

## IMO 2020 and Supply Chain Integration

**The following article is based on a presentation given by Jesse Axelrod, Managing Partner of New York-based Axelrod Energy Projects (AEP). The presentation was delivered at AEP's 2019 World Fuel Oil Summit, held this year from May 16-18 in Cyprus. AEP provides services to the international energy and oil industries, including project development, cargo brokerage and consulting.**

The name of the game with IMO 2020 is uncertainty. We know certain things will come to pass as a result of the regulation, including higher demand for low sulfur fuels and a drop in demand for traditional high sulfur fuel oil (HSFO). But less than six months out from Jan. 1, 2020, there is still so much we do not know - the extent of non-compliance, the exact demand for each marine fuel, the role of compatibility and stability issues in a post-2020 world. For businesses, uncertainty leads to insecurity, and companies have been making proactive decisions ahead of the sulfur cap to mitigate the dangers of the unknown. Decisions taken ahead of the sulfur cap include vertical and backward integrations.

Integration along the fuel supply chain refers to the chain connecting producers to end users. Forward vertical integration is going into the business of the customer, while backward integration is going in the business of a company's supplier. Significant regulatory changes, like IMO 2020, can lead to consolidation, investment and merger and acquisition opportunities requiring or facilitating supply chain integration.

### Forward Integration

A first example of forward integration is trading company Mercuria's recent acquisition of Aegean. The Chapter 11 bankruptcy proceedings of Aegean represented an opportunity for Mercuria to get into the global retail bunker supply business. Through a debt-holder agreed restructuring, Mercuria emerged as the sole-owner of the company in March. Many expect retail bunker margin to improve in the post-

2020 world and the trading and asset infrastructure that Mercuria brings will allow them to monetize that. Moreover, with expected flat price increases, credit will become all the more important when selling to shipowners, and Mercuria's strong balance sheet and deleveraging of Aegean should be supportive of this. Mercuria quickly rebranded Aegean as its Minerva bunkering subsidiary.

Trading company BB Energy, recognizing the potential for an excess supply of HSFO in a post-2020 world and seeking outlets, participated with a minority equity stake in the forthcoming 128 megawatt Western Area Generation Project in Sierra Leone, a heavy fuel oil independent power producer. By owning a piece of the end-consumer, BB Energy was able to secure a 15-year 2%S fuel oil supply contract. The first 57 MW of the plant is expected to come online later this year.

A final example of forward integration is the case of Origin International. Origin bought a used-motor oil collections business in Baltimore, Maryland. Used motor oil can be sold to fuel oil blenders for sale into utility markets or processed by re-refiners to produce a low-sulfur vacuum gasoil (LSVGO) or a base oil. At the site, Origin plans to install a 3,000 bpd re-refinery to produce a LSVGO, which can either be sold to traditional oil refineries as an FCC feed or sold into the marine fuel market. The feedstock for these units is sold at a discount to HSFO, whereas the main output is sold against LSVGO - with HSFO expected to cheapen and LSVGO to increase in price. IMO 2020 directly impacted this forward integrative investment decision on the basis of the anticipation of that spread widening.

### Backward Integration

Maersk, one of the biggest world's shipowners, is a posterchild for backward vertical integration. Concerned about 0.5%S supply, Maersk entered into a long-term tolling arrangement with PBF Logistics, wherein Maersk will supply the crude and take the product for a per-barrel fee at a restarted distillation column at PBF's Paulsboro refinery, formerly Axeon, in New Jersey. The unit will operate at a minimum of 95,000 bpd and Maersk will primarily supply its own fleet with the 0.5%S material.

Euronav, a major tanker owner, has also gotten in the game of backward integration. IMO 2020 spurred Euronav to backwards integrate into the fuel supply business. Euronav parked one of its ULCCs offshore Malta and is accumulating 0.5%S RMG cargoes for eventual retail distribution to its fleet. In doing so, Euronav not only achieves some security of supply, but is also well positioned to take advantage of an

expected premium increase for 0.5%S fuel oil in 2020 versus the 1%S benchmarking they buy in reference to today.

For proactive companies, IMO 2020 promises to bring further opportunities for vertical supply chain integration.

