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Dissemination of Biogas and Biomethane

Topics:

Biogas production kicks off at Turkish dairy facility in Izmir
Biogas Wipptal, Italy, bridges the gap between agriculture and transport
TotalEnergies launches its largest biogas production unit in France

Bio-GNL: an XXL production plant for Sweden

Gas sales in Switzerland are increasingly renewable
ENGIE developing Mexico's first biomethane project to connect to natural gas grid
Farmer Builds First Methane Digester to Handle 10 Farms in Ontario
Ukraine plans to build 10 biomethane plants in two years
BioTown Biogas Activates Digester & Processing Facility
Egypt establishes first large scale digester producing electricity from biogas
Bioenergy Devco Receives $30 Million Investment
Biogas from grappa
TotalEnergies inaugurates France's largest biogas plant

Verbio buys South Bend ethanol plant, plans $230 Million RNG Expansion

Biogas production kicks off at Turkish dairy facility in Izmir

In Turkey, Veolia's wastewater treatment and biogas production are now in service at Pınar Süt's factory in İzmir, Turkey, allowing the company to meet new discharge legislation and achieve its environmental commitments, reducing carbon emissions by 17% and generating substantial savings on natural gas. Pınar Süt, one of the biggest dairy companies in Turkey producing mainly milk, yoghurt, cheese, fruit juices, ketchup and mayonnaise, has acted on its ambition for sustainable development with the recent wastewater treatment plant. The treated water is suitable for reuse with further tertiary treatment for certain applications in the factory such as flushing water. The wastewater first goes through a screen and a dissolved air flotation (DAF) unit to retain fat, oil and grease (FOG) and suspended solids before entering an EGSB granular biomass anaerobic treatment unit where over 80% of the chemical oxygen demand (COD) is removed. This treatment stage produces about 45% of the biogas generated at the plant. The FOG retained in the DAF is combined with other organic waste and sent to a continuously stirred

tank reactor for purification and further biogas production.
More

Biogas Wipptal, Italy, bridges the gap between agriculture and transport
Biogas Wipptal in South Tyrol shows how a modern circular economy can work. The South Tyrolean company brings together some 60 dairy farms in the region, using their slurry, manure and organic residue. In addition to biogas, Biogas Wipptal also produces high-quality fertilizer by means of the fermentation process, thereby reducing nitrate pollution on agricultural land. The circular economy model involves local actors while at the same time feeding the fertilizer back into regional agriculture, vineyards and orchards. The approach adopted by Biogas Wipptal significantly reduces fertilization with manure and slurry, saving 1.2 tons of CO_2 per year and dairy cow. Farmers are also provided with sensor-controlled, slope-compatible spreading systems that reduce greenhouse gases by 95% and ammonia emissions by 60%. In proximity to the Brenner transit route and the entry of partners from the transport sector such as Fercam, Iveco Gasser and Transbozen have made it possible to expand the concept of the biogas plant. Some 20 million euros have been invested in a new gas upgrading system enabling to separate sustainable biogenic carbon dioxide for food production and bio-LNG for near-carbon-neutral transport using LNG trucks.
More

Top

TotalEnergies launches its largest biogas production unit in France
TotalEnergies SA (Paris, France) has launched its eighteenth biogas production unit in France, which will be the largest in the country with a maximum capacity of 160 gigawatt hours (GWh). The project, named BioBéarn, which illustrates TotalEnergies' commitment to promoting the circular economy, will convert 220,000 metric tons of organic waste into 200,000 metric tons per year of digestate, a natural fertilizer, and 160 GWh of biomethane, equivalent to the average annual consumption of 32,000 people. BioBéarn will enable the Lacq basin, a historical gas area, to pursue a local and sustainable growth, this new unit allowing to avoid the emission of 32 000 tons of CO_2 per year.
More

