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1.0 Introduction

This newsletter aims to keep members abreast with the latest news on NGVs, Renewable Natural Gas (RNG) / Biomethane, Renewable Fuels, and other related news. Members can contact ANGVA Secretariat if they have any comments related to this newsletter.

2.0 Natural Gas – Low Carbon Fuel

2.1 India

Government aims to power 33% of trucks on LNG by 2030

8th September 2024. By Staff Writer.

One of the pilot initiatives under consideration is developing the Delhi-Mumbai expressway as an LNG highway.



The Indian government is planning a major shift towards liquefied natural gas (LNG) to power a third of the country's long-haul heavy-duty vehicle (HDV) fleet over the next 5-7 years. A draft proposal from the Ministry of Petroleum and Natural Gas outlines steps to make this transition possible, including allocating domestic gas for LNG supply.

According to the ministry's plan, 0.5 million metric standard cubic meters a day (mmscmd) of domestic natural gas may be allocated for an initial period of three years to ensure stable and predictable LNG prices. This allocation is expected to power 50,000 trucks within the next 2-3 years.

To further support this transition, the ministry has proposed the establishment of small-scale liquefaction plants in off-grid areas to convert biogas into bio-LNG. This would enhance the availability of bio-LNG for transport.

The oil ministry has already directed state-run oil companies to set up 49 LNG dispensing stations across the country. Additionally, oil marketing companies may incentivise fleet owners to convert diesel trucks to LNG-powered trucks, accelerating the shift towards cleaner fuel.

One of the pilot initiatives under consideration is developing the Delhi-Mumbai expressway as an LNG highway. The proposal suggests exempting LNG-powered trucks from toll taxes on this route, which could significantly reduce operational costs and encourage faster adoption.

With LNG offering a 24% lower emission factor than diesel, this transition aligns with India's sustainability goals. Currently, medium and heavy commercial vehicles consume about 40% of all diesel in the country. By promoting LNG adoption, India aims to reduce its carbon footprint and enhance the efficiency of its transport sector.

[Source: https://www.manufacturingtodayindia.com/government-aims-to-power-33-of-trucks-on-lng-by-2030/](https://www.manufacturingtodayindia.com/government-aims-to-power-33-of-trucks-on-lng-by-2030/)

2.2 India

Nitin Gadkari pushes for gas-economy in automobile sector

10th September 2024. By Yukta Mudgal and Kiran Murali.

He noted that the fuel cost is significantly lower in the “gas economy” and the additional cost associated with the vehicle can be recovered within a period of two years.



Minister of Road Transport and Highways Nitin Gadkari

In a bid to reduce the use of fossil fuels and the country's import bill, the government is pushing for a gas economy by promoting the use of compressed natural gas, liquefied natural gas and biofuels, according to the Minister of Road Transport and Highways Nitin Gadkari, exhorting consumers to buy gas-powered vehicles.

He noted that the fuel cost is significantly lower in the “gas economy” and the additional cost associated with the vehicle can be recovered within a period of two years. Gadkari was speaking at SIAM's 64th annual session in Delhi.

India, which aims net zero target by 2070, is currently the world's third-largest net importer of crude oil and petroleum products. It is also one of the biggest emitter of greenhouse gases. The government has set a target of 15% natural gas share in its energy mix by the end of the decade.

While highlighting India's growth in the gas sector, Gadkari said that the country will have 20,000 CNG dispensing station by 2030. Currently, there are around 6,000 CNG stations.

Recently, the government mandated the blending of compressed biogas in compressed natural gas (CNG) for transport in a phased manner from the financial year 2025-26 with a target of 5% blending from 2028-29.

CNG has now become a major fuel option in the passenger vehicle segment with most of the major mass car makers offering CNG models. A couple of months back, Bajaj Auto has recently introduced the world's first two-wheeler fuelled by CNG.

Meanwhile, India's oil ministry plans to encourage conversion of a quarter of heavy duty long-haul trucking fleet to LNG, as per a recent report.

