



Market Scenario Planning: Renewable Feedstock Availability - 2023

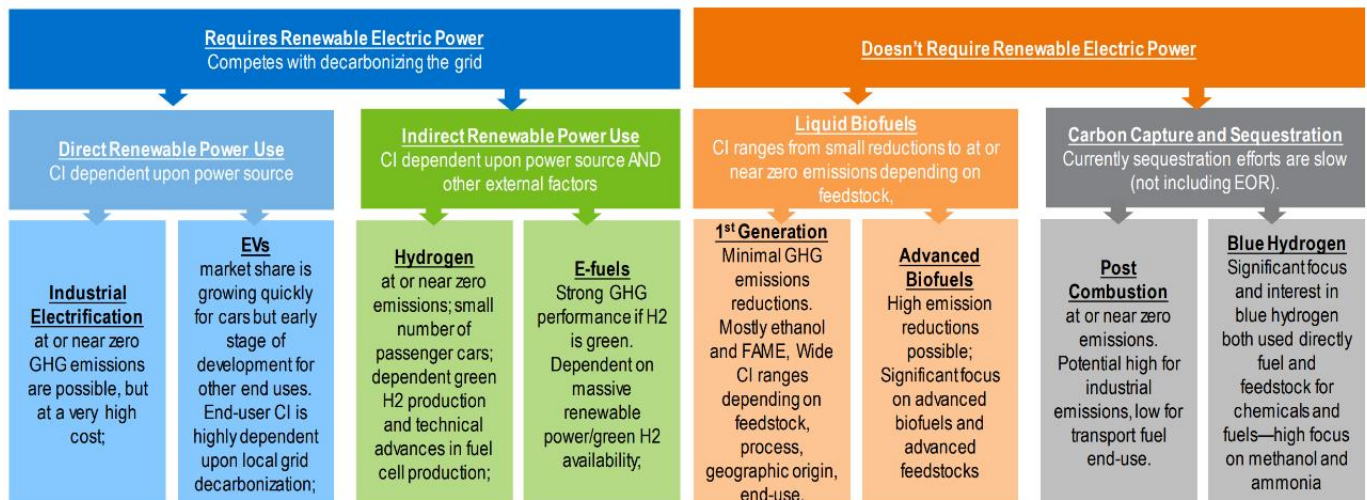
Market Scenario Planning: Renewable Feedstock Availability - 2023 is one in a series of reports published as part of NexantECA's Markets & Profitability program.

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Report Abstract:

The decarbonization of the transport industry involves the elimination of GHG emissions from – at present – 850 million cars, 440 million commercial vehicles, 140 million two-wheelers, 35 thousand commercial jet aircraft and over 50 thousand merchant marine vessels; while a range of options are feasible for this massive task, many of them require vast quantities of cheap, sustainable, low CI power, which is also required to decarbonize existing power production.

Overview of Renewable Feedstock Segmentation



There are three main groups of biofeedstocks, each relevant to different downstream products:

- Natural Oils – used mainly in the production of FAME biodiesel or newer 'drop-in' fuels
- Starch / Sugar / Carbohydrates – used mainly for fermentation to 'first generation' ethanol production
- Emerging Feedstocks – currently led by cellulose

The availability and sustainability of these feedstock groups is a key factor in the historic and future evolution of the global biofuels market; the choice and geographic origin of different feedstocks plays a major role in biofuel cost, scale, and emissions reduction potential

- Scale impact: Overall cultivation of feedstocks is dependent on land use, and sets a ceiling on production
- Price impact: The volatile nature of agricultural pricing impacts cost of production and profitability, with multiple factors external to biofuel consumption trends driving feedstock prices
- Sustainability/GHG impact: Different approaches to feedstock production (agricultural, waste-related, etc.) translate to widely varying life cycle emissions reduction potential for different biofuels, from carbon negative to higher than petroleum equivalents
- Regulatory impact: Driven by the above and central to biofuels growth, regulatory incentives and disincentives on particular feedstocks will – and has in the past – either open up or close down entire markets.

A mix of biofuels and biofeedstocks will be required to even attempt to meet net zero goals

For more information contact us at Markets@NexantECA.com or www.NexantECA.com

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Table of Contents:

There are four volumes to this program:

1. Executive Summary
2. Natural Oil Feedstocks
3. Sugar / Starch / Carbohydrate Feedstocks
4. Emerging Feedstocks

Each volume will be segmented as follows:

1. Executive Summary
2. Introduction
3. Feedstock Overview
4. Feedstock Analysis
5. Scenario Summaries
6. Key Conclusions

NexantECA defines the three market scenarios as:

- Base: NexantECA's expectation for demand given current knowledge of policy, technical and market drivers.
- Aggressive Adoption: NexantECA's expectation if barriers for adoption are lower – i.e. policy is more ambitious and scale up happens more quickly
- Business as Usual: NexantECA's expectation if barriers for adoption are higher – i.e. policy is less ambitious and scale up is delayed

This analysis will identify the key policy, technology and market drivers shaping these scenarios.

For related analysis, please refer to:

[Market Scenario Planning: Green Methanol](#)

[Market Scenario Planning: Green Ammonia](#)

[Market Scenario Planning: Renewable Naphtha](#)

Subscription Details:

Subscription to **Market Scenario Planning: Renewable Feedstock Availability - 2023** includes:

- 12 month access via the NexantECA website, to:
 - Unlimited downloads of PDF reports
 - Downloadable data in Excel from the Online Database
- Webinar
- Consultation time with the project team

Customized subscriptions are also available.

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The **Markets and Profitability** program comprises of the well-known Petroleum and Petrochemical Economics (PPE), PolyOlefins Planning Service (POPS), Strategic Business Analysis (SBA) and World Gas Analytics (WGAS).

Markets and Profitability tracks over 60 feedstocks, petrochemicals, polymers, chemical intermediates and fertilizers on an ongoing basis and provides regularly updated reports covering all commercial aspects of these global industries. The accompanying database, provides global analysis and forecasts in two major inter- related areas: **Markets and Profitability**.

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