Bio-GNL: an XXL production plant for Sweden

The Scandinavian Biogas Group has just announced the opening of a new plant dedicated to the production of bio-GNL. Located in Monsteras, in the south of Sweden, the new plant represents an investment of about 67 million Euros. It is financially supported by Naturvårdsverket, the Swedish environmental agency, and by local farmers who will provide the substrate needed for production.The Finnish group Wartisla will supply the gas liquefaction technology while the Portuguese company Efacec, in consortium with the Swedish company Multibygg, will be responsible for the construction of the site. It is financially supported by Naturvårdsverket, the Swedish environmental agency, and by local farmers who will provide the substrate needed for production. The Finnish group Wartisla will supply the gas liquefaction technology while the Portuguese company Efacec, in consortium with the Swedish company Multibygg, will be responsible for the construction of the site. Production is scheduled to start in the fourth quarter of 2024. The liquefied biogas produced at the site will be used mainly as fuel for the transport

sector (shipping and trucks). At full capacity, the plant will have an annual production capacity of 120 GWh, equivalent to 12 million liters of diesel.

More

Gas sales in Switzerland are increasingly renewable

Renewable gases are gaining importance in Switzerland. Almost 8% of today's gas sales are renewable. This puts the gas industry on track. In 2030, they want to achieve 15%, in 2040 50%, and complete decarbonization by 2050. In 2022, the share of renewable gases in the Swiss gas network was 7.7%. In the previous year it was still 5.5%. Much more would be possible if Swiss policymakers were to consistently promote domestic production and did not hinder imports. Contributing to this positive development was the sharp rise in domestic production from 419 GWh in 2021 to 476 GWh in 2022 contributed to this positive development. Four new plants were connected to the grid last year, including the first industrial plant to produce biomethane from green hydrogen and CO2 at Regiowerk Limeco (see Newsletter 12/20229. There are now 41 plants in Switzerland that produce renewable gas and feed it directly into the grid. In addition to domestic production, biogas imports also play an important role. Last year, these increased from 1,830 GWh to 2,135 GWh. Although this result is very positive, the potential for domestic renewable gas production is still not being fully exploited due to a lack of framework conditions. So far, there is no government support for feeding gas into the grid; all efforts to date have been borne exclusively by the industry and gas consumers. In an environment of rising energy prices and an open market, this is becoming more difficult. In addition, new hurdles are constantly being placed in the way of imports.

More (in German)

ENGIE developing Mexico's first biomethane project to connect to natural gas grid

In Mexico, Natural Gas Intel reports Engie is developing the first biomethane project in Mexico to be connected to the natural gas grid. Although the company is exploring opportunities for hydrogen in the country, it is first focusing on biogas not only because it already has extensive experience in Europe, but also because industrial consumers don't need to make any changes to their infrastructure in order to use the gas supplied via the natural gas grid, allowing them to decarbonize easier.

More

Top

Farmer Builds First Methane Digester to Handle 10 Farms in Ontario

A multi-million-dollar silo digester that can handle manure from about 10 dairy farms is nearing completion on Thurler Farms, southwest of Winchester. It's the first in a planned fleet of 310 units nationwide to extract methane from most of the manure produced on Canada's 10,000 dairy farms by 2030.Ontario will see an initial pilot group of six digesters — three in Eastern Ontario, three in Western Ontario and valued at a combined $56.5 million — starting with the Thurler farm location. Construction on the other five should begin this year, according to Nick Thurler, co-owner of the farm and co-founder of the project owned by developing company, GET (Green Energy Trading) Corp. Thurler is the former vice-chair of Dairy Farmers of Ontario. He expects his own digester will start shipping liquified methane in Q2.

[More]

Ukraine plans to build 10 biomethane plants in two years

With the support of the European Investment Bank, Ukraine plans to build 5 biomethane plants by the end of the year, as well as five more next year, which will bring Ukraine closer to replacing natural gas imports according to a mention on the parliament's website. The European Investment Bank plans to allocate EUR 50 million this year to support agricultural processing, in particular, the development of biomethane and bioethanol production. Most biomethane in Ukraine can be generated from grain straw and corn stalks, which are usually left in the fields after the harvest.

[More]

[Top]

BioTown Biogas Activates Digester & Processing Facility

Bio Town Biogas (BTB) sources food waste, dairy manure, beef manure, and other agriculture waste to produce renewable natural gas (RNG) and renewable electric power. The new facility, located in Reynolds, Indiana, is expected to generate more than 42 GWh of renewable power per year, while also producing more than three million gallons (11.4 million liters) of renewable fuel per year, making BTB one of the largest RNG in North America. The BTB facility supports more than 50 full-time jobs in White County, Indiana and surrounding communities. Northern Indiana Public Service Company ("NIPSCO") will provide the facility's renewable electric power offtake, and United Energy Trading and others will provide the RNG offtake.

