



### Project Value

Incurring OPEX >£100K  
CO<sub>2</sub> Reduction >7,000te/yr

### Project Scope

In 2020, OPEX Group launched an AI-driven solution focused on helping customers to continuously operate their assets with the lowest achievable emissions.

As an existing customer of OPEX's data analytics solutions, CNR chose to trial the new cloud-based technology on the Tiffany asset.

Following the successful deployment this has now been rolled out to all of CNR's UKCS assets to support efforts to monitor and lower emissions across their operations with early insights specifically related to power generation opportunities.



Using AI to Operate Assets with the Lowest Achievable Emissions.

### Good Practice:

CNR International's asset teams use OPEX's AI-driven software to help them reduce operational emissions. The solution allows them to:

- Measure, monitor and visualise comprehensive emissions data down to individual source or emitter
- Automatically calculate the lowest achievable emissions (minutely) for any operating mode, configuration or operational constraint
- Detect sources of excess emissions as they occur and assign and take actions to optimise energy efficiency, minimise power consumption or reduce flaring

The software is displayed in the asset control rooms and utilised by onshore engineers as part of their daily workflows. This brings an increased awareness of the emissions impact of operational configurations and allows the teams to focus on managing and reducing emissions. Examples of the types of daily emission reduction opportunities that are identified include;

- Reducing the discharge pressure set points of booster pumps to save 5te/d of CO<sub>2</sub>
- Quick detection and repair of a problematic pressure control valve which eliminated excess emissions of 17te/d of CO<sub>2</sub> during the start-up of the export compressor
- Identification of 13te/d CO<sub>2</sub> saving opportunity with single Sea Water Lift Pump operation vs dual
- Cross shift learnings in process start-up and equipment change-over, have enhanced opportunities to reduce emissions by 1-22te/d

By enabling data-driven decisions across the assets, CNR is driving cultural change with the ultimate aim of lowering emissions and carbon-related costs.