

One Stone Two Birds: Insights from New Legislation and Rules for Biogas Produced Renewable Energy

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NE Residuals and Biosolids
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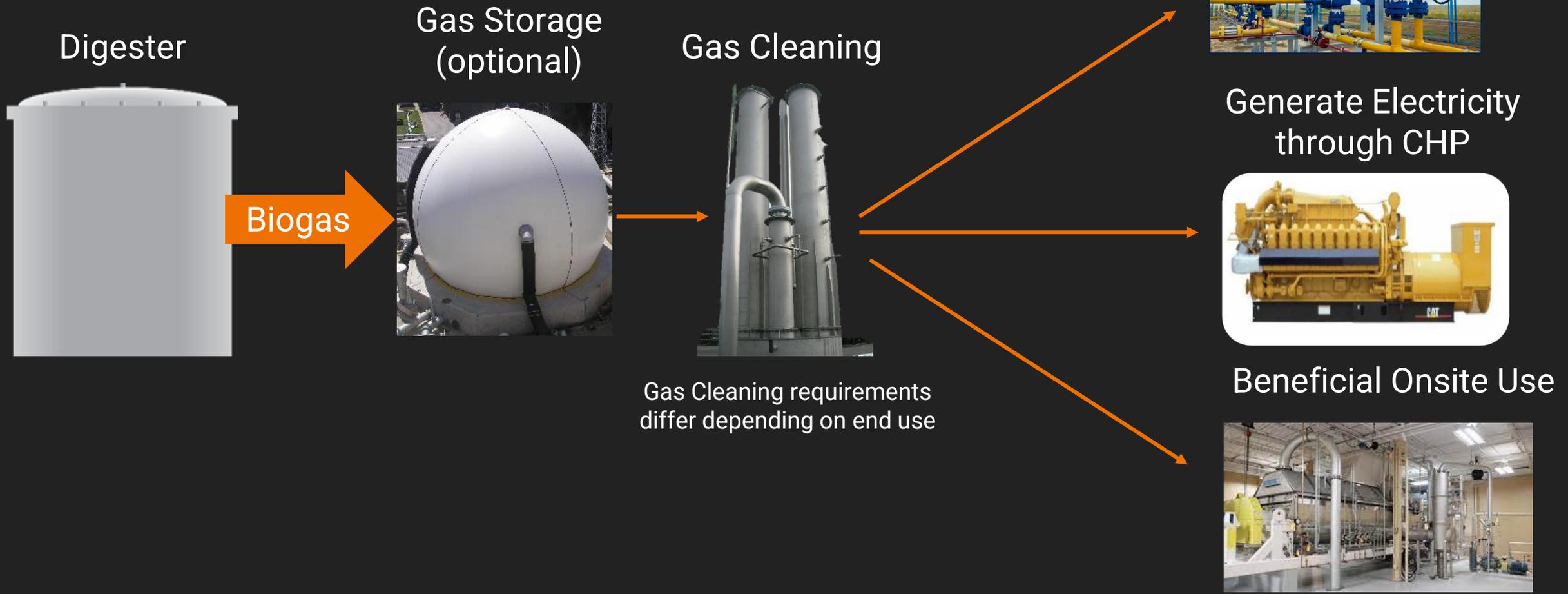
Agenda

- Introduction
- Inflation Reduction Act (IRA)
- Updated Renewable Fuel Standard (RFS)





Typical Biogas Beneficial End Use





Benefits of Biogas End Use

- Reduce natural gas cost
- Reduce Green House Gas (GHG)
- Generate revenue if producing RNG or electricity

Inflation Reduction Act (IRA)



Inflation Reduction Act (IRA) At a Glance



Aug 22, 2022
Signed into
Law



728
Pages



\$738 Billion
in Funding



\$270 Billion in
Energy Incentives
in 70 Separate
Property Types



IRA and Tax Credits

- Renewable energy tax credits are not new, but previously not available to tax-exempt entities
- IRA extend these credits to tax-exempt entities
- Tax-exempt owners can receive a “**direct payment**” in the form of cash payment from IRS





Investment Tax Credit (ITC)

IRA extends ITC to “qualified biogas property projects” that begin construction by **Dec. 31, 2024**

- Production and sale of RNG
- Production, use or sale of electricity from biogas
- Other productive use

In all cases must use at least 75%





Components Can Qualify for “Biogas Property”

- Digester (new or refurbishment)
- Gas cleaning facility
- CHP
- THP, HEX, Boilers, if any
- Site utilities related to above
- Electrical building, if any related to above
- Demolition, if any related to above

