

Bioeconomy & Low Carbon Technology Overview for April 2024

Our summary of low carbon technology developments for April 2024 is based on data and information collated by Gifford Consulting and presented on our website: [Gifford Consulting](#)

Highlights by Topic: April 2024

More information on these articles can be found on our website dashboards.

Ammonia Use and Production

1. Abu Qir Fertilizers Company, ABB International Group, MPS Infrastructure Company, and Petrojet signed a Memorandum of Understanding (MoU) for the supply of green hydrogen and renewable electricity to the North Abu Qir for Agricultural Nutrients Company. This collaboration will facilitate the production of green ammonia, a raw material for generating granulated ammonium nitrate fertilizer. The plant will have a capacity of 2,400 tons per day.
2. JERA Co., Inc, and compatriot IHI Corporation announced the start of the world's first demonstration testing of large-volume fuel ammonia substitution (20 percent of heating value) at a large-scale commercial coal-fired thermal power plant.

Biobased Chemicals

3. Avantium is developing technology that converts plant-based sugars into furandicarboxylic acid (FDCA) which is a key building block for sustainable plastic PEF (polyethylene furanoate).
4. CropEnergies AG is building a plant in Europe to produce green ethyl acetate from sustainable ethanol.
5. Futerro, a Belgian pioneer and leader in the production of lactic acid, lactide and PLA (polylactic acid), and Tereos, a cooperative group and a major global player on the sugar, ethanol, and starch markets, signed a collaborative agreement. They aim to create a short food-supply chain, in one geographical region, comprising the extraction of dextrose (from sustainably grown French wheat) and then convert it into industrially compostable and recyclable bioplastics.
6. Hyosung, the world's largest maker of spandex fibers, plans to spend \$1 billion on a site in Vietnam that will use Genomatica's fermentation technology to convert sugar into 1,4-butanediol (BDO), a spandex precursor. Hyosung plans to produce 50,000 metric tons of biobased BDO per year by 2026 and 200,000 tons annually by 2035.
7. Kraton Corporation, a leading global sustainable producer, completed a \$35 million investment to upgrade crude tall oil (CTO) biorefinery towers in Panama City.
8. Neste and South Korean chemical company-Lotte Chemical, have partnered to replace fossil resources with renewable raw materials in the manufacturing of chemicals and plastics. Under the terms of the agreement, Neste will provide Neste RE™, a raw material for chemicals and plastics made from 100% renewable raw materials. Lotte Chemical will use Neste RE at its Korean sites to produce multiple plastics and chemicals used in applications including packaging.
9. Solugen announced that it has started construction of a new biomanufacturing facility next to an Archer Daniels Midland corn processing complex. The 500,000-square-foot Bioforge™

Marshall plant will use ADM-sourced dextrose to produce low-carbon organic acids for various applications.

10. Spiber Inc. has raised JPY 10 billion (US\$65 million) to scale up production of its Brewed Protein materials. These proteins, made via microbial fermentation provide sustainable alternatives to animal-based, plant-based, and synthetic materials, particularly for textiles which can be used for the apparel industry.

Biodiesel

9. HD Hyundai Oilbank started production at its biodiesel plant with an annual capacity of 130,000 tons. HD Hyundai Oilbank has indicated that the newly built biodiesel plant in Daesan, South Chungcheong Province, is the first in the country to introduce a supercritical process. The supercritical process differs from traditional biodiesel plants as it produces products under high temperature and pressure conditions without a catalyst.

