WESTERN PLAINS ENERGY

FUELING THE FUTURE

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May 2019 Newsletter

The Quarterly Update

Spring has sprung. The long, cold winter seems to finally be behind us, and things are greening up.

Thank you to all who attended the 2019 Annual Shareholder meeting on March 28. We had a good crowd with lots of engaging questions. Those elected to serve 3-year terms on the board of managers included Jeff Torluemke, Ben Dickman, and Steve Sershen. Robert White, VP of Industry Relations for the Renewable Fuels Association, was the invited guest speaker. Mr. White shared some great insights regarding the challenges and opportunities for the broader ethanol industry, including what he described as the three keys to ethanol's future (the three C's) - clean octane, carbon reduction, and choice for consumers.

Ethanol continues to be the most environmentally-friendly and lowest-cost octane source in the world. Ethanol replaces other octane sources such as MTBE (banned in 26 US states), xylene and toluene (high toxicity levels), benzene (known carcinogen), and n-Butane (extremely high volatility). How many of you knew that the gasoline that you buy contains benzene, a known carcinogen? While the opposition wants to spread mistruths about ethanol regarding compatibility issues and water separation issues, no one ever talks about any of the not-so-environmentally-friendly components in everyday gasoline or how they can affect human health.

As you are all aware, the world continues to become more and more carbon aware. Large corporations across the spectrum, such as Wal-Mart, ExxonMobil, and Wells Fargo, have sustainability goals to improve energy, water and waste efficiencies and to lower greenhouse gas emissions (GHG). We are also seeing this trend in gasoline as well. California was the first state in country to create what they call a low carbon fuel standard (LCFS). Similar programs are now in place in Oregon and British Columbia, and the list is fast expanding with discussions in Washington, the Northeast states, Canada, Brazil, Colombia, and Japan. There are even discussions about what a program in the Midwest states would look like. And here is why ethanol is central to those discussions. Most corn/sorghum-based ethanol cuts GHG emissions by 40-50% compared to gasoline. This can be further improved to 70% reduction if you include the natural soil carbon sequestration. A study published in February 2019 by Life Cycle Associates showed that 45% of the GHG reductions in California under their LCFS program was solely due to fuel-grade ethanol.

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Board of Managers

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- **Gary Johnson**
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- **Dave Mann**
  Manager
- **Steve Sershen**
  Manager

Did You Know:

- Drivers across the US have driven 7 billion miles on E15
- The EPA has approved the use of E15 in all 2001 and newer vehicles
- E15 typically sells for $0.05 to $0.10 less than regular 87 octane gasoline

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Finally, consumers want choice when making retail purchases. This includes purchasing fuel at the gas station. Consumer polling and focus groups continue to show that cost is the top consideration for consumers when it comes to fuel purchasing decisions. And ethanol lowers the price at the pump for all consumers. Right in this area, gasoline with 10% ethanol sells for $0.30 per gallon cheaper than gasoline with no ethanol in it. Further, gasoline with 15% ethanol (i.e. E15) typically sells for an additional $0.05-$0.10 lower than E10. Who doesn't want to buy cheaper fuel that is a better source of octane and lower GHG emissions.

While the merits of ethanol are strong and the opportunities for our industry also remain strong, our industry remains under substantial pressure due to over-supply in the market. There have been announced slowdowns of some plants, and we there have even been a couple of announced shutdowns, Finally, there have also been a few announcements of facilities for sale. Most of these facilities are in poor locations or operate at lower efficiencies than the average plants. However, these announcements serve as a good reminder that we must continue to focus on the details and to not allow ourselves to fall into the lower tier of performance.

Amongst these issues, we have also seen production and logistical issues caused by the weather over the last couple of months. The so-called bomb cyclone that hit the mid and upper-Midwest, and centered heavily on Nebraska, had a devasting affect on the agriculture and transportation sectors. In addition, we are now starting to see additional flooding throughout the Midwest with the snow melt and spring rain events. These weather events have helped to reduce the ethanol market supply, but this is only a short-term fix. Once the transportation lanes are repaired and opened back up, I believe that we will once again see high production rates.

There are only two ways to control an over-supplied market. You can reduce supply or you can increase demand. The fuel-grade ethanol industry is very independent, and historically we have seen an inability to self-regulate production. So our other option is to focus on demand. There continues to be tremendous efforts in building demand for our product around the world. In 2018, we exported 1.721 billion gallons around the world eclipsing the previous record from 2017 of 1.379 billion gallons.

There has also been a lot of focused effort on getting E15 to be available for year-around sales. Today. E15 can be sold as a regular fuel from September 16 through May 31 of each year, but due to an arcane rule from the Clean Air Act it can only be sold for use in a flex fuel vehicle from June 1 through September 15. The science shows that E15 actually has a better environmental profile than even E10, and there is simply no valid reason for the summer month restriction. With that, President Trump personally intervened last year, and he has directed the EPA to complete the rule making process to make E15 available as a regular fuel year-around. Since that time, the EPA has been busy composing the rule. They held a public hearing at the end of March, and they accepted written comments regarding their proposal until the end of April. Indications are that the EPA will finalize the rule this year prior to the June 1 restriction. Allowing E15 to be sold year-around could add an additional 7 billion gallons of demand to the current 14-15 billion gallon domestic demand. This additional demand will not all be immediate, but I hope that we can get there over the next 3-5 years.

