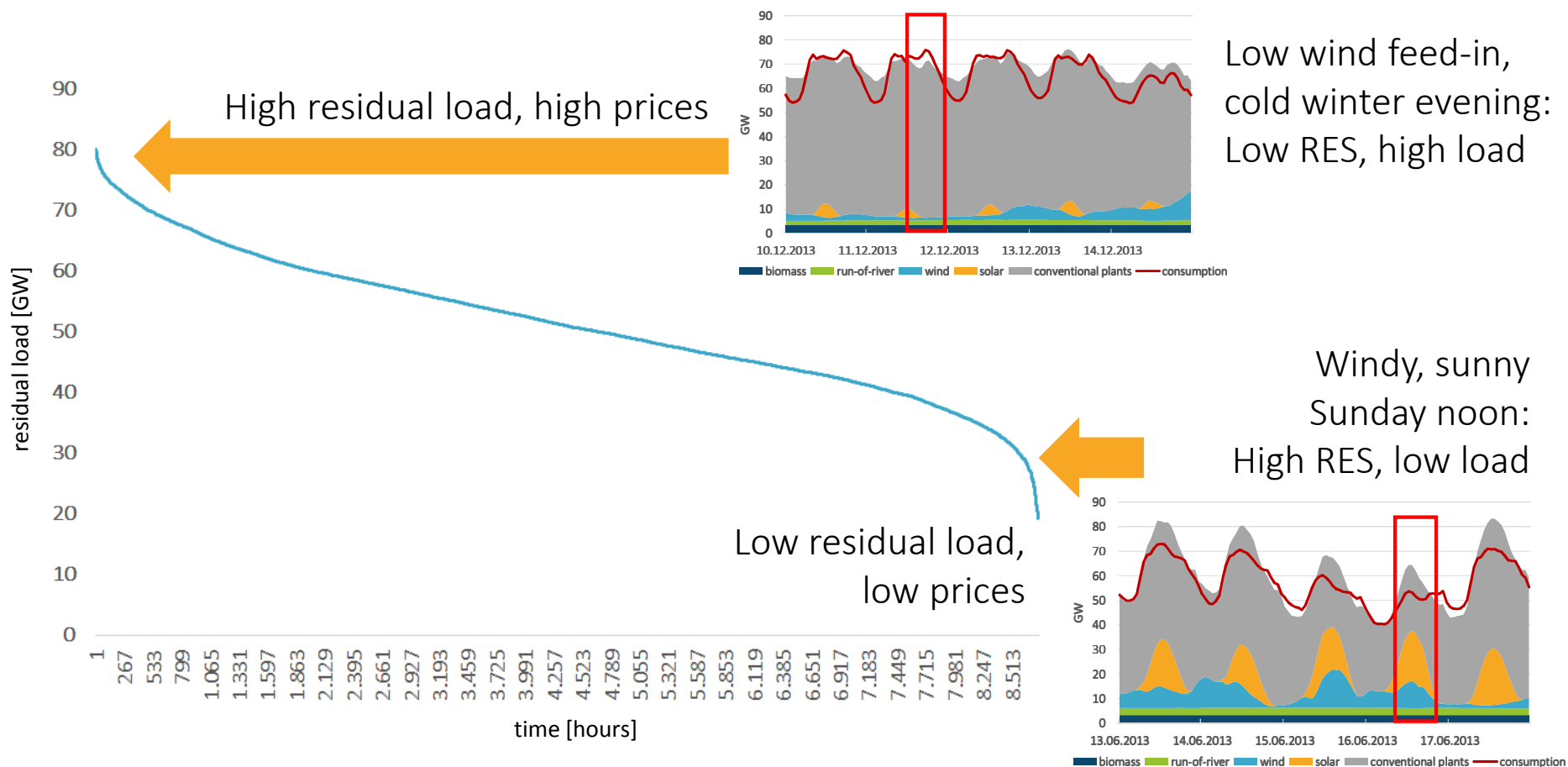
Session 1: Integrating RES in the energy market: what will the future energy system look like?

