



Methane and Fugitive Emissions Management – Innovative Strategies for Methane Detection, Mitigation, and Cost-Effective Solutions

29-30 SEPTEMBER 2025 | KUALA LUMPUR, MALAYSIA

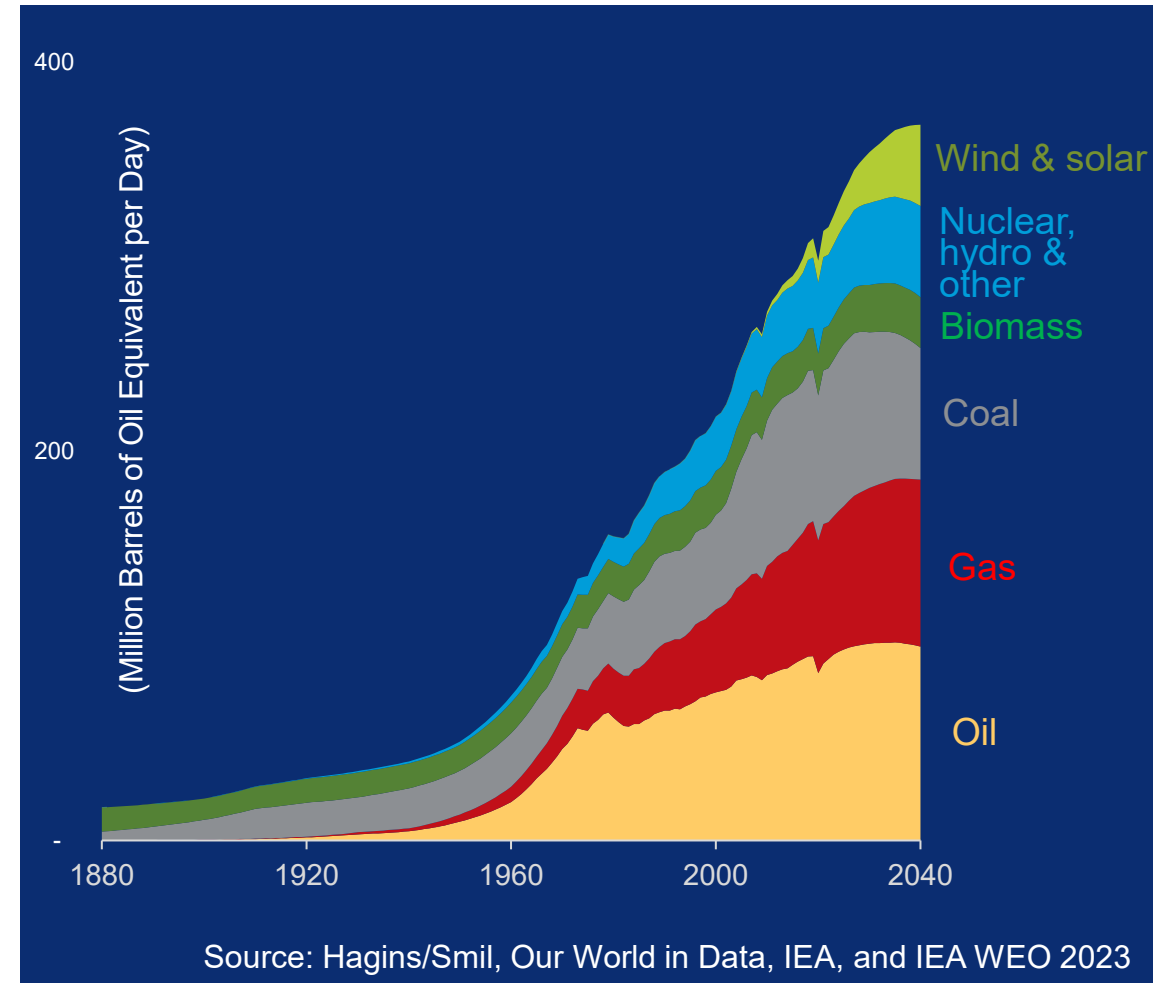
Pragmatic Energy Transition

Pannawat Nilkitsaranont

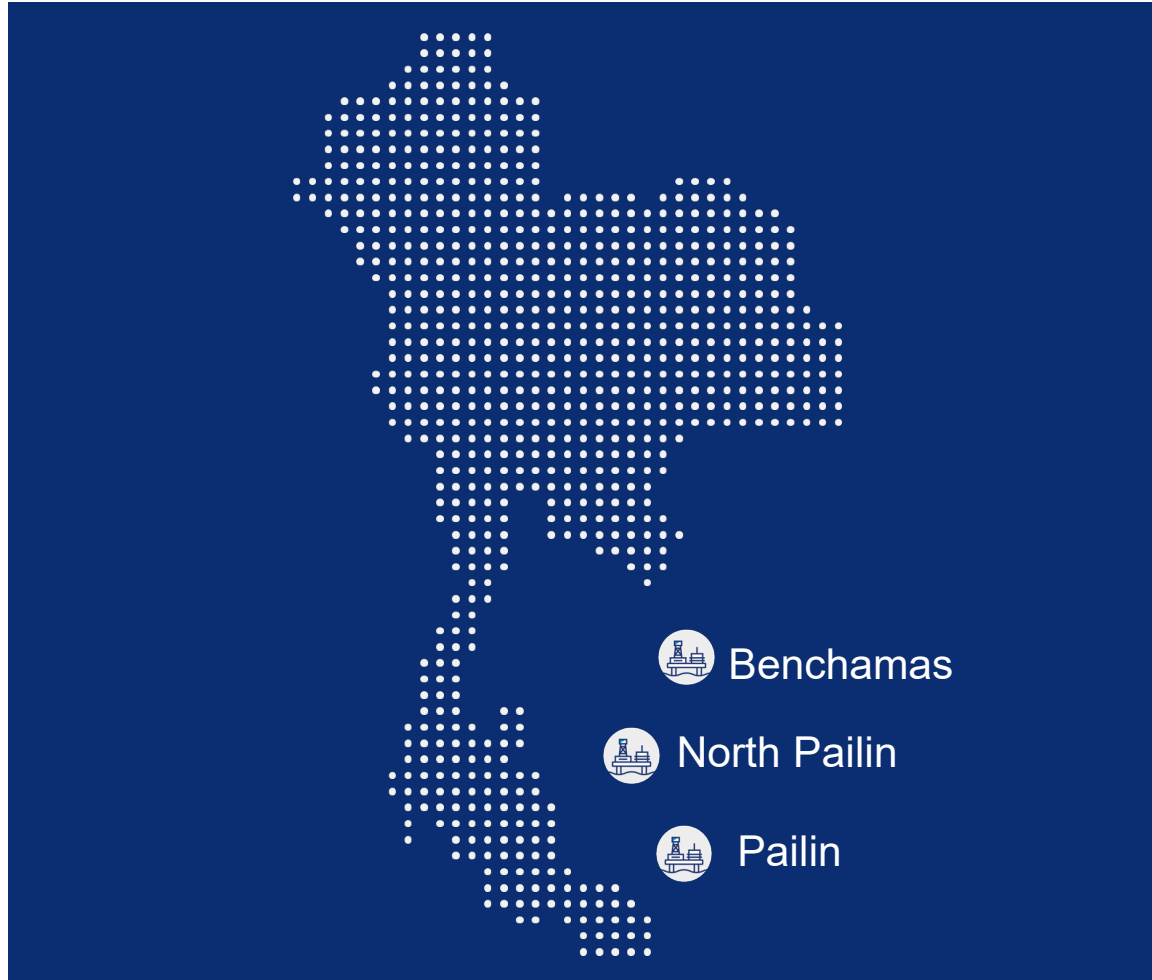
VP Facilities Designs and Solutions, Chevron Thailand Exploration and Production Limited



