

DECEMBER 2017

Summary

- Upon invitation, a group of 30 industry representatives gathered in Amsterdam on 30 November 2017 to discuss the NSWPH vision and solution for the future offshore wind and onshore grid challenges.
- This was an opportunity to create a common understanding on the vision and discuss first findings from detailed studies by the consortium on the Hub & Spoke and Hub as an Island concepts.
- New partners to the consortium bring relevant expertise on Power to Gas (Gasunie) and port development and land reclamation (Port of Rotterdam).
- The visionary NSWPH project creates excitement with policy makers. It covers five important policy dimensions i) • regional cooperation ii) internal market iii) energy efficiency iv) climate action and v) innovation and competitiveness.

Feedback from industry participants

- Provide more information about the timeline. Be clear about the end game, provide a roadmap (or 'staircase') up to 2050.
- Include a more prominent 'German angle', building on existing experience with further offshore wind clusters. •
- Consider UK representation in the consortium.
- Focus on the system economic perspective of this solution and not the LCoE.
- Start from functional specification and invite market parties to develop designs / solutions.
- Be open to other solutions e.g. consider enhancing or reuse of existing infrastructure.
- A hub as an island does not create a nearshore environment. The biggest advantage for wind farm developers would be the island to turbine distance. Wind farm O&M is not a driver for an Ijmuiden Ver island solution.
- The case for Power to Gas on a NSWPH island was not highlighted in the presentation. This is a key question that the consortium will address in the current R&D phase. Suggestion was made to compare two business case i) P2G for interconnector flexibility ii) P2G for transmission onshore vs offshore electrolyses.

Reflections from the consortium

- The consortium will continue the discussions with partners in Norway and the UK. The consortium is open for additional • partners from the North Sea countries.
- A consultation process is anticipated to explore functional requirements from wind farm developers and the supply chain.
- Functional requirements for a 'lean island' e-infra only design i.e. no functionality for wind farm owner/operators, are well understood. For a 'comprehensive' island design the NSWPH consortium requires input from the industry partners The consortium wishes to engage with developers to jointly investigate the possibilities for a comprehensive island solution further offshore (>200km).
- The consortium is currently developing the action plan and research and development agenda for 2018 including e.g. more detailed questions on the integration of Power to Gas solutions.



Next steps

- News will be published on the NSWPH website.
- Input from the industry essential moving forward. The NSWPH consortium will approach stakeholders again in 2018 for further consultation in an open and transparent process.

Information and feedback

- I: www.northseawindpowerhub.eu
- E: info@northseawindpowerhub.eu

About the NSWPH consortium

TenneT Netherlands, TenneT Germany, Energinet, Gasunie and Port of Rotterdam joined forces to develop a large scale European electricity system for offshore wind in the North Sea. The NSWPH consortium partners consider the project to be an important possible alternative path of an internationally coordinated roll-out towards accomplishing the green energy transition and achieving the Paris Agreement. By developing the North Sea Wind Power Hub project, the consortium endeavours to make the energy transition both feasible and affordable. Central to the vision is the construction of one or more hubs at a suitable location in the North Sea with interconnectors to bordering North Sea countries. The whole system may function as a hub for transport of wind energy, an interconnection hub to the connected countries, a working hub for offshore wind developers and a location for possible Power to Gas solutions.