Dr. Marco Nicolosi

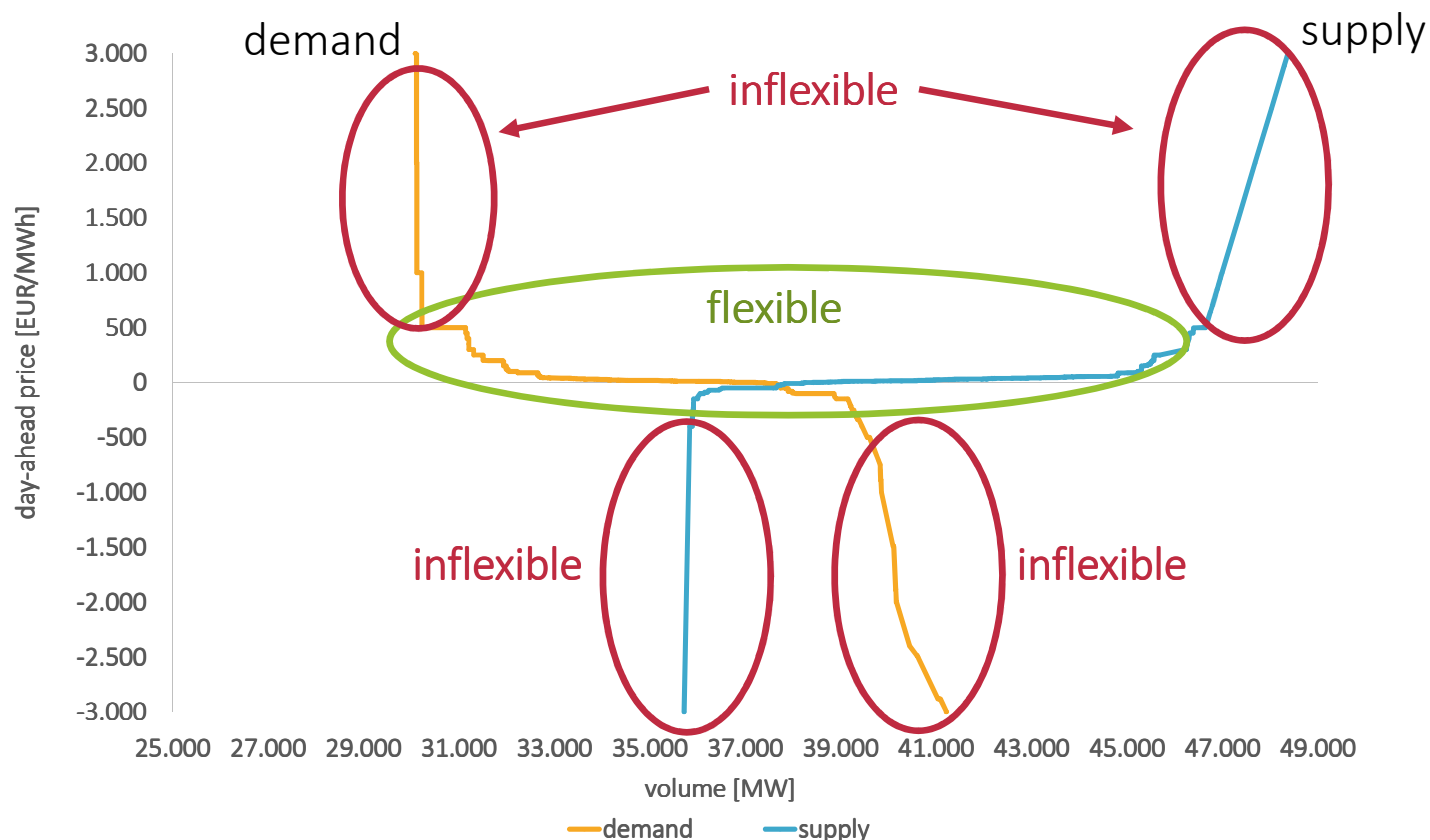
Technology Challenges and Regional Approaches for integrating
Renewables and Energy Security

