

ANGVA2U Info aims to share information, data, and news related to low carbon, carbon neutral, and zero carbon fuels towards Net Zero Emissions target and limiting earth temperature rise to 1.5 °C by the year 2100. These information, news, and insights, are shared in good faith, without any guarantee of accuracies. ANGVA members are advised to use these information, news, and insights, prudently and at their own risks.

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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 Indonesia

PGN installs CNG converter kits for 67 online taxis

24th December 2024. (Translate)



The program for installing a gas fuel converter kit (BBG) for 67 online taxi units from PT Perusahaan Gas Negara Tbk (PGN). ANTARA/HO-PT PGN Tbk

This collaboration is designed to encourage the use of CNG by community member drivers.

Jakarta (ANTARA) - PT Perusahaan Gas Negara Tbk (PGN) launched a strategic initiative in the form of installing a gas fuel (BBG) converter kit for 67 online taxi units.

PGN Corporate Secretary Fajriyah Usman in his statement in Jakarta, Tuesday, said the program would be implemented throughout December 2024 with a target of installing a minimum of four vehicle units per day.

The program is implemented through collaboration creating shared value (CSV) between PGN and its subsidiary, namely PT Gagas Energi Indonesia together with the Gas Mobil Community (Komogas).

"This collaboration is designed to encourage the use of BBG by community member drivers, so that the benefits of energy diversification can be felt more widely," he explained.

Fajriyah added that this step is in line with PGN's sustainability focus in supporting the achievement of the net zero emission (NZE) target by increasing the use of gas fuel.

Converting oil-fueled vehicles (BBM) to BBG not only has a positive impact on the environment, but also encourages increased welfare for online taxi drivers.

"The implementation of the BBM to BBG vehicle conversion program is a manifestation of PGN's commitment to supporting the net zero emission target. Burning BBG in cleaner vehicles can improve air quality and support the national commitment to reducing the impact of carbon emissions," said Fajriyah.

The increase in the number of gas-fueled vehicles also supports the optimization of the use of PGN's gas filling station (SPBG) infrastructure.



The program for installing a gas fuel converter kit (BBG) for 67 online taxi units from PT Perusahaan Gas Negara Tbk (PGN). ANTARA/HO-PT PGN Tbk

With the spirit of innovation and sustainability, according to Fajriyah, PGN and Gagas Energi Indonesia are committed to continuing to encourage more environmentally friendly energy solutions for a better future for Indonesia.

"We hope this program can expand the use of gas fuel in the transportation sector and increase public awareness of the importance of transitioning to cleaner energy," he said.

By optimizing the use of BBG, he continued, vehicle operational costs can be reduced significantly because the price of BBG is more economical than liquid fuels such as gasoline.

"These savings directly contribute to increasing the net income of drivers," said Gagas Energi Indonesia President Director Santiaji Gunawan.

The program also supports the government's energy transition agenda to accelerate the use of clean, efficient and affordable energy sources.

In addition, PGN's initiatives also contribute to the achievement of several sustainable development goals (SDGs) in Indonesia, including SDG 7 on Affordable and Clean Energy, SDG 9 on Industry, Innovation, and Infrastructure, and SDG 13 on Addressing Climate Change.

Reporter: Kelik Dewanto. Editor: Faisal Yunianto. Copyright © ANTARA 2024

Source: https://www-antaranews-com.translate.goog/berita/4547110/pgnpasang-konverter-kit-bbg-untuk-67-taksi-online?_x_tr_sl=id&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc

2.2 Bangladesh

CNG Station Opening Hours Extended

28th December 2024. Rtv News.

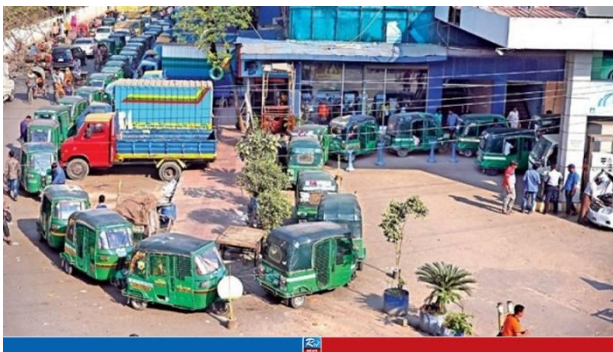


Photo: Collected

The operating hours of CNG stations across the country will be extended by two hours. This new regulation will take effect from Wednesday, January 1.

