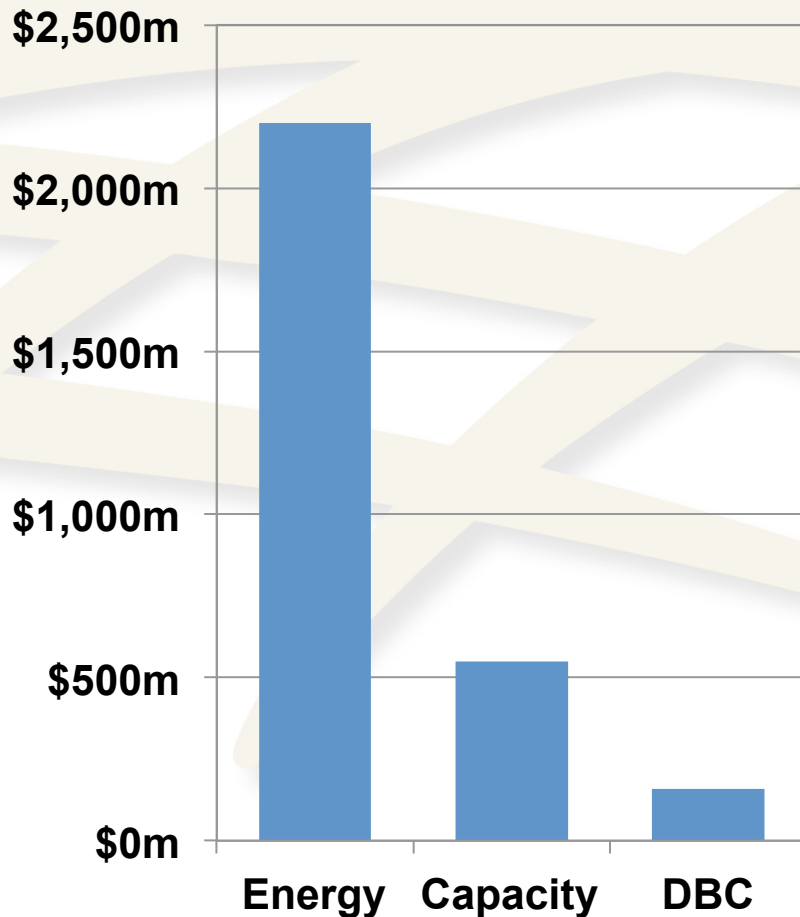


Managing Dispatch Balancing Costs

Gill Nolan

**EirGrid Group Customer Conference
20th October 2011**

