ANOTHER STRONG YEAR FOR BIOFUELS M&A 2016 REVIEW AND FUTURE OUTLOOK

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THE NORTH AMERICAN BIOFUELS INDUSTRY CONTINUES TREND OF INCREASED MERGERS AND ACQUISITIONS ACTIVITY

For the second straight year, the North American biofuels industry experienced year-over-year growth in merger and acquisition transactions. In 2016, we saw 12 M&A transactions, the most in 5 years. In total, the 12 transactions were worth an estimated \$450-\$500 million and involved 14 plants with nearly 700 million gallons per year of production capacity. A higher than normal proportion of deals were in biodiesel (7 of 12). In addition, in the advanced biofuels category, there were 5 acquisitions, up from 4 in 2015.

While valuations were modest, bankruptcy and plant retrofitting/repurposing largely drove M&A transactions in 2016. Buyers were driven to opportunistically add scale as sellers had to close deals. The breakup and sale of Abengoa's portfolio of North American renewable fuels assets served as the impetus for over 50 percent of the 2016 M&A transactions in terms of volume, capacity and transaction value. Abengoa, the Spanish renewables company, sold six

ethanol plants and a cellulosic ethanol plant in Hugoton, Kansas. On the buyside, Green Plains was active once again by acquiring three of Abengoa's plants. The acquisition of the three plants makes Green Plains the third largest ethanol producer in the U.S. In biodiesel, REG bought Sanimax Energy, REG's 11th biodiesel plant.

2016 NORTH AMERICAN BIOFUELS M&A

DATE Closed	TARGET	ACQUIRER	INDUSTRY	ANNOUNCED CAPACITY(MGPY)	TRANSACTION VALUE (\$M)	\$/GALLON
January	Greenleaf Biofuels	Kolmar Group	Biodiesel	15	-	-
March	Sanimax Energy	REG	Biodiesel	20	\$19	\$0.97
Мау	Cornhusker Energy	Chief Ethanol	Ethanol	50	-	-
June	Terra Biodiesel	High Plains Bioenergy	Biodiesel	15	-	-
June	Methes	BIOX Corp	Biodiesel	13	\$5	\$0.35
June	Green Earth Fuels	BIOX Corp/World Energy	Biodiesel	90	\$20	\$0.22
August	Elevance Renewable Sciences	World Energy	Biodiesel	72	-	-
September	Abengoa (Madison/Mt. Vernon/York)	Green Plains	Ethanol	236	\$237	\$1.01
September	Abengoa (Rawenna)	КААРА	Ethanol	90	\$115	\$1.28
November	Abengoa (Colwich)	ICM	Ethanol	25	\$3	\$0.13
November	Abengoa (Portales)	Natural Chem Group	Ethanol	25	-	-
December	Delta American Fuel	Agrutrade Resources/ Solfuels Holdings	Biodiesel	40	\$6	\$0.15
TOTAL				691		



by BRUCE COMER Ocean Park

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ETHANOL M&A

Over the past five years, the ethanol sector has seen annual M&A transactions averaging 500+ MGPY of annual production capacity. Without the bankruptcy sale of the six Abengoa plants, 2016 would have been the slowest year for ethanol M&A in the last decade. The five transactions in 2016 included seven plants with 426 MGPY of capacity. They were:

- Chief Ethanol acquired Cornhusker Energy. The diversified Chief Industries added a second ethanol plant in Nebraska.
- Green Plains acquired three Abengoa plants in a bankruptcy process. Green Plains added three plants located in Illinois, Indiana and Nebraska with cumulative capacity of 236 MGPY.
- KAAPA acquired Abengoa's Ravenna, NE plant in a bankruptcy process KAAPA picked up its second, whollyowned plant.
- ICM acquired Abengoa's Colwich, KS plant in a bankruptcy process. ICM picked up this smaller-scale (25 MGPY) plant.

Natural Chem Group acquired Abengoa's Portales, NM asset. This non-operating plant is likely destined to be repurposed as a transload and distribution terminal.

Two things drove the market:

- 1. **Distress**, which in the case of the Abengoa assets was caused more by corporate financial pressures than the microeconomics of the U.S. ethanol market; and
- 2. Consolidation, since all of the acquirers of the operating plants already owned plants. Ethanol plant buyers remain a small club. Since 2009, five buyers have accounted for 78 percent of the capacity that has traded.



