



North Sea
Wind Power Hub
Programme

CBCA methodology paper

ACER CBCA Targeted Stakeholders Workshop

March 16th, 2023

Powered by

ENERGINET

gasunie

 **Tennet**



Co-financed by the Connecting Europe
Facility of the European Union

The contents of this publication are the sole responsibility of North Sea Wind Power Hub and do not necessarily reflect the opinion of the European Union.
North Sea Wind Power Hub feasibility and preparation studies (1.19-0001-NLDE-S-M-20) is co-financed by the Connecting Europe Facility of the European Union.

Vision of the Consortium

- ⌵ To reach climate neutrality in 2050, significant (300 GW) offshore wind capacity needs to be built
- ⌵ We consider it our social responsibility to pro-actively facilitate affordable and secure connection and integration of this vast amount of energy
- ⌵ This requires a series of hub-and-spoke projects, with the ambition to realise the first hub in the early 2030s

Powered by



ENERGINET



gasunie



Tennet





CBCA methodology paper

Why this paper?

NSWPH received CEF funding in 2020 based on granted PCI status.

Under the CEF grant for NSWPH, we as consortium committed us

- To further research CBA methodologies. Many aspects of the NSWPH are so far not, or not adequately covered by standard CBA methodologies – be it cost and/or benefits
- Discuss implications on possible CBCA methodologies

Who participated in the discussions?

We as NSWPH consortium teamed-up with Frontier Economics to ensure a neutral approach and the availability of latest developments on CBCAs

What are the next steps?

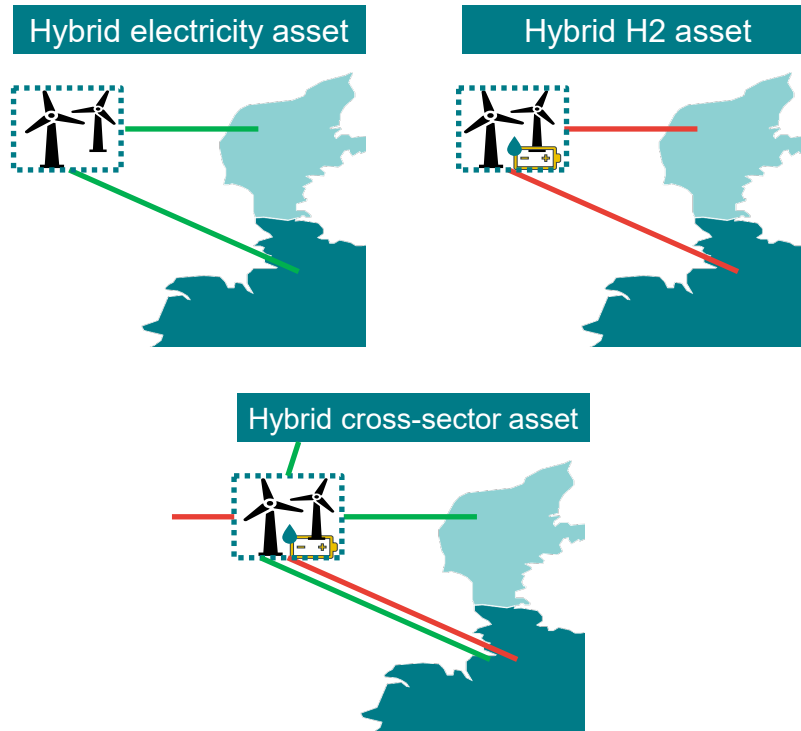
- NSWPH CBCA methodology discussion paper finalized
- Will be published later this month on NSWPH web page (<https://northseawindpowerhub.eu/>)



The main challenges for CBCA: Increasing complexity and designing of adequate reference cases

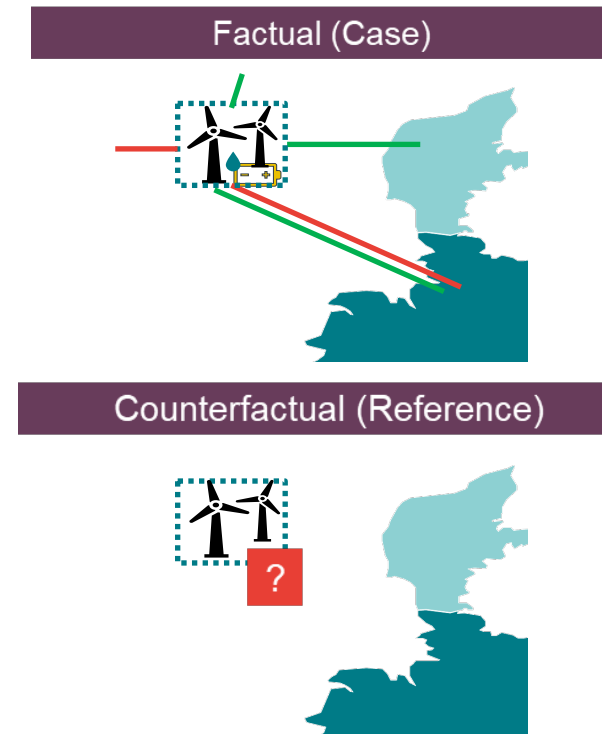
With Multi-Purpose Solutions (MPS), hybrid assets will create interconnectors between national markets and sectors/energy carriers

Future CBCAs need to consider these new dimensions



With increasing complexity and (usually) accompanying size of the projects, the adequate reference cases of a CBA/CBCA and consequently CBCA are less trivial

Design principles for reference cases (to a project case) need to be broadened-up and benefits will be more diverse





Four key takeaways

CBCAs should become multi-dimensional

Future CBCAs for very large scale and/or cross-sectoral projects should explicitly take allocation effects between countries and sectors in focus

CBCAs will increase in complexity

- As more and more Multi-Purpose Solutions (offshore but also onshore) come online in a increasingly sector-coupled world, CBCAs will increase in complexity
- As also # of parameters increase, results for such CBCAs can be expected to become less robust
- As calculation results will increase in complexity and therefore decrease in robustness, calculation results should be used as indicators for the following political alignment rather than an undisputable bases for later cost sharing

Political (pre-)alignment on methodologies is key

- As joint buy-in of all parties is required, concerned stakeholders should on the bases of voluntary participation jointly agree on a calculation method for CBA and CBCA upfront of specific projects to ensure a fair sharing of cost
- One option could be to leave it up to the national states on how to allocate costs to end consumers and/or tax payers
- To reap the benefits of MPSs, policymakers need to ensure that the appropriate economic framework (=avoidance of market disturbing incentives) is in place to allow investment by market participants in the relevant assets (OWF, electrolysers, etc.) as anticipated within the CBA scenarios

More research and political discussions are required to further advance in CBCA methodologies