Conoco's Darwin LNG plant needs more gas to prevent production tailing off early next decade. **Glenn Campbell**

The fresh uncertainty that has enveloped the Timor Sea petroleum province comes at a critical time for the gas venture that currently provides most of the revenue for tiny, impoverished Timor-Leste.

ConocoPhillips' successful Darwin LNG venture is on the hunt for more gas to replace the ageing Bayu-Undan gas field. Unless an alternative source of gas can be found to flow into the Darwin plant by 2022-23, production will start to decline.

Scrapping the treaty that set the revenue sharing arrangements between Australia and Timor-Leste for the nearby Sunrise gas field – as confirmed by the two governments this week – doesn't help with that quest to find a new feed of gas.

To explain, ditching the Sunrise deal – officially known as CMATS – brings to an end the moratorium between the two nations on sovereign right claims that was embedded in the treaty. Now the governments have agreed to negotiate on a permanent maritime boundary, significant questions of sovereignty hang over a number of other fields nearby.
In the centre of the picture is the Bayu-Undan gas field, which lies in the Joint Petroleum Development Area and that has fed Darwin LNG since it started production in 2006. With 90 per cent of petroleum royalties from JPDA fields flowing to Timor-Leste, the Bayu-Undan project has contributed more than $US18 billion in taxes and other payments to the Timor-Leste Petroleum Fund since 2004, Conoco estimates.

**Lengthy and complex process**

Settling a permanent maritime boundary will be a lengthy and complex process with many question marks over the outcome. But Timor-Leste is pressing for a median line to be set as the boundary, which could shift the JPDA fields into its waters, even as some sources say that the jointly administered area won’t be affected.

But reopening the border discussion also raises the issue of the eastern and western lateral boundaries of the JPDA, bringing the complicating factor of Indonesia into the picture. Some experts maintain the result could be that most of the Greater Sunrise fields, which straddle the eastern edge, end up in waters governed by Indonesia, rather than Timor-Leste.

It is against this background that Conoco and its Darwin LNG partners, which include Santos, ENI and Japan’s Inpex Corporation, are hunting for alternative gas supplies to Bayu-Undan, where remaining reserves are put by consultancy Wood Mackenzie at just 940 billion cubic feet of gas and 30 million barrels of liquids.
Conoco names two primary options to replace Bayu-Undan gas at Darwin LNG – the Greater Poseidon fields in the Browse Basin far to the west, and the Caldita-Barossa fields to the east of Sunrise. But ventures are operated by the US company and both lie in undisputed Australian waters.

But some industry sources argue that – boundary issues aside – the stalled Sunrise resource should also be in the picture. Independent analyst Peter Strachan says Darwin LNG would provide a much lower risk and economical route to market for the circa 5.1 trillion cubic feet of gas in Sunrise than costly floating LNG, the option most lately favoured by the Woodside Petroleum-led Sunrise partners. It also easily beats the even less realistic option favoured by Timor-Leste of an onshore LNG plant on its southern coast.

Conoco’s stakes in both Darwin LNG and Sunrise should ease the way to a deal, which could then see Sunrise gas transported in a new pipeline to the existing Bayu-Undan pipeline for transportation to Darwin.

With the border issue blown wide open it is however difficult to see movement on Sunrise for several years, while the Darwin LNG partners may find it tougher to invest to develop new gas in the region. The risks are high for Timor-Leste, whose Petroleum Fund is estimated by some to run dry within five years.

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