Energy Trilemma : Pragmatic Energy Transition



Chevron Thailand overview



In Thailand since

1962

Cumulative
gas production

17,766
billion cubic feet

Have drilled

8,410
wells

No. of platform

107

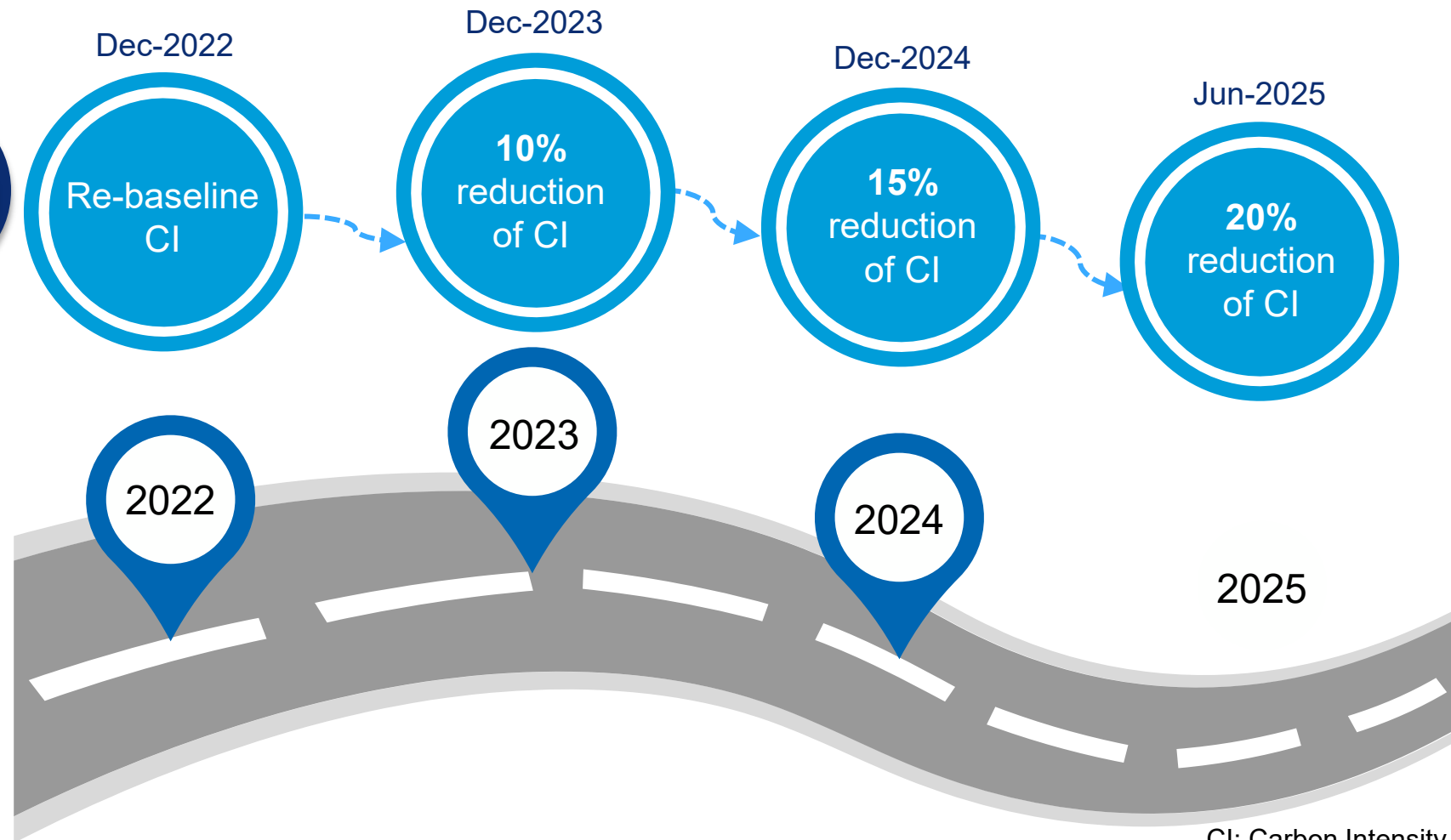
Thai workforce

99%

Data as of 30 June 2025

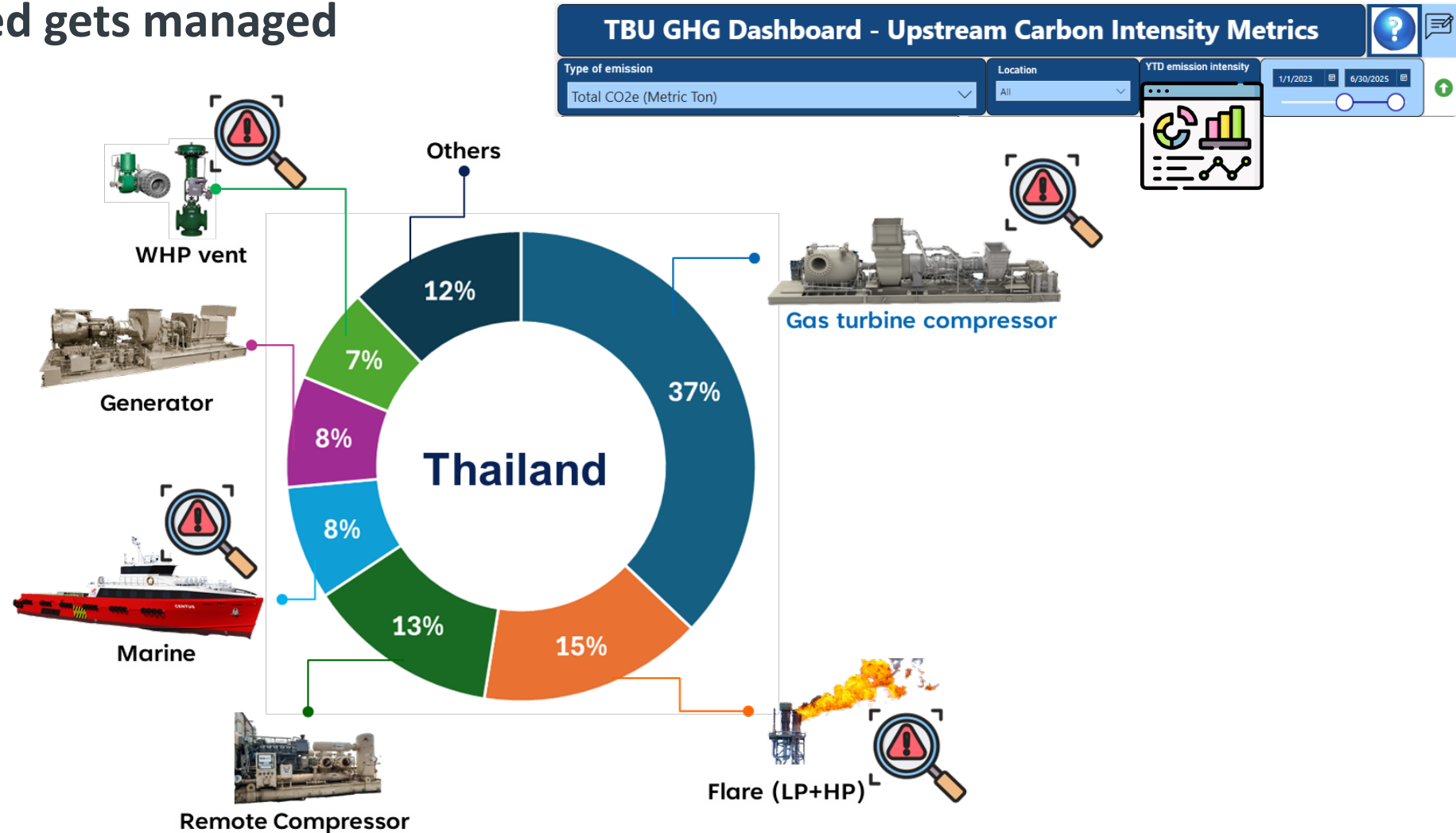
Chevron Thailand Lower Carbon journey

Pragmatic Energy Transition



Chevron Thailand GHG dashboard

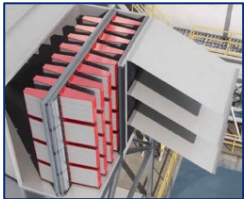
what gets measured gets managed



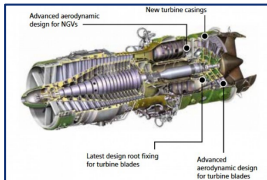
energy efficiency

gas turbine compressor fleet, 8% Energy Intensity reduction in just 3 years!

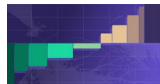
RB211 air inlet filter upgrade to
HEPA filter:
May-2023