Context



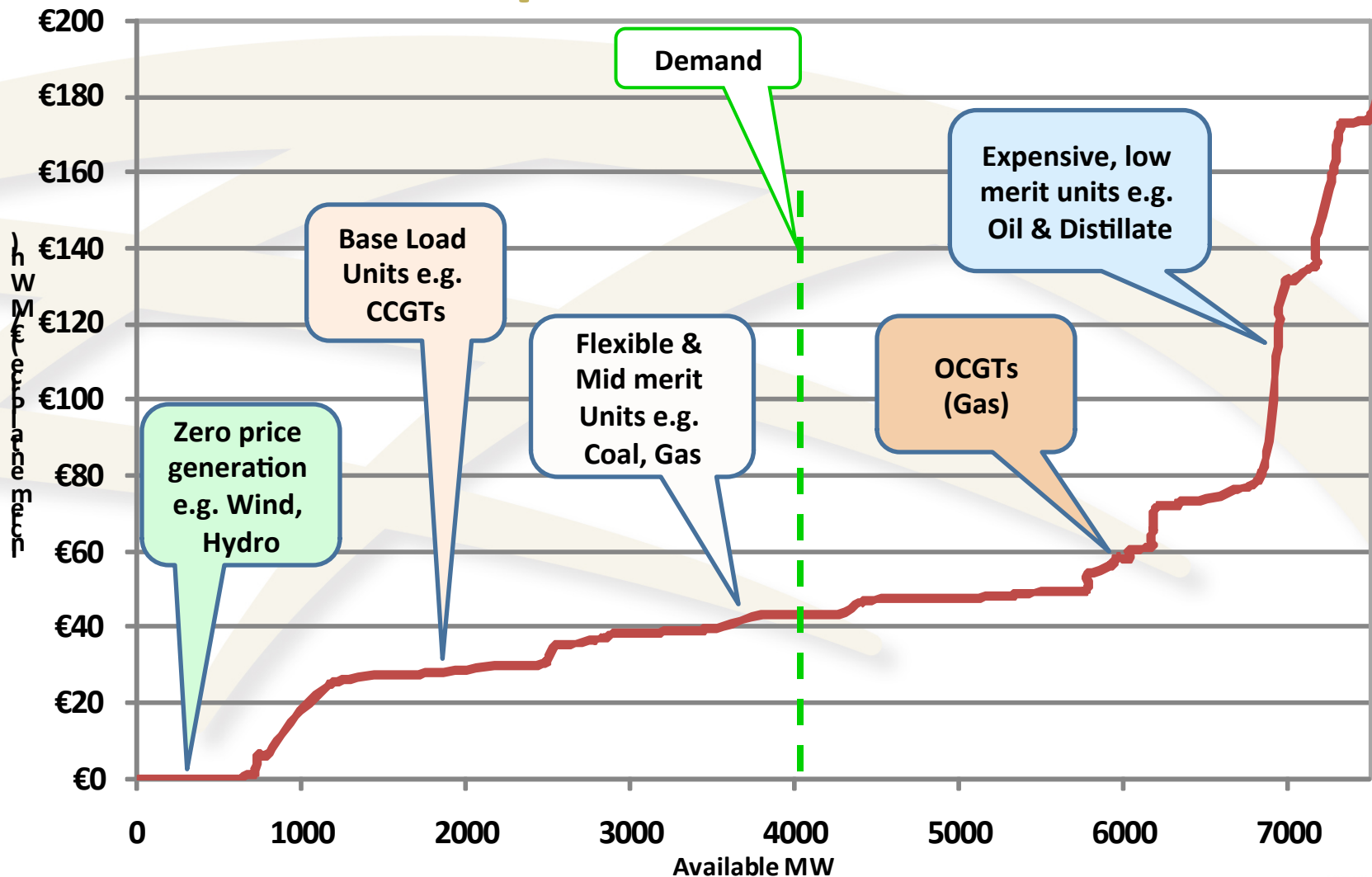
SEM: 2010/11

- Energy: €2.2 billion
- Capacity: €549 million
- Dispatch Balancing Costs: €159 million

