ANGVA2U Info *11/2023. 16th December 2023 (for ANGVA members only)*

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1.0 Selected News / Articles

1.1 India

No More Long Queues at CNG filling Stations in Mumbai! Here's Why

9th December 2023. Curated by: Shahrukh Shah.

Representational Image. (Photo: Canva). Fuel aggregator startup Nawgati and Mumbai's state-run fuel CNG distributor Mahanagar Gas Limited (MGL) have collaborated, giving gas filling process a digital touch.

Are you a CNG vehicle user, and staying in Mumbai? If yes, then here's a piece of good news for you. Fuel aggregator startup Nawgati and Mumbai's state-run fuel CNG distributor Mahanagar Gas Limited (MGL) have collaborated, giving gas filling process a digital touch.

Both companies also have signed a Memorandum of Understanding (MoU), which will help the commercial vehicle owners to skip the long queues at CNG stations, and have a seamless gas filling process online.

Here's CNG Users Will Get Benefit

As part of the collaboration, the Tez application services have now been linked with Nawgati's Fuel Discovery app, allowing the users to book slots in advance, using the Fuel Discovery app. The payment also can be settled, using the same application. The online process will not just eliminate the involvement of a third person, but also will save a lot of time.

Service Operation in Limited Area

As per the details shared by the officials, currently, the service is only operational in limited areas, which include Goregaon-Oshiwara and Ghatkopar BEST stations. The company is planning to spread its roots in Mumbai, aiming to install more than 12 depots in the city.

Here's What Nawgati's CEO Says

Reacting about the partnership, CEO and co-founder, Nawgati, Vaibhav Kaushik, said, "The association with MGL is a testament to our commitment to innovation and customer satisfaction. By integrating MGL's CNG services with our app, we aim to offer a seamless and convenient solution for commercial CNG vehicle owners in Mumbai. We believe this collaboration will transform the way people perceive CNG filling services in India."

Source: *https://www.news18.com/auto/no-more-long-queues-at-cng-filling-stations-in-mumbai-heres-why-8696582.html*

1.2 China

Over Half of China's Trucks Could Be Fueled by Natural Gas in 2024, Foton Motor Says

29th November 2023. By ZHANG YUSHUO. Source: YICAI. Editor: Tom Litting

Over Half of China's Trucks Could Be Fueled by Natural Gas in 2024, Foton Motor Says

(Yicai) Nov. 29 -- The share of natural-gas-powered heavy trucks in the Chinese market will rise further next year, potentially to more than 50 percent, according to a forecast by Foton Motor.

This year's strong sales of natural-gas-fueled trucks is mainly down to the widening difference in price between crude oil and natural gas, the Beijing-based commercial vehicle maker said yesterday.

Natural gas is about CNY2.50 (35 US cents) cheaper per liter than diesel in China, and the gap is expected to remain at CNY1 to CNY2 at least until the first half of next year.

In the first 10 months of 2023, the penetration rate of natural gas heavy trucks reached 41 percent, and the rate for tractors using the fuel was close to 50 percent.

Driven by natural gas vehicles and exports, nearly 790,000 heavy trucks were sold from January to last month, and next year's sales are expected to reach as high as 1.15 million. Domestic sales may hit 800,000 to 850,000, a 15 percent to 20 percent jump.

China's truck exports are expected to be about 280,000 to 300,000 next year, up 12 percent to 15 percent from a year earlier, benefiting from the growth of infrastructure and logistics demand in countries in the Belt and Road Initiative and the economic recovery in Southeast Asia.

Foton Motor sold 76,860 heavy trucks in the first 10 months of 2023, up 29 percent and giving it a market share of about 10 percent, according to data from the China Association of Automobile Manufacturers. Its sales of natural-gas-fueled heavy trucks reached 14,500, with a market share of 11.6 percent.