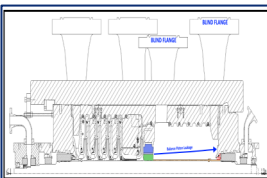
SGT-A20 200 upgrade:
Sep-2022



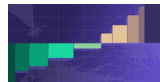
MACC



Compression train B SG De-stage :
Jan-2025



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North Pailin



South Pailin



Benchamas



Compressor operation optimization to
cope with
pipeline pressure reduction

energy efficiency marine fleet

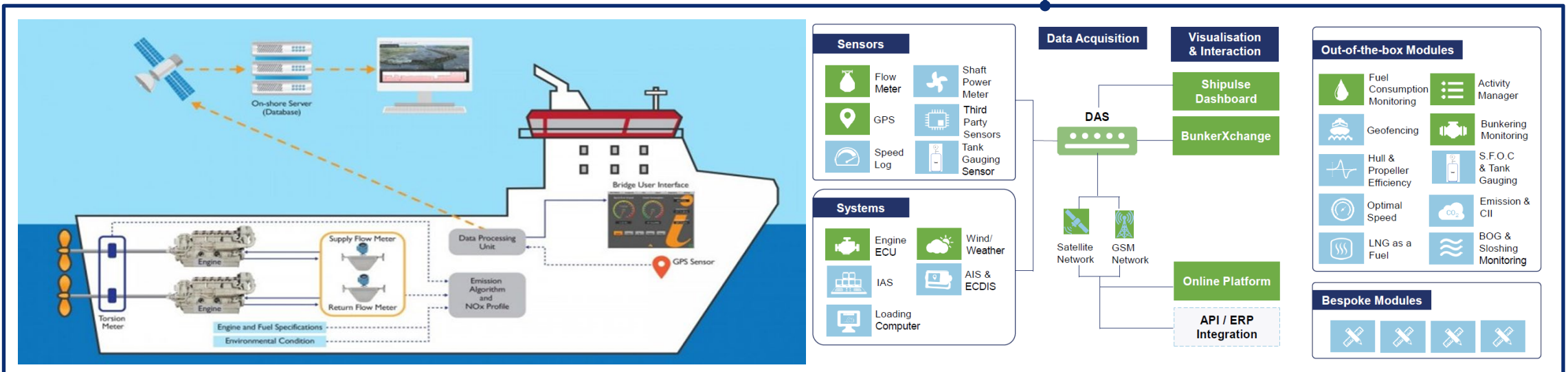



Enhance business
partner **awareness** and
accountability


Share best practices to
learn & improve on fuel
