**CASE STUDY:** ENERGY MANAGEMENT SYSTEM

# Wind Turbine Integration by PRISMIC® ECPMS reduces emissions by 20% on offshore platform

## CHALLENGE

- First-of-a-kind novel implementation
- Wind power integrated to existing micro- grid
- Seamless integration essential
- Multiple OEMs, multiple communication protocols
- Existing micro-grid built on gas turbine generators
- Wind Turbine Generators (WTG) are inverter-based

## SOLUTION

- Development of WTG control philosophy
- Detailed analysis of multiple OEM protocols
- Creation of unique software coding for WTG integration
- New HMI (Human Machine Interface) developed
- WTG performance data (wind speed, wind direction)

## RESULTS

20%

Reduction in emissions

3,000,000 $m^3$

standard fuel gas per year saved

6,000 tonnes $CO^2$ -e

emissions reduction per year

Culzean offshore floating wind turbine

**"an innovative pilot project … proving the concept of hybridization of generation on an offshore facility"**

- Marie-Noelle Semeriame
Chief Technology Officer Total Energies

Baker Hughes

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