Study on the designation of renewables acceleration areas (RAAs) for onshore and offshore wind and solar photovoltaic energy

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Joint NWWAC/PelAC Focus Group Spatial Dimension

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About us

We support public institutions in their decision making from strategy to evaluation through rigorous studies.

- **Impact assessments, evaluations**
- **Cost-benefit analysis**
- **Modelling, scenario analysis**
- **Strategy, roadmap development**
- **Stakeholder consultations**

- **Founded in Rotterdam in 2012**
- **70+ staff with diverse backgrounds (Engineering, economics, law, science …)**
- **~25 nationalities & 20+ languages**

Areas of Expertise

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Energy & Climate Policy

- Governance
- Adaptation

Environment

- Nature & biodiversity
- Water
- Agriculture

Green Finance

- Financing transitions
- Climate & nature finance
- Taxonomies and finance tracking
- Greening financial systems

Decarbonisation

- Industrial decarbonisation
- Energy efficiency

Green Economy

- Eco-design
- Circular economy
- Green jobs and skills
- Just transition

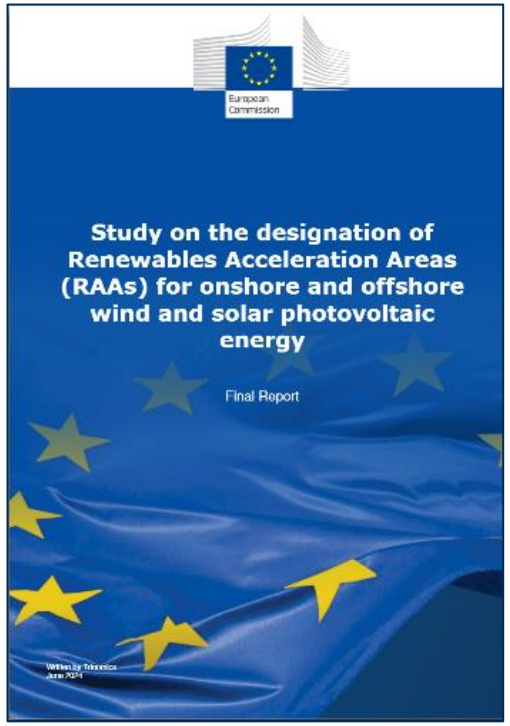
Energy Markets & Infrastructure

- Infrastructure & system integration
- Energy regulation & markets

About the Study

Study on the designation of renewables acceleration areas (RAAs) for onshore and offshore wind and solar photovoltaic energy

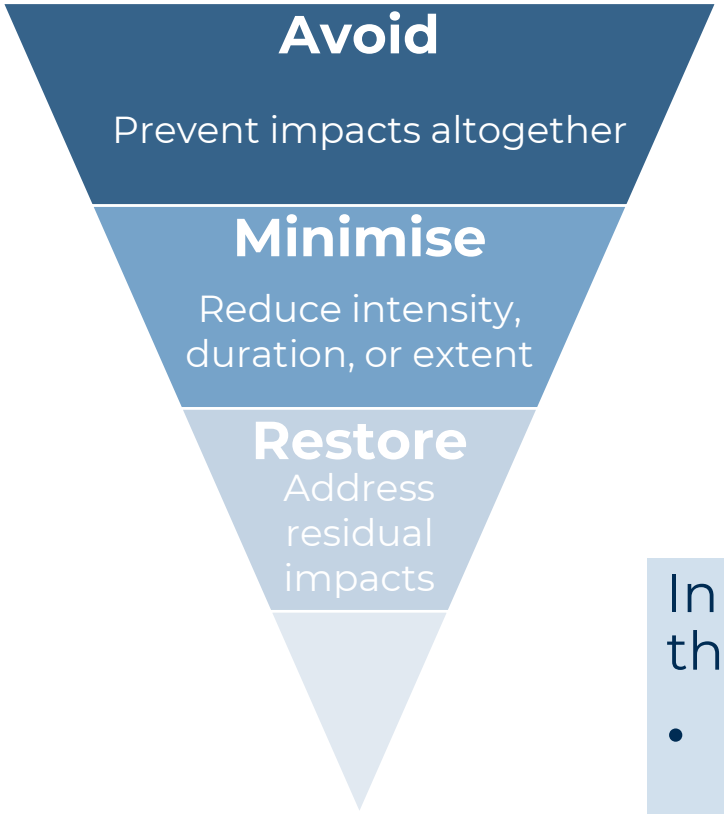
- Support the Commission in developing a methodology to guide the successful designation and implementation of Renewable Energy Areas (RAAs), according to the Article 15 (C) of the revised RED
  - Implementation period December 2023 – May 2024
- Guidelines provide key considerations for
  a. Selecting the **location of RAA** for streamlined permitting of RE plants
  b. Determining **mitigation measures** to minimise RAA's adverse impact on environment
- Aim was to provide sufficient guidelines for MS to approach RAA designation that will minimise impact on environment, while not prescribing specific steps that depend on national frameworks



Link to the Study

Renewable Acceleration Areas (RAAs)

Specially designated sites for deployment of renewable energy, where impact on environment will be minimal.