Brussels, May 27th 2015

Two sides of the challenge

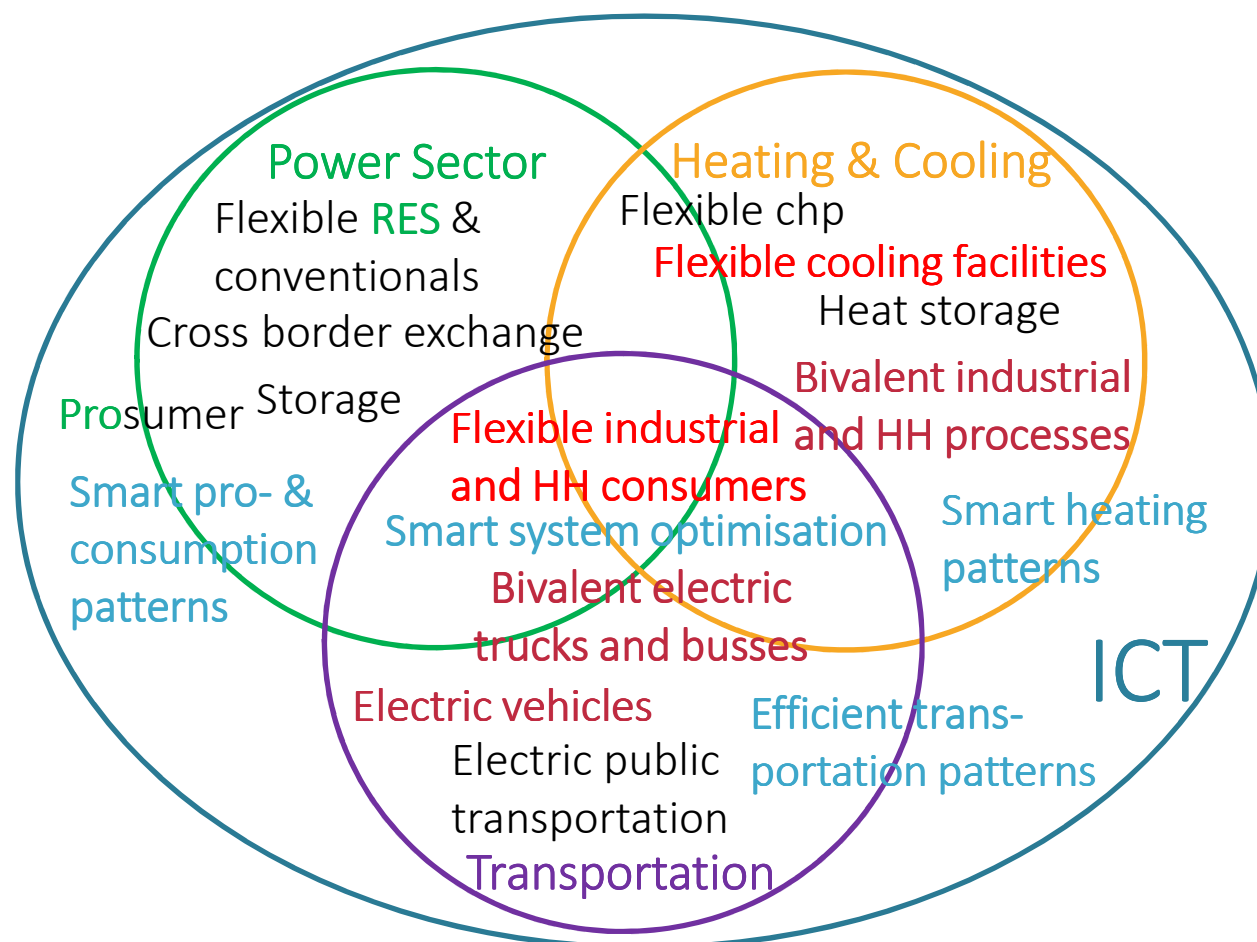


Demand for flexibility increases



- Some areas of the supply and demand curves are inflexible
- Inflexible areas lead to price volatility and could (theoretically) lead to a mismatch

