# Oil & Gas Spotlight 2013.Q4

## China Oil & Gas Equipment Manufacturers: Taking Position in the Shale Gas Play

China shale gas sector has the potential to offer unprecedented growth opportunities for equipment manufacturers and service providers, who in many ways hold the keys to the successful and efficient development of these resources anywhere in the world, and especially in China. Co-opetition between major MNCs and local companies might be the end-game balancing the need for creative alliances in China and the threat of new competition in other markets. For example, China Oil & Gas equipment sector developments might create opportunities in the U.S. for IOCs willing to reduce cost for their shale business by switching to cheaper Asian suppliers.

The exploration and production of shale gas resources has been a significant development of the oil and gas industry globally over the past decade. The shale gas development in the U.S. has changed its oil and gas dynamics and revamped its manufacturing sectors. Following that success story, China realised the potential of shale gas from its own identified reserves and announced ambitious goals in its 12th Five Year Plan, to reach an annual output volume of 6.5 billion cubic meter (bcm) by 2015, and at least 60 bcm by 2020. For comparative purposes Monitor Deloitte estimates that China will consume around 220 bcm of natural gas in 2015, and 350 to 360 bcm in 2020. If demand projections and production targets are reached, China will supply a full 1/6th of its growing domestic NG needs from on-shore shale by 2020.

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## Technology leadership and customised method for Shale Gas E&P

According to the 2013 global unconventional gas report from the U.S. International Energy Agency (IEA), China has the largest technically recoverable shale gas reserve in the world with 37,000 bcm. China has set shale gas as a strategic sector to contribute to its future energy independence with several initiatives to facilitate the development of that sector. Numerous challenges remain but the directions are set for the country and its industry.

One of the main challenges of China Exploration & Production players is technology and customised E&P method considering the differences with the U.S. shale gas. China's National Oil Companies (NOCs such as Petrochina, Sinopec and CNOOC) have been encouraged to acquire overseas shale gas resources, not only for energy security purposes, but also to obtain state-of-the-art E&P technology. In addition they have joined forces with International Oil Companies (IOCs such as Shell, Chevron, Total and ConocoPhillips) to start pilot shale gas production programs in the Sichuan Basin, where it is believed to have the most recoverable shale gas assets in China.

## Complex Oil & Gas equipment environment evolving rapidly

The Chinese Oil & Gas equipment manufacturing sector is highly fragmented, since historically a given oil field would have often its sister manufacturing equipment unit. Major Oil & Gas equipment players are covering broader business activities around Oil Field Services (OFS), which represented a market of USD 39 billion in the on-shore segment in 2010 according to the Prospectus of SPT Energy. The Chinese OFS industry is dominated by the NOC subsidiaries such as COSL (CNOOC) in off-shore, PetroChina and Sinopec in on-shore (with a combined market share of 85%). The raise of the unconvential gas industry and the technology demands it presents to the industry imply a change of paradigm for not only producers but also equipment makers

Increasing liberalisation has contributed to the market opening for foreign players (such as Schlumberger, Baker Hughes, Halliburton…), who now boast a combined market share of 10 percent on-shore in 2010, along with the emergence of domestic private leaders (such as AntonOil, Jereh, SPT Energy …). MNCs have been very successful capitalising on their superior product offering and unique technical expertise in serving shale gas fields globally. In 2012, Schlumberger acquired a 20 percent equity stake of AntonOil, China's leading independent OFS provider with strong focus on shale gas. AntonOil and Jereh have demonstrated expertise respectively in shale gas completion and fracking & simulation in China.

## Adaptive growth strategy to reach effectiveness and efficiency

Considering the complexity of the Chinese market, foreign oil & gas equipment manufacturers have adapted their route-to-market and often leveraged the integrated OFS channel to serve end-users. Leading foreign integrated OFS providers in China have been able to develop strong ties with the NOCs in the Mainland, at the same time that leading Chinese private integrated OFS providers have started to expand internationally. Leveraging existing relationship with foreign OFS providers and developing dual cooperation (not only in China but also internationally) with Chinese private OFS providers will help accelerate business development in China for oil & gas equipment manufacturers.

Considering the needs of the Chinese market, international oil & gas equipment manufacturers will have to differentiate their marketing and products. Following global practices, foreign manufacturers should follow a premium approach to serve IOCs since they historically focus on quality and reputation, but integrating the potential cost savings of cheaper Asian suppliers is not to be excluded. In line with practices in emerging markets, foreign manufacturers might want to consider a middle-market approach to serve NOCs by selling standard or somewhat defeatured products that do not command too much of a price premium over domestic products. Nevertheless players should ensure strong marketing consistency since the market segments can overlap driven by the collaboration of NOCs and IOCs. Safety could be a compelling differentiator for equipment and OFS suppliers to protect the premium pricing.

Considering the intent and targets of the Chinese shale gas industry, oil & gas equipment manufacturers might want to consider a certain level of localisation of their operations and build a pan-Asia hub in China, for both R&D and manufacturing, with a certain share of exports in mind. On the Mainland itself, the Chinese administration is encouraging investors to go West, with financial incentives in order to develop a second China oil & gas epicenter with a shale gas industry cluster in the Sichuan Basin. Going West also involved a difficult calculus for investors and some unique diligence challenges to be completed at first.

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