Source: *https://www.yicaiglobal.com/news/foton-motor-expects-to-keep-raising-proportion-of-heavy-gas-trucks-to-over-40-percent-next-year*

1.3 United Kingdom

Kinaxia Invests in CNG Trucks to Upgrade Fleet

12th December 2023. By Valerie Swiantek

Kinaxia Logistics, with operations across the United Kingdom, has taken delivery of its first batch of tractor units powered by compressed natural gas (CNG) as the company moves toward having a net-zero-emissions fleet throughout its national line-haul service.

The company has invested over 2 million pounds in IVECO S-Way trucks for its Primary division, replacing diesel vehicles in the fleet.

According to Richard Smith, managing director of the division, the new vehicles make up 10% of the Primary fleet, with more on order for delivery in 2024.

"These CNG trucks produce 90 percent fewer emissions than diesel ones, leading to a reduction in CO2 of at least 100 tonnes per truck per year," says Smith. "The addition of these vehicles is a significant step as we look to create a carbon net zero linehaul and trucking fleet for our customers. We trialed the trucks earlier in the year, and the feedback was extremely positive. Drivers reported a good driving experience and a quieter cab. The units have a good specification, and the CNG fueling network is expanding as more sites continue to come online."

Other recent greener additions to Kinaxia's fleet include two IVECO CNG units at its haulage operation in Telford, and a 7.5 tonne Tevva electric truck in use for urban deliveries around Greater Manchester.

Kinaxia is also using units powered by hydrotreated vegetable oil (HVO) exclusively on a number of dedicated customer contracts.

The IVECO S-Way tractor units have been supplied by South West Truck & Van, an IVECO franchise dealer and service agent.

"We are delighted to partner with Kinaxia Logistics as it gets going with its plan to decarbonize transport operations in its Primary division," says Jack Sims, director at South West Truck & Van. "Having extensively trialed the IVECO S-Way CNG, Richard and the Kinaxia team have embraced the technology and can see the benefits biomethane offers from an emissions reduction and total cost of ownership perspective.

"CNG-powered trucks have been around for some time," adds Sims. "It's proven technology, but we are now starting to see more companies with heavy truck fleets take note and look to make the switch. Infrastructure is improving, with public access and back-at-base solutions now available, which makes it the most practical alternative fuel option to move goods at 38 or 44 tonnes."

Source: *https://ngtnews.com/kinaxia-logistics-invests-in-cng-trucks-to-upgrade-fleet*

1.4 Nigeria

Union seeks FG support to train 5,000 mechanics on CNG vehicles

8th December 2023.

THE Amalgamated Union of Motor Mechanics and Technicians of Nigeria (AUOMMATON) has appealed to the government to support its efforts in manpower development for auto-based artisans.

AUOMMATON National President, Mr Oseni Suleiman, made the plea in an interview with the News Agency of Nigeria (NAN) on Friday in Abuja.

Suleiman said the union was seeking Federal Government's backing in training no fewer than 5,000 mechanics and technicians in the conversion of petrol-powered vehicles to Compressed Natural Gas (CNG).

According to him, the union is determined to embark on the training of its members in order to support the Federal Government's drive towards sustainable energy sources to reduce carbon emissions into to the environment.

He also appealed to Mr Nyesom Wike, the Minister of Federal Capital Territory (FCT), to help the union by providing an enabling environment–land allocation, modern training, working tools, among others to enable the artisans to learn the conversation process.

Suleiman said that the 5,000 artisans would be from its 35 million members across the country.

He further said that the conversion technical know-how would be of immense benefits to the trainees.

He said that the union members had been complimenting government's efforts at various levels and different mechanics associations previously.

The national president expressed optimism that the union collaborating with the government policies at all levels would sustain the renewed hope of the President Bola Ahmed Tinubu.

"In line with the programme of Federal Government of Nigeria on conversion from Petrol to CNG in automobile, we have already put plans in place for the training of more Nigerian Mechanics and technicians, men and women.

"We shall soon begin to reach out to various state governments in Nigeria, corporate individuals, private companies, individuals and well-meaning Nigerians for possible sponsorship of our proposed trainees. `

"About five thousand of our artisans are already earmarked for the training in batches across the country, " he said.