Biofuels

10. Magnolia Sustainable Energy Partners (M-SEP), a newly formed Japanese-based investment consortium established by Sumitomo Corporation of Americas (SCOA) and JX Nippon Oil & Gas Exploration Corporation (JX). The investment from M-SEP will be used to further advance the company's flagship Louisiana Green Fuels (LGF) project, an ultra-low carbon negative SAF plant located in Caldwell Parish, Louisiana.
11. OMV acquired a filling station network encompassing nine sites and cooperation contracts for three additional sites. The acquisition of these sites improves coverage of the existing filling station network in key European markets.
12. Repsol marked a milestone in the decarbonization of transport in the Iberian Peninsula with the startup of a large-scale production plant for renewable fuels at its industrial complex in Cartagena (Spain). This plant is the first on the Iberian Peninsula dedicated exclusively to the production of 100% renewable fuels. The company invested €250 million in the construction of the plant, which has a production capacity of 250,000 tons per year.
13. Simply Blue Group is developing onshore renewable energy parks to produce sustainable aviation fuel (SAF), marine fuels, and chemical feedstocks. The focus will be on SAF and methanol, and the potential for green ammonia is also being considered.
14. The Gothenburg Biorefinery, a joint venture between St1 and SCA, officially opened on April 10th following an extensive start-up phase. The biorefinery has now commenced operations to produce Sustainable aviation fuels (SAF), Bio-Diesel (HVO), Bio-Naphtha, and Bio-LPG.
15. The United States Environmental Protection Agency (EPA) has approved registration for blending up to 20% of Vertimass green gasoline with conventional gasoline. This new renewable gasoline product, VertiGas20, is made from renewable ethanol by novel Vertimass Consolidated Alcohol Deoxygenation and Oligomerization (CADO) technology.
16. Brazil is in the global forefront of sustainable mobility, and in position to offer diversified mobility solutions that are practical, economical, and replicable in many countries with similar development and infrastructure conditions. It does not come as surprise that only in the last three months investments in the automotive sector were announced in excess of 115 billion Reais, or 23 billion US dollars, which include ambitious plans for expansion and launching of optimized engines using ethanol and hybrid vehicles, which combine the efficiency of electric engines and the use of energy-dense liquid fuels with a very low carbon footprint that utilize the current distribution infrastructure.

17. Raven SR Inc is in the process of securing \$15 million in new investments. Proprietary Steam/CO₂ reforming technology will be used to convert waste into renewable fuels like hydrogen and sustainable aviation fuel.

Biogas

19. BIOGEST has received an order to build biomethane plant for INA in Sisak, Croatia. The plant will produce biomethane which will be delivered to gas network. Residues will be used as fertilizer.
20. A new agreement between Repsol and Genia Bioenergy includes 19 of its biomethane plants which are under development. In addition, there are 11 other projects in an early stage of development. Repsol will purchase all the gas produced by these projects, which will also form a unique platform for creating agro-industrial ecosystems.
21. Air Liquide continues to expand its capacities in biomethane in the U.S., with the construction of two new production facilities. These units are located in Center Township, Pennsylvania, and Holland Township, Michigan. The feedstock for these plants will be treated waste sourced from dairy farms.
22. Brightmark RNG Holdings LLC announced the opening of its Eloy Renewable Natural Gas (RNG) centre, which will produce RNG from dairy manure using anaerobic digestion. This project is a first for the Southwestern US.
23. Gasum and the Norwegian Road Transport Association (NLF) have entered into a strategic cooperation agreement aimed at advancing the role of biogas in Norway's green energy landscape. The collaboration, which is effective from January 1, 2024, seeks to position biogas as a viable solution.
24. TotalEnergies and Vanguard Renewables signed an agreement to create an equally owned joint venture for Farm Powered[®] RNG projects in the United States.
25. Village Farms International, Inc. announced that operations have started at the Delta (British Columbia) Renewable Natural Gas (RNG) production facility, in partnership with Atlanta-based Terreva Renewables. The Delta RNG facility is the result of Village Farms' strategic initiative to transition its wholly owned subsidiary, Village Farms Clean Energy, Inc. to a more sustainable business model using advanced technologies.
26. Vitol acquired BioMethane Partners, forming Vitol BioMethane (VBM). VBM is a Texas-based landfill-gas-to-energy company with expertise in gas collection systems, treatment plants, and pipeline interconnects. VBM has four RNG sites in Alabama, Louisiana, and Texas, with more under development across the US.
27. VORN Bioenergy GmbH launched VORN Bioenergy Italia srl (VORN Bioenergy Italia). This follows VORN's acquisition and full integration of Alvus srl (Alvus), a Bolzano-based project developer in the biomethane and biogas sector.

Biojet/SAF

28. Bangchak and Sumitomo formed a partnership through a framework agreement for the purchase and sale of used cooking oil (UCO) and neat SAF. The SAF production unit at the Bangchak Phra Khanong Refinery in Bangkok is expected to produce around 1,000,000 litres per day.
29. ABB has signed an agreement with Cap Clean Energy to collaborate on sustainable aviation fuel (SAF) production sites in the Canadian provinces of Manitoba, Saskatchewan and Alberta. As part of the MoU, ABB will explore how its automation, electrification, and digital

technology – including the ABB Ability™ System 800xA® distributed control system and eHouse modular substation solutions – can optimise biofuel production facilities.