Among various alternative fuel options to reduce the dependence on fossil fuels, the government is pushing the 15% blending of methanol with diesel, targeting commercial vehicles. This is very cost effective, as per the minister.

Along with the automobile, gases such as methanol, CNG, and LNG can also be used in the construction equipment to save cost.

"In every Rs 1,000 crore project of road construction, we spend Rs 100 crore in diesel, creating pollution," Gadkari explained.

However, a recent report released by International Energy Agency (IEA) said India is expected to be the biggest contributor to global oil demand in the second half of this decade, defying global trend in the demand for transport fuels with sharp growth.

Source: <https://www.autocarpro.in/news/nitin-gadkari-pushes-for-gas-economy-for-automobile-sector--122494>

2.3 Nigeria

Tinubu launches CNG at N230 per litre to ease petrol costs

10th September 2024. By Faith Esifiho.



President Bola Tinubu has made Compressed Natural Gas (CNG) available for vehicles at just N230 per litre, in a step to reduce petrol costs and offer Nigerians an affordable alternative to petrol and diesel.

According to a statement provided to BusinessDay on Tuesday and signed by Michael Oluwagbemi, project director, Presidential Compressed Natural Gas Initiative (PCNGi), the move reflects President Tinubu’s commitment to reducing the cost of living for Nigerians, particularly following the recent removal of fuel subsidies

“The PCNGi promises to deliver wide-reaching economic relief, especially to those dependent on transport for their livelihoods,” Oluwagbemi said.

He added, “President Tinubu has ordered the distribution of one million free CNG conversion kits for commercial vehicles across the country as part of this transformative initiative”.

Findings showed these kits, along with free installation, will be rolled out over the next 18 months, allowing commercial transporters to easily transition to CNG.

“The introduction of CNGs not only a cheaper alternative but also a cleaner, more sustainable fuel source, which aligns with the government’s energy diversification agenda,” Oluwagbemi said. He noted that the first phase of the PCNGi will kick off this week with the distribution of 10,000 free conversion kits.

“Targeted at transport operators, the kits will be available through key national transport associations such as the National Union of Road Transport Workers (NURTW), Moove, UBER, and the Kaduna State Transport Authority (KSTA),” he added.

This transition will not only help drivers cut their fuel costs significantly but also reduce expenses for passengers and goods transporters.

The conversion process will be managed in partnership with NIPCO Gas, which has set up a network of authorised conversion centres across Nigeria. These centres will provide the necessary infrastructure to support a seamless transition for vehicles switching to CNG.

By 2025, the Nigerian government aims to distribute one million conversion kits, ensuring the country’s commercial transport sector is well-positioned to embrace CNG and reduce its reliance on costly petrol and diesel.

This initiative promises immediate economic relief for Nigerians, while also advancing cleaner energy practices.

“For more information on conversion centres and to access the list of active centres, Nigerians are encouraged to visit the official PCNGi websites. This initiative is a critical component of President Tinubu’s broader vision for a resilient and economically sound Nigeria, offering practical solutions to soaring fuel prices while promoting sustainable energy alternatives,” Oluwagbemi said.

Source: <https://businessday.ng/energy/article/tinubu-launches-cng-at-n230-per-litre-to-ease-petrol-costs/>

2.4 Uzbekistan

Yutong Delivers 36 CNG Buses in Uzbekistan

6th September 2024. By Tiana May.



Yutong successfully delivered 36 ZK6950HG CNG buses to Uzbekistan. © Yutong

Yutong has delivered 36 CNG buses to Uzbekistan, enhancing the nation's sustainable transport options.

The ZK6950HG CNG buses feature advanced compressed natural gas technology. This enables them to produce low emissions with high combustion efficiency.

The vehicles will be mainly used as part of Tashkent's public transport network. Compared to diesel models, their operation will help reduce urban air pollution and improve residents' commuting experience.