The president added that the union was set to deepen efforts towards making sure that Nigerian youths were gainfully engaged by using their hands. (NAN)
Source: *https://realnewsmagazine.net/union-seeks-fg-support-to-train-5000-mechanics-on-cng-vehicles/*

1.5 United States of America

What's the future of natural gas, hydrogen internal combustion engines?

28th November 2023. By Jason Morgan

The emissions air needs to get cleaner but the equipment strategy toward greater sustainability remains murky. Let's clear the air.

What everyone in the trucking industry has to do is look at the need for a sustainable fleet operation the same way we look at trucking applications. Get away from the "Which powertrain technology is going to win in the sustainable future?" and start thinking: "Which powertrain technology will help me decarbonize today?" If that's battery electric—great! If not, there's more that you can do than wait around for hydrogen fuel cell or some other powertrain technology. We won't just wake up one day and the air will be completely clean and sustainability will have been achieved. We have to start working toward it with solutions.

Internal combustion engines (ICE) have been driving productivity and innovation for decades, and they still will going forward. They'll just be different, and one of the biggest differences could be the fuel that powers them. Consider natural gas ICE–an engine technology that has been around for a while but has continued to evolve well past some preconceived notions of what the technology is today.

"Natural gas engines for commercial vehicles started becoming commercially available in the late '80s and early '90s, and to be perfectly honest, they didn't have a very strong reputation because they were—at that point in time—immature in terms of performance and cost effectiveness and reliability and durability," noted Scott Baker, vice president of engineering, Westport Fuel System. "Through the efforts of Westport and other players in the industry, that story has evolved dramatically to the point that there's a wide range of natural gas engine options available with different underlying technologies to suit a wide range of end use applications."

In terms of what that means in emissions reductions, Baker noted that there's about a 20% reduction in CO2 tailpipe emissions simply through burning methane as opposed to burning a liquid hydrocarbon fuel. When considering renewable sources like biomethane, natural gas can lead to "much more significant carbon reduction available on a full fuel cycle or so-called well to wheels basis," he said.

And then there's hydrogen ICE, which is currently in development in both new engines and, as Baker highlighted, even an exploration of retrofit options for current diesel ICE engines.

For the full decarbonization picture and thoughts on what natural gas and ICE bring to the table, visit the link below.
Source: *https://www.fleetequipmentmag.com/future-natural-gas-hydrogen-internal-combustion-engines/*

1.6 India

India moves forward with bioCNG blending mandates

27th November 2023. By Bioenergy International

Praj Industries RenGas demonstration plant at the Praj Matrix R&D Center in Pune, State of Maharashtra, India.

The Government of India has taken In a major step towards enhancing the use and adoption of biomethane aka renewable natural gas (RNG). The National Biofuels Coordination Committee (NBCC), chaired by the Union Petroleum Minister announced on November 24, 2023, the introduction of phase-wise mandatory blending of biomethane in compressed natural gas (CNG) for transportation as well as domestic segments of the City Gas Distribution (CGD) sector.

The key objectives of the CBG Blending Obligation (CBO) are to stimulate demand for bioCNG in the CGD sector, import substitution for Liquefied Natural Gas (LNG), saving on foreign exchange, promoting circular economy and assist in achieving the target of net zero emissions.

CBO will be voluntary till FY 2024-2025 and then become a mandatory blending obligation that would start from FY 2025-26.

CBO shall be kept as 1 percent, 3 percent, and 4 percent of total CNG/CGD consumption for FY 2025-26, 2026- 27, and 2027-28 respectively.

From 2028-29 onwards CBO will be 5 percent.

A Central Repository Body (CRB) shall monitor and implement the blending mandate based on the operational guidelines approved by the Minister.

The CBG Blending Obligation (CBO) will promote the production and consumption of Compressed Bio-Gas (CBG) in the country, said Shri Hardeep Singh Puri, Minister of Petroleum & Natural Gas and Housing & Urban Affairs.

Highlighting the key outcomes of the CBO, Minister Shri Puri said that it will encourage investment of around INR 30 billion (≈ US 359.8 million) and facilitate the establishment of 750 biomethane projects by 2028-29.