NORTH AMERICAN ETHANOL M&A, 2011-2016

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BIODIESEL M&A

2016 became one of the busiest years ever for biodiesel M&A - seven transactions involving seven plants with 265 MGPY of capacity. Excluding renewable diesel transactions, 2016 registered more biodiesel deals and more gallons than 2014 and 2015 combined. The Environmental Protection Agency's increased Renewable Volume Obligation (RVO) likely played a role in boosting demand for these assets as buyers grew bullish about biodiesel demand in the U.S. A summary of 2016 biodiesel transactions follows:

- Kolmar Group acquired Greenleaf. The Swiss trading group bought the small Connecticut plant that it had been . tolling.
- **REG acquired Sanimax.** REG added to its fleet by buying this multi-feedstock Wisconsin plant, the company's 11th biodiesel plant.
- High Plains Bioenergy acquired Terra plant. High Plains added a second plant by picking up this non-operating Missouri plant.
- BIOX acquired Methes plant. Canadian BIOX added this non-operating plant in Sombra, Ontario.
- BIOX and World Energy acquired Green Earth Fuels. BIOX/World Energy teamed up to buy the non-operating Texas plant.
- World Energy acquired Elevance plant. World Energy bought the Mississippi plant featuring water access.

Agritrade and Solfuels acquired Delta American Fuel. The Singaporean companies teamed to acquire the non-operating Arkansas plant.

Consolidation was a primary driver for biodiesel M&A as well. All deals involved operators or traders expanding their asset bases. The other trend of the year was the increased activity of international buyers of U.S. biodiesel assets, providing evidence, along with the increased biodiesel imports, of a globally integrated industry.



NORTH AMERICAN BIODIESEL M&A, 2011-2016

(1) Includes the Dynamic Fuels renewable diesel plant transaction



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ADVANCED BIOFUELS

Ocean Park tracked 5 M&A deals in advanced biofuels during 2016. Most of these transactions were part of a wind-down process or occurred in place of a financing event. Like ethanol M&A, Abengoa's bankruptcy was central to advanced biofuels deal flow in 2016 as Abengoa sold its non-operating, cellulosic ethanol plant to Synata Bio. Tesoro expanded its advanced biofuels capabilities by acquiring Virent's bio-based fuels/chemicals demo plants and technology. The European company GFBiochemicals acquired the assets of Segetis, a U.S.-based renewable chemical company. The algae company Joule merged with Red Rock Biofuels, a renewable fuels developer. Finally, industrial biotech conglomerate Aemetis struck a deal to acquire Edeniq, a cellulosic ethanol technology company.

OUTLOOK FOR 2017

All eyes will be on Washington as the Trump Administration and the new Congress set a new course for the EPA, RFS2, tax and trade policy, etc. The Blenders Tax Credit expired at the end of 2016, so that will be a key factor affecting production economics. The question is whether the uncertain policy environment or possible regulatory headwinds compel non-strategic asset owners to consider exiting their investments.

The U.S. ethanol industry is still relatively fragmented, so Ocean Park expects consolidation to continue. There are still 95 stand-alone plants that account for 5.5 billion gallons per year of production (BGPY) or 37 percent of the 15.1 BGPY of domestic production. Margins were fairly robust in 2016, so most owners were content with their assets. The industry also rang up record production. If M&A ramps up in 2017, it will likely be more scattered, since there is not another Abengoa break-up on the horizon although ADM has publicly announced that it is exploring strategic alternatives for its large fleet of dry mill ethanol plants.

Biodiesel is still beholden to regulatory support and government incentives. The industry faces the most risk under the new executive and legislative branches. The counterweight to potentially reduced federal support is the robust financial incentives provided by California's Low Carbon Fuel Standard which has underwritten increased production and local consumption of renewable diesel and biodiesel. Will more international players acquire U.S. biodiesel assets? It was a banner year for biodiesel M&A. It would be unprecedented if 2017 M&A matches 2016 in deal flow.

Funding for advanced biofuels, such as cellulosic ethanol, was scarce. Hence, many players were under financial pressure. Another year of low crude prices would make it difficult to validate business models. Similar to 2016, Ocean Park expects advanced biofuels companies that are unable to stretch funding or raise new capital to seek mergers or sales in 2017.

About Bruce Comer and Ocean Park

Bruce Comer is the founder and a Managing Director of Ocean Park. In his 30 years of experience, he has advised boards, funds, owners, lenders and government agencies on growth strategies, capital structures, acquisitions, divestitures, financings, restructurings and operations. He also previously served as the Chairman and CEO of Allegro Biodiesel, a publicly-traded company.

Ocean Park is a boutique investment bank that advises on mergers and acquisitions, financings and restructurings with extensive experience in the renewable fuels, cleantech, food and agribusiness industries. Ocean Park has completed over 40 renewable fuels transactions since 2006. Any securities are offered through Ocean Park Securities, LLC, a member of FINRA and SIPC. Ocean Park's professionals are licensed registered representatives of Ocean Park Securities, LLC. For more information, please visit www.oceanpk.com.

