Offshore Electricity Grid Implementation in the North Sea: A regulatory-economic assessment

NORTHSEAGRID

The lack of development of an offshore grid is due to a variety of barriers with respect to the regulatory frameworks, incompatibility of support schemes, lack of political support, difficulty to attract financing, and uncertainty of risk, among others. Previous projects (i.e OffshoreGrid, Seanergy, WindSpeed, and TradeWind) have investigated possible solutions on a higher level from a European social-economic perspective, but the development of concrete solutions can only be found by means of investigating explicit examples from the perspective of individual stakeholders. NORTSEAGRID will therefore focus on 3 case studies for an offshore interconnection integrating offshore wind energy, located in the North Sea. These case studies will be chosen through close cooperation between the consortium and the North Sea Countries' Offshore Grid Initiative (NSCOGI), ensuring they are both relevant to the advancement of development of an offshore grid and that they support the work being performed by the relevant decision makers. The barriers to implementation of these 3 case studies will be identified from the point of view of all stakeholders, as the Baltic Sea or the English Channel.

Results

- A detailed cost inventory for each case study, for different scenarios, and a calculation of the benefits of the interconnection analysed in each case study and scenario
- Different models for cost and benefit allocation to different countries and stakeholders, such as project developer, TSO, etc.; including the identification of risk and the financial effects of this risk, with respect to each stakeholder
- Evaluation of the compatibility of support schemes and the regulatory frameworks in the different countries, with the proposed interconnection design
- Discussion surrounding the political barriers identified and and solutions to overcome them. The results will be consolidated in specific recommendations for European and regional policy

Lesson learned

- For further details please refer to the project website.

Partners and coordinator

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Budget

Overall budget: 1.422.130,00 € (EU contribution: 75,00 %)

In brief

Sector: Electricity production

Duration: 01/04/2013 to 31/03/2015

Contract number: IEE/12/974

Website: http://northseagrid.info/

Tags:
  - offshore
  - wind

Related projects

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- [RES4LESS][8] Cost-efficient and sustainable deployment of renewable energy sources...
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