Promote ethanol production

Discussions also took place for promoting the production of ethanol from maize with all stakeholders especially with the Department of Agriculture and Department of Food and Public Distribution (DFPD) to make it a prominent feedstock in coming years.

It was discussed that in the last few years, there has been an increase in maize cultivation area, yield per hectare, and production.

Work has been initiated by this ministry in consultation with the Department of Agriculture and DFPD to further develop high starch-yielding varieties, improve the quality of maize DDGS (Dried Distillers Grain Solids) by removing aflatoxins, faster registration of new seed varieties with high starch.

To further promote maize training program for distillers with seed companies has also been initiated.

Indicative blending of SAF

In a separate announcement, the committee approved initial indicative blending percentage targets for sustainable aviation fuel (SAF).

Based on the comments received from the stakeholders, like MoCA, Niti Aayog, OMCs, etc, the capacities of SAF plants coming up in the country, and projected aviation fuels sales, the following initial indicative blending percentages of SAF initially for international flights:

- 1 percent SAF indicative blending target in 2027
- 2 percent SAF blending target in 2028

Source: *https://bioenergyinternational.com/india-moves-forward-with-biocng-blending-mandates/*

1.7 Europe

Biomethane's boundless potential to decarbonise heavy-duty transport in the EU market

12th December 2023. By The Parliament Partner Content. @Parlimag. Partner Content

The Parliament Partner Content team works with organisations from across the world to bring their stories to the eyes of policy makers and industry stakeholders across Europe.

The European Commission's has ambitious plans to reduce Heavy Duty Vehicle (HDV) emissions by 90% by 2040, but how can the industry get there?

Decarbonising heavy-duty vehicles (HDV) is a critical component of the EU's climate goals. Biomethane, with its low-carbon to carbon-negative profile and compatibility with existing infrastructure, is already making substantial progress in reducing emissions from Heavy Duty Vehicles. When combined with battery technology for short-haul urban transport and hydrogen for long-

haul logistics in the future, a comprehensive approach emerges that can revolutionize the industry, provided that it's backed by a robust legal framework. These were the major takeaways from the event held on 8 November, with Hexagon.

MEP Peter Vitanov, the event host, was keen to consider a bold spectrum of perspectives leading to a cleaner future without compromising the competitiveness of the sector: "We need a more comprehensive strategy where all available technologies are incorporated, including the use and uptake of alternative fuels," said the policymaker.

The picture is daunting: heavy-duty trucks represent around 25% of global road emissions and 97% of trucks sold in the EU today are running on diesel. Hexagon Composites, a company dedicated to driving energy transformation, is committed to slashing CO2 levels caused by HDVs. A global market leader in clean fuel systems technology, including renewable biomethane, batteries and hydrogen fuel cells, Hexagon offers several clean solutions for short- and long-distance vehicles for both light and high-payload cargo. Jon-Erik Engeset, CEO of Hexagon since 2013,is optimistic that by mid next decade, when the supply chain is more developed, light commercial transport will go fully electric, in city and regional segments.

With the FitFor55, we strangled our industry. Modernise or die.
MEP Radan Kanev (EPP, Bulgaria)

For medium and heavy-duty transport, however, batteries alone will not fix the problem, especially taking into account the ambitious targets of 45% reduction of CO2 emissions by 2030, leading up to 90% from 2040. "The European Commission's proposal is doomed if it doesn't consider the utilisation of all existing technologies to accelerate the decarbonisation of HDV," said Engeset.

MEP Maria Grapini said the EU's ambition must be matched with correlation and possibility. Currently, the share of green gas in transport within all natural gas vehicles — buses and trucks on the road — is around 20% in Europe, said Harmen Dekker, the European Biogas Association's (EBA) CEO. Some countries boast a share as high as nearly 100%. "By 2050, about 15bcm is projected to be needed for the long-haul HDV transport. If we are currently producing 2/3 of the gas demand of the future, the need for the Heavy Duty Vehicle sector is only a fraction of the total," explained Dekker.