These buses will be mainly used in the public transport network of Tashkent. © Yutong

The buses were delivered at a ceremony attended by the head of Uzbekistan's transport department, Ilkhom Makhkamov.

Moving forward, Yutong plans to continue its collaboration with Uzbekistan to promote the rollout of green transportation services.

Source: <https://bus-news.com/yutong-delivers-36-cng-buses-in-uzbekistan/>

3.0 Renewable Natural Gas (RNG) / Biomethane – Carbon Neutral Fuel

3.1 India

Madurai corpn to set up ₹65 crore bio-CNG plant for waste management

9th September 2024. By Vivanesh Parthiban

Madurai: The Madurai Corporation is set to release a tender by the end of September to establish a bio-CNG plant near the Vellaikal dump yard, a key project aimed at promoting sustainable waste management and renewable energy production. The project, undertaken under the Swachh Bharat Mission 2.0 (SBM 2.0), is estimated to cost ₹65 crore.

According to corporation officials, the plant will significantly improve the city's wet waste disposal by converting waste into renewable energy, thereby increasing revenue and enhancing Madurai's environmental sustainability efforts.

The project received administrative approval from the department of municipal administration in March 2024.

Chief engineer Rooban Ponniah explained that the plant will use advanced technology to convert wet waste into biogas, which will be purified into compressed natural gas (CNG) and bottled for sale, creating a new revenue stream. "The plant will have the capacity to process 250 metric tonnes of wet waste daily. Tenders for the design-build-finance-operate-transfer (DBFOT) model are expected to be released this month," said Ponniah.

The Vellaikal dump yard was chosen for its suitability due to its isolated location. The plant will be built on a reclaimed section of the yard following the completion of biomining operations. Biomining at Vellaikal is currently in its second phase.

Madurai generates between 750 to 800 metric tonnes of solid waste daily, around 400 tonnes of which is wet waste. Currently, 250 tonnes of wet waste is treated at micro composting centres. The bio-CNG plant is initially expected to process 100 tonnes per day, with the potential to increase capacity as waste segregation improves, say officials.

In addition to the bio-CNG plant, Madurai is one of 18 cities selected for funding under the City Investments to Innovate, Integrate, and Sustain 2.0 (CITIIS 2.0) scheme. This initiative, led by the Ministry of Housing and Urban Affairs (MoHUA) and supported by the French Development Agency (AFD), Kreditanstalt für Wiederaufbau (KfW), the European Union (EU), and the National Institute of Urban Affairs (NIUA), aims to promote innovative urban development projects.

In May 2023, Madurai Corporation submitted proposals to enhance solid waste management as part of the CITIIS initiative. The ₹375 crore proposal covers biogas, waste-to-energy, and material recovery facilities, with ₹135 crore allocated to waste-to-energy projects in February 2024.

Despite the promise of these projects, civic activists stress the importance of public awareness on waste segregation. M Raj Kumar, a civic activist, raised concerns about the inconsistent supply of wet waste to the city's micro composting yards and questioned the corporation's ability to source enough waste for the bio-CNG plant, given logistical challenges.

Officials acknowledge that both the bio-CNG plant and the biomining project are crucial to the city's waste management strategy. "While compost from micro composting centres hasn't generated significant revenue, the bio-CNG and waste-to-energy projects offer more sustainable and profitable solutions for managing Madurai's waste," said a senior official.

Source: <https://timesofindia.indiatimes.com/city/madurai/madurai-corporation-to-establish-65-crore-bio-cng-plant-for-sustainable-waste-management/articleshow/113197029.cms>

3.2 The Netherlands and Germany.

Rolande and AVIA partner to expand Bio-LNG reach

6th September 2024.

AVIA Card holders will have access to Bio-LNG locations across the Netherlands and Germany.



© Rolande

Rolande and AVIA Nederland have signed a cooperation agreement to expand access to sustainable fuels.