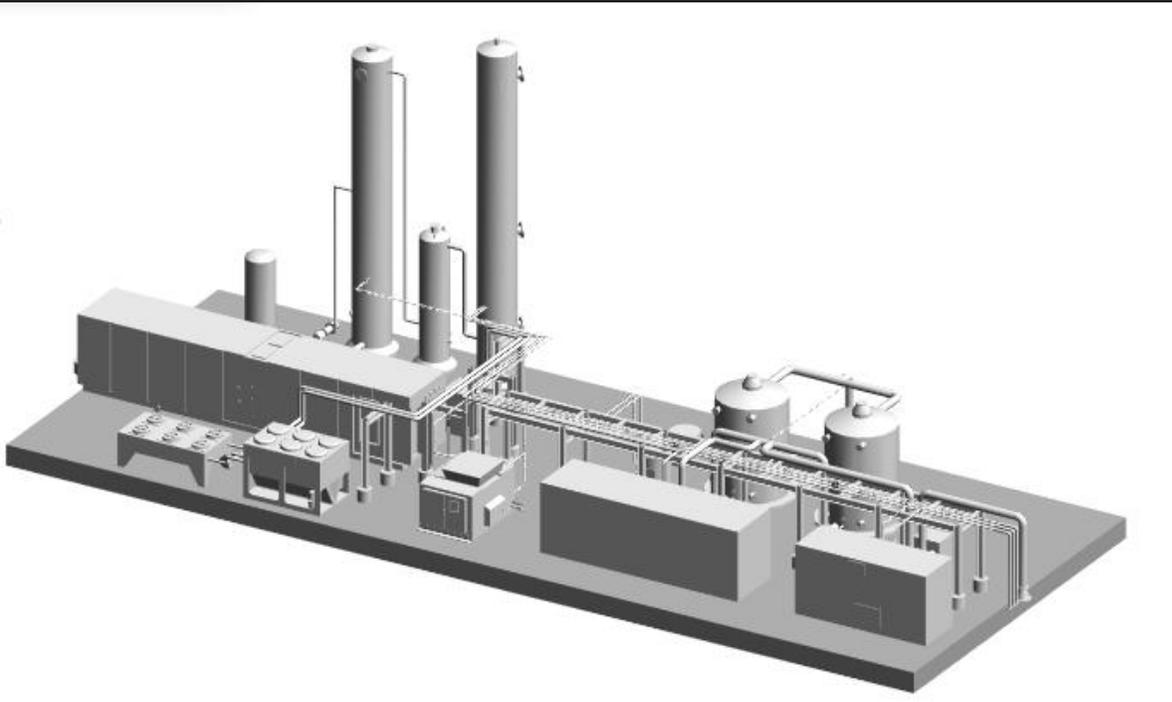
Design and construction of the above may qualify.
Project management cost may not qualify.

A proportion of other biosolids management component
that relates to biogas production may also qualify





Investment Tax Credit (ITC)



Base rate: **6%**

If met Bonus Criteria, **5X => 30%**

- Prevailing wage and apprenticeship requirements

Additional Bonus Points

- Domestic Content +10%
- Energy Community +10%

Total ITC can be up to **50%**



Investment Tax Credit (ITC) Bonus Criteria

Prevailing Wage: laborers and mechanics be paid at least geographic prevailing wage

Apprenticeship requires the taxpayer to ensure the following percentage of total labor hours of the construction, alteration or repair work is performed by qualified apprentices:

- 12.5% if construction in year 2023
- 15% if construction in year 2024





Investment Tax Credit (ITC) Bonus Point Requirement

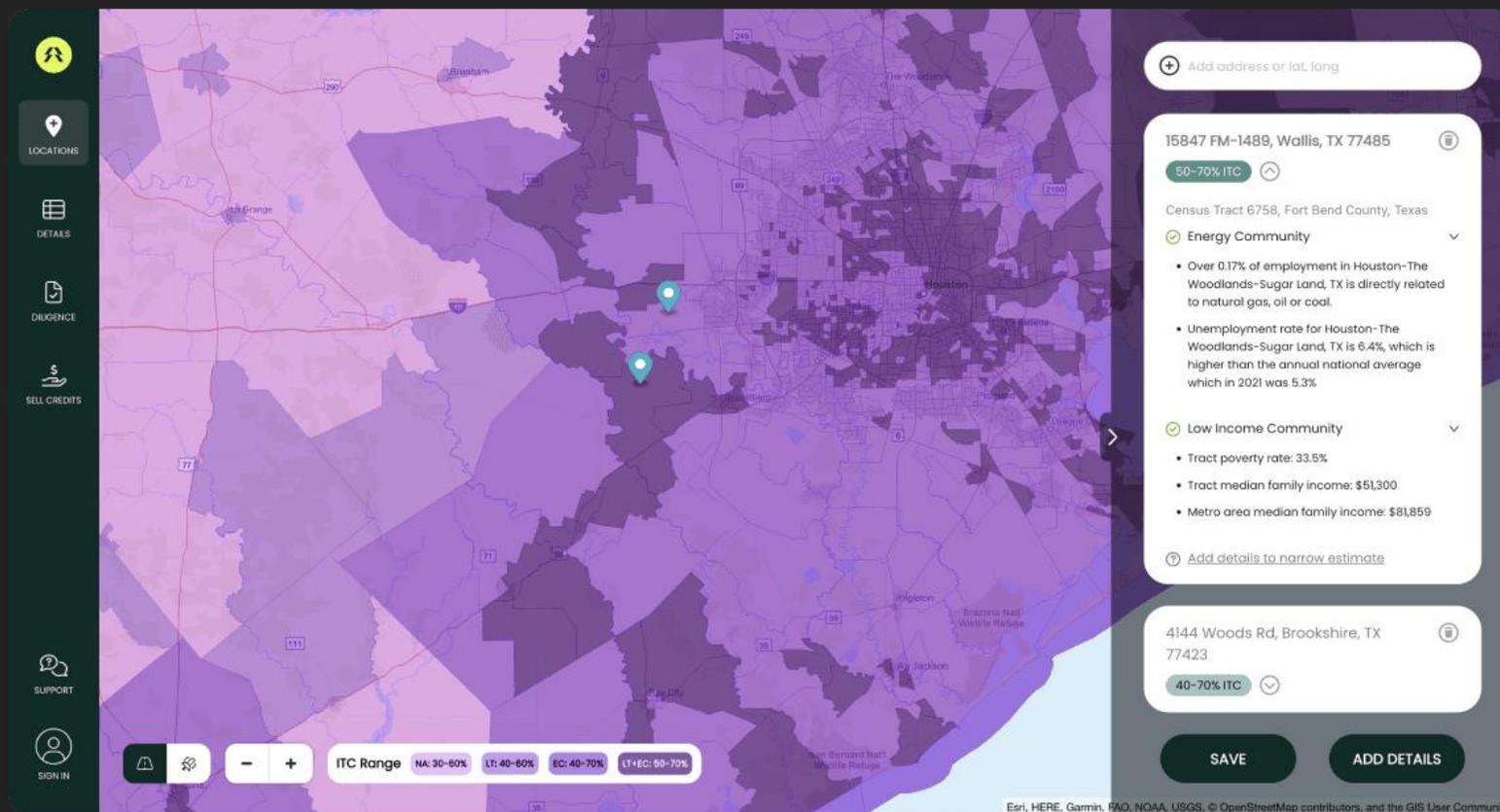
Domestic Content

- Steel and iron 100% produced in US
- 40% cost of components mined, produced or manufactured in the US
 - Need language in procurement on proper documentation





Investment Tax Credit (ITC) Bonus Point Requirement



Energy Community

- Brownfield
- Economies tied to coal, oil and/or natural gas
- Locations where coal mines have closed since 1999 or coal power plants have closed since 2009

Ever.green Mapping Tool

[Ever.green: High-impact Tax Credits and RECs that accelerate the transition to net-zero](#)



Potential Hair Cut from Investment Tax Credit (ITC)



If project is financed with **tax-exempt bond**, the credit is reduced by the less of

- 15% OR
- Percent of the eligible project cost that is financed by tax-exempt bond

How to Get Investment Tax Credits



- Tax credits can be earned when project is placed in service
- Requires substantial documentation demonstrating satisfy bonus criteria and points. **Important to plan ahead**
- Register for the tax credit in the year following the project completion
- File tax form to IRS to receive direct payment
- **Interim financing will be needed** until the tax credit direct payment received



Example Scenario

- Total project period is 3 – 4 years, including refurbishing 4 digesters, building new THP and RNG facilities
- Digester 1 completed and placed in service in year 1
- Register for tax credit and file form for digester 1 in year 2. Receive tax credit value related to digester 1 in cash form
- THP completed and placed in service in year 2. Register for tax credit and file form for THP in year 3 and receive credit value related to THP.
- Each year file for other components (RNG, other digesters) after substantial completion and place in service.