Avoidance measures		
Site selection	Project design	Scheduling

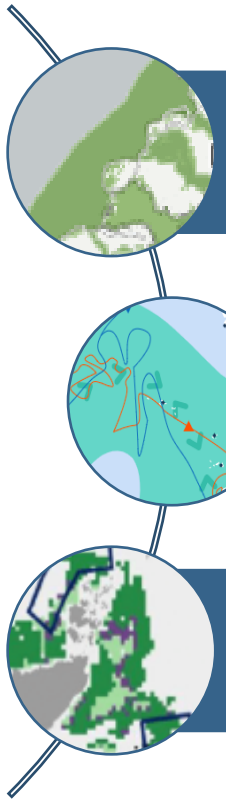
Minimisation measures		
Physical controls	Operational controls	Abatement controls

In the context of RAAs, impacts addressed exclusively through avoidance and minimisation

- **Selection of RAA site is the first avoidance measure!**

Localisation of RAAs

Exclusions – Art. 15c, par. 1.a.(ii)



'Direct' exclusion of protected sites for biodiversity conservation - Natura 2000 and nationally designated areas.

Major birds and marine mammal migratory routes - to avoid/minimise risks of collision, habitat disruption, disturbances.

Other environmentally sensitive areas to be identified based on wildlife sensitivity maps and tools

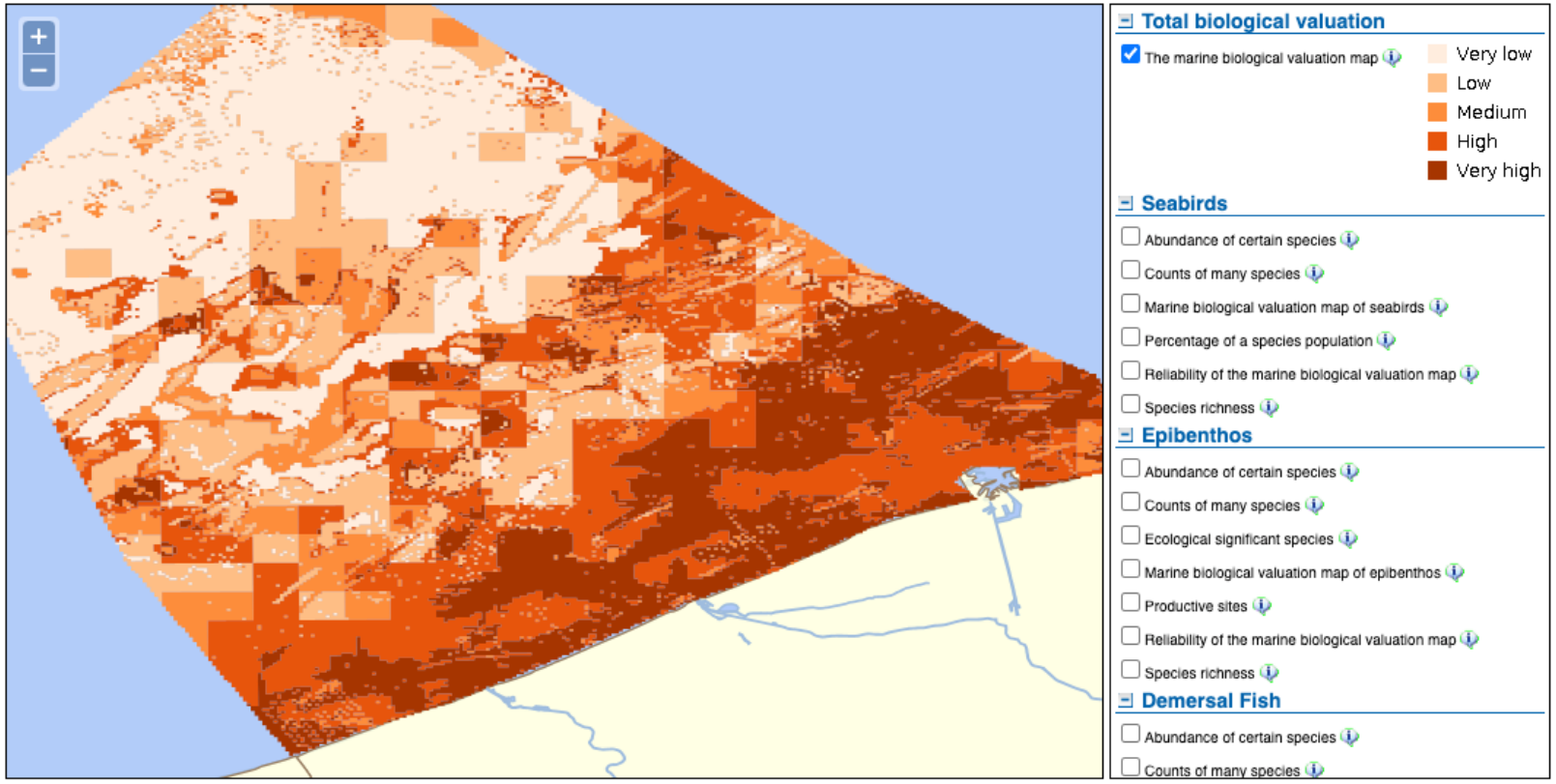
Data collection is key - e.g. for **birds**, the Migration Atlas by Movebank and EURING, the Seabird Tracking Database by Birdlife; for **marine mammals**, the WWF's Blue Corridors project, IMMAs by IUCN and the ACCOBAMS survey initiative.