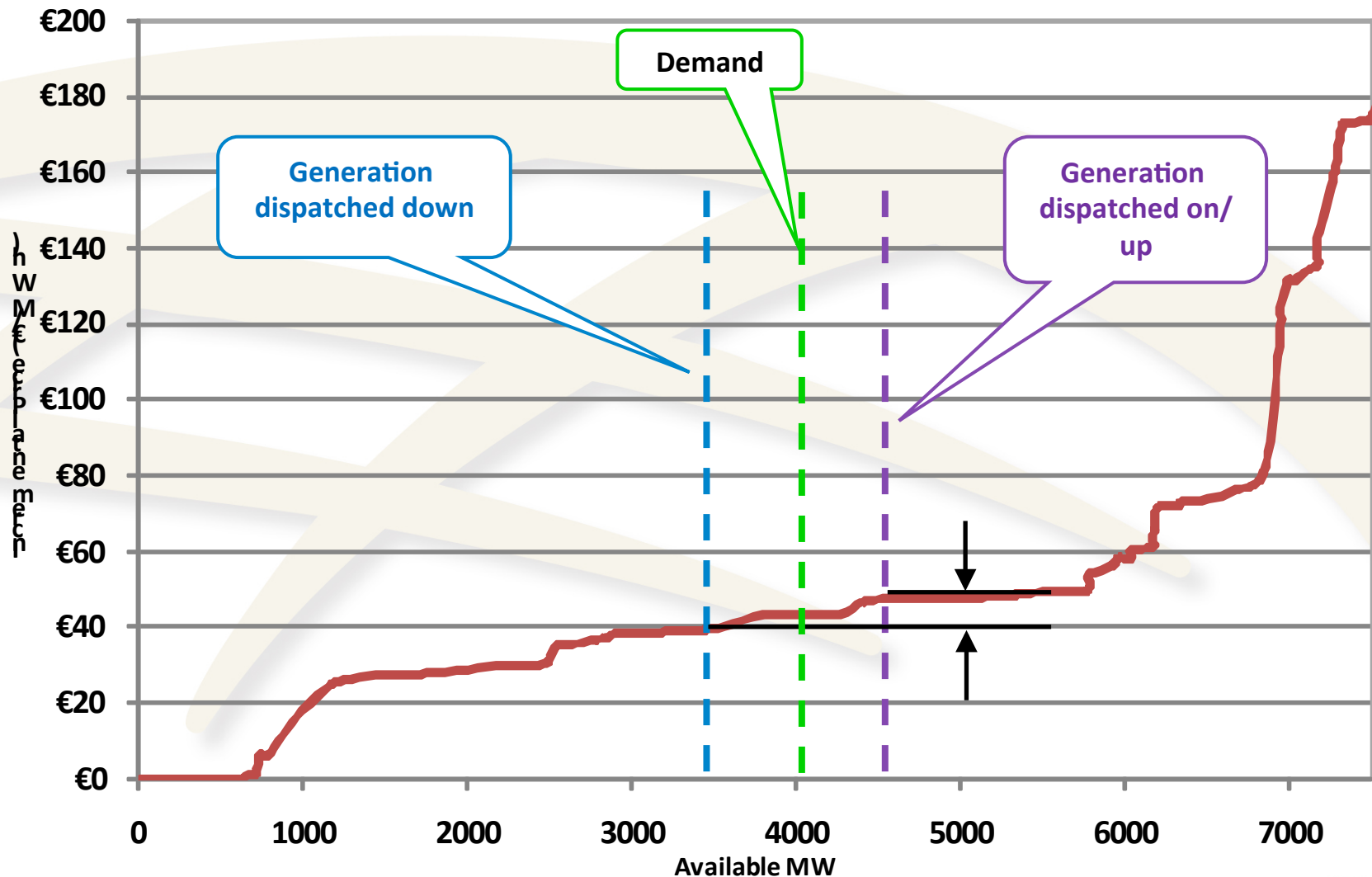
Why do constraint costs arise?

- Intrinsic part of the SEM Design
- Market Schedule
 - Theoretical schedule, set ex-post
 - Known conditions e.g. demand, generator availability, wind generation
 - Does **not** consider the reality of the system and necessary security requirements to operate the system
- Dispatch:
 - Carried out up to real time
 - Must maintain system reserve
 - Must manage transmission constraints
 - Must operate in order to take unexpected changes in system conditions into account
- Constraint payments: Keep generators financially neutral for any difference between market and dispatch.