30. Apeiron AgroCommodities Pte Ltd, Singapore-headed Apeiron AgroCommodities Pte Ltd which is the largest used cooking oil collectors in Asia has partnered with Jet Zero Australia Pty Ltd. This arrangement is backed by Airbus and Qantas and comprises of a 50:50 joint venture.
31. Avina announced plans for a cutting-edge SAF plant in the Midwest region which is set to commence operations in 2027. The facility will produce 120 million gallons of SAF annually and will utilize the alcohol-to-jet production technology pathway.
32. DG Fuels has chosen Johnson Matthey and bp's co-developed Fischer Tropsch CANS technology for its first sustainable aviation fuel (SAF) plant which will be located in Louisiana, USA. It will be the largest announced FT SAF production facility in the world, with a planned capacity of 13,000 barrels per day – capable, after blending to 50% of producing sufficient for SAF for more than 30,000 transatlantic flights annually. The plant is expected to start production by 2028.
33. Ecoceres will start its second biofuel facility during the second half of next year, producing 220,000 tpy of sustainable aviation fuel and 130,000 tpy of hydrotreated vegetable oil from used cooking oil and palm oil mill effluent.
34. Firefly plans to develop a plant to transform human waste into SAF in Harwich, Essex. It has reached an agreement with Wizz Air to provide up to 525,000 tons of SAF over 15 years.
35. Honeywell announced that its hydrocracking technology can be used to produce sustainable aviation fuel (SAF) from biomass, thereby making sustainable aviation fuel (SAF) that is 90% less carbon intensive than traditional fossil-based jet fuels. The new technology produces 3-5% more SAF, enables a cost reduction of up to 20% and reduces by-product waste streams as compared to other commonly used hydroprocessing technologies.
36. LanzaJet announced an investment from Microsoft's Climate Innovation Fund. This investment from Microsoft enables LanzaJet to continue building its capability and capacity to deploy its sustainable fuel process technology. In addition, LanzaJet and Microsoft intend to explore how Microsoft can supply its data and artificial intelligence (AI) capabilities to improve LanzaJet's corporate functions and ethanol to Sustainable Aviation Fuel (SAF) process technology.
37. LanzaTech in the UK was granted permission for a sustainable aviation fuel facility at Crown Wharf. The proposed alcohol-to-jet facility is to be located at Port Talbot and will produce 100 million litres of SAF per annum, 10% of UK's 2030 target.
38. Monarch Energy is planning to build a plant near the Chicago Rockford International Airport and take emissions from nearby landfills and convert them into sustainable aviation fuels.
39. Neste and Air New Zealand signed an agreement for the supply of nine million liters of neat Neste MY Sustainable Aviation Fuel, representing the largest purchase of sustainable aviation fuel from Neste made by any airline outside North America and Europe. Delivery is planned for before the end of 2024.
40. New Rise Renewables commenced operation of a new 3,200 Barrel-Per-Day Renewable Sustainable Aviation Fuel (SAF) Facility in Nevada.
41. Sao Martinho expects it will beat domestically grown corn-based ethanol as the first Sustainable Aviation Fuel feedstock in the US, as it has secured certifications, including one from Corsia as well as EPA registration. The company expects to produce between 3.4 million and 4 million gallons of sugarcane ethanol for export to the US's SAF market.

42. Sasol and Topsoe, announced the successful launch of their joint venture, Zaffra. With its headquarters based in Amsterdam. Zaffra is set to become a key player in the aviation industry, focusing on the development and delivery of sustainable aviation fuel (SAF).
43. Solarig announced the development in Soria of one of the most innovative Sustainable Aviation Fuel (SAF) plants in the world, in Parque Empresarial del Medio Ambiente (PEMA) located in the municipality of Garray. The 'NUMANTIA SAF' project will have a production capacity of 60,000 metric tons per year of SAF, equivalent to more than 12,000 Madrid to Mallorca flights. With an estimated investment of €780 million, this facility will incorporate fully dedicated renewable assets such as a 370 MWp solar photovoltaic plant, a 50 MW wind farm, as well as battery storage with a 100 MWh capacity.
44. Southwest Airlines Co. has acquired SAFFiRE Renewables, LLC as part of the investment portfolio of its subsidiary Southwest Airlines Renewable Ventures, LLC (SARV). SARV aims to obtain scalable sustainable aviation fuel (SAF) through SAFFiRE's renewable ethanol production using corn stover.
45. Topsoe signed an agreement with Cepsa for Sustainable Mobility. Topsoe will provide HydroFlex technology for SAF and renewable diesel production at Cepsa's new biofuels plant in Palos de la Frontera, Spain.