Petrobangla authorities have announced that starting from January 1, the gas supply hours at CNG stations will be extended by two hours compared to the previous schedule.

Accordingly, gas supply will be suspended from 6:00 pm to 9:00 pm.

The government has made this decision considering requests from CNG station owners and the demands of CNG drivers, according to Petrobangla.

Currently, gas supply to CNG stations is suspended from 6:00 pm to 11:00 pm.

Source: https://www.rtvonline.com/english/bangladesh/18731#google_vignette

2.3 India

2.3.1 AG&P to invest Rs 8,000-cr in expanding city gas network

20th December 2024.

AG&P Pratham, a city gas distribution (CGD) player backed by global infrastructure investor I-Squared Capital, plans to invest up to Rs 8,000 crore over the next three years to expand its CGD network across India. The company which will have already invested USD one billion by December 2024, intends to invest an additional USD one billion to enhance infrastructure and promote natural gas adoption.

AG&P currently operates 18 liquefied natural gas (LNG) stations and 460 compressed natural gas (CNG) stations, with plans to expand to 800 CNG stations. It aims to develop a network comprising over 24,000 inch-km of steel pipelines, more than 2,000 LNG and CNG stations, and serve over 150 million customers across 3,24,000 sq. km. The expansion will focus on major highways in South India and parts of Bhopal and Madhya Pradesh, with a strong emphasis on the growing LNG dispensing market.

Holding 12 CGD licenses, AG&P Pratham has exclusive rights to develop CGD infrastructure across 37 districts in five states: Tamil Nadu, Kerala, Andhra Pradesh, Karnataka, and Rajasthan. The network supplies piped natural gas (PNG) to households, commercial establishments, and industries, alongside CNG for vehicles.

Additionally, the company is acquiring H-Energy's LNG terminal in Jaigarh, Maharashtra. This acquisition will ensure a reliable LNG supply, supporting its extensive expansion plans and furthering its goal of making natural gas a preferred fuel in India.

Source: <https://www.projectstoday.com/News/AGP-to-invest-Rs-8000-cr-in-expanding-city-gas-network>

2.3.2 CNG price up 1 to 78/kg, auto drivers want fare hike

27th December 2024.

In just over a month, Mahanagar Gas Ltd (MGL) announced a further hike of a rupee per kg in CNG prices across the Mumbai Metropolitan Region this week. This follows the previous hike of Rs 2 per kg on Nov 24.



Mumbai: In just over a month, Mahanagar Gas Ltd (MGL) announced a further hike of a rupee per kg in CNG prices across the Mumbai Metropolitan Region this week. This follows the previous hike of Rs 2 per kg on Nov 24.

With this, the revised retail price of CNG at the pumps is Rs 78 per kg while piped gas price continues to be at the same rate of Rs 48 per unit, an MGL official said. A substantial number of public transport vehicles such as autos, taxis, and buses across the region depend on CNG for daily fuel. Industry sources said with the escalation in CNG rates, the auto union will renew its demand for a Rs 3 increase in the minimum fare—from Rs 23 to Rs 26 in MMR.

Mumbai Rickshawmen's Union's Thampy Kurien said his union will petition the new govt, demanding a hike of Rs 3 in autorickshaw fare.

The union has calculated the increase based on a govt- approved formula—which considers the cost of living index, fuel, maintenance, and other factors. The calculation indicates the hike should be Rs 2.67 in fare—which is approximately a Rs 3 hike in the minimum auto fare.

An MGL official said, "MGL is sourcing additional market-priced natural gas (imported), which resulted in higher gas costs. To partially offset the increase in gas cost, MGL is constrained to increase the delivered price of CNG by a rupee per kg."

The official added, "Recently, we inaugurated a new spacious CNG refuelling station in Byculla to cater to those having green fuel vehicles in south Mumbai. Additionally, it will encourage more citizens to switch to CNG. With these new outlets, MGL now has 358 CNG stations across our operational areas in MMR."

The new CNG station at Byculla comprises 10 dispensing points and has a compression capacity of 17,000 kg/day. Even after the cumulative hike of Rs 3 in Nov and Dec, MGL's CNG offers advantageous savings of about 49% and 14% compared to petrol and diesel, the official said.