Areas where intensive RE deployment is expected to have significant impacts on biodiversity and ecological dynamics.

- Guidance docs from EU Commission on wildlife sensitivity mapping
- Examples of sensitive areas: nesting and breeding sites for birds, habitats of sensitive species (IUCN Red List), prospective protected areas and ecological corridors.

Localisation of RAAs

Example of sensitivity mapping – BWZee Atlas in Belgium



Biological valuation map of the Belgian continental shelf.

Localisation of RAAs

Priority areas

Non exhaustive list in Article 15c, par. 1.a (1) – **strong focus on onshore RAAs**.

→ Guiding principles : minimal environmental sensitivity and efficient/multiple use of space.

Potential priority areas for offshore RAAs could be:

- Areas identified as suitable in marine planning under the MSPD
- Areas with poor seafloor conditions – if compatible with restoration activities
- Areas of end-of-life oil and gas offshore platforms, if removal is not feasible

Localisation of RAAs

Other considerations for RAAs identification

- Coherence with Nature Restoration Plans
- Avoiding areas with legal constraints or high trade-off potential – not expressly excluded under the RED, e.g. :
  - Historical and cultural heritage sites
  - Buffer zones around protected sites (Habitats Directive's requirement might apply)
  - Areas subject to measures to achieve Good Environmental Status under the MSFD, where relevant
  - Iconic landscapes, areas with economics trade-offs, e.g. with fishing activities, etc.

Designation of RAAs

Enabling conditions

- Uniform national framework
- Availability of environmental data
- Methodologies that enable comparing different sets of suitable areas (e.g. Portugal's scenario approach)
- Early stakeholder engagement
- Periodic revision of RAAs plans

Challenges

- Data limitations
- Decentralisation risks
- Legal and regulatory barriers – e.g. on noise or visual impacts
- Trade-offs with other land and marine uses → better addressed in the mapping phase

Mitigation measures in RAAs

Mitigation rulebook – comprehensive and trageted set of rules to effectively address environmental impacts of an RAA

Steps to develop mitigation rulebook

0. *Avoidance through RAA site selection*
1. Identification of potential environmental impacts
2. Matching mitigation measures with impacts:
    - Prioritise avoidance and minimisation
    - Restoration only for impacts related to project construction / decommissioning
3. Select measures based on their:
    - Suitability and feasibility for the specific RAA site
    - Compliance with regulatory requirements and resource availability
    - Ensuring no significant impacts remain

Criteria for prioritising mitigation measures

1. Address significant environmental impacts effectively
2. Proven and tested solutions preferred (pilot testing for novel measures)
3. Seamless integration with RAA schedules and regulatory frameworks
4. Proportionality to achieve objectives efficiently
5. Multi-impact measures preferred (across life cycle stages or multiple impacts)

Offshore wind

Environmental impacts

Wildlife mortality and injury	• Collision
Habitat loss	• Habitat loss • Barrier effect and species displacement
Ecosystem degradation	• Noise • Habitat degradation • Pollution • EMF emission

Mitigation measures

• Scheduling • Physical and operational controls	• Schedule construction activities to avoid ecologically sensitive periods • Use of (audio, visual) deterrents, restrict vessels' movement during construction, operation, decommissioning
• Operational controls	• Define vessels' routes during construction, operation, decommissioning
• Design and scheduling • Physical, operational and abatement controls	• Seasonal restriction on piling activities, different types of foundations, use of sound barriers during construction • Burying power lines, adjusting construction techniques • Waste disposal management, regular vessels' checking and maintenace • Covering cables with protective materials

Finalising RAA designation

Cumulative impacts and stakeholder engagement

- Consideration of environmental impacts and appropriate mitigation measures should include assessment of cumulative impacts
  - Taking into consideration interplay of RAA (and its RE technolgies) with other developments and uses of the area

- Stakeholder engagement througout the entire process is a key requirement to ensuring good decision making

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Thank you!

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