

Collaboration on cards for LNG

Surging development costs have put the next wave of projects on ice, but gas players are finally teaming up to help trim costs

AUSTRALIAN liquefied natural gas (LNG) developers are primed to join forces in a bid to cut costs following a decision by Santos and GDF Suez to freeze plans for their \$10 billion Bonaparte floating LNG (FLNG) scheme. The move heralds a new era as LNG players start to thrash out a strategy to aggregate gas through greater collaboration in waters off Australia as they strive to compete with emerging international producers.

The decision to shelve plans for the floater, expected to produce between 2 million-3 million tonnes per year (t/y) of LNG, was commercially, not technically, driven. FLNG has been touted as the solution to the soaring development costs now blighting the next wave of LNG investment in Australia. But Santos said the rate of return was insufficient compared with the level of capital risk, as well as complexity, involved in the proposed FLNG project. The floater would have been significantly smaller than Shell's 3.6 million t/y Prelude FLNG scheme, which will also produce substantial volumes of liquids, thus improving the project's economics. Instead, piping the Bonaparte gas from the Petrel, Tern and Frigate fields to Darwin, where it could be used to fuel brownfield expansions at onshore plants, is expected to be much more economic.

John Anderson, Santos's vice president for Asia, Western Australia and the Northern Territory, said that brownfield expansions and cooperation between different gas owners would be vital to secure the next wave of investment in Australian LNG. The Adelaide-based company and the French utility are now exploring supply options with ConocoPhillips' Darwin LNG plant, in which Santos has an 11.5% stake, or Inpex's under-construction Ichthys plant, also in Darwin. The Bonaparte fields, estimated to hold between 2 trillion and 3 trillion cubic feet (cf) of dry gas, could potentially backfill or expand ConocoPhillips 3.6 million t/y single train LNG plant, or eventually help expand the 8.4 million t/y two-train Ichthys complex. Other owners of undeveloped gas off northwest Australia have also signalled the potential to channel gas to Darwin for processing, including Origin Energy, which recently snapped up Karoon Gas's stake in ConocoPhillips's Poseidon gas find in the Browse basin.

For GDF Suez and Santos, the

pullback from FLNG came to a head as the pair needed to decide whether to proceed with front-end engineering and design (Feed) work for the floater. Since GDF Suez bought into the Bonaparte venture back in 2010 with a focus on using FLNG technology the project schedule has slipped. Construction was initially planned to start this year with first cargoes shipped in 2018.

The French firm, which is grappling with heavy debts, has reportedly tried to attract partners into the FLNG scheme, but without success, leaving it to pay for all of the design work under the 2010 deal. Marketing the LNG has also proved tricky as buyers became increasingly weary of surging development costs in Australia, while emerging international competition offered new supply options.

Negotiation

Meanwhile, Santos has also opened talks with ConocoPhillips and Inpex over the potential to supply the pair's export projects with gas from its Browse basin finds. Santos is drilling its Lasseter-1 well in the Browse basin off Western Australia, which could significantly add to its resources in the region. Lasseter-1 sits in the same WA-274-P Block, home to Santos's Crown wet gas discovery, the company's largest-ever operated find, estimated at several trillion cf. Inpex also holds a 20% stake in the block. The pair are continuing to accumulate more acreage off northwest Australia near the Japanese independent's giant Ichthys field, where stockpiling LNG reserves is the goal.

Crown and Lasseter-1 are sandwiched between the ConocoPhillips-led Poseidon gasfield and Inpex's Ichthys gas- and condensate field, leaving them well placed for aggregation into either development.

"If you combine together our gas, ConocoPhillips's and other parties' (gas) in that region, you can run all that back to Darwin and do something jointly. That's a much more mature approach," Santos's general manager Western Australia and Northern Territory, Brett Woods, told *The Australian*.

"We need to learn from some of the mistakes that were made in Queensland and the Carnarvon basin about the lack of collaboration, and use that learning here as a good leverage point to get people to talk," he added.

A lack of collaboration among LNG players has seen clusters of LNG

plants developed in Western Australia – where the North West Shelf, Pluto, Wheatstone and Gorgon projects have either been built or are being built – and Queensland, where three separate LNG export facilities, including Santos's Gladstone LNG, are being built in parallel. The net result has been surging development costs, which have left new investment proposals struggling.

In Western Australia, US independent Hess is keen to commercialise its deep-water Equus gas project by supplying an existing onshore LNG plant rather than using FLNG technology. Equus has been stalled since early 2013 while Hess tried to seal a partnership agreement with either Chevron, the operator of Gorgon and Wheatstone, Woodside, the operator of Pluto, and the North West Shelf Venture, which owns the North West Shelf project. While Chevron has ample gas supplies and would likely welcome more, it is Woodside that is hungry for gas, particularly at its Pluto LNG project, but also at the North West Shelf project, which it leads. Timely development is important for Hess, which would favour Pluto or the North West Shelf, say analysts.

Recent comments by Woodside that the North West Shelf venture is drawing up a set of terms to govern third-party gas supplies are seen as a positive sign for Hess. There are several other stranded gas resources off Western Australia owned by the likes of Apache, BHP Billiton, ExxonMobil and Santos, that could also be aggregated.

Woodside's chief executive, Peter Coleman, recently said the focus for the North West Shelf venture is to keep the five-train 16.3 million t/y complex full for as long as possible. The venture's suite of satellite projects is expected to fuel the plant for another seven to 10 years.

The crop of satellite projects are Greater West Flank phase one, due on stream by mid-2016, and Persephone, which is due online one year later, while Greater West Flank phase two and Lambert Deep are heading into basis of design and Feed later this year. The partners, which include Shell, BP, Chevron, BHP Billiton and Japan LNG (Mitsubishi-Mitsui), plan to develop 4 trillion cf of gas and 110 million barrels of condensate on a proven and probable basis in the period up to 2018 at an estimated cost of \$6-12.50 per barrel of oil equivalent, said Woodside. **DE** ●

