Maritime Spatial Planning and Offshore Wind – Kriegers Flak Combined Grid Solution (KF CGS)
Kriegers Flak Combined Grid Solution

- Denmark: Energinet National Control Center
- Germany: 50Hertz Control Center

MIO
(Master controller for Interconnector Operation)

- Green: existing grid connection Kriegers Flak, Energinet
- Red: KF CGS infrastructure
- Blue: existing grid connection Baltic 1+2, 50Hertz

Co-financed by the Connecting Europe Facility of the European Union
MIO Input Data – Brain Food

- Wind forecast
- Dynamic line rating currents
- Actual topology and measurements
- Market schedules
- Outage Planning
- Onshore grid capacity
MIO Outputs - Actuators

BtB
(voltage & power setpoint)

Wind Farm
(voltage & power limitation)

Capacity to market
Kriegers Flak Combined Grid Solution - Status

Status as of September 2020

• All offshore assets (cable, platform extension, etc.) completed
• System tests back-to-back-converter completed
  • System tests in isolation done, connection DK-DE successful
  • Trial operation to be started
• Market capacity to be available as of 15 December 2020

Market arrangements

• The CGS is part of the DK2-DE/LU border in CCR Hansa. The capacity not needed to transmit the OWF production to the respective national transmission grid, is made available to the market
  • DA capacity calculations based on wind generation forecasts
  • Countertrading in case of high underestimation of the wind infeed

Lessons learned

• Rules governing use of the asset need to be agreed early on
• Close cooperation of all stakeholders is key to align interests and incentives
Thank you.