CO2 Removal

46. Celanese began operating one of the largest active CCU facilities in the world at its Clear Lake, Texas, site in January 2024. By leveraging CCU, Celanese now offers customers low-carbon options across its Acetyl Chain and Engineered Materials products under the ECO-CC name. CCU takes CO2 industrial emissions that would otherwise be emitted into the atmosphere.
47. Aker Carbon Capture was awarded a pre-FEED contract it's for Statkraft's Heimdal waste-to-energy plant. The proposal covers CO2 capture, compression, purification, liquefaction, and temporary storage. Liquid CO2 transported by truck to export terminal, then ship transport and permanent storage.
48. Chevron New Energies (CNE) announced an investment in ION Clean Energy (ION), a Boulder-based technology company that provides post-combustion point-source capture technology through its third-generation ICE-31 liquid amine system.
49. SLB will pay NOK 4.12 billion to purchase 80 percent of Aker Carbon Capture Holding AS (ACCH), which holds the business of ACC and will contribute the SLB carbon capture business. SLB may also make additional payments of up to NOK 1.36 billion over the next three years based on the performance of the business.
50. The collaboration between STX Group and Norsk e-Fuel aims to address key challenges hindering the growth of the European CCUS market. STX Group's presence in the biogenic CO2 market positions it to supply Norsk e-Fuel with the required volumes.
51. The report 'Carbon for Power-to-X' gives an overview of CO2 separation and purification technologies. Amine gas treatment is the most mature technology, while other methods like cryogenic separation, pressure swing adsorption, and membrane separation are also used.

Ethanol

52. Aemetis, Inc acquired exclusive rights to LanzaTech's patented technology.
53. Blue Biofuels Inc.: Commenced an FEL 1 & 2 engineering study for a 2.4-million-gallon cellulosic ethanol facility.

54. Raizen was the first to reach the holy grail: access to the US's sustainable aviation fuel market based on sugarcane- ethanol to the US as SAF feedstock.

Feedstock

55. California Ethanol + Power (CE+P) is planning new ethanol production for Sugar Valley Energy. This is a \$650 Million, 160-acre sugarcane ethanol refinery and bioenergy facility which will be located near Brawley in Imperial County, USA.
56. Cargill and CBH Group are planning to develop an oilseed crushing plant south of Perth. Further to this, discussions with West Australian government were undertaken regarding canola supply from farms in the Australian wheat belt region.
57. Indigo Ag and Red Trail Energy announced a collaboration to source low carbon intensity (CI) corn to support farmers using sustainable practices and benefit from emerging clean fuels market tax credit programs. Utilizing Indigo's proven measurement, reporting and verification (MRV) and remote sensing capabilities, RTE will work with Indigo Ag to measure field level carbon intensity (CI) and identify, enrol and verify farmers with the highest potential to produce low CI feedstock. Indigo Ag will produce the data required for tax credit compliance, including data collection, verification and analysis of eligible practices in GREET and other clean fuel calculators.
58. TEXEL Energy is investing in Jord AB and adapting its energy production technology to generate electricity from Jord's C4 grass pellets and briquettes. Jord aims to cultivate C4 grass globally for renewable fuel production.