AVIA Card holders will now be able to access Rolande locations in the Netherlands and Germany. This agreement increases the number of liquefied biogas (Bio-LNG) stations accepting the AVIA Card to 31, with 22 locations in the Netherlands.

“Rolande aims to establish an Bio-LNG network that spans all of Europe. Our goal is for Bio-LNG trucks to drive across Europe as easily as diesel vehicles. To achieve this, Rolande is

building its own network of filling stations and forming long-term partnerships, accepting various cards,” says Jolon van der Schuit, CEO of Rolande.

Both companies believe that the future of road transport must be sustainable, and therefore, reducing CO₂ emissions is crucial.

“Through this partnership, we can better serve our customers who refuel with Bio-LNG, offering them access to a larger network,” says Susan Kuijpers, Director of AVIA NL.

Rolande was established in 2005 and introduced LNG refueling solutions in Dutch and European road transport in 2010.

Source: <https://www.mobilityplaza.org/news/38786>

3.3 Europe

First assessment of European e-methane roll-out released today

9th September 2024.

Brussels 09/09/24 – The European Biogas Association (EBA), in collaboration with experts in biogas and methanation technologies, is launching the first assessment of the rollout of e-methane in Europe. This synthetic renewable fuel will play a key role in Europe’s electricity grid, scaling-up biomethane production in the coming years, and enabling innovative synergies between biogases and hydrogen production in the future energy mix.

In the methanation process, renewable hydrogen produced from excess renewable electricity combines with biogenic CO₂ from raw biogas to produce e-methane, which can be stored in the gas grid, providing a crucial energy storage solution and boosting the flexibility of the energy system.

According to the white paper Mapping e-methane plants and technologies released today, e-methane production in Europe is expanding rapidly. There are currently 35 operational plants, 33 of which are fully renewable. Germany leads the way with 14 facilities. Additionally, 20 new e-methane plants are either planned or under construction in Europe, signalling further growth in the sector.

Methanation has proven successful in various pilot and demonstration projects, including the EU-funded BIOMETHAVERSE project, which showcases innovative biomethane production pathways. Among those, a case study in Sweden. “Our demonstration plant is showcasing biological syngas methanation to produce 16 kW of methane from forestry residues and renewable hydrogen by 2024 to 2026”, explains Karin Berg, R&D Engineer at RISE Research Institutes of Sweden.

Over the past eight years, e-methane production capacity in Europe has increased from 20 GWh per year to 449 GWh per year. Projections indicate that by 2027, this capacity will nearly reach 3,000 GWh per year, equivalent to 0.27 billion cubic meters (bcm). Finland, Germany, and Denmark are pioneering this rollout, with the largest production capacities.

The production of e-methane also holds significant potential to valorise biogenic CO₂. In fact, more than 80% of all identified plants utilise biogenic CO₂ in their processes. Additionally, its versatility as a low-carbon fuel source makes it a valuable contributor to the decarbonisation of all economic sectors in Europe, including transport, buildings and industry.

A robust legislative framework is essential to tap into the full potential of e-methane. “To help the EU achieve its energy and climate goals, policymakers should ensure legal certainty and a

level playing field for all renewable energy sources, including biomethane and e-methane. This will boost production and support their development and use.”, says Anna Venturini, EBA Policy Manager.

In addition to the white paper, EBA also publishes an interactive map of operational e-methane plants in Europe, accessible only to EBA members.

Source: <https://www.europeanbiogas.eu/first-assessment-of-european-e-methane-roll-out-released-today/>

3.4 Spain

Cepsa certified for biomethane trading

9th September 2024. By Dominic Ellison. .



© Cepsa

Cepsa has been certified as a biomethane trader covering biomass and bioenergy production by the ISCC international certification programme.

The initiative, led by Cepsa’s Trading business, aims to reduce carbon dioxide (CO₂) emissions for the company’s other businesses and its industrial clients, while also promoting the circular economy.

