



Coherent Linear Infrastructures
in Baltic Maritime Spatial Plans

Energy planning criteria Step-by-step guidance

Collection of the material

- Literature
 - Previously published planning criteria or related information
- Group works in partner meetings
 - Planning criteria and ranking
 - National description of the MSP and offshore energy
 - Interviews per country

| Technical infrastructure and connections | Environmental habitats and species | Physical and natural conditions | Other sea uses | Economic factors | Policies | Social aspects |
|---|---|--|--|---|---|--|
| Future (planned) development potential of the grid (connections, extensions) (2) | Marine and coastal protected areas (Natura 2000 areas) (5) | Ground conditions and type of sea bed (example: sandy sediments vs. rocky substrates; preferably homogenous) (5) | Shipping - lanes (TSS), anchoring areas and routes (no-go areas) (example: buffer zones) (5) AND safety of navigation (4) | (Regional) Demand for electricity (2) | Climate policy trends and targets (nationally and globally) (2) | Visual impact on the landscape and views from the coast - nationally important landscape areas (4) |
| Distance to shore and to construction/ operation/ maintenance port (4) (example: distance from coast as soft constraint, proximity favored) | Biotopes (1) | Wind - annual mean wind at defined height (e.g. 100m) or other measures of wind speed at the location (8) | Pipelines and cables (4) | Local employment and growth stimulation (2) | | Stakeholder involvement (1) |
| Availability of connections and distance to (onshore) grid and its substations/links (8) | Mammal (seasonal) distribution (1) | Water depth - average depth of the sea, depth of certain areas (8) | Other existing permanent infrastructure (3) AND local priority areas / restrictions of other sectors (3) AND existing leases (1) | Trends in energy sector | | |
| Space demand per turbine | (Concentrated) Bird migration routes (2) | Ice conditions (3) | Fishing – (regional) fishing zones, spawning and nursery areas (soft constraint) (3) | Economic profitability | | |
| Area and project size (space demand per turbine (3) | Important bird areas (1) (<i>different than bird N2K areas</i>) | Waves, currents | Dumped munitions (3) (no-go areas) | | | |
| Grid capacity (2) | | | Proximity of existing wind farms in operation / construction and wind farm test sites (2) | | | |
| | | | Cultural heritage (underwater; ship wrecks) - world heritage sites (2) | | | |
| | | | Radars (meteorological, aviation, military) (2) | | | |
| | | | Military (prohibited) zones (2) | | | |
| | | | Marine mineral resources (extraction) (1) | | | |

The role of MSP in locating OWE

| | |
|----|--|
| DK | Until now sectoral decision-making, MSP in progress |
| EE | After MSP is in force, exclusive |
| FI | Probably no area designations |
| DE | Binding “Site development plan” for EEZ and TS soon to be published. Linked to MSP |
| LV | MSP will show suitable areas, not exclusive |
| LT | MSP shows potential areas, exclusive |
| PL | After MSP is in force, exclusive |
| SE | MSP will show suitable areas, not exclusive |

The role of MSP in locating OWE

- The obvious:
 - The outcome of locating OWE is an interplay of MSP, sector authorities' and operators' decisions and actions
 - The weight of MSP in this differs between countries
- The picture is changing
 - Previously initiatives by the operators have been driving the process, now national coordination is becoming stronger
 - often within MSP processes

Use of planning criteria

| Baltic Sea | | North Sea | |
|------------|--|-----------|--|
| DK | A set of criteria is used by the energy authority | BE | A set of criteria is used by the MSP authority |
| EE | No use for a fixed set of planning criteria | NL | A set of criteria is used by the MSP authority |
| FI | Not needed for MSP, regional sets of criteria are used | NO | No existing criteria |
| DE | A set of criteria is being developed | SCOT | A set of criteria is used by the MSP authority |
| LV | A set of criteria is used in MSP | | |
| LT | A set of criteria is used in MSP | | |
| PL | Research projects have developed sets of planning criteria | | |
| SE | An indicative list exists, but always case by case | | |

