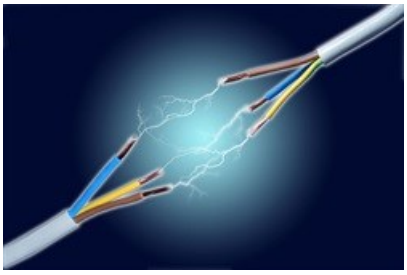
Shift in energy sector demands new supply chain models

The global energy industry is undergoing a seismic shift, in part driven by the development of new, unconventional sources of energy, such as shale gas, tight oils, coal seam gas and oil sands.



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In turn, this is requiring logistics executives to rethink traditional energy supply chain models and implement a highly integrated approach, to drive down logistics costs and enhance profit margins. This is according to DHL, the world's leading logistics company, who have released a white paper on the dynamics, challenges and opportunities that are shaping the current energy sector.

Jonathan Shortis, vice president - energy sector for Europe, the Middle East and Africa: DHL Customer Solutions & Innovation, says that the need and desire to explore new geographies and develop new technologies to reach and extract unconventional gas reserves has become ever more apparent. "While growth in the conventional energy sector currently hovers around 1 to 2% per annum, the unconventional segment is booming."

The BP Energy Outlook 2030 predicts that shale gas production will triple, and that tight oil production will increase more than six-fold by 2030. Unlike conventional oils though, unconventional extraction demands higher and continuous investment.

Significant growth

In terms of Africa's energy sector, Shortis says that there has been significant growth in oil and gas exploration and production on the continent in recent years. "There is no sign of Africa's exploration activity slowing down, and the continent is expected to continue on its growth path as its attractiveness as an investment destination for the sector becomes ever more apparent due to its untapped resources and potential of new discoveries."

He adds however that, as in many other parts of the world, the development of unconventional reserves in the region is still in its infancy. "While there is a view that reserves in areas such as Morocco, Algeria, Libya and South Africa are

substantial, little development has taken place."

The white paper explains that due to the ongoing shift in geographies of energy production and demand, energy companies are required to adjust their approach to supply chain management.

Shortis explains that from a supply chain perspective, both conventional and unconventional energy companies face an intriguing set of challenges. "Supply chains supporting conventional energy market, are still developing as companies have had to expand into ever more inaccessible and remote locations to support the growth in global demand. In such areas, conventional energy faces the same challenge as unconventional, and that is to establish and maintain a robust infrastructure to support production in undeveloped and/or remote geographies."

Complexity of supply chain

Shortis says that executives quoted in the white paper admit that energy companies often struggle to deal with the complexity of the supply chain and that they are challenged by a lack of visibility and predictability when they are working with multiple stakeholders at numerous drilling locations.

"To address this issue, leading companies are adopting an end-to-end supply chain operating model, instituting a data-driven, integrated solution that connects all stakeholders in the chain. This solution blends state-of-the-art visibility and analytics with best-practice process management to achieve bottom line results," concludes Shortis.