Sample Merit Order



With Reserve Constraints



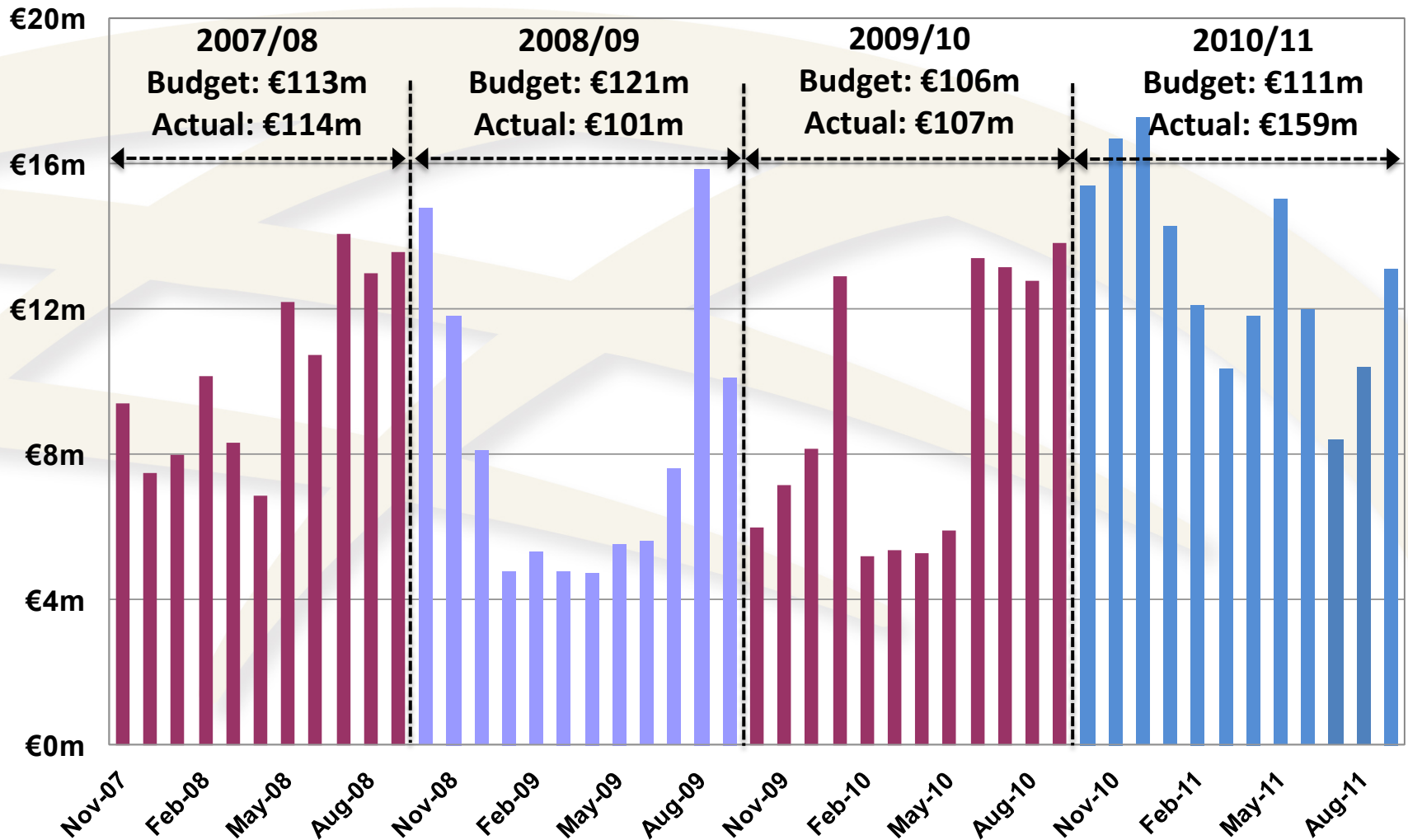
Factors affecting constraint costs

Within TSOs' Control?

- Fuel Costs No Influence
- Forced outages No Influence
- System demand No Influence
- Policy/Legislation Limited Influence
- Outage planning Influence
- Generator characteristics Influence
- Demand & wind forecasting Influence

