FUTURE FORWARD OPERATIONS:

PUTTING INNOVATION AT THE TOP OF THE OFFSHORE AGENDA

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Aquaterra ENERGY | INTELLIGENTLY ENGINEERED

April 2020 saw oil prices dip negative for the first time in memory. A mixture of COVID-19 travel restrictions worldwide, an oil price war and potential global recession led the oil price to tumble. As a cyclical industry, the oil and gas sector is well-used to weathering storms, but this is the second in quick succession after the 2014/15 crash, meaning this one is different.

It's likely the impacts of this downturn will be here for a while; despite promising signs of a price recovery, we're going to have to get used to operating at a low oil price for some time – there are even "concerns that we may be seeing the beginning of a second wave of the pandemic," according to " Bjornar Tonhaugen, Head of Oil Markets at Rystad Energy.

Naturally, companies will look both internally and externally to reduce costs in response, whether that's by delaying works, reducing headcounts or cutting expenditure along the supply chain. However, the best answer is likely to be innovation. For example, the industry is already embracing digital solutions such as remote monitoring but could a rethink of project design and planning help too? All sorts of innovation will come into play: PwC notes that "innovation is king for longevity – time to double down on ... new ways of working". This intelligent approach to innovating and finding new ways of working can offer operators a solution to ensure maximum return from any investment.

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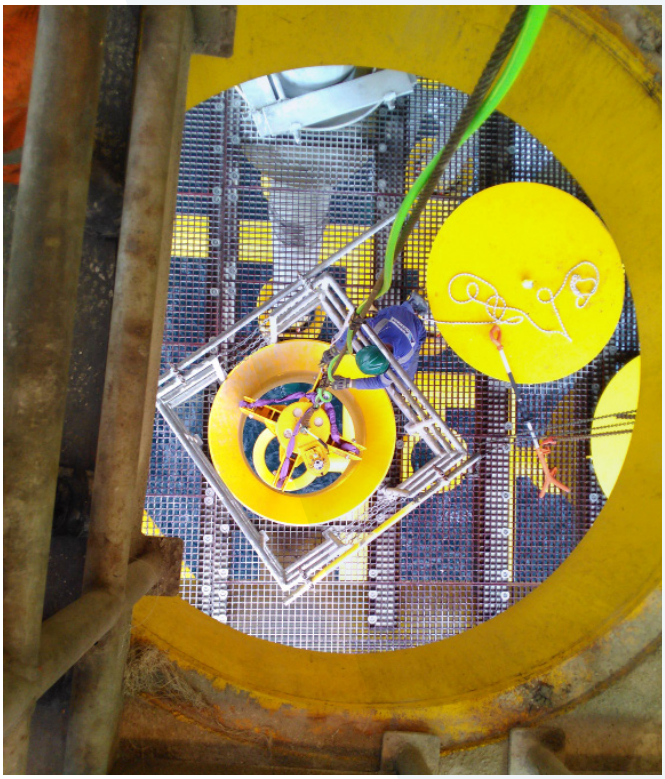

REDUCED WORKING OFFSHORE

We've seen offshore staff numbers reduced to help protect from COVID-19 and it's not clear yet when those numbers will return. Oil and Gas UK suggest 4,000 staff have been stood down as a result of coronavirus. Safety is always of paramount importance, but this introduces a new aspect to consider.

Previous d**ownturns have meant that operators have already looked for ways to create efficiencies, reduce time offshore and reduce the number of people needed for certain operations. For example, the introduction of smart platform-to-shore communication systems helps to reduce the number of people needed offshore and, consequently, helicopter flights – significantly reducing both risk and cost. Oper**ators can also reconsider their drilling project approaches to the same effect. For example, solutions such as Well Start, which helps to safely and quickly navigate the early stages of new drilling operations, can be a smart approach to achieve the same effect at an early stage, by reducing the number of personnel needed on drilling rigs. Naturally, we'll see the sector to continue with this type of evolutionary innovation to both keep staff safe and protect th bottom line.