[More]

Egypt establishes first large scale digester producing electricity from biogas

The Mawared Industries on Friday signed a contract with the National Company for Animal Production of the National Service Projects Organization to establish Egypt's first factory to generate electricity from biogas in Sadat City. The factory will annually process 85,000 tons of cattle dung to produce one megawatt/hour of electricity to be connected to the national electricity grid. It will also produce more than 80,000 tons of high-quality organic fertilizer, proven to be effective in restoring agricultural soil fertility and doubling its productivity. The factory also contributes to reducing greenhouse emissions by about 5,000 tons of carbon dioxide. The factory represents fruitful cooperation between the private sector and state agencies in electricity production from livestock dung, which is worthy of replication in various other sectors, especially with regard to new and renewable energy.

[More]

[Top]

Bioenergy Devco Receives $30 Million Investment

Bioenergy Devco, the North American division of Italian biogas firm BTS Bioenergy, received a $30 million investment from a subsidiary of Annapolis, Maryland-based Hannon Armstrong Sustainable Infrastructure Capital. The new investment allows Bioenergy Devco to move forward on more than 20 sites it's eyeing for its North American expansion, taking advantage of incoming organics recycling mandates. The funding comes as nine states and Washington, D.C., have begun to implement food waste recycling laws, according to Food Waste Policy Finder (ReFED), and public support builds for removing organics from landfills.

[More]

Biogas from grappa

Bonollo, known for making Italy's traditional spirit grappa, and gas distributor Italgas opened the first biomethane plant in an Italian distillery, in a move that could spur the country's production of renewable natural gas. Biomethane, which in this case is made from the liquid remaining from the distillation of grape-based products. Bonollo's plant will produce 2.5 million cubic meters (mcm) of the renewable gas each year which will be fed into the network and could cover the gas consumption of 3,000 families. Last year, the government unlocked state subsidies worth 1.7 billion euros ($1.86 billion) to support investments in biogas and biomethane plants as part of Italian efforts to replace Russian natural gas. Italy currently produces 500 mcm of biomethane, but that could rise to up to 8 billion cubic meters by 2030.

More

Top

TotalEnergies inaugurates France's largest biogas plant

A showcase for TotalEnergies' biogas strategy, the BioBéarn site, commissioned at the beginning of the year was officially inaugurated on April 28 in Mourenx, Pyrénées-Atlantiques. Connected to the Terega gas transmission network, it is designed to eventually produce 160 GWh/year. BioBéarn is billed as the "first industrial-scale methanizer" developed under the TotalEnergies banner. In its first year of operation, the site will produce 69 GWh, equivalent to the consumption of 14,000 inhabitants. Its capacity will eventually be increased to 160 GWh/year, equivalent to the average annual consumption of more than 50,000 inhabitants. In France, TotalEnergies has 700 GWh of installed capacity and a dozen projects underway. At the same time, the Group intends to accelerate the development of renewable gas, mainly in Europe, America and India, either through partnerships such as the one signed with CleanEnergy in the USA, or through new growth levers.

More (in French)

Verbio buys South Bend ethanol plant, plans $230 Million RNG Expansion

South Bend Ethanol in South Bend, Indiana, has new ownership and is expected to see a $230 million investment in the plant to expand its operation into renewable natural gas production. Verbio North America Holdings Corp. announced on May 1 that it has completed the purchase of the plant from Mercuria Investments U.S., Inc. Integration of the ethanol production with the RNG production process, unique to the Verbio brand and developed successfully at the company's facilities in Europe over the past decade, will result in higher efficiencies and improved sustainability. The plant's primary feedstock of about 28 million bushels of corn annually used to produce ethanol. The construction of anaerobic digestion tanks designed to produce RNG, will allow the company to use the stillage resulting from ethanol production as feedstock rather than producing dried distillers' grains with solubles as it is typical for other ethanol plants. Biogas produced in the AD tanks will be upgraded to pipeline quality RNG for injection into the gas distribution system serving the site.

More

Top