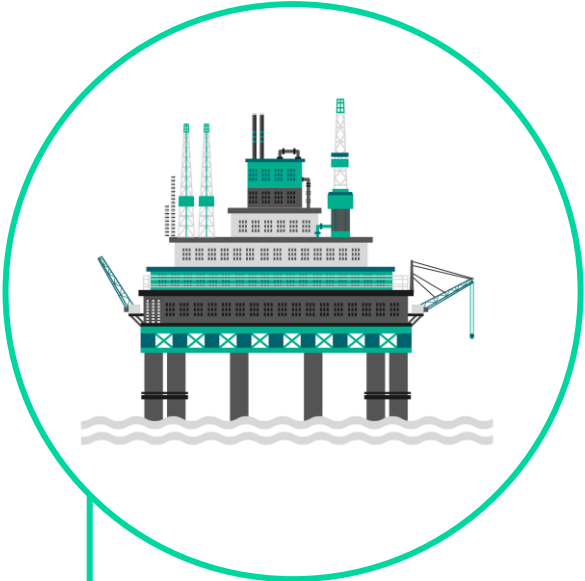


| Energy Transition

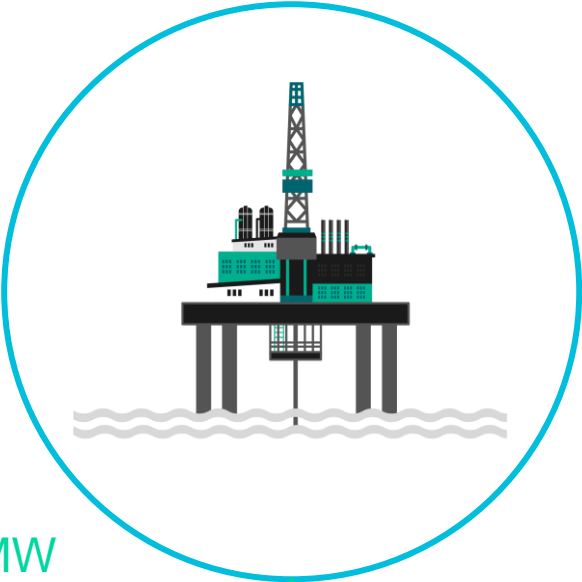
Electrification of offshore Gas Turbines
Eliminating 500,000 t/y CO₂

