Integrating Floating Wind with Energy Storage to Decarbonize Offshore Oil & Gas Installations

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Green fuels (ammonia, biodiesel, etc.)

"power from shore"

"Off grid" renewable power

Carbon capture, storage and offloading

Floating Wind Solutions
How can Offshore O&G assets be decarb?

- Expected GHG-emission reduction around 35%
- GT’s are constantly running all the time as a blackout prevention measure

....is this enough?
How can we do it better?
“BlueWind” for Offshore O&G assets

- Ongoing FEED for a project in the Norwegian Continental Shelf
- FID expected autumn 2022
- First MW spring 2024
“BlueWind”: Estimation of Emissions Savings and major benefits

• Early studies indicate that **60-70% CO2 emissions reductions** are possible when compared to power generation solely from gas turbines (using the North Sea environment as a baseline).

• **Other Major benefits:**
  • No need for major upgrade on the hosting platform for connecting to the solution
  • Fuel savings for the time GT are not running (**45%-55% electrification** in a case analyzed in the NCS)
  • Less Maintenance and Overhauling intervals
  • HSE conditions onboard (less noises and vibrations)
“BlueWind” + Green Hydrogen Production will be the future?

Possible advantages:

Higher electrification level of the O&G assets resulting in:

- GHG-emissions
- Fuel consumption
- Less maintenance
- Longer lifetime of the asset
- Increased HSE onboard

Challenges to be overcome:

- Cost reduction
- Scalability
- Regulation

Floating Wind Solutions
Thank you!

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