Some flexibility options*



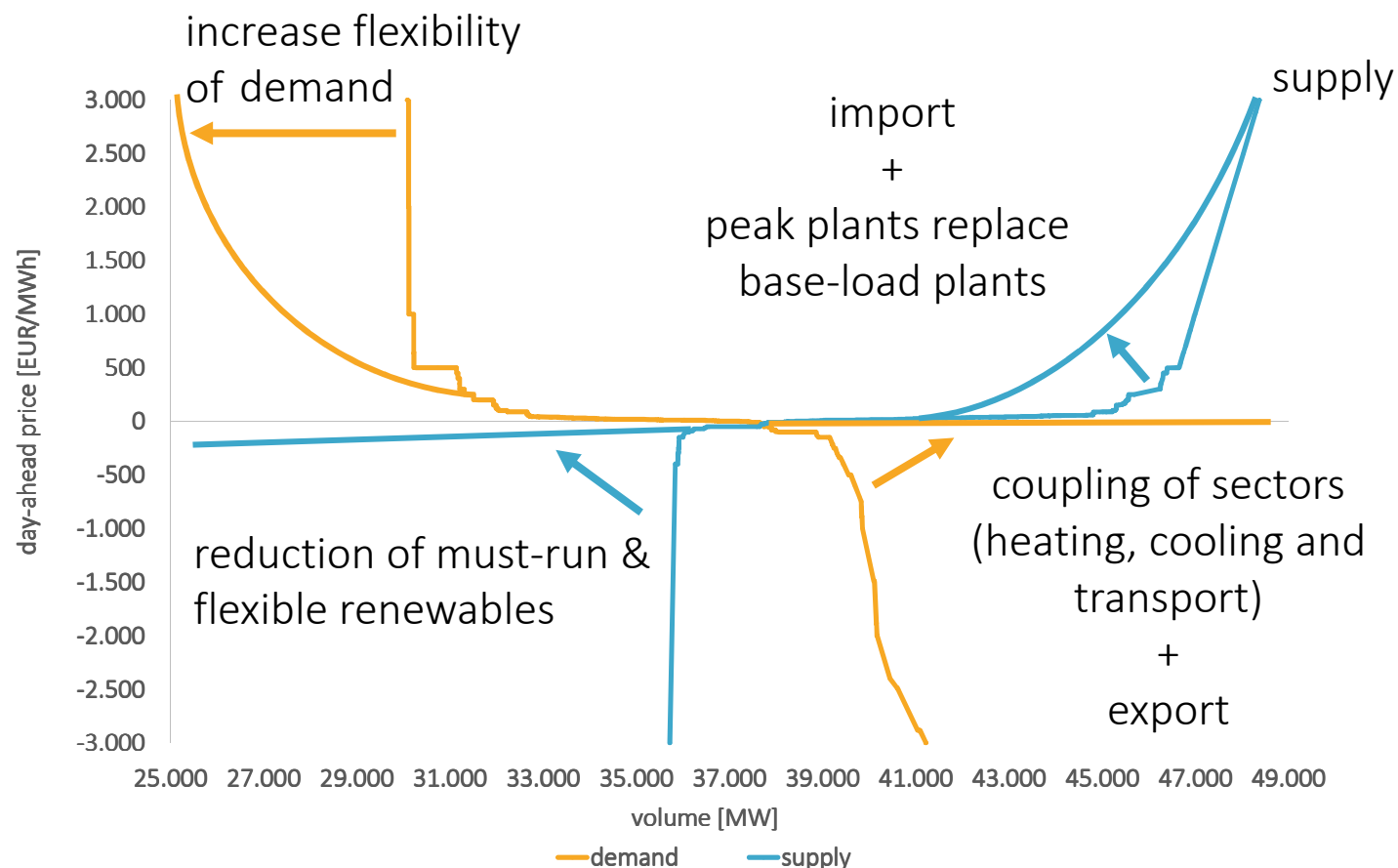
Enablers

- Open market structures which allow disruptive technological change
- Large market areas
- Optimised cross border trade
- Alignment of cross-sectoral policies
- ICT

Traditional
Sustainable supply
Flexible consumption
„New“ cross-sector
Increase efficiency

* ... and many many more are available.

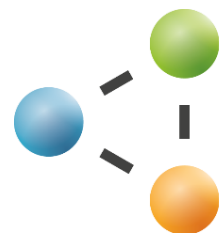
Flexibility supports security of supply and renewables integration



- An increase in flexibility leads to security and more meaningful price signals
- More flexibility options are available than the energy transition requires

Conclusions

- The transition of the energy system leads to an increase in fundamental volatility
- Security of supply and RES-integration require flexibility
- Sufficient flexibility potential is available to allow for market-based competition
- Competitive and well connected markets are a great, innovative and efficient source of flexibility
- ICT serves as an enabler of the transition
- However, in order to benefit from technological opportunities, cultural questions need to be addressed



CONNECT
ENERGYECONOMICS
connect the dots ...

Connect Energy Economics GmbH

Tel. +49 30 8093312 30

contact@connect-ee.com

www.connect-ee.com