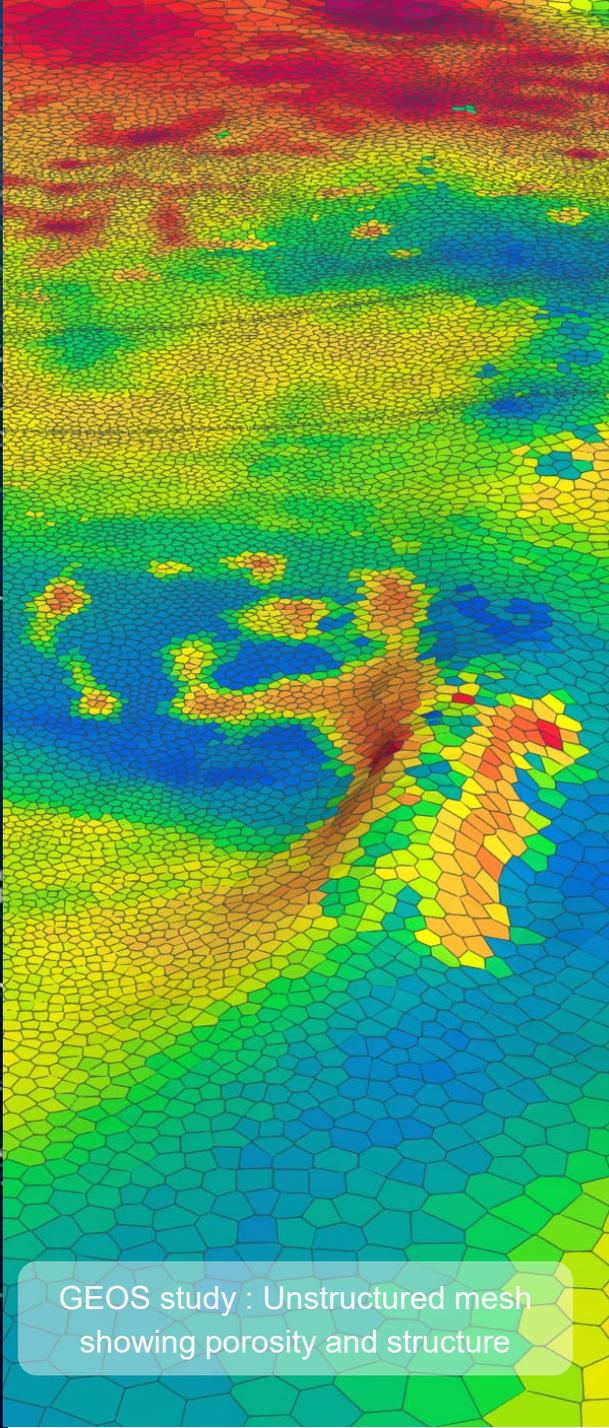
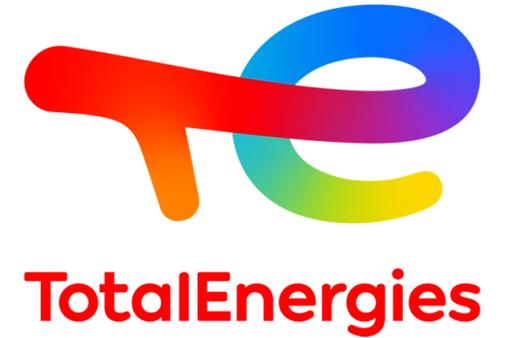




Northern Lights receiving terminal at Øygarden



GEOS study : Unstructured mesh showing porosity and structure



Technologies for De-Carbonization of Offshore Production Facilities

Khalid Mateen



Surface Facilities



Gathering Network

Oil Export

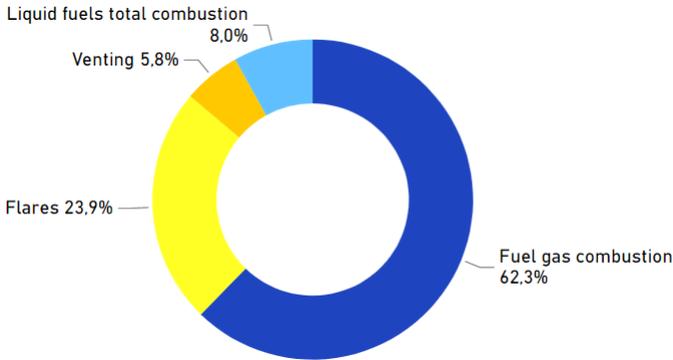
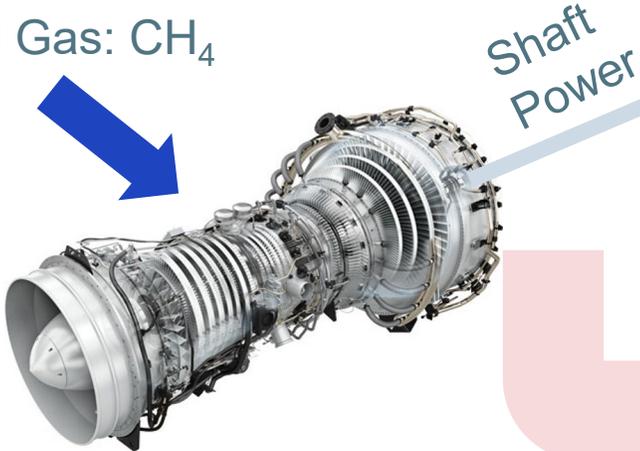
Producing wells