Updated Renewable Fuel Standards (RFS)



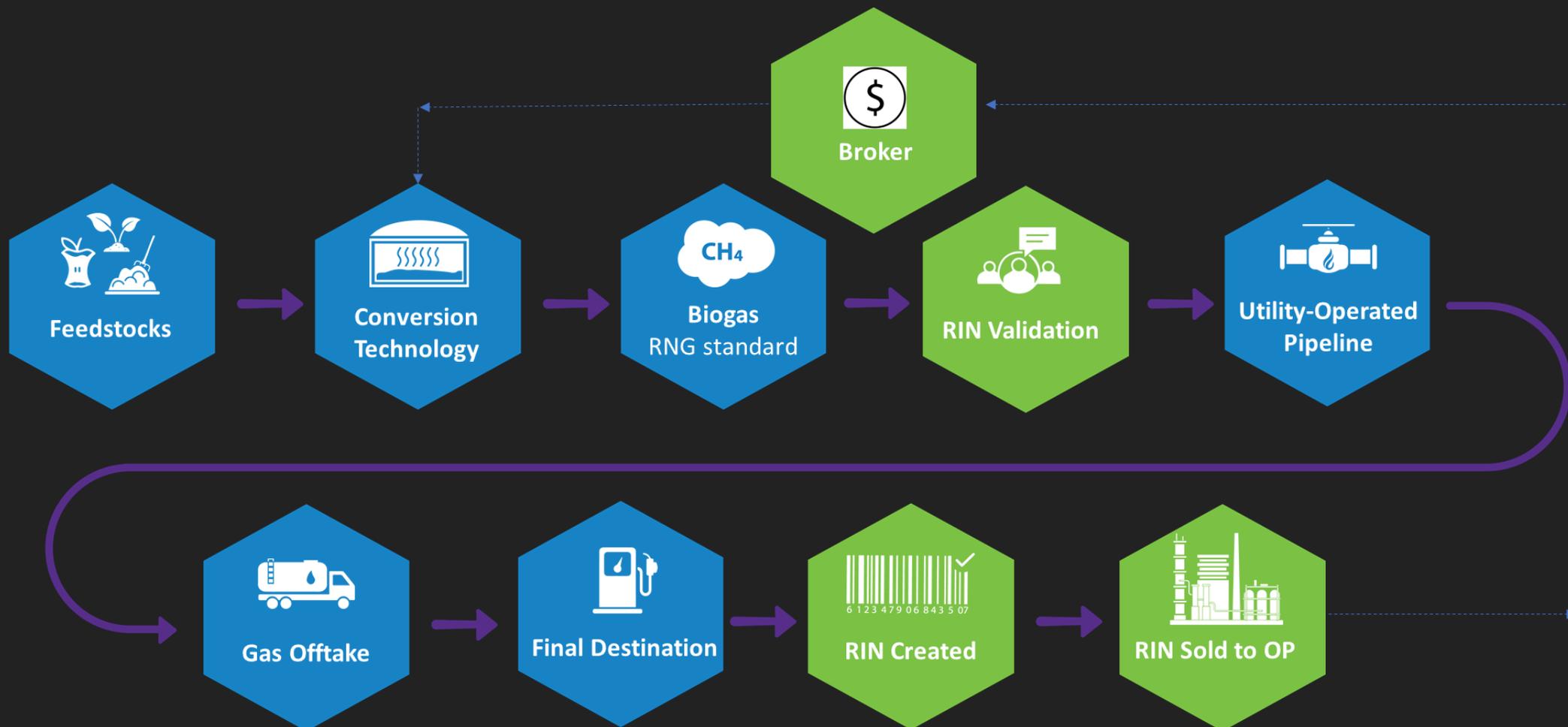
Renewable Fuel Standard (RFS)



- Congress uses RFS to reduce GHG emissions from **transportation sector**
- The RFS requires a certain amount Renewable Volume Obligation (RVO) to replace or reduce traditional fuel
- Each gallon of renewable fuel is able to generate credits called **Renewable Identification Numbers (RINs)**
- EPA implements a trading and enforcement program composed of obligated parties and renewable producers (e.g., WWTPs, dairy farms)



