

AS DEMAND SPIKES, SUBSEA SUPPLY CHAIN COULD TIGHTEN

By Iain Smith, president, Subsea Controls, Proserv



“Operators preferring faster subsea tieback turnarounds but lead times could be impacted by equipment and skilled personnel shortages”, writes Iain Smith, president, Subsea Controls, Proserv.

The relative stability of the oil price for well over a year is now starting to shape the operational and capital expenditure decisions made by the industry’s big players. But the fallout from what so many companies in the upstream sector faced in late 2015, when prices had collapsed, may become the new normal for a long time ahead.

As some oilfield services outfits simply went to the wall, others recognised that the way to live in straightened times is to tighten your belt and your purse strings. An emphasis on maximising assets and efficiencies has led to a wider strategy that caution is the best policy. After all, the price of Brent crude has still seen a swing of more than \$15 a barrel this year and we are only at the end of Q1. Turbulence is regularly encountered.

So, operators are still not jumping into new greenfield projects, even if their profits have risen as their costs have decreased. But they are now definitely moving back into action and the global subsea sector could face supply chain challenges as exploration and production (E&P) activity in the offshore oil and gas industry gradually accelerates.

Industry consultants have outlined that more final investment decisions (FIDs) are now being made and one firm, Rystad Energy, presently predicts almost \$30 billion of extra capital expenditure in the E&P subsea segment across the next six years, as areas such as South America, Europe, the Gulf of Mexico and West Africa experience increased spending.

Banking on brownfields

Notably, Rystad Energy also expects several regions, including South America and Europe, to see the majority of FIDs directed to brownfield sites. This is an example of operators still being mindful of the previous downturn and so they are choosing to target upgrades and tiebacks, where the financial outlay is smaller than for a major field development and much of the infrastructure is already in place.

This then also provides the best and fastest route to a return on investment. Spending wisely and cautiously remains the strategy at present.

My firm Proserv has itself seen increased orders for subsea tiebacks in recent months with contracts won from major oil companies in both the North Sea and the Gulf of Mexico, including from international oil companies (IOCs).

Another consultancy Wood Mackenzie has estimated that the supply chain capacity for subsea equipment is 25 per cent lower than it was before the oil price dip in 2014, while utilisation has declined by around 40 per cent in the intervening period.

But the firm’s analysts nevertheless regard the subsea segment as more resilient than the rest of the offshore sector and predict healthy growth moving forwards, with an average de-

mand of 300 subsea trees per annum over the next few years. Rystad Energy has recently released a report suggesting as many as 350 subsea trees will be installed annually by 2021.

A tightening of supply versus demand is a genuine possibility in the near future. Subsea tiebacks are about a rapid return on investment, at the right field development cost, and, crucially, incorporating short lead times.

The key problem for operators is that a significant amount of manufacturing capacity for trees has been taken out of the market by firms closing production facilities, across the globe, as a direct consequence of the downturn. Once this capacity is taken out, it isn’t easy to get it back.

Skills shortages

But reduced manufacturing capability is not the only challenging issue as the offshore market steadily picks up. Cost cutting also impacted recruitment policies and as margins tightened, apprentices were laid off and graduate intakes were frozen.

The recent Global Energy Talent Index (GETI) highlighted a growing concern in the industry as retirements begin to remove experience from critical parts of the workforce and, with the lay-offs that took place, younger, skilled replacements are harder to find.

If there are fewer experienced subsea engineers, armed with years of know-how, or machinists accustomed to working with bespoke and original designs, then the supply chain will inevitably slow down as work takes longer and potential errors creep in. A vital specialist component provider might also have gone under as the oil price plunged in 2015 onwards.

Talent is leaving the whole upstream industry and the GETI survey revealed that

almost half of the oil and gas professionals questioned felt either quite worried, or very worried, about an impending crisis, while more than two-thirds believe it will have arrived within five years.

The concerns about the loss of skills cuts across from operators through to original equipment manufacturers and the area where the crunch is most likely to be felt is in engineering. What could compound the issue is the appeal of other industries from technology to the ever-growing attraction of renewables for new graduates.

One obvious forward thinking step for the upstream sector is to look towards employing many more female engineering graduates, who are presently severely underrepresented.

Nevertheless, the uptick in the offshore industry and the prospects for the subsea sector are encouraging, notwithstanding potential issues around supply chain squeezes and skills shortages. Rystad Energy has projected a \$350 million rise in subsea equipment spending between 2019 and 2025.

Right now, the best advice for IOCs and operators is to talk to service providers and suppliers early in the procurement process. There is presently spare capacity but we do expect the supply chain to tighten, particularly in the tree manufacturing segment, and this could result in slower lead times and potential project delays.



Proserv’s Artemis 2G subsea electronics module is a next generation controls and communications technology for both green and brownfield applications.