

Department of Agricultural and Consumer Economics, University of Illinois Urbana-Champaign

# **2017 Third Quarter RIN Update**

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Today's post provides the third quarter update on RIN generation for 2017. The previous 2017 RIN updates (May 17, 2017 and August 3, 2017) provided a summary of RIN generation through the first and second quarters of 2017. Gross RIN generation figures from EPA's EMTS through September of 2017 are used with available biofuel export data from the Energy Information Administration (EIA) and the Department of Commerce (USITC) to compare net RIN generation with the target mandate levels outlined in the RFS final rulemaking for 2017.

#### **Advanced RIN Generation**

Through September, a total of 156.6 million D3 RINs have been generated. First quarter generation averaged 10.9 million per month, increased to more than 20.6 million per month over the second and third quarters of the year. Continued generation at the second and third quarter pace would result in total generation of nearly 219 million D3 RINs for 2017. In addition, just over 1 million D7 (cellulosic diesel) RINs have been generated in 2017. Despite the increase in generation of cellulosic RINs during the second and third quarters, generation projections suggest a potential deficit of over 90 million gallons relative to the 2017 mandate level of 311 million RIN gallons. Thus, D3 and D7 generation will need to continue to strengthen through the last quarter of 2017.

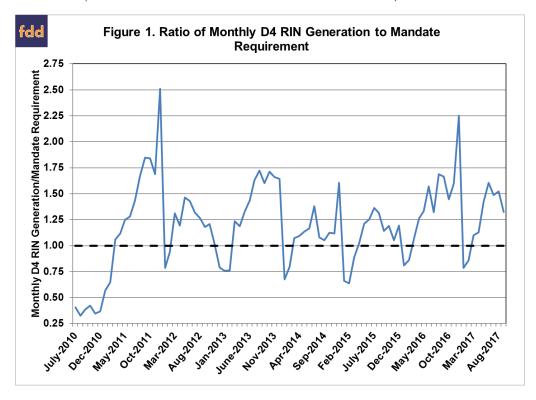
Figure 1 plots monthly D4 RIN generation relative to implied monthly mandate needs (annual mandate divided by 12) using data from the EMTS through September 2017. Gross generation of D4 RINs averaged nearly 229 million per month during the first quarter, increased to 346 million per month in the second quarter, and increased again to 361 million per month in the third quarter. Extending the rate of generation in the third quarter through the end of the year would result in close to 3.9 billion D4 RINs for 2017.

Gross generation of D5 RINs averaged close to 5.2 million per month during the first quarter, increased to 12.1 million per month over the second quarter, and increased further to 16.7 million per month over the third quarter. Extending the third quarter generation rate through the end of the year suggests total generation of 152.2 million D5 RINs for 2017.

Combining the D4 and D5 RIN generation projections results in a total estimated gross generation of just over 4 billion non-cellulosic advanced RINs in 2017. Data on biodiesel exports from the Energy

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Information Administration through July shows that a total of 60.4 million gallons of biodiesel have been exported, suggesting total biodiesel exports for the year of around 103.6 million gallons or roughly 155 million RINs. This implies net generation of non-cellulosic advanced RINs in 2017 could reach 3.9 to 4 billion. Thus, if the increased D4 and D5 generation rates experienced during the third quarter continue, net generation would be close to sufficient to meet the non-cellulosic advanced mandate of 3.969 billion RIN gallons for 2017 (4.28 billion total advanced less 311 million cellulosic).

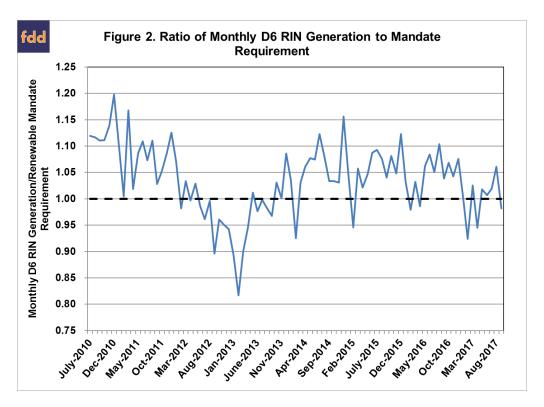


# **D6 RIN Generation**

Figure 2 plots D6 RIN generation relative to implied mandate needs through September 2017. Monthly gross generation was relatively steady through the first half of the year averaging just over 1.23 billion per month. Generation in the third quarter increased to an average of 1.27 billion D6 RINs per month. The gross generation projection for the year would currently be very close to 15 billion RINs. Department of Commerce data on exports of denatured ethanol for fuel use through August are reported at 285 million gallons for the year. The pace of exports increased during the third quarter, resulting in an increase in projected exports for 2017 representing 427 million D6 RINs. Accounting for exports results in a net generation estimate of approximately 14.5 to 14.6 billion D6 RINs, which would fall 400 to 500 million RINs short of the 15 billion non-advanced or renewable mandate component for 2017.

### Discussion

In summary, gross generation of RINs across all D-codes have consistently increased each quarter during 2017. The increase in generation of D4 and D5 RINs looks likely to be sufficient to meet non-cellulosic advanced mandate needs in 2017. However, generation of D3 and D7 RINs is still projected to fall short of the 2017 cellulosic mandate by 90 to 100 million gallons, and net generation of D6 RINs is projected to fall short of the renewable mandate component by 400 to 500 million RIN gallons. If the pace of RIN generation and/or exports do not adjust over the fourth quarter to result in sufficient 2017 RINs, the use of existing RIN stocks may be needed for 2017 compliance purposes.



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