In its first biomethane purchase operation in Spain, Cepsa acquired 25 GWh of renewable gas produced from waste at the Valdemingómez plant in Madrid, which it has used to decarbonise its chemicals business. Formalised this summer, the transaction includes multiple deliveries scheduled to January 2025.

This will enable Cepsa Química to replace natural gas with biomethane in its Spanish plants, leading to more sustainable production. Consumption of this biomethane is expected to reduce CO₂ emissions by over 4,400 tonnes.

Alice Acuña, Cepsa’s Trading Director, said its first biomethane purchase marks a significant step in its energy transition and decarbonisation strategy.

She said, “It promotes sustainable energy that can be used right away while also supporting the circular economy through the processing of organic waste.”

Over its lifecycle, biomethane can reduce CO₂ emissions by more than 90% compared to natural gas. This second-generation (2G) biofuel is produced from biogas, which is generated through the natural anaerobic digestion of biodegradable organic waste from agricultural, livestock, domestic, and industrial sources.

Cepsa aims to manage a project portfolio of 4 TWh of biomethane annually by 2030.

This initiative will significantly cut CO₂ emissions from its energy and chemicals operations and will support green hydrogen production and sustainable mobility. The company is committed to reducing its CO₂ emissions (Scope 1 and 2) by 55% by 2030 compared to 2019 levels and to achieving carbon neutrality before 2050.

Additionally, Cepsa plans to decrease the carbon intensity of the energy it sells by 15- 20% by 2030.

Over the course of this decade, it aims to reduce Scope 1 and 2 CO₂ emissions by 55% and the carbon intensity index of energy products sold by 15-20% versus 2019, with the goal of achieving Net Zero emissions before 2050.

Source: <https://www.gasworld.com/story/cepsa-certified-for-biomethane-trading/2143958.article/>

4.0 Hydrogen – Zero carbon fuel

Finland

Turquoise hydrogen plant opens in Finland

9th September 2024. By Jonathan Spencer Jones.



Image: Hycamite

Hycamite TCD Technologies has opened its methane splitting plant for low-carbon hydrogen production near its headquarters in Kokkola in southwest Finland.

The ‘Customer Sample Facility’ (CSF) plant, slated as Europe’s largest of its type, utilises Hycamite’s proprietary methane pyrolysis technology, which decomposes large volumes of methane into its component elements, hydrogen and carbon, while avoiding the release of greenhouse gases into the atmosphere.

The technology is stated to require only 13% of the energy needed to produce hydrogen via electrolysis.

Moreover, using a methane feedstock, whether from geologic natural gas, biomethane or synthetic natural gas, production can be scaled up rapidly.

“Hycamite’s CSF demonstrates the viability of the new methane splitting technology,” says CEO Laura Rahikka.

She adds that the company intends to open several other methane splitting plants in other parts of the world in the future.

Hycamite uses an innovative carbon capture, utilisation and storage technology to capture the carbon in a solid form and provide it to customers as graphite and other high value industrial-quality products.

This low-carbon graphite can then replace traditionally produced synthetic graphite, with a key application expected to be in batteries for electric vehicles – one of the main drivers of the high graphite demand.

The new CSF is near the Hycamite headquarters and the small test facility in Kokkola Industrial Park (KIP), where northern Europe’s largest ecosystem of the inorganic chemical industry is located.

Once fully operational, the nominal capacity of Hycamite’s CSF is planned to reach 2,000t of low-carbon hydrogen and 6,000t of high-quality carbon annually.

The decarbonisation capacity of the CSF can be up to 18,000t of CO₂ per year when liquefied natural gas (LNG) is used.

With biomethane, the produced hydrogen is carbon negative.

Source: <https://www.powerengineeringint.com/hydrogen/turquoise-hydrogen-plant-opens-in-finland/>

5.0 Electricity – Electric Vehicles (EVs)

United States of America

Editorial: Focus on hybrids

10th September 2024.