Dispatch Balancing Costs

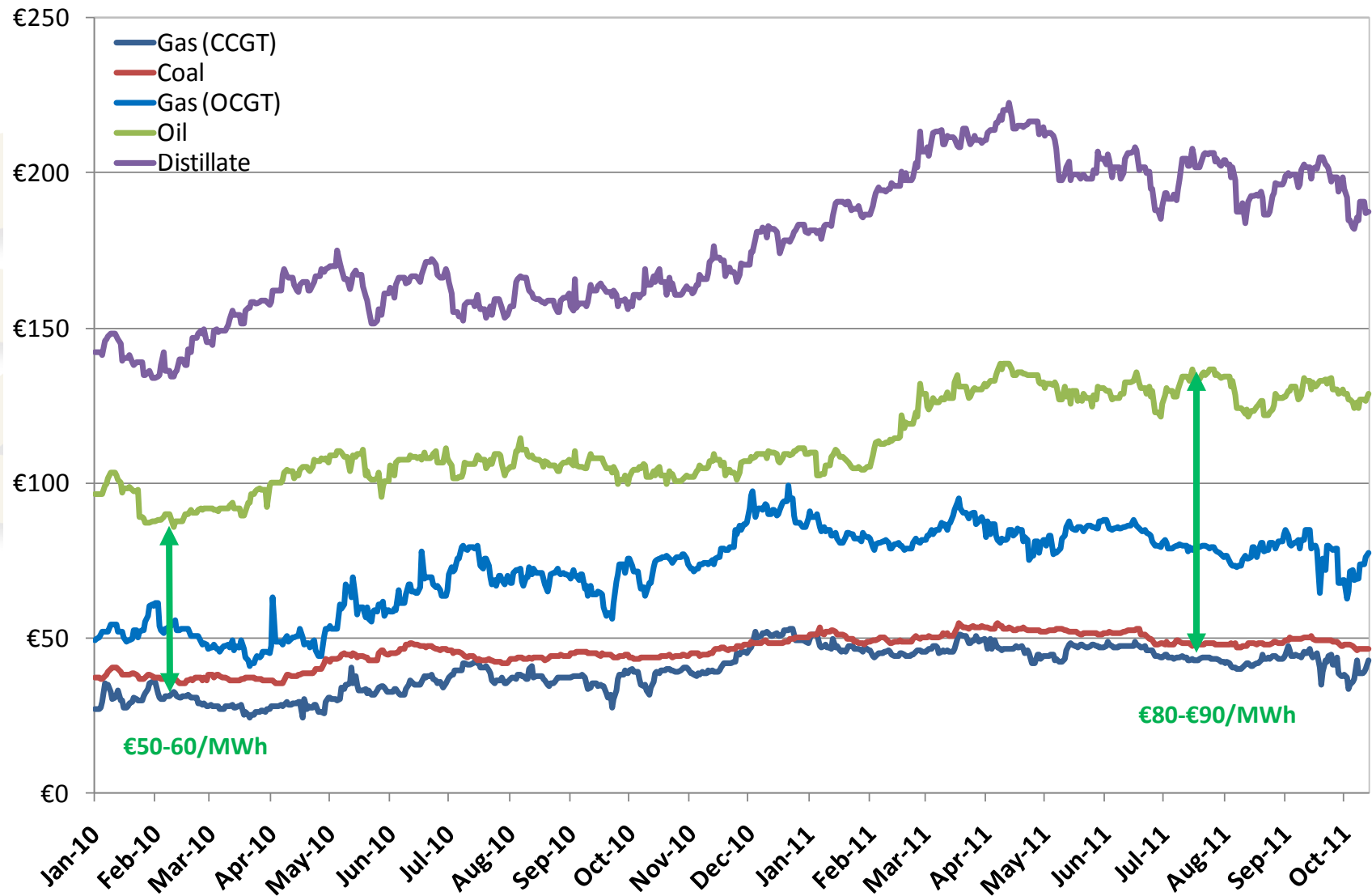
Monthly DBC since November 2007



DBC for 2010/11 Tariff Year

- Key drivers behind higher than forecast DBC
 1. Significant increase in fuel prices since forecast

