

PETRONAS pioneers sustainable practices onboard the PFLNG to reduce GHG emissions.

As the world's first to deliver LNG from two floating facilities, PETRONAS redoubles its innovation in decarbonising onboard the PFLNGs.





At PETRONAS, we are committed to being a progressive energy and solutions partner to safeguard a sustainable future for all. In our pursuit of delivering energy sustainably, one notable milestone is the development of our Floating Liquefied Natural Gas (FLNG) facilities.

This endeavour not only seeks to unlock Malaysia's remote gas reserves, but it also introduces a more sustainable and cost-effective alternative to conventional solutions.

In line with PETRONAS' dedication to achieving net-zero carbon emissions by 2050, innovative initiatives have been implemented onboard our FLNG facilities, the PFLNG SATU and PFLNG DUA, to actively reduce greenhouse gas emissions (GHG) during production.



The first initiative involves a strategic pivot in the PFLNGs' operating philosophy. After careful analysis and optimisation of the facilities' power load, we have adopted the N+0 gas turbine generator (GTG) operating philosophy, reducing GTGs in operation from three to two. The new operating philosophy on both facilities has not only improved operational efficiency but also significantly reduces the generators' fuel gas requirements and GHG emissions.

Other than power optimisation, the second initiative implemented onboard is the zero-flaring practice during LNG offloading, which aims to minimise the burning of excess natural gas.

To tackle this long-standing industry challenge, our team of professionals meticulously created optimal operating conditions to balance the boil-off gas (BOG) between the PFLNG and the LNG carrier.

Thanks to the team's innovative efforts, the BOG during LNG offloading is managed efficiently to reduce flaring.

The two initiatives have greatly propelled PETRONAS to reaching our decarbonisation goals.

Our zero-flaring practice has substantially reduced flaring by approximately 80% in 2021, and collectively we have achieved 135,000 tonnes of CO₂ emissions avoidance for 2021 and 2022.



The implementation of sustainable initiatives onboard the PFLNGs demonstrates our proactive approach in reducing GHG emissions during LNG production. It is a testament to PETRONAS' unwavering commitment to sustainable energy solutions, particularly in the development of FLNG facilities, and represents a significant stride towards a more sustainable global energy landscape for a greener future for all.