This is what The Washington Post had to say recently as EV sales stalled:

The recent announcement by Ford Motor Co. that it was abandoning plans to roll out a large electric SUV seems like another warning flag that the early electric vehicle craze has hit a roadblock.

There have been other signs. Last year, Tesla, the EV trendsetter, was forced to offer deep discounts, as vehicles sat unsold. General Motors announced it was delaying its plans for an EV pickup, and Hertz began offloading electric vehicles. Carmakers are losing millions as customer demand appears to have flatlined after an initial burst of interest.

There was never going to be a straight-line highway from all-gas vehicles to all-electric, and some of the early EV promise suffered from hype — including among some state and federal policymakers who envisioned a massive, rapid shift.

But while Detroit’s automakers are making plans to scale back their EV offerings, they are also not going back to entirely internal-combustion vehicles. Most are opting for electric and fuel hybrids, which is a sensible response to market demand. Plug-in hybrids, which operate as electric vehicles within a limited range, provide most of the environmental benefits of all-electric cars, even as they assuage “range anxiety” by switching to gas once the battery runs down.

Those state and federal policymakers writing auto industry mandates should leave room for plug-in hybrid sales in the medium term. Meanwhile, before the eventual all-EV transition, they should avoid making mistakes that could make the EV shift harder than it already is.

The industry is now in the phase that researchers call the “technology-adoption life cycle” or cross-industry adjustment. When a new technology enters the market, there is a chasm between the enthusiastic early adopters who embrace it right away and the critical mass of consumers who need longer to be convinced. In that chasm, traditional industries often struggle to adjust, while newcomers without legacy baggage claim a toehold.

Most of the early EV adopters have already purchased their vehicles. It might take time to bring along the critical mass of wait-and-see consumers. Offering electric-fuel hybrids is a way to ease that transition while providing practical solutions to some common concerns.

The first is price. Most electric vehicles are still relatively expensive, giving some potential buyers sticker shock, even after federal subsidies. As technology and production methods improve, prices will come down. Along with allowing for more plug-in hybrids, the United States needs to avoid an escalating trade war that could keep prices high.

China, which makes most of the world's electric vehicles, has been able to make them cheaper and sell them at lower prices, thanks partly to generous government support and lower labor costs. But even China is seeing a market slowdown, raising concerns in the United States, Europe and Canada that it is preparing to dump its overproduction of vehicles overseas at lower prices, further undercutting domestic carmakers.

Canada recently announced it was following the United States in imposing a 100% tariff on Chinese EV imports starting Oct. 1. The European Union earlier imposed tariffs of as much as 38%, but lower for Tesla and Chinese carmakers in joint ventures with E.U. companies. China has criticized these moves as trade protectionism and threatened to retaliate. A green-tech trade conflict that could complicate sales of finished cars as well as critical materials and parts would do neither consumers nor the environment any good.

In the United States, the other main problem with EVs is concern over the availability of public charging stations. That's a real worry, especially for urban car-buyers who might not have a garage or private parking space. The Biden administration has tried to ramp up construction of public charging stations. But so far, the effort is falling short.

Encouragingly, Detroit automakers have announced plans to make their charging stations compatible with Tesla's. That makes sense, since charging an EV should be as easy as pulling into a gas station to fill up the tank — easier, even, as chargers should be in places drivers are already going, such as parking lots. Yet the industry still depends on a massive federally backed build-out of charging infrastructure that is only just accelerating.

In the face of these headwinds, Detroit's automakers need to adapt and get more creative. They need to offer more lower-cost compact cars and sedans in addition to larger trucks and SUVs, and make cars that can compete with the even less expensive Chinese imports without relying on protectionist tariffs. If they react to this moment of industry challenge with sense and flexibility, state and federal regulators should give them the leeway they need.

Source: https://www.timesargus.com/opinion/editorials/editorial-focus-on-hybrids/article_923f0e56-6eb0-11ef-a4eb-2bcc0301c282.html

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