



Bringing Clarity to Complexity

Developing your renewable fuels roadmap



A webinar key takeaways report by Shell Catalysts & Technologies

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“ We’re really excited to be talking about renewable fuels. It’s an increasingly important topic due to the focus on achieving net-zero emissions and meeting the goals of the Paris Agreement. ”

Nick Flinn, VP Technology Licensing and Services

Are you a refiner struggling to comply with biofuels legislation? Are you evaluating how to seize valuable biofuels business opportunities without exorbitant capital expenditures in the short term? We've outlined key takeaways from the April 2021 event that addressed these and related questions. Chris Egby, Downstream Licensing Marketing Manager, and Bart Suijkerbuijk, Global Licensing Development Manager, discussed the need to limit scope 3 emissions and the valuable tactics and technologies that could help energy producers respond profitably to changing market demands.

Why we need a lower carbon system

by 2050:



World population increases by a third.



Energy demand increases by a third.



CO2 emissions should be reduced by half.

Overview of the developing biofuels legislative landscape

United States

Aggressive legislation in the U.S. implies that biofuels can be highly profitable.

- **RFS** Renewable Fuel Standard
- **LCFS** Low Carbon Fuel Standard
- **BTC** Blenders' Tax Credit

European Union

The value of biomolecules will vary according to the export market which introduces complications that are discussed during the event.

- **RED II** Renewable Energy Directive

Asia-Pacific

Countries in the region are rolling out policies to stimulate biofuel production and view the U.S. and the E.U. as export opportunities.

- National mandates emerging for 1G biofuels
- Economics expected to drive 1G@2G

“Non-fossil” products and possible technology pathways



Hydrotreatment via the Shell Renewable Refining Process



Fermentation via Shell Fiber Conversion Technology



Gasification via the Shell Gasification Process

Conversations worth having

Visit the [Make Every Molecule Matter](#) website to connect with an expert to discuss:

- which renewable fuel technology pathways make the most sense given infrastructure and operational constraints
- how carbon intensity masterplanning can help isolate efficiency and CO₂ reduction opportunities
- how to maximise the value of biomolecules by identifying export markets with the most upside

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These are just some of the technology pathways and low carbon products that were discussed during the digital event. They demonstrate some of the compelling options for generating value from low carbon, non-fossil products that can help future-proof an organisation’s competitive position. Despite the challenging business environment, companies should consider investing in decarbonisation strategies to prepare themselves for what the energy transition will require.

Working with an owner-operator in this space can provide additional upside through value optimisation. Sharing our renewable energy and biofuels expertise can have a profound impact on the viability of these kinds of projects for our customers. To learn more and watch the event in full, click below.

WATCH THE ON-DEMAND WEBINAR



Webinar Key Takeaways: Bringing Clarity to Complexity