



Conditions for deployment of wind power in the Baltic Sea Region

- Stakeholder Seminar Briefing -

1. Introduction

This document reports on comments provided by participants to the BASREC-wind seminar held on 27 April 2012 in Stockholm, Sweden.

The seminar focused on a presentation by GL Garrad Hassan and Deloitte Business Consulting disseminating the results of an in-depth review of offshore wind development in the Baltic Sea Region (BSR). The work culminated in identifying a series of recommended “strategic initiatives” to be undertaken by the nations of the BSR in order to achieve offshore wind deployment both to (a) meet expectations outlined by national plans for 2020 and (b) reach beyond these targets and deploy at a rate which can be considered world leading.

2. Comments on strategic initiatives

Strategic initiatives were outlined and comments sought under four main themes;

- Policy and regulation;
- Research, technological development and demonstration;
- Grid development and integration; and
- Environmental planning and permits.

2.1 Policy and Regulation

There was general agreement on the requirement for nations with offshore wind deployment expectations in their National Renewable Energy Action Plans (NREAPs) but without differentiated tariff levels for offshore wind, to provide some form of additional funding if they are to realise such deployment. A participant from a governmental body emphasised the need for policy and regulatory work to come first. This aligned with the presentation results which highlighted that political will is vital if all other building blocks to a successful market are to be achieved.

The availability of financing was also raised as a key challenge to reaching the 2020 targets. Utilities are constrained in their ability to finance new projects due to falling power prices, falling demand, high levels of debt from recent merger and acquisition (M&A) activity. They are also international firms with significant portfolios outside of Europe which will compete for their available capital. However, while project financing from banks has long been a staple of the onshore wind sector, the size and differing risk-profile of offshore projects combined with the

recent financial crisis have constrained this route over the last few years. Novel solutions such as the creation of dedicated banks or funds lending at favourable terms under government support are being discussed in Germany and the UK. One suggested initiative therefore is for similar support to be made available in a BSR context.

2.2 Research, technological development and demonstration

In addition to the issues of icing and interconnection arrangements highlighted in the study as areas for potential demonstration projects, the harsh conditions and floating turbine potential off the Norwegian coast was suggested as a further candidate for support. Funding for such research, development and demonstration was noted as the principal barrier to progress on this front.

Another participant noted that research and development (R&D) activity needs emphasising and that currently in Sweden there is no specific budget earmarked for such activities in the offshore wind sector.

A further participant supported the focus on modelling market price impacts from a potential offshore wind farm project connected into two or more markets. This forms part of the “virtual” demonstration project listed as a recommended strategic initiative in the main study.

2.3 Grid development and integration

The technical difficulties and potential cost of trying to tee-in an offshore wind farm to an existing interconnector were highlighted by one participant from a system operator. Another stakeholder noted that the ability to connect into interconnectors depends on the technology used for the interconnector cabling itself. GL Garrad Hassan notes that multi-terminal HVDC systems, which may be required in such instances, are a new development and require demonstration to increase investor confidence and “proveness”. Also, inter-operability of equipment from different suppliers will be desirable given the potential for regional HVDC hubs and ultimately, the Supergrid. With the roll-out of several German offshore wind projects followed by Round 3 developments in the UK, these requirements will become increasingly pertinent in the next 5 years.

These points also highlight the recommendation in the report that the optimum connection arrangement (via an interconnector, a split connection, a hub model, or a direct connection to shore) will be project-specific but should be investigated with respect to the most economically attractive option *irrespective of the presence of national boundaries*.

The difficulties of Germany as a potential export market were noted by one participant given Germany itself is dealing with the implications of substantial wind generation in the northern part of the country. The enabling report on “grid and interconnection” notes that it is indeed southern Germany or southern Poland which likely represent the nearest potential markets outside the BSR, and thus corresponding transmission reinforcement is estimated to be required to reach these locations.



The correlation of assumptions behind the Business as Usual Scenario (Scenario 0) in the Strategic Outline and the grid enhancements expected by ENTSO-E in their 10-year network development plan released on 1 March 2012 was raised as a potential point of investigation. As part of the project GL Garrad Hassan considered a draft version of the ENTSO-E 10-year network development plan.

2.4 Environmental planning and permitting

A participant from a project developer emphasised that the spatial analysis should not be used to unduly restrict areas available for site development due to the coarse-resolution of the model and limited consideration of site specific factors. The project team agreed with this comment and noted the extensive qualifications provided in the study that the work is intended to be used for strategic purposes via highlighting the extensive resource available in the BSR and preliminary identification of areas of large-scale potential, rather than site selection purposes.