management

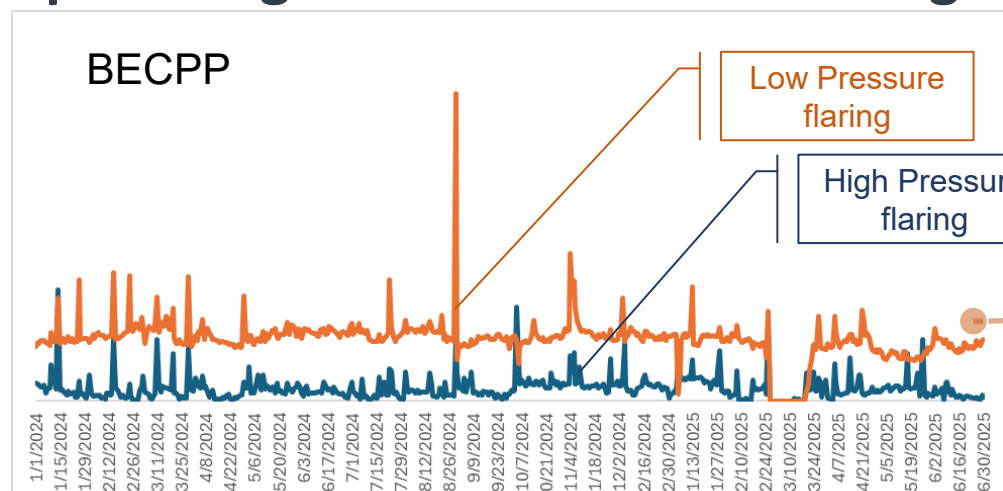

Demonstrate **use of**
EFMS to monitor fuel
consumption


Strengthen fuel
performance through
contractor fuel
management program

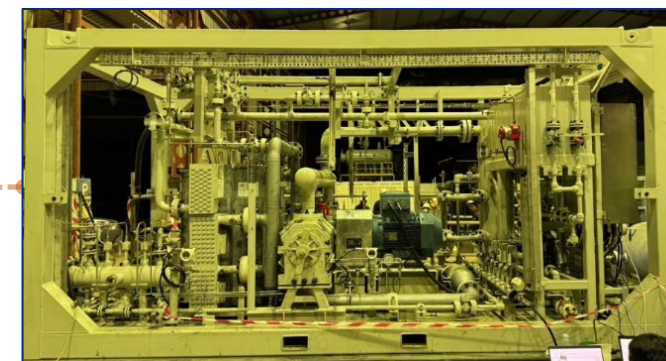


flaring reduction

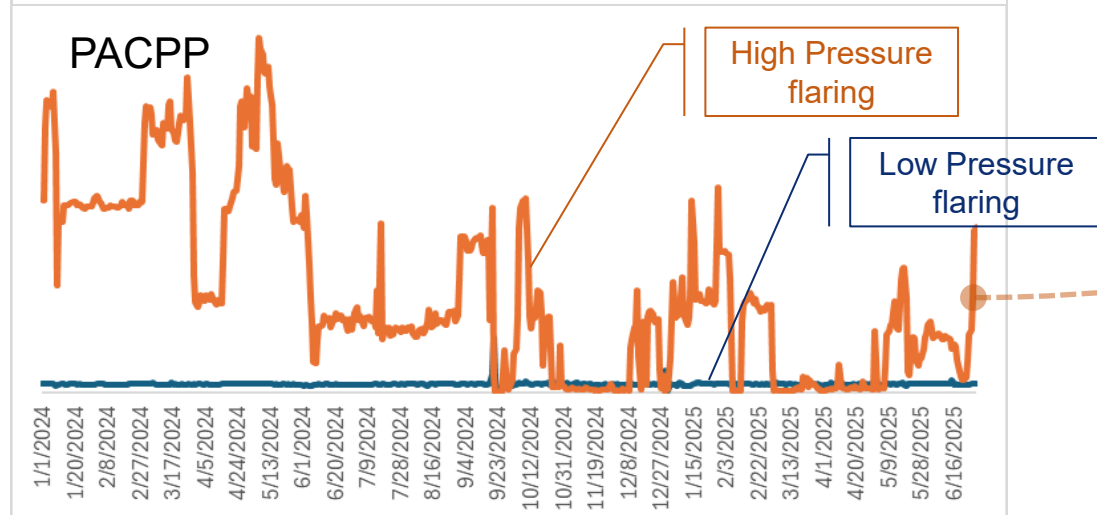
optimizing value from excess flaring



MACC



vapor recovery unit to recover low pressure flare gas



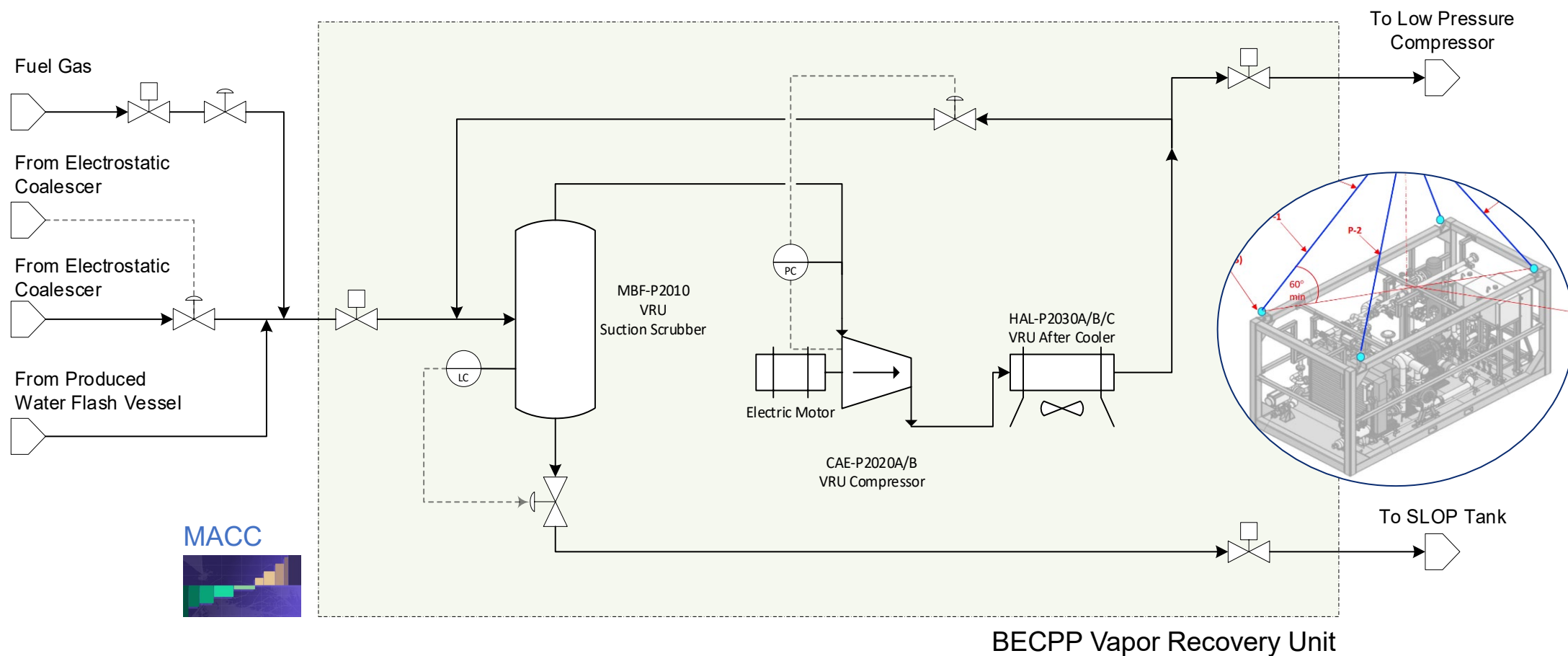
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early detect PSVs and flare valves passing

