

# Offshore Wind and Net Positive Impact

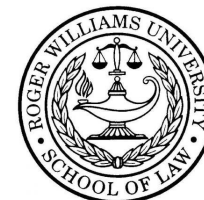
Is biodiversity NPI for offshore wind projects achievable?

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The Nature  
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# Context

- **Global climate goals:** Act now to halve carbon emissions by 2030 → rapid transition to **renewable energy** (RE).
    - Total global offshore wind (OW) capacity at end of 2022 → 64.3 GW.
    - 130 GW expected to be added by 2027.
    - For context, 1 GW is roughly equal to 110 million LEDs, approx. 333 x 3MW utility-scale wind turbines, or about 1.3 million horses.
  - **Global goals for nature:** Post-2020 Global Biodiversity Framework → goals for **halting and reversing biodiversity loss** by 2030 and **living in harmony with nature** by 2050. This means, in practice:
    - **No net loss** (NNL) of nature from 2020, **net positive impact** (NPI) for nature by 2030, and **full recovery** by 2050
    - This applies to the **full OW value chain** (direct operations, upstream and downstream value chains)
- **Can this NPI be achieved for offshore wind?**
    - Here, we **focus on NPI** and the potential challenges for achieving this for **OW direct operations**.

# Rigorous application of the mitigation hierarchy – central to achieving NPI for OW

## The typical approach to mitigating development impacts:

- Is based on robust, **quantified** impact assessment.
- Prioritises **avoidance** of impacts in the first place – the best and most cost-effective mitigation we can achieve.
  - Foremost – select the **most appropriate sites** for development. There is a balance of environmental, social and economic factors to consider – but essentially the best sites are the least ecologically valuable, where **risk to nature is lowest**.
  - E.g., avoid protected areas and bird migration routes.
- **Minimises** unavoidable impacts as far as possible – most likely through **sensitive and adaptive installation and operational techniques**.
  - E.g., timing construction to avoid marine mammal breeding periods, noise-reduction techniques like bubble curtains, adaptive management of piling processes to reduce underwater noise impacts, or operational shutdown on demand approaches to minimise avian collision risk.
- **Restores** impacts that cannot be avoided and have been minimised as far as possible.
  - E.g., restoring construction laydown areas, or coastal areas disturbed by export cable landfall
- **Compensates for** (offsets) remaining significant residual impacts, after avoidance, minimisation and restoration has been optimised.

# Is NPI feasible for offshore wind?

## A summary of key considerations

### Yes, but...

- A project is unlikely to achieve NPI for all features affected – **need to identify priorities**.
- Different priority features likely require **different metrics** and **different monitoring** approaches.
- A **quantified baseline** is required for each priority feature, to understand current conditions, and understand the project-related impact.
- Actions designed to achieve NPI need to **address the impact and improve on the baseline**, and may require both insetting and offsetting.



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## A summary of key considerations

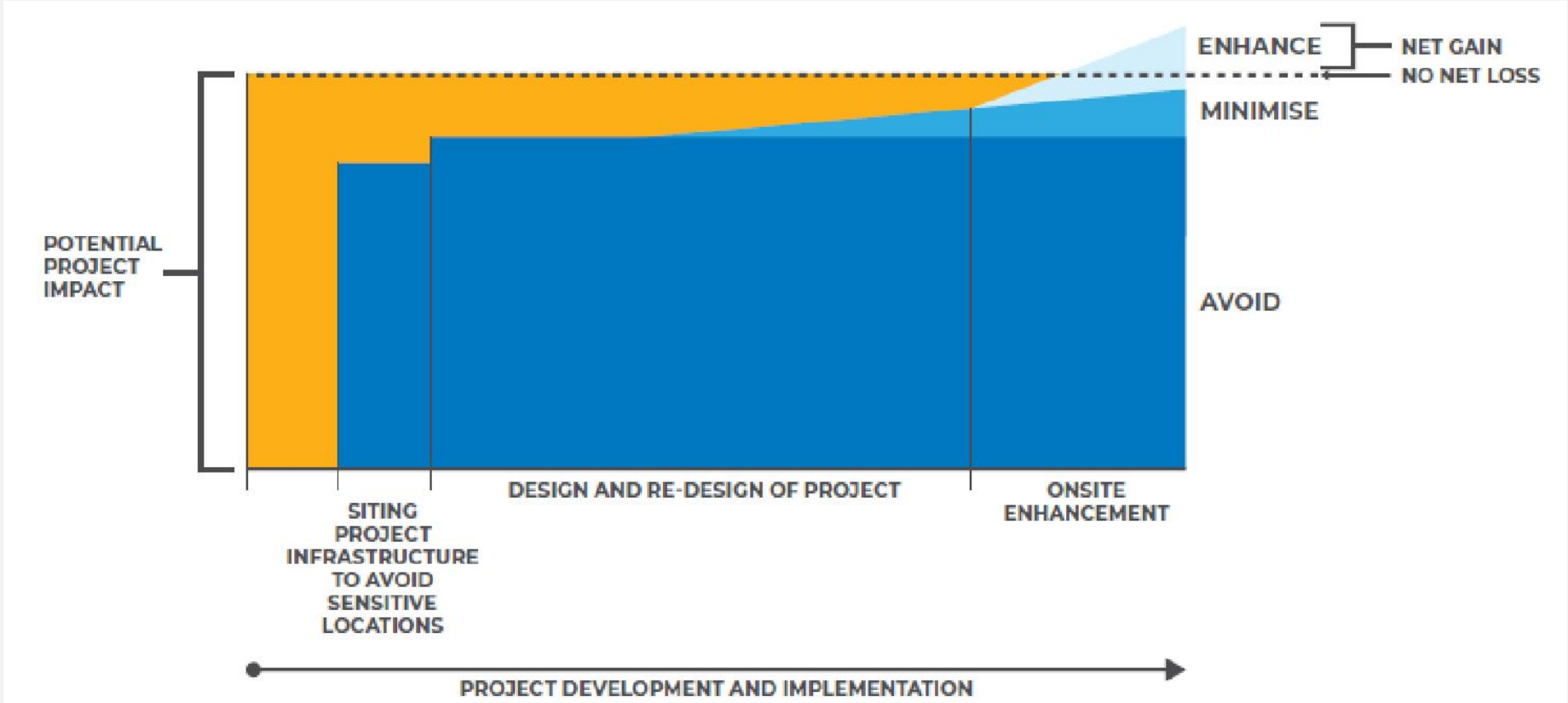
Yes, but...