No clean solutions, no targets

Adding to the challenge, the EU doesn't have sufficient raw materials to develop clean technology timely in scale. And the deployment of charging infrastructure presents yet another hurdle.

In order to reach 2030 targets with zero emission vehicles only, ACEA estimates 370 megawatt chargers need to be installed per month as of 2024. But access to charging infrastructure is particularly challenging for Heavy Duty Vehicles due to their diversity, long-distance travel, and high energy consumption. "This will only be feasible if there is a level of market deployment of these vehicles," said MEP Radan Kanev, shadow rapporteur for the Alternative Fuels Infrastructure Regulation, noting that because charging stations for Heavy Duty Vehicles are extremely costly and without market incentives, the burden will fall on the governments.

The European Commission's proposal is doomed if it doesn't consider the utilisation of all existing technologies to accelerate the decarbonisation of HDV
- Jon-Erik Engeset, CEO Hexagon Composites

Raluca Marian, Director of EU Advocacy and General Delegate of International Road Transport Union (IRU)'s Permanent Delegation to the EU, expressed serious concerns regarding the targets currently backed by a majority of the ENVI Committee: "If the 45% target becomes a reality, it means that six years from now all the trucks need to be zero-emission. The whole burden for the infrastructure is on transport operators and shippers."

MEP Kanev agreed: "With the FitFor55, we strangled our industry. Modernise or die." Policymakers in the room and industry backed the need for the introduction of a Carbon Capture Factor (CCF) through the CO2 Standards Regulation. Once the benefits of renewable fuels are recognised, their decarbonisation potential can be leveraged through already available mature technologies and infrastructure that utilize these alternative fuels. In practice, the CCF would adjust CO2 emissions based on fuel type thus helping scale up renewable fuels like biomethane. For MEP Kanev, the introduction of this mechanism "will help, but it's not enough."

Unlocking the power of biomethane

Engeset believes in a mechanism that allows for the full spectrum of technologies to contribute to the CO2 reduction objectives in heavy transport: "When you move to heavier vehicles and longer distances, nobody knows what the future will bring. In order to move the needle, we need to make use of renewable biomethane in the next 10-15 years." EBA's Dekker signalled a similar vision, urging policymakers not to block this renewable fuel as an alternative to decarbonise long-haul Heavy Duty Vehicles "in favour of another potential propulsion not yet suited for this specific segment."

Biomethane could be the game-changer to reduce nasty GHG emissions from the heavy-duty sector, Engeset pointed out, noting that an alignment with the EU's existing aspirations to reach 35bcm of production by 2030 as part of the REPowerEU is essential to reach the climate targets. This alternative fuel has below zero GHG emissions when sourced from organic waste, Engeset explained, referring to the double importance of capturing it. "Methane that is released in the atmosphere is much worse than CO2. Renewable biomethane is compatible with existing infrastructure, can be sourced locally, and is aligned with the REPowerEU's goals of strategic autonomy and energy independence," Engeset added.

By 2050, about 15bcm is projected to be needed for the long-haul HDV transport. If we are currently producing 2/3 of the gas demand of the future, the need for the Heavy Duty Vehicle sector is only a fraction of the total - Harmen Dekker, CEO EBA

As part of the EU's intention to regulate methane emissions, it's important to capture greater quantities of methane that is escaping to the atmosphere, highlighted Eric Bippus, EVP Sales & Engineering at Hexagon. "Today around 3.5bcm of biomethane is produced in the EU. This figure could be much higher if methane coming from agriculture and waste production is captured and processed to remove impurities and then injected to the pipeline," explained Bippus. When looking at the current status of fuelling infrastructure and biomass availability, Bippus is convinced that there is no market better positioned than the EU to develop biomethane. "If Europe is able to achieve the 35bcm of biomethane production, a portion of that could power heavy-duty transport. There are estimates assessing that roughly 15bcm would support heavy-duty transport," noted Bippus.

