Coping with the added pressure of the RFS

Now the Renewable Fuel Standard has been introduced, a considerable amount of new infrastructure is needed to supply and distribute the extra biodiesel

Biodiesel infrastructure in the US has grown very little in the past year, partly due to the increasing amount of exports outside the US. But now producers have received a minimum use standard, which begins in 2009. Will available infrastructure be able to increase to accommodate this?

The National Biodiesel Board (NBB) reports that more than half of the 2007 US biodiesel production was exported. While current figures are hard to find, US biodiesel production was about 250 million gallons in 2006 and about 450 million gallons in 2007.

If roughly half of the production in 2007 was exported, it is safe to assume that the US probably experienced a modest increase in the volume of biodiesel available for domestic distribution.

Terminal locations in the US offering storage and blending of biodiesel increased by only 10 from 2006 to 2007, according to the NBB. The increase was reasonable but was far fewer than were predicted to handle the projected increase in biodiesel production.

Figures relating to infrastructure:

	2006	2007
Biodiesel production (million gallons)	250	450
Volume exported (estimate)	<27>	<212>
Domestic distribution (million gallons)	223	238
Biodiesel terminals, (number mid-year)	27	37

RFS sets minimum use of biodiesel

At the end of last year, Congress passed a new energy bill (Energy Independence and Security Act of 2007- H.R. 6), with an expanded renewable fuel requirement. Beginning in 2009, petroleum producers and importers must use at least 500 million gallons a year of biodiesel or purchase the biodiesel credits for that volume. Under the Renewable Fuel Standard (RFS), credits for any volume of biodiesel exported are cancelled. On the flip side, importers of biodiesel into the US can issue credits when biodiesel is imported and used for on-highway use.

In order to meet the RFS minimum for 2009 the biodiesel industry must increase the volume of biodiesel in domestic supply by over 250 million gallons per year. The increase can come in a variety of ways including:

- Decrease exports of biodiesel
- Increase imports of biodiesel
- Increase domestic production of biodiesel

Keeping track

Last September the EPA introduced a new recordkeeping programme for the RFS that is affecting the distribution patterns in the US. The traditional method of blending below the rack is proving problematic for tracking RFS credits and many of these traditional blenders are exiting the market or refusing to register for the recordkeeping process. Larger terminals, however, are better equipped to handle the recordkeeping for EPA.

The impact of the loss of these downstream blenders is hard to estimate but a certain portion of the infrastructure that delivered biodiesel and diesel blends has been lost permanently. If the market is to sustain the supply of biodiesel blends then the task of making these blends has to fall on the existing and future terminals.

Splash 'n' stay

Splash 'n' dash is the phenomenon whereby imports of foreign biodiesel are blended with US diesel to collect $1 (€ 0.7) per gallon tax credit and then the hastily exported to Europe and other countries.

Many believe splash 'n' dash will be made illegal and the dollar credit would end on the exportation of domestic biodiesel. If either or both of these exports are prohibited, the net domestic supply of biodiesel should increase as long as manufacturing margins are positive.

In the case of splash 'n' stay, a new round of imports has already begun whereby finished biodiesel is imported into the US specifically for use as a domestic supply. Several estimates put the monthly import volume in January 2008 at about 10 million gallons. These imports will do a great deal towards achieving a higher level of domestic supply and will lead to meeting the RFS in 2009 so long as the imports continue.

Assuming the US only meets the minimum requirements of the 2009 RFS, around 500 million gallons a year must be delivered to the US. If each terminal can handle about 400,000 gallons per month of biodiesel then over 100 new or converted terminals will be required.

If all the new biodiesel production projects become a reality and all the new production flows into the domestic supply, there could be over 2 billon gallons per year of total biodiesel supply. Using the same rate of 400,000 gallons per month per terminal, over 400 terminals would be needed to carry biodiesel.

A realistic case would probably be somewhere between 100 and 400 new terminals. The cost of adding biodiesel to a new or existing terminal is hard to precisely determine but $350,000 per terminal is an average cost. Therefore the worst and best case scenarios are $35 million to $140 million, respectively, as the total investment required over the next year.

With manufacturing margins squeezed by high feedstock costs it would be difficult for biodiesel producers to fund the increase in infrastructure. Therefore the bulk of the investment will have to come from the owners of the infrastructure and the capital markets.

More information

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