Injection Wells

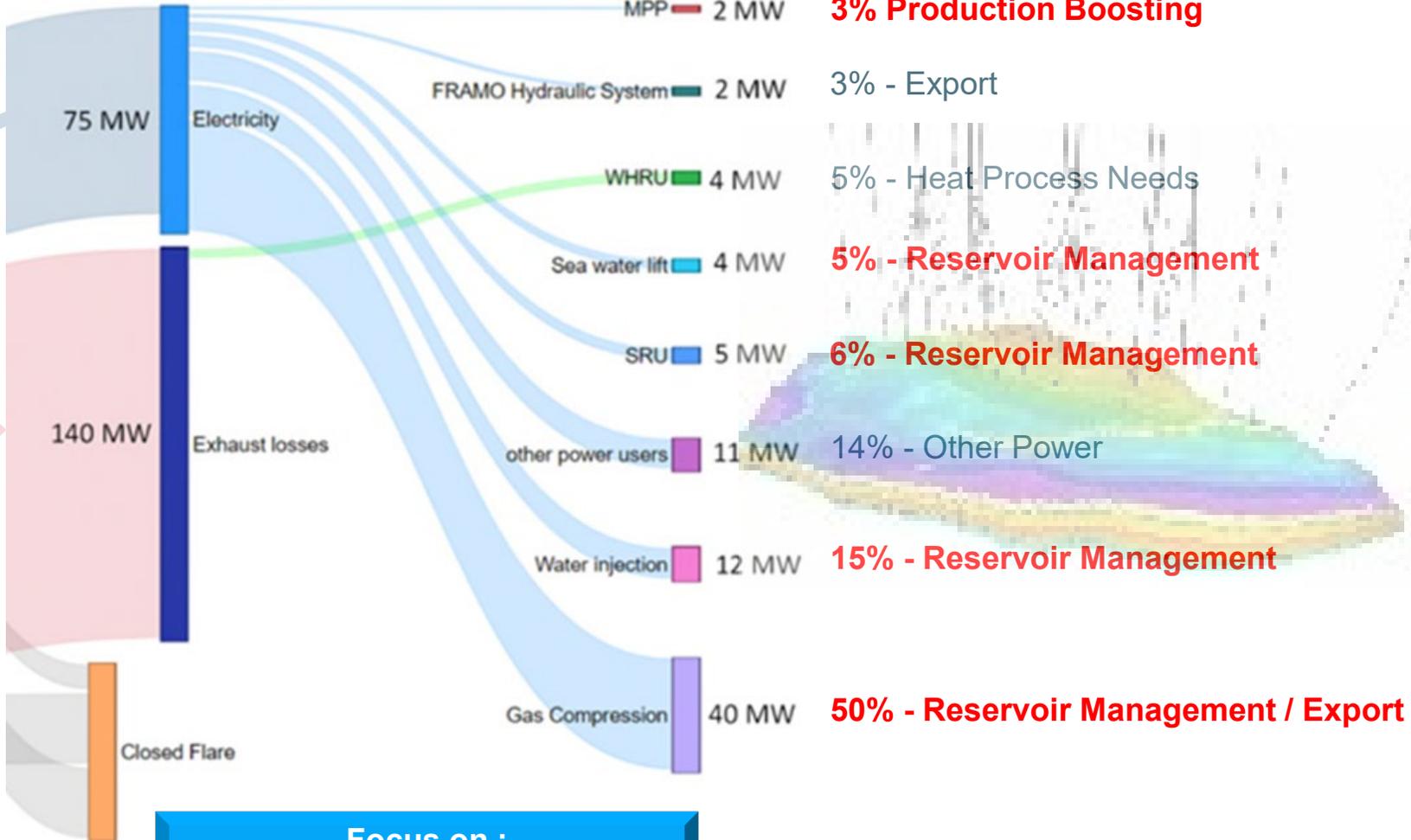
Oil & Gas Reservoir

Zero Carbon Emission Assets – We need POWER!

Fuel Gas: CH₄



2022 Operated Scope 1 & 2 EP GHG Emission



Focus on :

- Remote Sites
- No Power Grid
- Low Renewable Resources
- Energy Efficiency



Decarbonized fuels (NH₃ and H₂)

Exhaust Gas Recovery with Carbon Capture

Heat Recovery Through Innovative Combined Cycles

Gas Turbine Optimization

Decarbonize Gas Turbines

Combustion Real Time Efficiency Monitoring

Zero Flaring by Design

Reduce Residual Emissions

GHG, Exergy and Hybrid Modeling Integration

Integration of GHG calculation into production forecast tools

Integration of hybrid modeling development from power entities

Integration of Exergy analysis to evaluate site energy efficiency

Obtain Zero Carbon Power On/Near Sites

Waves, Current & Tides, Ocean Thermal Energies

Well Heat Recovery

Terminated Summer 2023

Lower Power Demand

Maximizing Production AND Minimizing Power Demand

Surface Levels >

Well Levels >

SubSurface Levels >

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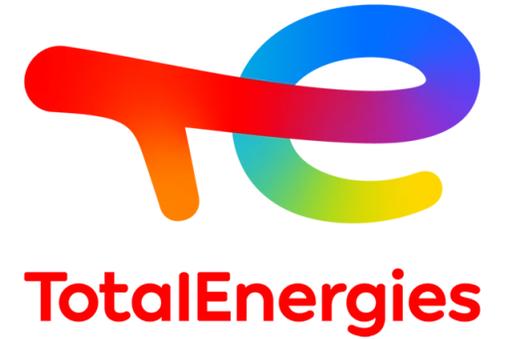
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Thank you/Questions