Platform Electrification – Removing 80MW of Gas Turbine power

Platform B

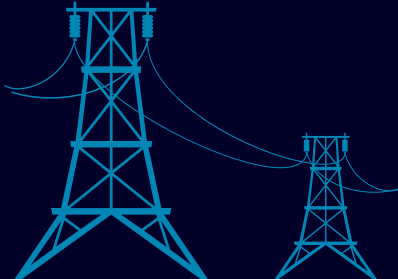


Platform A

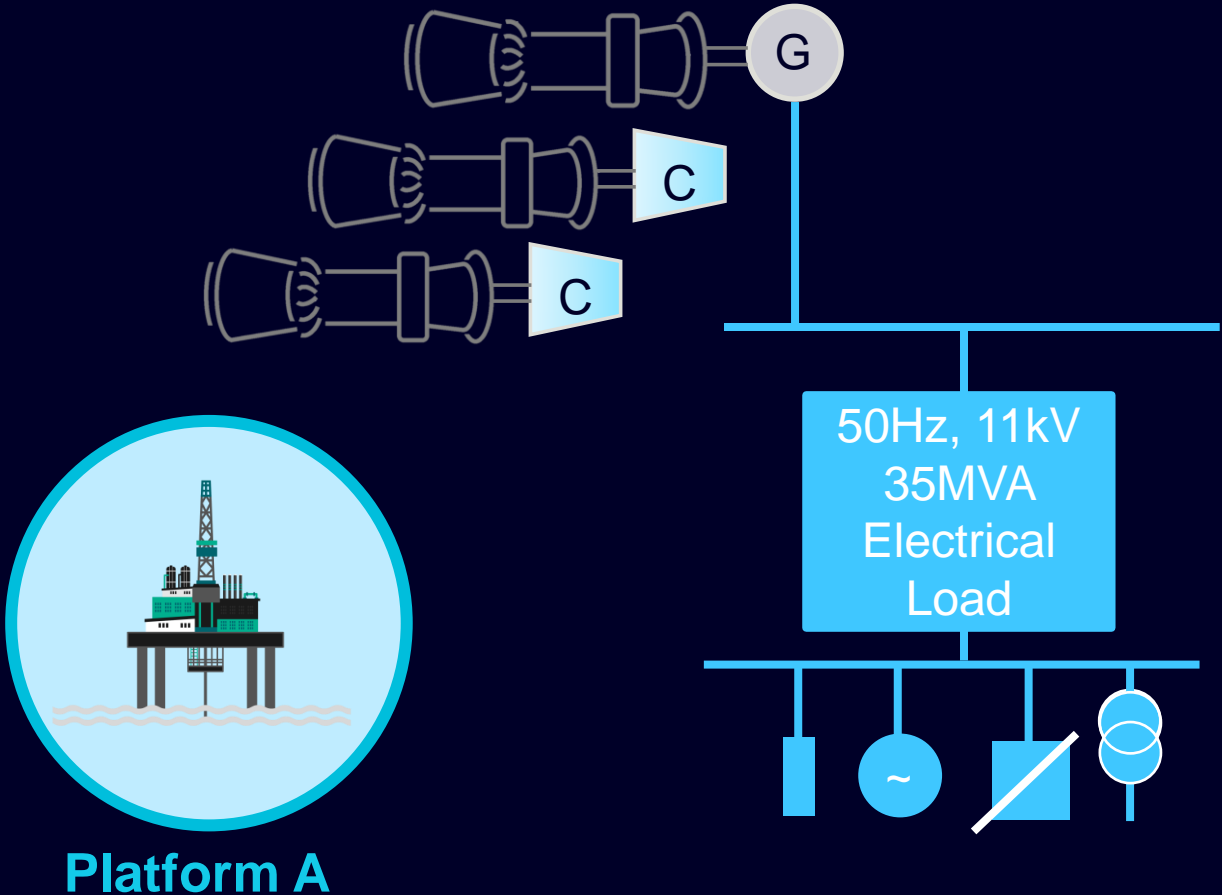
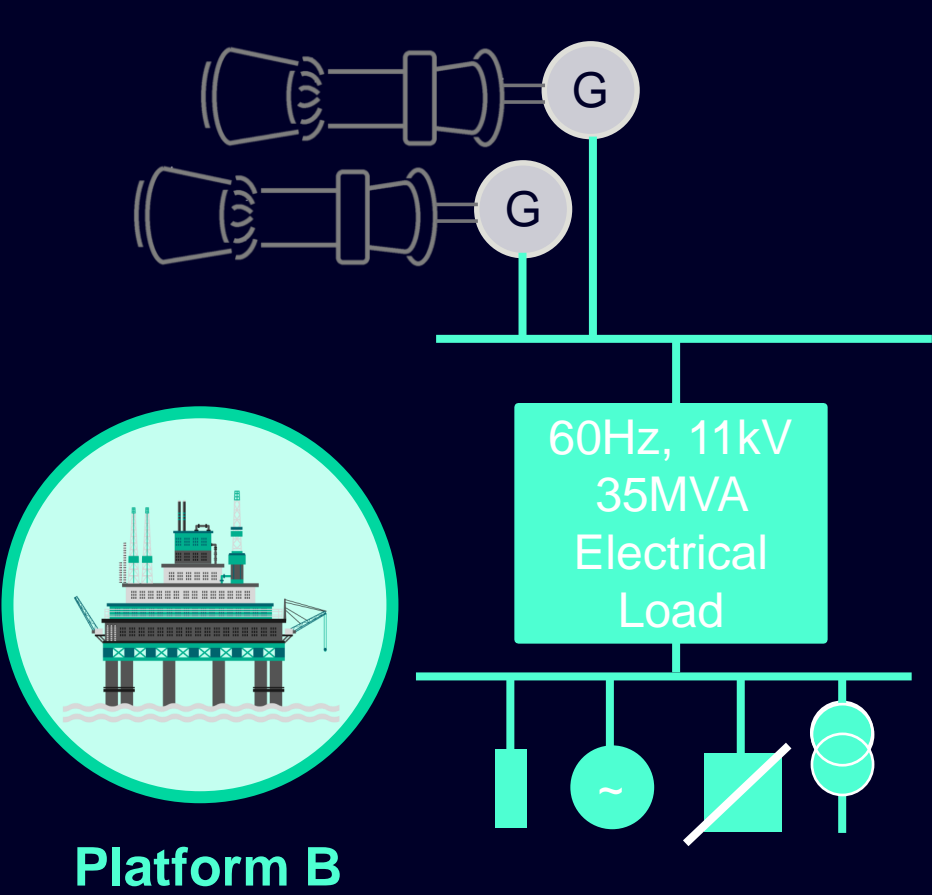