Source: <https://energy.economictimes.indiatimes.com/news/oil-and-gas/cng-price-up-1-to-78/kg-auto-drivers-want-fare-hike/116698909>

2.4 Egypt

Next year, more than 1 million cars in Egypt will be powered by CNG

26th December 2024. By Alimat Aliyeva



A new initiative to convert cars from gasoline to compressed natural gas (CNG) will be implemented in Egypt, as reported by Azernews.

This announcement was made during a large meeting attended by Prime Minister Mustafa Madbouli. Madbouli emphasized that the initiative would contribute to reducing carbon dioxide emissions and help lower costs for the population.

During the meeting, it was revealed that the initiative aims to convert 1.5 million vehicles to run on CNG. To encourage participation, the government is offering various incentives to the public.

The conversion of diesel cars to CNG is expected to save up to 50% of the diesel currently consumed.

Additionally, this transition will result in a reduction of carbon dioxide emissions by approximately 1.5 million tons annually.

To support this initiative, new gas stations have been established across Egypt. Notably, in 2021, Egypt became home to the first mobile compressed natural gas station in the Middle East, further advancing the country's efforts toward sustainable energy solutions.

Source: <https://www.azernews.az/region/235650.html>

2.5 Nigeria

Nigeria Commits N122bn To Expand CNG Use For Transportation

26th December 2024. By Kingsley Alu



Nigeria is investing N122 billion (\$157 million) in a major push to integrate Compressed Natural Gas (CNG) into the country's transportation sector, aiming to reduce the cost burden of rising fuel prices and the nation's reliance on expensive diesel imports.

The initiative, led by the National Automotive Design and Development Council (NADDCC), seeks to establish a nationwide CNG infrastructure, providing a cleaner, more affordable fuel option for vehicles across Nigeria.

With diesel prices having surged fourfold in the past two years, logistics and transportation companies have faced mounting financial pressures.

The director-general of the NADDCC, Mr Joseph Osanipin, made this disclosure at its 2024 end of year media briefing in Abuja.

Osanipin, who admitted that the current infrastructure could not fully support the demand for CNG, added that the N122 billion investment is to help bridge the gap.

“The infrastructure we have currently cannot fully support the demand for CNG. However, the federal government is working seriously on that.

“The rising cost of diesel is unsustainable for Nigerian businesses, particularly in logistics and transportation,” Osanipin said. “This investment will help build a robust CNG network, which will significantly lower the cost of fuel for vehicles, bringing relief to both businesses and consumers.”

He noted that the funding, released on September 30, 2024, is intended to close the infrastructure gap that has limited CNG adoption in Nigeria.

“On September 30, the government released N122 billion to assist investors and stakeholders across Nigeria's geopolitical zones to provide the necessary infrastructure for CNG.

“A lot of investments are going into the provision of infrastructure to support gas. Once these projects are completed, we will begin to see the results in the near future.

“Companies like NIPCO, which have been in the gas business for years, have a head start, but many other stations are also building CNG facilities.

“CNG offers a tremendous cost-saving opportunity for the transportation sector,” Osanipin explained.

“A trip that costs N550,000 with diesel can now be completed for just N90,000 using CNG, achieving an 83 per

The savings, he added, could lead to lower product prices and financial relief for consumers.

The DG emphasised that CNG adoption will provide a more stable, domestic fuel source, saving Nigeria billions of dollars annually in foreign exchange, while also reducing the environmental impact of diesel-powered vehicles.

“This investment will lower our carbon footprint, support economic resilience, and offer a cleaner, more cost-effective energy solution for vehicles.”

Osanipin noted that more companies are now recognising CNG as a viable alternative, with many that once overlooked its potential now actively investing to remain competitive.

“Partnerships are being forged, and infrastructure projects are progressing to ensure a steady supply of gas,” he said.

He further assured Nigerians that the government’s ongoing efforts to develop the necessary infrastructure would soon alleviate gas shortages and improve CNG accessibility across the country.

“The infrastructure will arrive, and when it does, the challenges with gas supply will be significantly minimised,” he added.

Source: <https://leadership.ng/nigeria-commits-n122bn-to-expand-cng-use-for-transportation/>

2.6 Estonia

LNG leaking from truck after accident on Pärnu highway

27th December 2024. News Estonia. ERR



Photo: LNG leaking from truck after accident on Pärnu highway on December 27, 2024. Author: Ken Mürk/ERR

On Thursday evening at 9:07 p.m., a serious chain collision occurred at the 35th kilometer mark of the Tallinn–Pärnu–Ikla highway. The accident involved six vehicles, including two liquefied natural gas (LNG) tanker trucks, one of which is leaking.