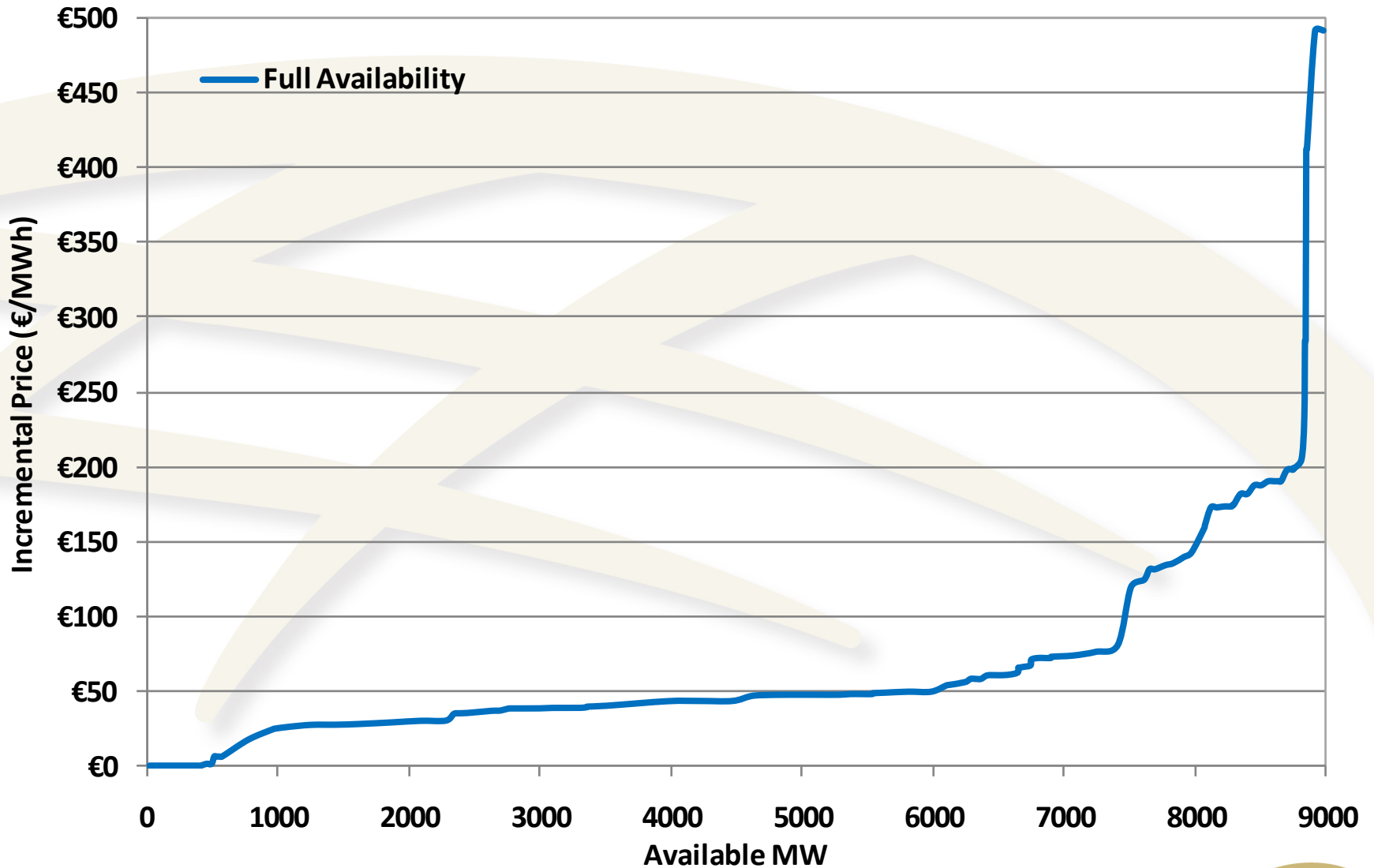
Incremental Prices (as bid)



