POWER cluster

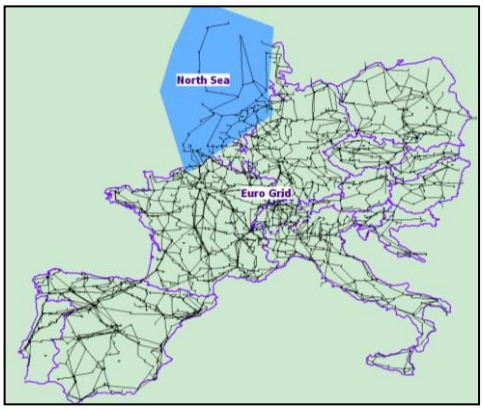
North Sea Grid Study

During the course of the POWER cluster project a North Sea grid study has been undertaken to evaluate if it is technically feasible to create a common European grid and what the implications of it would be on the electricity markets in different European countries.

Creating a European super grid is important as it will mitigate the effects of an intermittent wind resource.

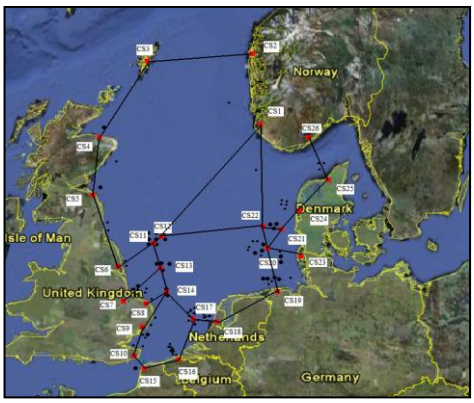
The study covered a number of key areas including:

- Identification of the offshore wind farms in the region,
- Analysis of the pros and cons of different transmission systems for offshore wind farms, AC or HVDC, scan the industrial capacity of cable supply, cable laying and HVDC component manufacture,
- Investigation of the possible connections among the offshore wind farms and interconnections with existing grids and perform a design of offshore super grid,
- Modelling of electric grid study has been conducted,
- Study the surplus benefits with North Sea Wind Power Grid,
- Study of impacts from North Sea wind power on power markets,
- Study of offshore transmission grid economics.



Main conclusions and results
Some of our key findings include:

- The study demonstrated that integration of the North Sea Grid would not significantly affect the stability of power systems in different countries,
- One master thesis has been completed,
- One technical paper has been published.



POWER cluster
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European Union The European Regional Development Fund

The Interreg IVB North Sea Region Programme
Investing in the future by working together for a sustainable and competitive region