

Optimal Efficiency in Tight Spaces

## Solar Powers Offshore Satellite Communications in Malaysia

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**BC Tan**

Group CEO, Swift Energy

### Summary

Proper function of communication systems on offshore wellheads is paramount as these assets transmit critical information back to crews on land. Swift Energy used solar to power PTTEP's Pemanis wellheads including Morningstar TriStar™ charge controllers for optimal efficiency in the tight spaces.

### Situation

Coming out of a challenging year with the COVID-19 severely affecting the global economy and causing a significant drop in demand for crude oil, national petroleum exploration and production company PTTEP is glad to get back on track in 2021 with the installation and start-up of the Pemanis gas facility. The project's wellheads sit offshore Malaysia's Kuching shipyard and transmit information in regard to pressure, temperatures, gas metering, etc. back to an operations center on land via satellite.

### Project

PTTEP commissioned Swift Energy to provide a solar installation to power remote data gathering on the wellheads. The system included 48V VRLA batteries, 23kW of 320W solar panels with five sets of 48V, 1965Ah battery banks, and eight Morningstar TriStar™ TS-MPPT-60-48V controllers. The TriStars include a Modbus interface that gathers data and passes it along to a Honeywell remote terminal unit (RTU) cabinet that transmits back to the operations center.



## Solution

The efficiency and dependability of Morningstar's MPPT technology, along with its range of online resources to help simplify sizing and easily perform site and cost software analysis, made Morningstar a good choice for this and other Swift Energy projects.

"While there are many MPPT products on the market, Morningstar's robust collection of online resources helps simplify sizing and allows us to more easily perform site and cost software analysis," BC Tan, Group CEO of Swift Energy, said. "Not only is this a benefit for our customers, it's also helpful for our younger engineers who want to learn. This, and the efficiency that Morningstar controllers offer in small, hot spaces on our unmanned applications, makes them our first choice."