- **Uncertainties** need to be accounted for (e.g., delays between impacts and gains).
- There could be **'impossibilities'** to address – where impacts cannot be quantified, or gains are not feasible. **Trading rules** will be essential:
  - Like-for-like? What will be considered equivalent?
- **Aggregation is essential** for demonstrating NPI – at the project and the portfolio level.
  - Methods vary for aggregating
  - What 'rules' will we use?
- Upfront, companies/projects need to clearly define **what can be claimed** and **when NPI can be said to be achieved**.
  - What is progress? When has net gain been achieved?



# What could the mitigation hierarchy look like for a renewables project?

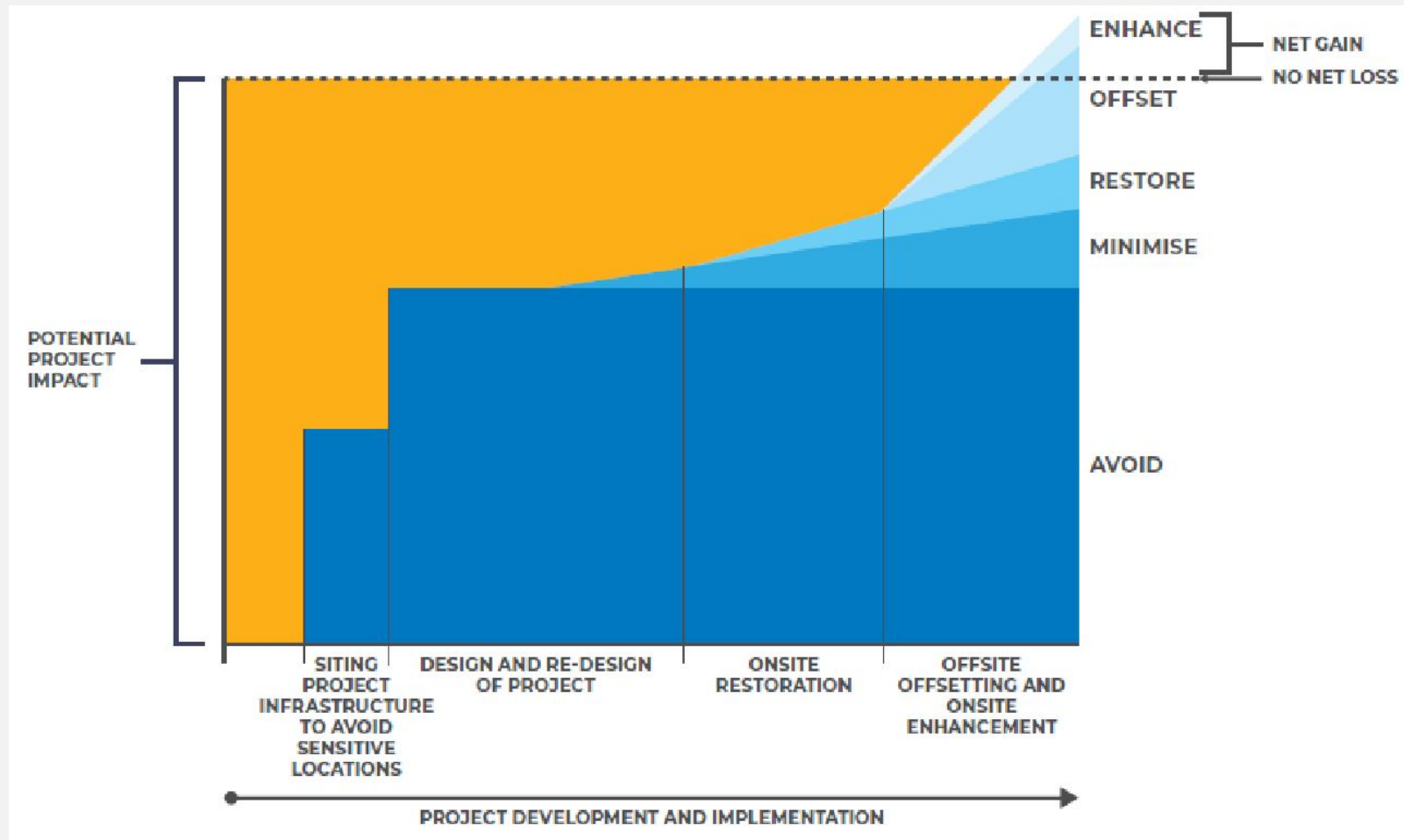
In an area of **low** biodiversity sensitivity...on-site habitat enhancement helps to achieve net gain of biodiversity



[IUCN and TBC 2021](#)

# What could the mitigation hierarchy look like for a renewables project?

In an area of **high** biodiversity sensitivity...more work is required both onsite and offsite, to achieve net positive impact – and there will be uncertainties.



# Thank you for your time



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