flaring reduction

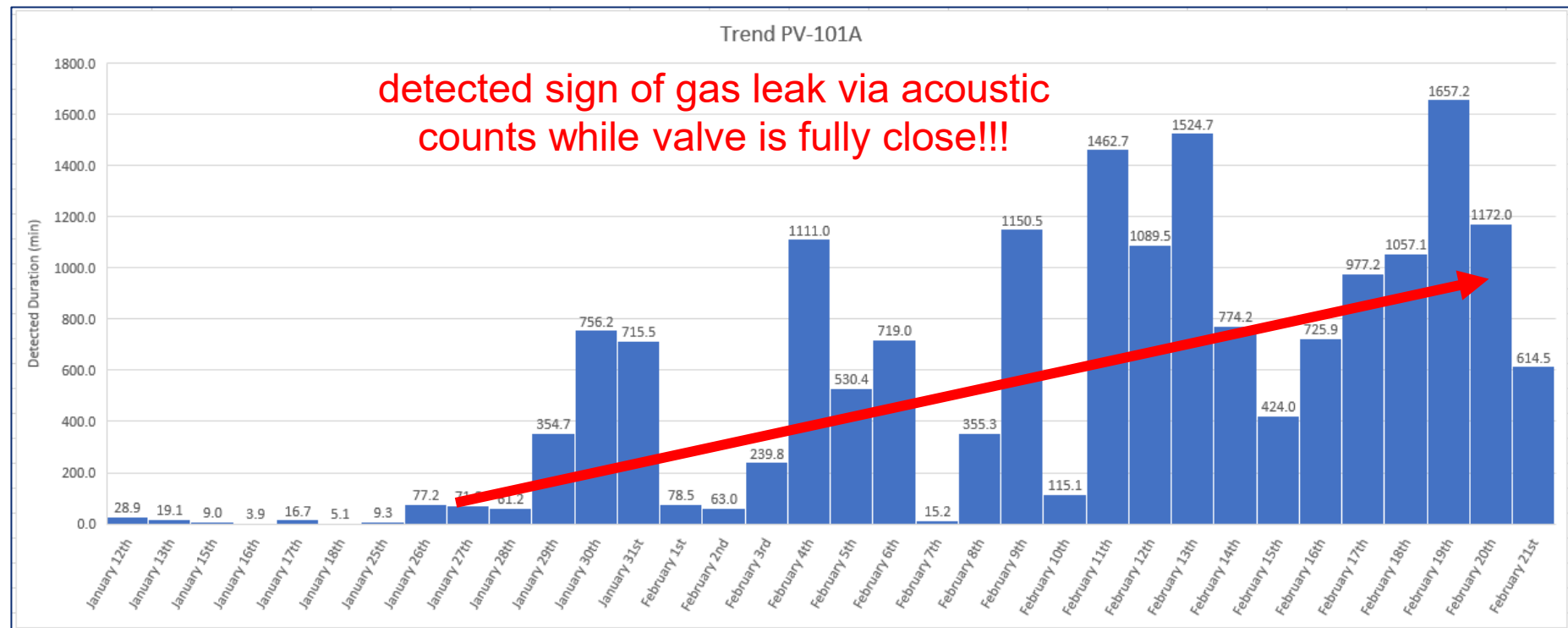
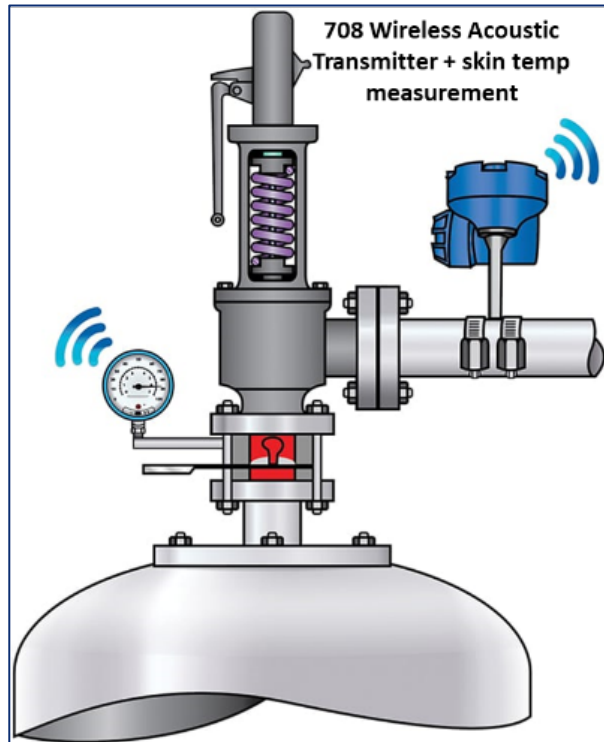
optimizing value from excess flaring