At around 3 a.m., the Rescue Board reported that emergency response efforts at the site of the chain collision were ongoing.

The tanker truck contains 18 tons of gas, which, being heavier than air, accumulates near the ground, creating a risk of explosion. Stopping the leak has been complicated due to deformation of the tanker's valves.

According to the incident commander, the liquefied natural gas (LNG) is expected to evaporate over approximately 24 hours.

A safety zone with a 300-meter radius remains in effect, and rescue teams are continuously monitoring the spread of the gas.

Local residents near the danger zone have been provided with necessary instructions. One farm within the affected area was evacuated, with two residents temporarily relocated. Residents of more distant homes were advised to close their windows and be prepared for evacuation if necessary.

The Tallinn–Pärnu–Ikla highway remains closed between kilometers 34.32 and 35, with the closure expected to last for about 24 hours. Traffic has been rerouted via the Ääsmäe-Kernu road and will remain redirected until the gas leak no longer poses a threat.

The Rescue Board continues to urge everyone to follow the instructions of rescue workers and police and to avoid entering the area. Further updates will be provided as the situation develops.
Source: <https://news.err.ee/1609561015/lng-leaking-from-truck-after-accident-on-parnu-highway>

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

3.1 India

3.1.1 BMC Signs MoU With OIL To Set Up Compressed Biogas Plant In Bhubaneswar 16th December 2024. By OB Bureau. In Bhubaneswar, City



Bhubaneswar: In a major step towards waste management, the Bhubaneswar Municipal Corporation on Monday signed an MoU with the Oil India Ltd (OIL) to set up a compressed biogas plant.

The MoU was signed in presence of Minister of Housing and Urban Development Krushna Chandra Mahapatra, Principal Secretary of the department Usha Padhee, BMC Commissioner Rajesh Prabhakar Patil and Ranjit Rath, Chairman and Managing Director of OIL.

As per the agreement, the OIL will design, construct, operate and maintain the plant that will come up with a cost of Rs 175 crore at Meherapalli near Keshura. The plant will have the capacity of processing 200 TPD segregated organic municipal solid waste into Compressed Bio-Gas (CBG). It will produce 8-9 ton of CBG per day to be utilised as CNG fuel.

The project is expected to be taken up eight acre of land and will be completed in two years from start of construction.

Speaking on the occasion, the minister said, “The project is expected to reduce the burden of waste in Bhubaneswar. About 200 ton of waste will be processed to produce bio-gas and organic manure. The state government has planned to set up such projects in other cities.”

Describing the project as an innovative step towards development and environment protection, Principal Secretary Padhi said, “There will be lot of technology, economic activities and employment generation through this project. Ultimately community will benefit from the project.”

Source: https://odishabytes.com/bmc-signs-mou-with-oil-to-set-up-compressed-biogas-plant-in-bhubaneswar/#google_vignette

3.1.2 Oil India ventures into green energy with new subsidiary launch

27th December 2024. By Staff Writer

By 2040, Oil India aims for 12-15% renewable energy, transforming its portfolio with sustainability.



Oil India Limited

Oil India (OIL) is taking a major step toward renewable energy by launching a wholly-owned subsidiary, OIL Green Energy, to lead its green and alternative energy initiatives. The company plans to invest Rs 25,000 crore by 2040 to expand its

footprint in renewable energy and decarbonisation technologies, marking a significant shift from traditional energy sources.

Driving renewable transformation

The newly formed subsidiary will oversee biofuels, green hydrogen, carbon capture, methanol, and geothermal energy projects. By 2030, OIL aims to have 5-7 per cent of its energy from non-fossil fuel sources, rising to 12-15 per cent by 2040. This transition aligns with OIL's vision of becoming a diversified energy company, as a parliamentary report details.

Currently, OIL has 188.1 MW of renewable energy capacity, including wind and solar projects in Rajasthan, Gujarat, and Assam, with Rs 1,230.73 crore invested so far. These initiatives generated Rs 870 crore in revenue until FY22.

Pioneering green hydrogen and biogas

In a milestone move, OIL has established India's first anion exchange membrane (AEM) green hydrogen plant at its Jorhat facility in Assam. Further expanding its green energy portfolio, the company plans to set up 25 compressed biogas (CBG) plants across the country.

OIL's bold strategy is poised to redefine its energy offerings, emphasising sustainability and innovation to meet evolving global energy demands.