How Does RNG Generate Revenue from RIN Program





Feedstock Matters for Type of RIN Credits

Cellulosic Material



D3 RIN

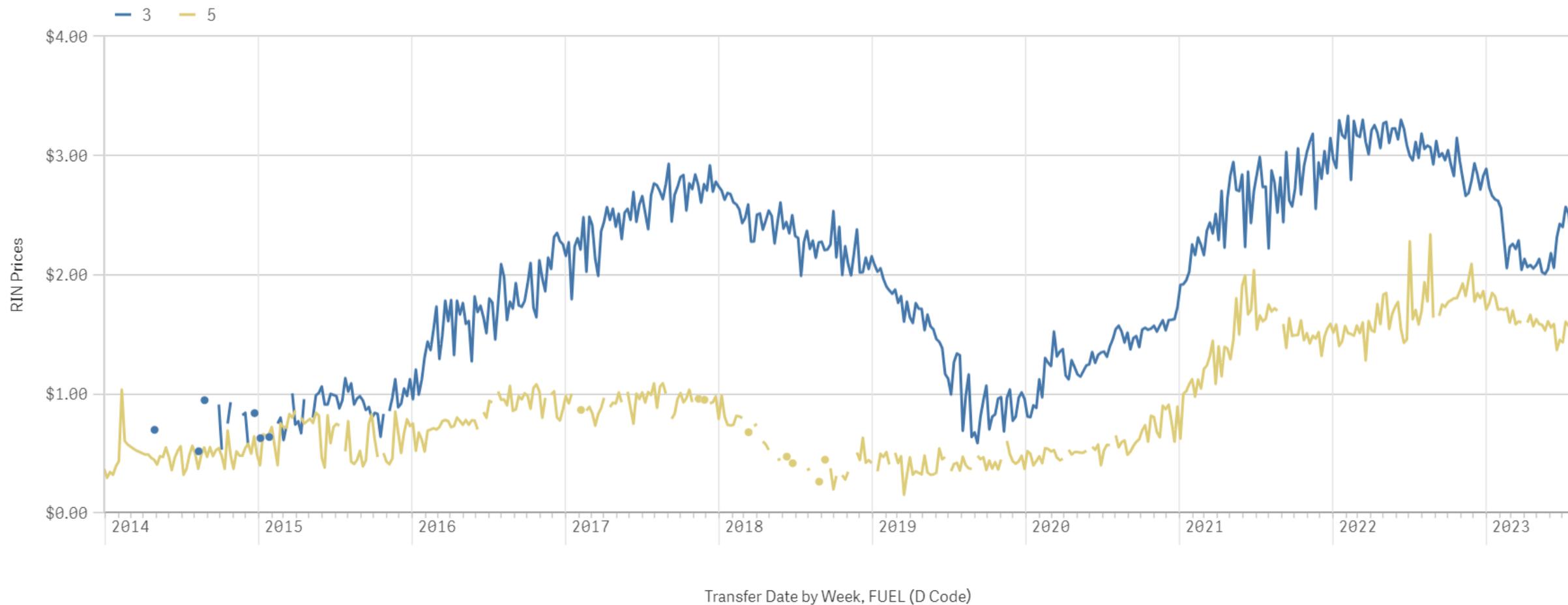
Non-Cellulosic Material



D5 RIN



RIN Price History





RFS Rule Updated in 2023

Volume Targets (billion RINs)^a

	2023	2024	2025
Cellulosic biofuel D3	0.84	1.09	1.38
Biomass-based diesel ^b	2.82	3.04	3.35
Advanced biofuel D5	5.94	6.54	7.33
Renewable fuel	20.94	21.54	22.33
Supplemental standard	0.25	n/a	n/a

- EPA sets final RVO for 2023 to 2025
- Allows co-digestion to generate **both D3 and D5 RINs** based on operation data or EPA specified fraction apportionment
- **eRIN is gone for now**, but not forgotten
 - Can impact decision on biogas end use from a financial perspective



2023 RFS Update Reforms Biogas Regulatory Requirement

Biogas Producer

- Produces qualifying biogas
- Submit **monthly batch report**: amount, biomethane content, feedstock, and receiving party

RNG Producer

- Generates bundled RINs when injecting into pipeline
- **Quarterly validation reports**: # of RINs, amount, and energy content

RNG RIN Separator

- Separate RINs when **withdraw RNG or use RNG to produce CNG/LNG**
- For transportation
- **Periodic reports** on facilities that converted RNG to CNG/LNG and the amount converted



Key Takeaways

- Inflation Reduction Act (IRA) offers major financial support. **Must start before 2025.**
- Can receive “direct payment” in the form of cash from IRS but **need to find interim financing**
- RFP requiring documentation for demonstration of meeting **domestic content, apprenticeships etc**
- Updated Renewable Fuel Standards **changes biogas regulatory requirements** and can have impact on commercial terms for RNG revenue from RIN
- New RFS allows **co-digestion to generate both D3 and D5 RINs**, increasing revenue potential
- **eRIN is out for now** but may be finalized in the future



Questions?

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