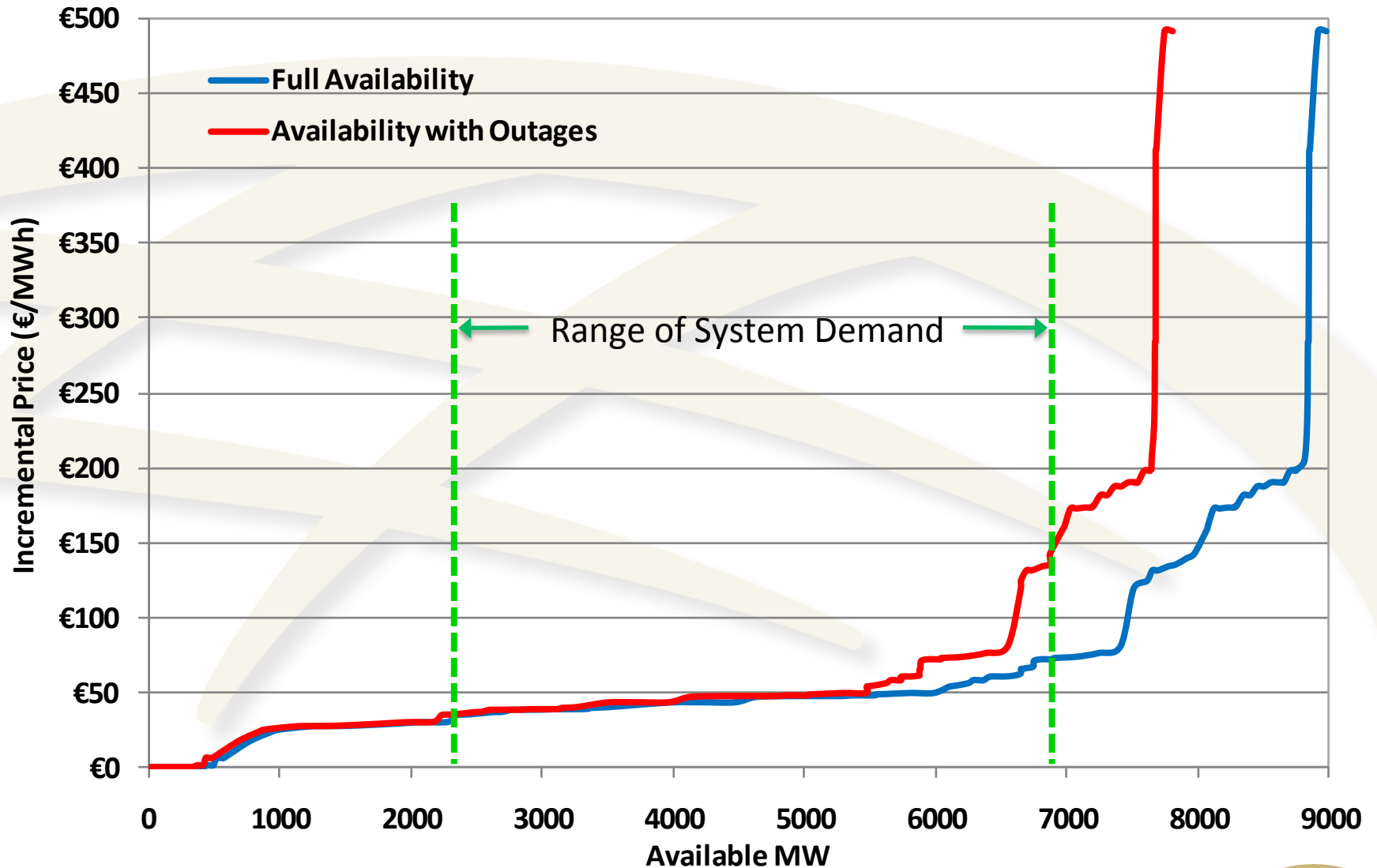
DBC for 2010/11 Tariff Year

- Key drivers behind higher than forecast DBC
 1. Significant increase in fuel prices since forecast
 2. Outages of generators & key reserve providers:
 - Turlough Hill
 - Moyle Interconnector

Merit Order



Merit Order



DBC Mitigation Measures

- Ongoing monitoring of constraint costs & drivers
 - Ensure costs within the TSOs' control continually minimised.
- Measures to control and/or mitigate the costs of re-dispatching the system:
 - Performance Monitoring
 - Other System Charges: levied for failure to provide necessary services to the system
 - Grid Code modifications around failure to follow Dispatch Instructions
 - Ongoing review of dispatch policy.

DBC: The future...

- DBC for 2011/12 tariff year
 - Forecast: €143m
 - Return of Moyle Interconnector and Turlough Hill
 - Continually monitoring factors behind constraint costs
 - Minimise those within TSOs' control



Thank You