Talking based on a sustainable projection, Dekker concluded: “The availability of sustainable biomethane is “right under our feet”. We just have to unlock it for a circular future. Apart from being sustainable and fully circular it also makes economic sense.”

This article was produced in partnership with Hexagon.
Source: *https://www.theparliamentmagazine.eu/news/article/biomethanes-boundless-potential-to-decarbonise-heavyduty-transport-in-the-eu-market*

1.8 Indonesia

Plans announced to develop a USD1 billion green hydrogen facility in Indonesia

8th December 2023.

Saudi Arabia-based ACWA Power has partnered with PT Perusahaan Listrik Negara (PLN) and PT Pupuk Indonesia to develop the largest green hydrogen facility in Indonesia called the Garuda Hidrogen Hijau (GH2) Project. The USD1 billion project will run on 600 MW of solar and wind power and will produce 150,000 tons of green ammonia annually and is expected to start commercial operations by 2026.

The bidding process for engineering, procurement and construction (EPC) for the project is expected to begin in Q1 2024 and financial closing is planned for the end of 2025.

Moreover, ACWA Power was awarded the contracts to develop two floating offshore solar photovoltaic (PV) plants in Indonesia in October 2022. The projects will have a combined capacity of 100 MWac and will be developed at USD105 million and are expected to achieve the target of RE share of 23 per cent by 2025.
Source: *https://southeastasiainfra.com/plans-announced-to-develop-a-usd1-billion-green-hydrogen-facility-in-indonesia/*

1.9 International

Growth in H2 announcements, not FIDs: Hydrogen Council

12th December 2023. By Emmeline Willey

The number of announced global hydrogen projects continues to rise, but the number of projects reaching final investment decisions has only experienced a modest increase, according to an update from industry group the Hydrogen Council.

Global project announcements reached 1,418 this October, from 1,040 this January, the report said. But amid abundant announcements and feasibility studies touting 45mn t/yr of production capacity by 2030, of which 70pc is renewable, few projects have progressed past early planning stages.

Announcements in 2021 had indicated there would be 6GW of electrolysis operational by the end of 2022 — but as of this October that number was 1.1GW, marking a 400MW increase from January. The delay is partly owed to the increased cost of capital, higher capital costs and continued regulatory uncertainty, the report said.

The cost of hydrogen has also increased 30-65pc from the Council's previous estimates. A modeled 1GW electrolysis plant based in the US Gulf Coast would today produce hydrogen at $5/kg, from an estimated $2.9/kg previously.

The majority of committed capital is based in North America, with 60pc, followed by China with 20pc and Europe and the Middle East each with 8pc. But Europe leads in planned investments with a total $193bn in announced projects, followed by Latin America and North America. A gap of $430bn remains for the world to reach 2030 targets, with infrastructure standing out as the most under-funded component.

H2 investment growth		'$bn
Stage	Jan-23	Oct-23
Announced	200.0	259.0
Feasibility studies	160.0	203.0
FEED studies	44.0	71.0
Committed	31.0	39.0
Hydrogen Council		

Source: *https://www.argusmedia.com/en//news/2518480-growth-in-h2-announcements-not-fids-hydrogen-council?backToResults=true*

1.10 Thailand

Funding agreement signed to procure 1,200 e-buses in Thailand

8th December 2023.

The Energy Absolute Public Company Limited (EA) has signed a THB3.9 billion funding agreement with the Asian Development Bank (ADB), the Japan International Cooperation Agency (JICA), and the Export-Import Bank of Thailand (EXIM Thailand) for the purchase of 1,200 electric buses (e-buses) in Thailand. The electric buses will replace internal combustion engine buses in Bangkok, supporting the use of clean public transport in the country.

The financing package comprises THB1.3 billion loans each from ADB, JICA, and EXIM Thailand. The total project cost is THB6 billion. The e-buses will support the public transport services of Thai Smile Bus Company Limited and its subsidiaries in Bangkok, covering 123 routes, nearly half of the total public bus routes.

Source: *https://southeastasiainfra.com/funding-agreement-signed-to-procure-1200-e-buses-in-thailand/*

End