flaring reduction

optimizing value from excess flaring

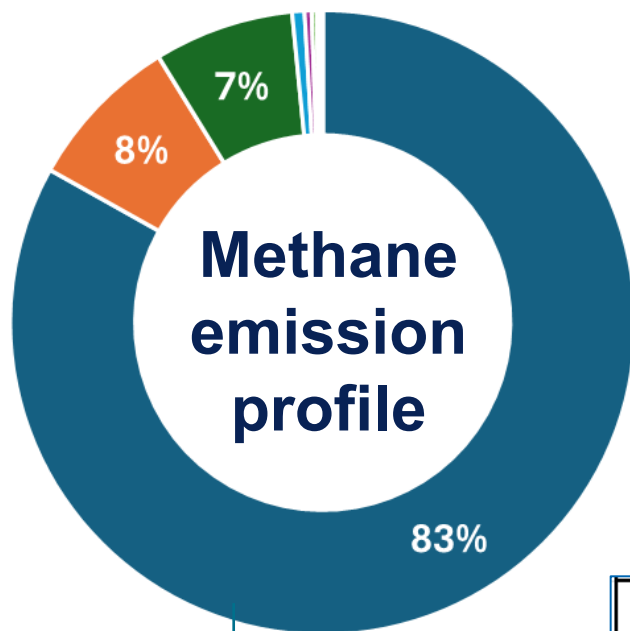
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PSV and flare valve passing detection on PACPP

methane reduction

targeting major methane sources: low bleed pneumatics for remote sites with limited



Replace continuous high-bleed pneumatic controller

Gas-driven pneumatics venting (EPA, subpart W-updated in 2024)	Whole gas (continuous high bleed; onshore petroleum and NG production & NG G&B)	21	scf/hr/device	EPA Subpart W, Table W-1
	Whole gas (continuous high bleed; onshore natural gas processing)	30	scf/hr/device	EPA Subpart W, Table W-1
	Whole gas (continuous low bleed)	6.8	scf/hr/device	EPA Subpart W, Table W-1
	Whole gas (intermittent bleed; onshore petroleum and NG production & NG G&B)	8.8	scf/hr/device	EPA Subpart W, Table W-1
	Whole (intermittent bleed; onshore natural gas processing)	2.3	scf/hr/device	EPA Subpart W, Table W-1



WHP vent - pneumatics



pioneering hybrid power solutions

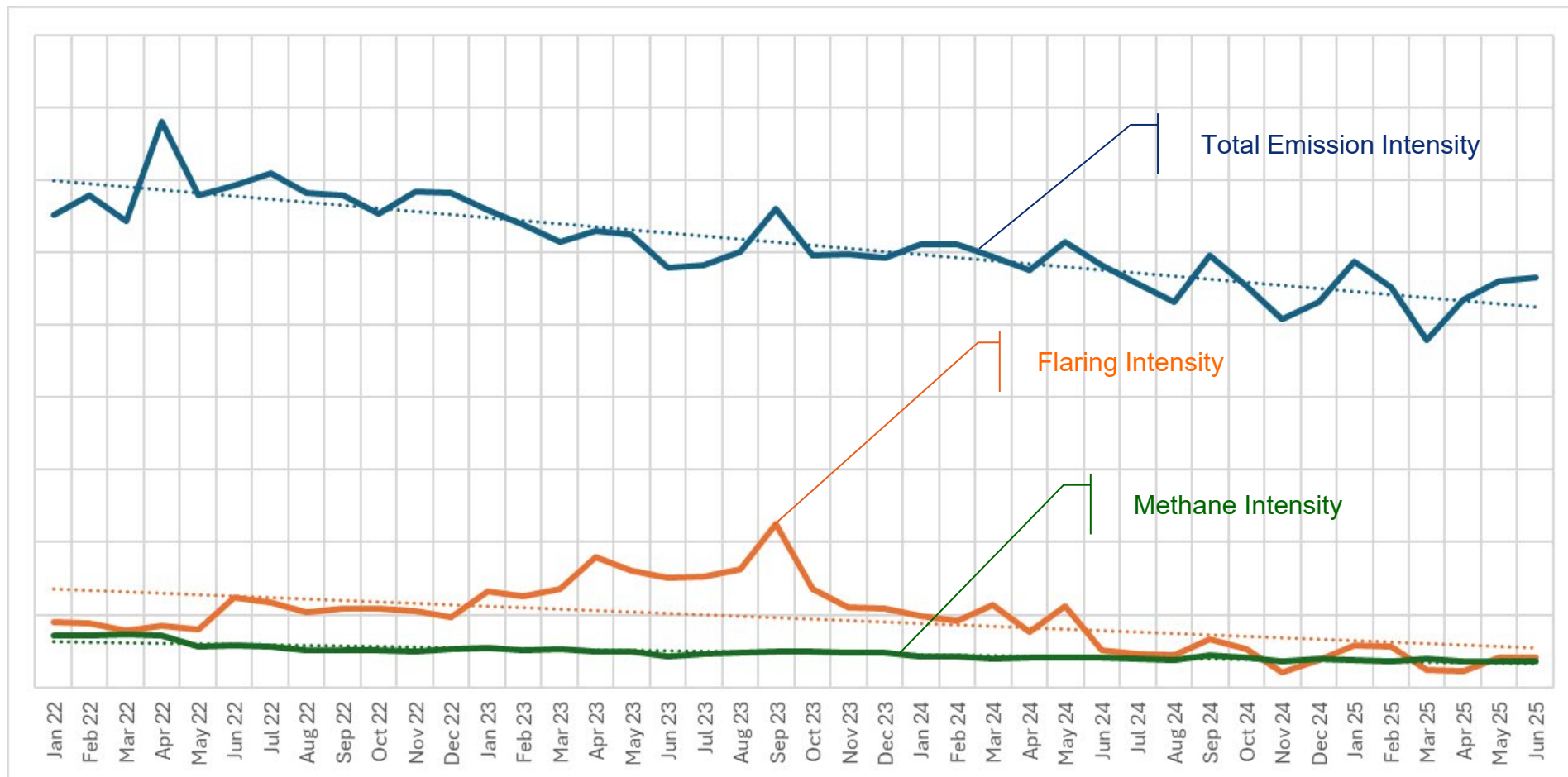
integrating wind turbines and solar cells for the first time, PAWB wellhead platform