20km / 132kV
Subsea Cable 80MW

100km / 132kV
Subsea Cable 150 MW

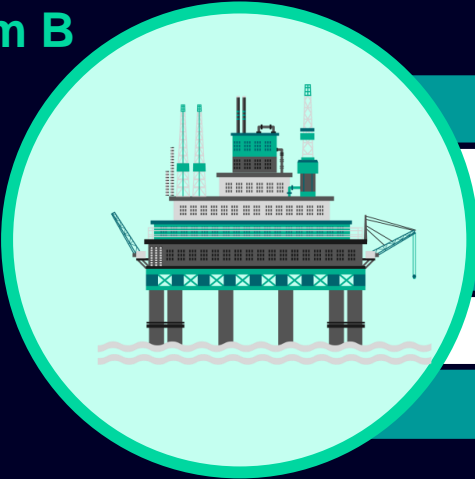




Existing gas turbine systems on offshore platforms A&B

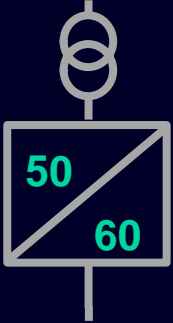


Energy Transition

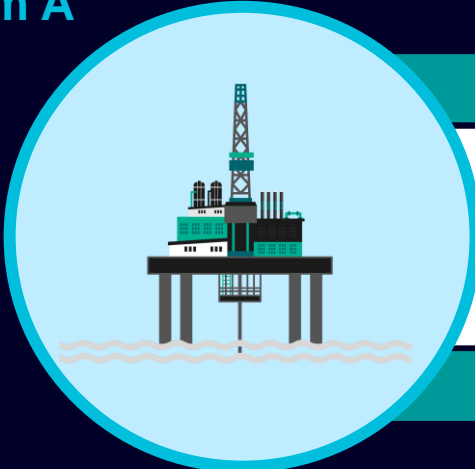
Platform B





- 40MVA, 60Hz load with 10MW DOL motor
- Bi-directional SFC 50/60Hz conversion
- Control, Protection & Grid disturbance support 
- AFE Power factor correction
- 100km Cable from renewable Norwegian source 



Platform A



- 2 x 25MW AFE VFD's
- High Reliability cell bypass N+1 
- AFE Grid disturbance Support
- AFE Power factor correction
- 20km Cable from platform A to B 



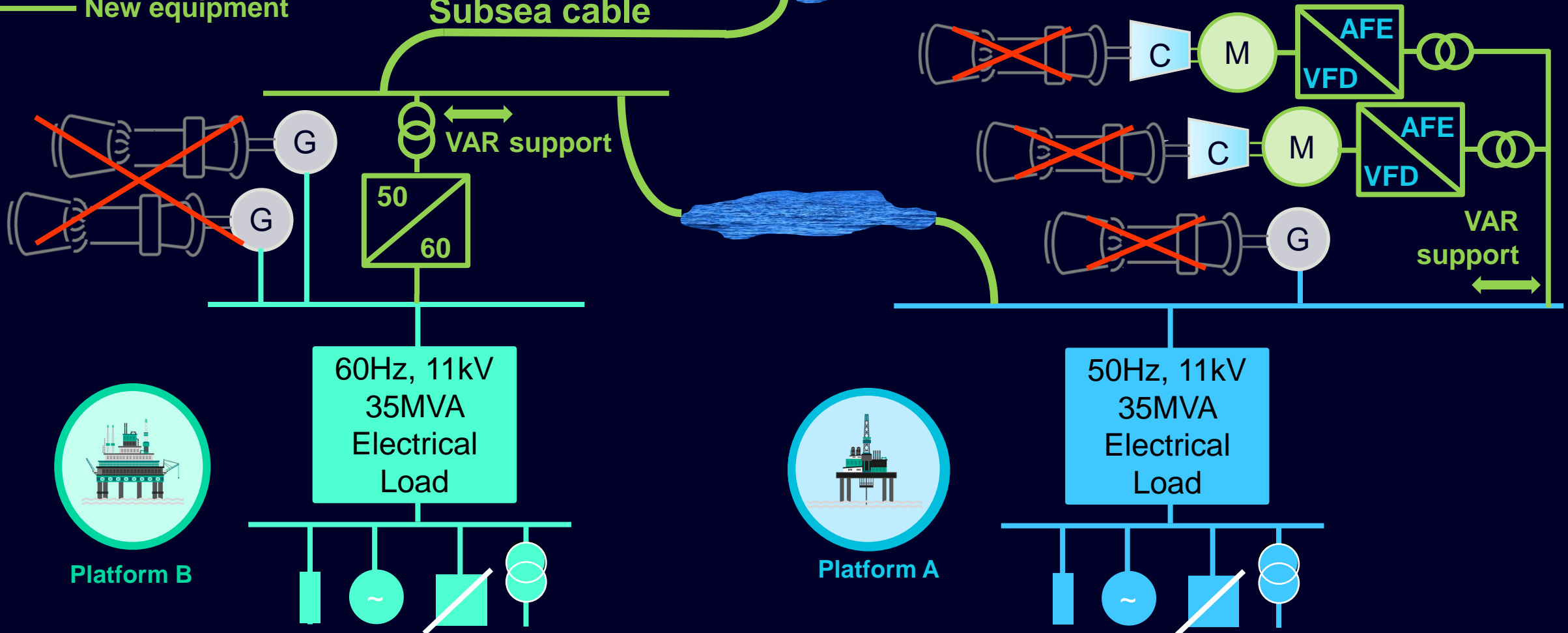
Electrification of offshore platforms A & B

