Baltic InteGrid – What is the project about?

Pierre Ståhl
Energikontor Sydost, Växjö Sweden
- EU Project - *Interreg Baltic Sea Region programme*

- Subfield: Renewable energy

- Appointed Flagship project,

- Running until March 2019
- Institute for Climate Protection, Energy and Mobility (IKEM)
- Rostock Business and Technology Development GmbH
- Deutsche WindGuard
- German Offshore Wind Energy Foundation
- Technical University of Denmark
- Aarhus University
- University of Tartu
- Aalto University
- Latvian Association of Local and Regional Governments
- Coastal Research and Planning Institute
- Foundation for Sustainable Energy
- Maritime Institute in Gdańsk
- Energy Agency for Southeast Sweden
- Lund University
The AO's

**Germany**
- Siemens AG
- BMUB (Ministry for the Environment, Nature Conservation, Building and Nuclear Safety of Germany)
- Ministry of Energy, Infrastructure and State Development of Mecklenburg- Vorpommern
- 50Hertz Transmission GmbH
- Ecologic Institute
- Kisters AG
- Becker Büttner Held
- Eclareon

**Denmark**
- Danish Energy Association
- Energinet.dk
- Danish Wind Industry Association

**Latvia**
- Ministry of Economics

**Finland**
- Finnish Wind Power Association

**Estonia**
- Elering-generating opportunities

**Lithuania**
- The Ministry of Energy
- Litgrid AB

**Poland**
- Inwestycje Infrastrukturalne Sp. Z O.O
- Maritime Office in Gdynia
- PGE Energia Odnawialna S.A.
- Polish Offshore Industry Association
- PSE S.A. Polskie Sieci Elektroenergetyczne
- Baltex Energia i Górnictwo Morskie SA SKA
Offshore Wind in Europe

Baltic Sea

• 2017: Installed Offshore Wind: ≈1.8 GW

• 2030: Economically attractive potential: 750 Twh/yr with 186 GW *

*Wind Europe June 2017
### Baltic Sea: Vision 2050

<table>
<thead>
<tr>
<th>Country</th>
<th>BIG 2030 Upside cumulative total</th>
<th>WP 4 ‘High OWP 2045’ additions 2030-2045</th>
<th>Further additions before 2050</th>
<th>Upside cumulative total in 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>1,696</td>
<td>648</td>
<td>2,000</td>
<td>4,344</td>
</tr>
<tr>
<td>Germany</td>
<td>3,305</td>
<td>204</td>
<td>1,500</td>
<td>5,009</td>
</tr>
<tr>
<td>Sweden</td>
<td>472</td>
<td>6,048</td>
<td>4,500</td>
<td>11,020</td>
</tr>
<tr>
<td>Finland</td>
<td>616</td>
<td>0</td>
<td>1,500</td>
<td>2,116</td>
</tr>
<tr>
<td>Poland</td>
<td>2,232</td>
<td>3,076</td>
<td>2,000</td>
<td>7,308</td>
</tr>
<tr>
<td>Estonia</td>
<td>900</td>
<td>0</td>
<td>1,000</td>
<td>1,900</td>
</tr>
<tr>
<td>Lithuania</td>
<td>300</td>
<td>1,548</td>
<td>500</td>
<td>2,348</td>
</tr>
<tr>
<td>Latvia</td>
<td>0</td>
<td>0</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Total</td>
<td>9,521</td>
<td>11,524</td>
<td>14,000</td>
<td>35,045</td>
</tr>
</tbody>
</table>

**2050: 35 GW**
Electricity market integration in the Baltic Sea region

- Need for enhanced coordination of grid planning
- Regional electricity exchange to increase to 2030 min.
- Need for more interconnectors

*BASREC Study “Electricity Grid Expansion in the Context of Renewables Integration in the Baltic Sea”
Baltic InteGrid

Regional ambition OWF development
Regional need for electricity market integration

Meshed grid
Radial approach

Meshed approach

+ Cost Savings
+ Environmental impact
+ RES + Market integration
- Legal & regulatory barriers
- High initial investments
- Coordination
Core pillars of the Baltic InteGrid

- Baltic Offshore Grid Forum
  - Network & conference platform
- Baltic Offshore Grid Concept
  - Interdisciplinary research
- Pre-feasibility studies
  - In-depth perspective on 2 cases
6 Thematic Working groups:

- Policy & Regulation
- Market & Supply Chain
- Technology & Grid Design
- Environment & Society
- Spatial Planning
- Cost-Benefit Analysis

- Technology Catalogue
- LCOE-model
- Seminars
- Papers
6 Thematic Working groups:

- Policy & Regulation
- Market & Supply Chain
- Technology & Grid Design
- Environment & Society
- Spatial Planning
- Cost-Benefit Analysis

Summarized in a High Level Concept
Pre-feasibility Studies

2 case-studies on offshore wind farm interconnectors

1) Interconnector via OWFs between SE, PL and LT
2) Interconnector via OWFs between DE and SE
Thank you for your attention!

For further information:
Mail: info@baltic-integrid.eu
Web: www.baltic-integrid.eu

Baltic InteGrid represented by the Lead Partner:

Institute for Climate Protection, Energy and Mobility (IKEM)
Magazinstraße 15-16, 10179 Berlin, Germany
Phone: +49 (0) 30 408187015
Mail: info@ikem.de
Web: www.ikem-online.de

The content of the presentation reflects the author’s/partner’s views and the EU Commission and the MA/JS are not liable for any use that may be made of the information contained therein. All images are copyrighted and property of their respective owners.

Sign up for Newsletter »

Pierre Ståhl / Project manager
Energikontor Sydost AB – Energy Agency for Southeast Sweden
Tel: +46 (0)70-688 75 20
energikontorsydost.se