Different limits for the same criteria

Wind conditions

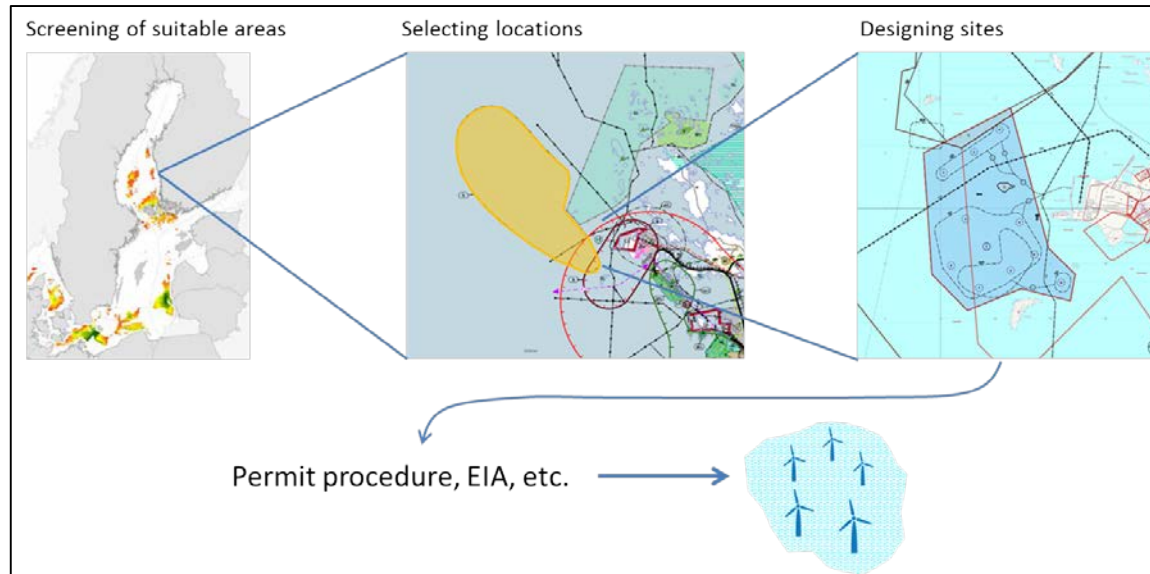
- >9m/s (NorthSEE project);
- In Uusimaa regional plan in Finland >6m/s
- In Latvian MSP, >7,5-8,5m/s

Depth

- Latvia <60m (recently changed from <30m)
- Lithuania 20-50m
- Sweden <40m

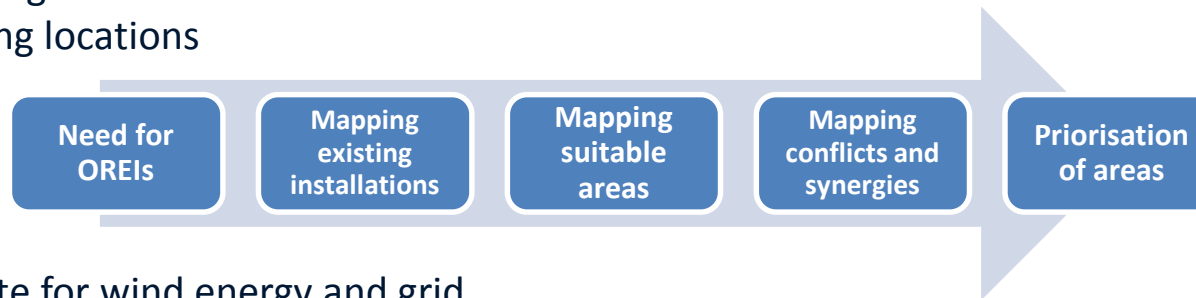
Distance from the shore

- Denmark
 - Smaller turbines located between 4 and 20 km
 - Large turbines are located > 15 km distance
- Estonia
 - Hiiumaa >12 km
 - Pärnu bay >10 km
- Latvia > 8km
- Poland >22,2 km (EEZ=12nm)



Steps of the guidance document

- Screening suitable areas
- Selecting locations



- Separate for wind energy and grid

Step 1: define the need for development (wind)

- *Analyse political goals*
- *Identify priorities of development*
- *Check priorities of neighbouring countries*
- *Analyse future trends*

Step 2: Mapping the existing designations and installations (wind)

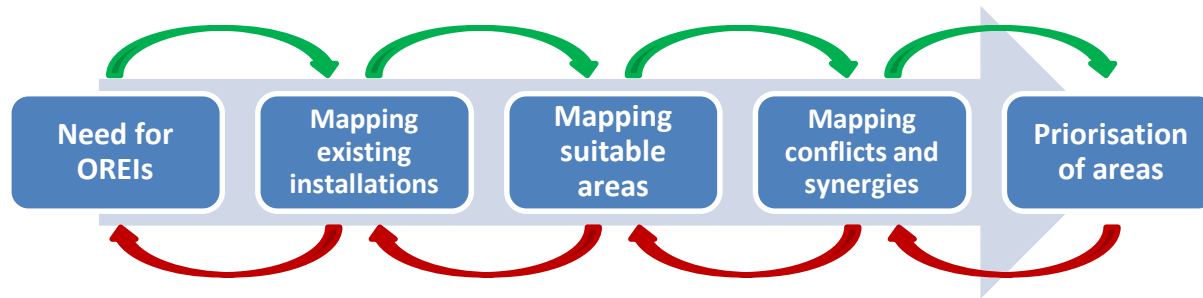
- *Take existing energy sector plans as a starting point*
 - *Swedish example*
 1. *Take the existing national energy plan*
 2. *Analyse applicability of old areas and identify new ones (with the sectors)*
 3. *Include them into your MSP*
- *Other uses (hard constraints)*

Step 3: Mapping suitable areas (general planning criteria) (wind)

- *Physical conditions*
- *Demand for energy in the area*
- *Grid connections*

Step 4: Mapping conflicts and synergies with other uses (wind)
- Organise cross-sectoral discussions

Step 5: Define priority areas for offshore wind energy (wind)
→ the plan



Lead partner



BUNDESAMT FÜR
SEESCHIFFFAHRT
UND
HYDROGRAPHIE

Partners



EUROPEAN UNION



Finnish Transport Agency



Vides aizsardzības un
reģionālās attīstības
ministrija