Oil and gas companies need such innovative solutions to help adapt to changing operational practices, and while these are current, short term changes to react to COVID-19, it is likely these changes will become long-term ones if proven to be good value and effective. With all aspects of project costs being revised and revisited and a lingering pandemic threat, reconfiguring offshore operations to utilise solutions that require a slimmer offshore workforce remains a key driver going forwards.

RACE TO FIRST OIL

These longer-term changes to personnel deployment will also be mirrored in the perennial drive to reduce time to first oil. As soon as the well is drilled, the clock starts ticking as operators look for fast returns on investments.

In the near term, we're likely to face a global recession alongside sector-specific challenges, making banks risk-averse and capital harder to come by. Therefore, being able to demonstrably reduce time to first oil won't only provide a faster return, it will reduce project risk, making it more likely the operator can raise credit and get the project off the ground in the first place. One way to do this is to take a modular platform approach to field development, such as that of our Sea Swift platform. Designed to be fabricated across multiple locations, in local yards and assembled on site using available installation infrastructure, the reduced-steel design allows for simultaneous progress on different parts of the platform. With this approach, platforms can be up and running in as little as 10 months.

There is no crystal ball to see where the oil price might go, and varying predictions offer a range of both pessimistic and optimistic outlooks, but under any scenario, innovation that cuts time to first oil and brings rapid returns on investment will be welcome.

COSTS OVER TIME

Operators can go further to reduce project risk and make developments more attractive by rethinking procurement approaches. The significant upfront costs incurred when buying equipment, do put assets on the company balance sheet, but can be a major drain on CAPEX. Rental options can be a powerful alternative. Upfront costs are reduced and operators benefit from the provider's expert technical support, further lowering risk to large projects. Sometimes this shift in mindset is an effective way to change the project's fortunes without changing the fundamental engineering.

Ultimately, this amounts to a change in mindset comes when considering CAPEX, OPEX and even DECOMEX. Traditionally these costs are looked at in isolation, but a TOTEX or whole-lifespan approach could be the best way to shave millions of dollars off the project. With the oil price hovering around the $40 mark, choosing a solution that offers lower total cost of ownership could be the factor needed to make a project viable, including decommissioning. This is where having a future-forward approach is key, decisions need to look beyond short- to mid-term outcomes so that all innovations and options are considered with TOTEX in mind.

For every project, every operator will have need to strike a unique balance between upfront and ongoing expenditure, meaning that flexibility is key. This flexibility is be delivered by new approaches to established industry methods to put new options on the table.

For example, take our Sea Swift platform. New projects can realise savings versus a traditional jacketed platform of up to 30%, or existing assets can benefit from cost-effective asset-life extension. The more the industry challenges the status quo, the greater the scope for innovative success.

During this downturn, we've collaborated extensively with operators and the supply chain on how to forge the best path forward based on their individual circumstances. We've seen smaller, nimble operators jumping at the chance to get rigs at a reduced CAPEX and thereby open up opportunities market conditions are offering.

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INNOVATIVE SOLUTIONS

If there's one thing the cyclical nature of oil and gas has taught us, it's you can't afford to stand still. The industry will continue to adapt and evolve and use innovation to get us out of tight spots. With operators now facing the job of making projects viable with an oil price around $35-50, creative reslts will be tried and tested to maximise returns.

Following the downturn of 2014/15, operators have already slimmed down operations with the "low hanging fruit" solutions implemented. The short time elapsed since the last downturn means that costs hadn't started to creep upwards again and the industry was already in innovation-mode. Keeping – and evolving – that mindset of innovation for marginal gains will be crucial for the industry to weather this unexpected lower oil price storm.

ABOUT AQUATERRA ENERGY

Aquaterra Energy is a provider of equipment and solutions to the global oil and gas industry. The company provides services across the seabed-to-surface value chain, and specialises in riser systems and design analysis, tools and products needed during the first days of a well's operation, and components for offshore structures, including the Sea Swift platform, which provides a technologically superior and more cost-effective alternative for subsea wells in shallow waters. Many of Aquaterra Energy's most popular tools and products are available on either a rental or purchase basis.

Find out more: www.aquaterraenergy.com