Hydrogen

59. Fortescue has officially opened its electrolyser manufacturing facility in Gladstone, Queensland, Australia. The 15,000sqm advanced manufacturing facility will have capacity to produce over 2GW of Proton Exchange Membrane (PEM) electrolyser stacks annually.
60. Air Products received funding to build two high-capacity, low-carbon Hydrogen Refueling Stations in Duisburg and Meckenheim. These new stations will fuel medium and heavy-duty vehicles and provide a reliable network for trucks in Germany.
61. ENGIE Group launched mosaHYc: cross-border project for the conversion of gas pipelines to transport hydrogen between France and Germany. GRTgaz announces final investment decision for the 90 km renewable or low-carbon hydrogen network project with partner CREOS Deutschland.
62. German steel producer Stahl-Holding-Saar (SHS) released a tender for 50kt of renewable hydrogen for its Dillinger and Saarstahl plants. SHS aims to lower carbon emissions and identify green hydrogen suppliers along the cross border MosaHYc hydrogen network.
63. Helen is planning for a green hydrogen production plant in Vuosaari, Helsinki. The facility will increase expertise in large-scale hydrogen production. The planned capacity of 3H2 – Helsinki Hydrogen Hub pilot plant project is 3 MW. The hydrogen to be used at a filling station for heavy transport. Any waste heat will be utilised in the district heating network.
64. Hiringa Energy has launched its Zero-Emission Hydrogen Refuelling Network: Hiringa Refuelling New Zealand (HRNZ), in partnership with Waitomo Group and TR Group. The network consists of four stations located in Auckland, Hamilton, Palmerston North, and Tauranga. The network will serve 95% of heavy freight routes in the North Island.
65. MAN Truck & Bus is the first European truck producer to launch a small series with a hydrogen combustion engine. Around 200 units is to be delivered to customers in Germany, the Netherlands, Norway, Iceland and selected non-European countries as early as 2025.

66. MOL Group has started a 10 MW green hydrogen plant in Hungary which will reduce Danube Refinery's CO₂ emissions by 25,000 tons. The new plant will produce 1,600 tons of green hydrogen annually.
67. Plug Power Inc is achieving capacity at its hydrogen plants in Georgia and Tennessee and is reporting total liquid hydrogen production of 25 tonnes per day. The company's first green hydrogen plant in Georgia, which houses the largest proton exchange membrane (PEM) electrolyser system in the US, has been producing 15 tonnes per day. The Tennessee site has reached a daily output of 10 tonnes.
68. Provaris Energy and Norwegian Hydrogen AS announced a new collaboration agreement to jointly progress the identification and development of several sites in the Nordic region for the large-scale production and export of hydrogen to European markets. The projects will utilize locally available renewable energy to produce hydrogen for shipment to European ports. New projects will be strategically located in areas with robust grid connections and power supplies. These sites will facilitate the construction of state-of-the-art electrolyzers, and hydrogen compression facilities linked to export jetties. Provaris' H2Neo carriers will transport the hydrogen, while the H2Leo barge will serve as storage.
69. The Norwegian company H2Carrier AS applied to NVE (the Norwegian Water Resources and Energy Directorate) for development of two large onshore wind farms in Finnmark county. The two wind farms have a planned installed capacity of 1,55GW with an estimated annual production of 6356GWh. The annual production of green hydrogen and ammonia is 109 000 and 610 000 tons, respectively. In combination, the two projects will contribute to 3.9% of Norway's targeted reduction of CO₂ emissions to 2030.
70. Verdagy announced a strategic agreement with Doral in which Verdagy will supply green hydrogen electrolysis systems to Doral through to 2030. The agreement is global with a focus on green hydrogen projects Doral is developing in Europe, United States, Australia and the Middle East.
71. JGC Corporation was awarded the FEED contract for a green hydrogen and MCH production plant in Malaysia by ENEOS and Sumitomo Corporations. ENEOS and Sumitomo, in collaboration with SEDC Energy, a company operated by the state government of Sarawak, Malaysia, are planning to establish a CO₂-free hydrogen supply chain in which the CO₂-free hydrogen produced using electricity from renewable energy sources from hydroelectric power and is then converted to MCH. The green hydrogen plant will produce approximately 90,000 tons of CO₂-free hydrogen per year for conversion to MCH.
72. Raven SR secured \$15 million investment from Ascent Funds, Chevron New Energies, ITOCHU Corp., and Stellar J Corp. for its hydrogen project in Richmond, California.

Marine Fuels

73. In Antwerp bunkering operations with green methanol have been completed. TankMatch dispatched two barges to transfer 4.300 tons of green methanol onto the Ane Maersk which was on its maiden voyage from South Korea to China. The container vessel was built by Hyundai Heavy Industries in South Korea and has a nominal capacity of 16,000 containers (TEU) and is equipped with a dual-fuel engines enabling operations on methanol as well as biodiesel and conventional bunker fuel.
74. Maersk's methanol-enabled vessel "Astrid Mærsk" arrives in China for green methanol bunkering.

