

Comparing Offshore Wind-to-Wheel – electricity vs hydrogen

Publieke samenvatting / Public summary

Aanleiding

Wind energy directly converted to hydrogen inside the wind turbine enables cost- and efficiency benefits in the future carbon free society.

Doelstelling

The optimal wind turbine configuration (power density of the rotor to generator combination and optimal wind to electrolysis combination) and the optimal wind farm configuration, using integrated electrolysis inside dedicated wind turbines is investigated.

Korte omschrijving

As a major use case the entire the wind to wheel value chain is analysed, where wind energy is directly converted into hydrogen. The CoW2Weh project concerns the investigation of producing hydrogen at offshore wind farms and using it in the road transportation sector. Within the project, we evaluate the production/distribution chain of hydrogen produced by wind farms for road transportation in more details than similar studies carried out so far, comparing it with the full chain in which electricity is used instead as energy carrier.

Projectinformatie / Project information

Projectnummer / Project number

TKITOE_WOZ_2306_ECN_CoW2Weh

Subsidiebedrag / Grant amount

€ 89.973,00

Algemene informatie / General information

Penvoerder / Secretariat

HYGRO Technology

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