Source: <https://www.manufacturingtodayindia.com/oil-india-ventures-into-green-energy-with-new-subsidiary-launch>

3.2 Malaysia

VentureTECH, MTC Orec partner to accelerate biomethane projects in Malaysia

23rd December 2024. By Bernama / Bernama. Uploaded by Lam Seng Fatt.



MTC Orec's biomethane generation plant in Sedenak, Johor.

PUTRAJAYA (Dec 23): VentureTECH Sdn Bhd and MTC Orec Sdn Bhd have formed strategic partnerships to accelerate the development of MTC Orec's biomethane plants, reinforcing both companies' commitment to sustainable growth and renewable energy innovation.

In a joint statement issued on Monday, the companies revealed that VentureTECH's investment will support the establishment of new biomethane plants in Peninsular Malaysia's northern and east coast regions.

The investment will also enable the execution of a biomethane project in partnership with a leading oil and gas player, set to commence next year.

These efforts are expected to make a significant contribution to Malaysia's renewable energy goals, drive sustainable growth, and strengthen the nation's commitment to reducing carbon emissions, according to the statement.

VentureTECH chief executive officer Ahmad Redzuan Sidek said the investment reflects the company's dedication to supporting forward-thinking businesses that promote both economic growth and environmental sustainability.

“MTC Orec’s expertise in bioenergy and its contributions to Malaysia’s renewable energy targets make it an ideal partner.

“This collaboration will not only reduce carbon emissions and promote renewable energy adoption, but also create opportunities for Bumiputera companies and local communities. Together, we are paving the way for a more sustainable and inclusive energy landscape,” said Ahmad Redzuan.

He further noted that the partnership will foster the creation of high-value jobs and nurture engineering expertise, particularly in rural and underserved areas.

“MTC Orec’s innovative projects align with Malaysia’s aspirations for sustainable and inclusive growth, driving positive societal and economic transformation,” he added.

Meanwhile, MTC Orec chairman Dr Norshah Hafeez Shuaib said the investment reflects the trust and confidence that VentureTECH has in the company’s vision and capabilities.

“It will empower us to scale our operations, deliver cutting-edge biomethane projects, and make meaningful contributions to environmental preservation and rural development.

“Together with VentureTECH, we are setting a new benchmark for sustainable energy solutions that will benefit generations to come,” he said.

The partnership underscores the shared vision of VentureTECH and MTC Orec to advance Malaysia’s renewable energy ecosystem.

By championing impactful biogas projects, the collaboration promises long-term environmental, economic, and social benefits while driving innovation and sustainability in Malaysia's energy sector, paving the way for a greener, more inclusive future.

MTC Orec is a local engineering company specialising in the bioenergy sector.

MTC Orec is a renowned leader in the design, engineering, procurement, construction, and commissioning (EPCC) of biogas facilities, with a proven track record in converting waste into renewable energy.

Notably, the company developed one of the first palm oil mill effluent (POME)-based biomethane plants to directly inject biomethane into Malaysia’s national gas pipeline, underscoring its leadership in aligning innovative solutions with Malaysia’s sustainability agenda.

Building on its successful collaborations with clients such as Gas Malaysia, MTC Orec is expanding its operations with four additional bioenergy plants under development across Johor and the northern region of Peninsular Malaysia.

These projects are crucial in addressing environmental challenges, including waste management and greenhouse gas emissions, while creating economic opportunities for local communities.

Meanwhile, VentureTECH is a government-backed impact investment company focused on catalysing the growth of local industries, particularly Bumiputera, in high-value and high-technology sectors through equity investment.

Source: <https://theedgemalaysia.com/node/738676>

3.3 Thailand

Trio unites to develop Thailand's BioLNG industry

20th November 2024. By Anthony Wrighton. Translate.

CleanEdge Resources Pte Limited, BBGI Public Company Limited and Keppel Ltd have joined forces to spearhead a BioLNG (liquefied biomethane) project in Thailand, aiming to strengthen Southeast Asia's renewable energy landscape.

The trio has signed a Memorandum of Understanding (MOU) to jointly research and develop the project, which seeks to transform waste into energy through advanced biofuel technologies. Production capacity is projected to reach 130 tonnes per day, with commercial operations slated for 2027.

The initiative could represent a major step in Thailand's energy transition, addressing greenhouse gas emissions through the production of low-carbon-intensity BioLNG. Over the next three to five years, the partners aim to expand production capacity in line with growing demand for cleaner energy solutions.