75. South Korean shipping company HMM and Shanghai International Port Group (SIPG) signed an MoU to collaborate on clean marine fuel supply. The agreement focuses on bunkering methanol and LNG at the port of Shanghai.
76. Wallenius Wilhelmsen agreed to a significant multi-year contract with leading global player in premium car segment with a value of over \$1 billion, The shipping arrangement covers shipping, logistics services, and biofuel use.

Market Development

77. Alberta's government introduced the Agri-Processing Investment Tax Credit in spring 2023 to support economic growth and diversification. The tax credit is attracting large-scale investment in value-added manufacturing with Imperial's C\$720-million project to build the largest renewable diesel facility in Canada. When production begins in 2025, Imperial's new facility will convert locally sourced bio-feedstocks like canola oil into renewable diesel. This in turn will create new demand for Alberta agri-producers.
78. CMA CGM and Bpifrance announced the launch of a EUR200 million endowment fund for the French maritime sector. The fund will finance decarbonization efforts, including subsidies for fishing companies and investments in SMEs/ETIs in the maritime sector.
79. Maersk's ECO Ocean Delivery is impacting on greenhouse gas emissions from the shipping industry. The company transported 660,000 TEU on green fuels in 2023. 212 customers saved 683,000 tons of greenhouse gases using green fuels.
80. PostNL and its subsidiary Spring GDS will add four million litres of HVO100 to Europe's diesel network starting April 2024. This step reduces carbon emissions by 12 kilotonnes CO₂ annually.
81. The U.S. EPA issued an emergency waiver allowing E15 to be sold during the summer 2024 driving season. This aims to provide relief from ongoing supply issues.

Methanol

82. Bia Energy Operating Company announced a significant project update for its low carbon methanol production facility at the 4,000-acre Port of Caddo-Bossier industrial facility in northwest Louisiana ("the Port Complex"). The facility is designed to reduce carbon emissions by over 92% compared to traditional methanol production by capturing CO₂ and utilizing hydrogen as both fuel and feedstock.
83. Cepsa signed an agreement with Evos to store green methanol and green ammonia at Evos' facilities in Algeciras and Rotterdam, facilitating transport of green hydrogen products between strategic ports in Spain and the Netherlands.
84. Climate tech start-up C1 completed its first fully autonomous, continuous methanol production cycle at its "C1 alpha" miniplant in Berlin, Adlershof. The process achieves 95% CO₂ conversion and 95% selectivity.
85. MAN Energy Solutions and Svitzer have signed an MoU to develop a methanol-fuelled version of the 175D engine. The agreement aims to install a dual-fuel engine on one of Svitzer's newbuild tugs for field testing.
86. PTT is investigating an investment of \$84.7 million in a green methanol facility. ThyssenKrupp Uhde conducted the front-end feasibility study for the proposed 100,000 metric tons per year of green methanol from captured carbon dioxide.

Recycling Plastic

87. deSter and Eastman are collaborating to introduce reusable in-flight drinkware made with Tritan™ Renew. Tritan Renew which is made with 50% certified recycled content.
88. Dow and the Procter & Gamble Company today announced a joint development agreement to create a new recycling technology. The vision is to enable efficient conversion of hard-to-recycle plastic packaging into recycled polyethylene with near-virgin quality and a low greenhouse gas emission footprint.

Renewable Diesel

87. Phillips 66 has reached a major milestone for its San Francisco refinery conversion at the Rodeo Renewable Energy Complex by expanding its renewable diesel production.

Company Summary – April 2024

Projects were recorded for 111 companies during April 2024.

Companies that appeared more than once are summarised below.

Company	Frequency
Maersk	3
Repsol, Spain	3
Eastman	2
Raven SR	2
TEXEL Energy	2
Tereos	2

Topics & Themes Summary– April 2024

Topics and themes (frequency of mention)

Topic Category	Number of Articles
Ammonia Production	2
Biobased Chemicals	8
Biodiesel	1
Biogas	9
OBiofuels	8
Biojet/SAF	18
CO2 Removal	6
Ethanol	3
Feedstock	4
Hydrogen	14
Marine Fuels	4
Market Development	5

Topic Category	Number of Articles
Methanol	5
Recycling Plastic	2
Renewable Diesel	1

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