The other big demand opportunity lies with the US-China trade deal. We continue to hear that ethanol and DDG's remain in the top-tier of topics being discussed between the two countries. I have not heard any indication on expected volumes that China could import from the US once a deal is reached, but I do believe that it would be substantial. The E15 rule and the US-China trade deal have the potential to more than balance out the over-supply situation, and I remain optimistic that we will see both of these come to fruition this summer.

The Bored Secretary Report

Marc Rauch is one of my favorite writers concerning ethanol and alternative fuels. The Royal Dutch Shell Plc.com web site gives this short biography of Marc:

> "*Marc J. Rauch is a multi-award winning TV/film writer, producer and director and has been a broadcasting and marketing executive for more than 45 years. In 1987, he co-founded The Auto Channel television network, and* ***TheAutoChannel.com*** *a few years later. Marc serves as the company's Executive Vice President and Co-Publisher. TheAutoChannel.com is the Internet's largest and oldest automotive information resource, with more than 1.5 million pages of content. Marc is a leading advocate of alternative fuels and energy; writing, lecturing and making numerous broadcast appearances regarding these issues.*"

In a recent commentary on the EPA hearing for E15, Marc wrote in part the following:

> "*It is time to stop the petroleum oil nonsense. It is time to put an end to the ridiculous and scurrilous anti-ethanol lies invented and spread by API and all of the entities that their checkbook reaches. All new internal combustion engines should be built as ethanol-optimized engines, using E100. Our standard gasoline should be at least E15, but probably be closer to E30. Ethanol cleans engines. Ethanol is compatible with more types of rubber, plastics, and metals than gasoline and aromatics. It is gasoline that causes any problems related to carbon debris. Ethanol fuel is a far healthier fuel than gasoline - there is no comparison.*"

Marc has also compiled many of his articles about ethanol into a book titled "The Ethanol Papers". He introduces the book this way:

> "*In 1996, a book titled* ***THE CIGARETTE PAPERS*** *rocked the world. It exposed what many people knew, what many people talked about for years...that tobacco smoking is deadly, and how the tobacco industry manipulated politicians, the media, and the medical community to spread their lies.*
>
> *My book,* ***THE ETHANOL PAPERS****, which we published on TheAutoChannel.com, is meant to also rock the world and counter the continuous lies and disinformation spread by the oil industry. We chose to release the book to tie-in with President Trump's E15 action.* ***THE ETHANOL PAPERS*** *is a rough-and-tumble, no holds-barred examination of the ethanol vs. gasoline issue. Written in plain jargon, simple enough that even brain-washed scientists, academics, and politicians can understand. But this is no "Biofuels for Dummies," it's the most in-depth, complete explanation of the issue and it's targeted for smart people who really want to know the truth*".

The Ethanol Papers is available at https://www.paperturn-view.com/?pid=MzQ34476&v=1.1

A search for ***The Ethanol Papers*** will also give several other sites where it can be read. Marc was also featured in ***Pump, The Movie***, produced by the Fuel Freedom Foundation, which is now available on YouTube.

Ben Dickman, Board Secretary

Financial Review

The unaudited financials for the second fiscal quarter ended March 31, 2019 are included in this newsletter. For the first 6 months of the fiscal year, we had an increase in ethanol production of 3.4% over the same quarter from the previous fiscal year, and total grain used increased by 2.94%, resulting in an ethanol conversion yield increase of 0.5%.

Total revenue for the first half of the fiscal year was up by 0.04% compared the same time period for previous year. Ethanol revenue was off 2.1%, and distiller revenue was up 16.1%. The average value for ethanol shipped for the first half of the fiscal year was $1.36, down $0.085 from the previous year. For the first half of this year, we sold about 50% of our ethanol into California, and the rest went to Western Kansas and Eastern Colorado. The average value for wet distiller grains shipped increased by $5.37 per ton from the previous year to this year.

Expenses toward the total cost of goods sold was up by 4.0%. Grain expenses were the largest portion of that increase as they were up a total of $1.7 million for the first half of this year compared to last year. This is the result of higher market values for corn on the Chicago Mercantile Exchange (CME). As a monthly average, CME corn values ranged from $0.15 per bushel higher for this fiscal year over the same time period in the 2018 fiscal year. Overall energy costs were also higher for this fiscal year. This is due to both market prices being $0.41/mmBTU higher for natural gas as well as using more natural gas and electricity to produce the additional 3.4% more ethanol mentioned above. While costs were higher, natural gas efficiencies improved by 0.6% and electrical efficiencies improved by 6%. Administrative expenses were down by 7%.

EBIDTA for the first half of this fiscal year was down 52%, driven mainly from the higher grain and energy expenses.

Net income finished Q2 better than I was expecting, bringing the fiscal year net income up significantly from where we ended Q1. With that said, net income was down 77% from the first half of the previous year, and I expect earnings to remain tight for the foreseeable future.