Onshore
Hydro Electric
Power Source



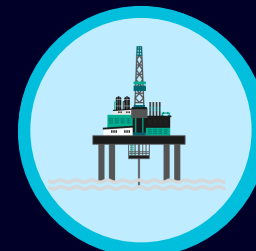
— New equipment

Subsea cable



Platform B

60Hz, 11kV
35MVA
Electrical
Load



Platform A

50Hz, 11kV
35MVA
Electrical
Load

Platform Electrification – Removing 80MW of Gas Turbine power

Customer objectives

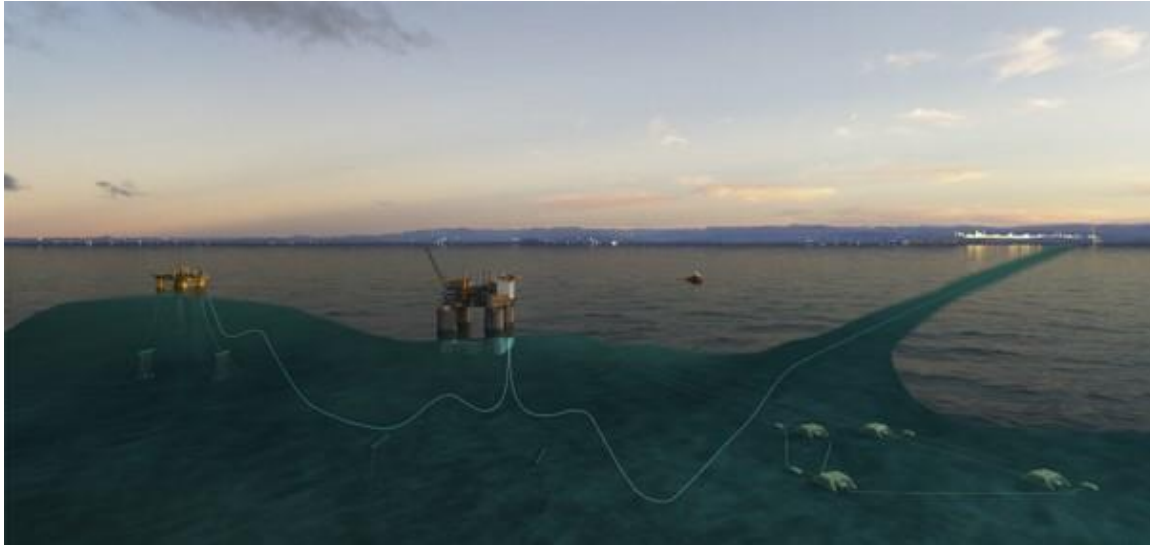
- Removing 50MW of gas turbine compressor load
- Removing 60MW of gas turbine generation capacity
- Connection to onshore hydro electric grid

Drive features

- AFE power factor correction
- Grid support during short circuits
- Cell bypass: n+1 redundancy

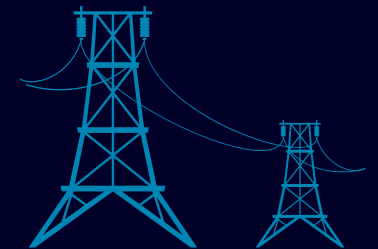
Scope of supply

- 2 x SINAMICS SH150 drives
- 2 x 4 pole Ex motors
- 2 x SH150 Frequency Converters
- 4 x 132kV Ex ONAN Transformers



Electrification of offshore gas turbines, eliminating 500,000 t/y CO₂

Power from shore
80MW gas turbine load removed



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