behavioral shift, operational changes

unified collective efforts & emission intensity trajectory

Chevron equity basis



an integrated approach to manage Facility Lifecycle

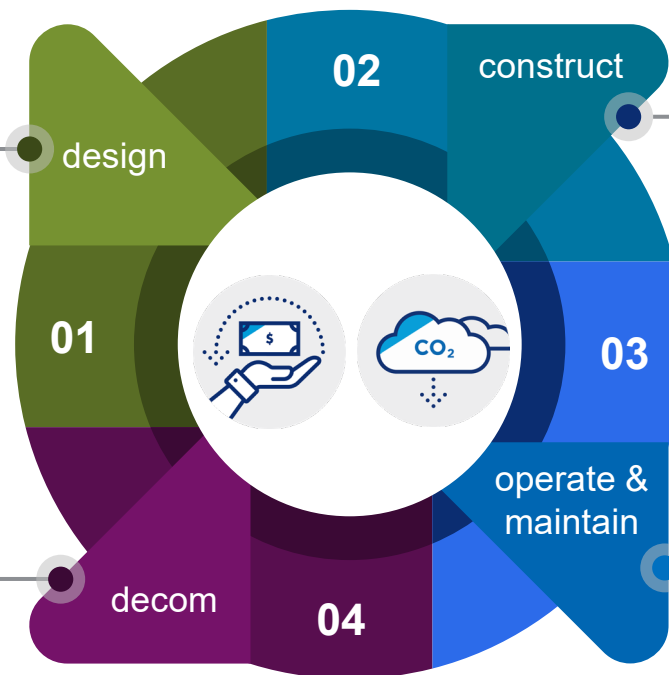
Higher Return Lower Carbon

- Incorporate energy-efficient features, sustainable materials, minimizing waste
- Design for disassembly and reuse



Wellhead Platform Topside Reuse

Well Factory step change in Chevron Thailand



- Material selection
- Energy-efficient construction practices



- Energy management, behavioral shifts
- Waste management
- Regular inspections, predictive maintenance

Leverage our innovations and strengths to safely deliver lower carbon energy to the kingdom of Thailand

cultivating a lower carbon mindset across the org

establishing the cultural foundation for a pragmatic action-oriented energy transition

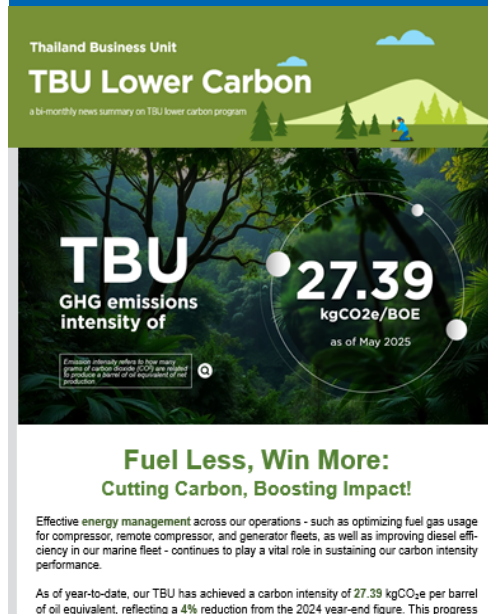
frontline engagement



lower carbon expo



bi-monthly newsletter



green talk series & green trips



Green Squad (change agent)





Question & Answer