Raju Shukla, Founder and Chairman of CleanEdge Resources, highlighted the company's mission to drive sustainable energy innovation: "CleanEdge is excited to play a pivotal role in developing the BioLNG market in Asia, furthering its mission to produce biofuels sustainably."

"Our commitment to deploying advanced technologies and leveraging engineering expertise underpins our dedication to transforming waste into energy. CleanEdge is proud to partner with the Keppel Group and BBGI Group in achieving this impactful goal."

BBGI's CEO, Kittiphong Limsuwanroj, spoke on the project's alignment with Thailand's Net Zero ambitions. "We are delighted to announce BBGI's commitment, in collaboration with our esteemed partners from Singapore, to study and develop a BioLNG production project that will become a new flagship of renewable energy initiative for Thailand and the region. This project aligns perfectly with BBGI's vision of fostering sustainable green innovations," he said.

Thailand is actively pursuing its Net Zero goals through various initiatives. The government has launched a six-point strategy to achieve carbon neutrality by 2050 and Net Zero emissions by 2065, focusing on renewable energy expansion, energy efficiency and sustainable transport.

The country is also exploring small modular nuclear reactor technology to diversify its energy mix and reduce reliance on fossil fuels. This includes collaborations with international partners, such as the Thailand-Germany Climate Programme, which aim to support the transition to a low-carbon economy.

In the broader Southeast Asian context, countries like Indonesia, Malaysia, Myanmar and Vietnam are exploring bioenergy opportunities. The International Renewable Energy Agency (IRENA) reports that the region has the potential to produce at least 7.1 exajoules of bioenergy annually by 2050.

Source: <https://www.gasworld.com/story/trio-unites-to-develop-thailands-biolng-industry/2147036.article/>

3.4 United Kingdom

REFUELS OPENS BIO-CNG REFUELLING STATION IN ONE OF THE UK'S KEY LOGISTICS HUBS

23rd December 2024.



ReFuels N.V., one of Europe's leading suppliers of renewable biomethane (Bio-CNG) for the decarbonisation of heavy goods vehicles (HGVs), has opened a new refuelling station at Doncaster in South Yorkshire under the CNG Fuels brand.

Doncaster is a key logistics hub, strategically located with 90% of the UK population and four major ports within a 4-5-hour reach. The station will enable truck fleets to cut CO₂ emissions by 80-90% with 100% renewable and sustainable biomethane. The public access Bio-CNG station is close to both Immingham Docks, the UK's largest port by tonnage, and iPort, one of the country's most advanced multimodal logistics hubs.

The new station can refuel 10 trucks simultaneously. The total dispensing capacity is 19 million kilograms (kg) of Bio-CNG annually.

"This marks ReFuels' 15th public access refuelling station in operation in the UK. We now can refuel more than 10,000 heavy goods vehicles daily with 100% renewable and sustainable biomethane. Our Doncaster station will be a key refuelling point for fleets operating between major national ports and distribution centres, using 100% renewable and sustainable biomethane to reduce their carbon footprint and fuel cost compared to diesel," said Philip Fjeld, CEO and co-founder of ReFuels.

CNG Fuels' current UK network of 15 stations in operation has an annual dispensing capacity of more than 310 million kg of biomethane, enabling potential savings of more than 850,000 tonnes of CO₂ emissions per year, compared to diesel. The year-end 2026 target of 30-40 stations in build and operation equals a total capacity of up to 23,000 HGVs per day and more than 650 million kg of biomethane annually.

The Doncaster station is owned by a joint venture (JV) with Foresight Group. ReFuels has one more station under construction in Livingston, Scotland, which will enable low-emission transport between Edinburgh and Glasgow.

Source: <https://www.multimodal.org.uk/article/refuels-opens-bio-cng-refuelling-station-in-one-of-the-uks-key-logistics-hubs>

4.0 Hydrogen – Zero Carbon Fuel

4.1 Korea

4.1.1 Hydrogen fuel demand in Korea's mobility sector soars 64% in 2024

27th December 2024. Yonhap



A hydrogen charging station [INCHEON GOVERNMENT]

Korea's demand for hydrogen fuel in the mobility sector jumped 64 percent in 2024 from a year earlier, driven by the increasing number of hydrogen buses in the country, data showed Friday.

The country's hydrogen fuel demand in the mobility sector reached 9,499 tons this year, compared to 5,791 tons recorded a year earlier, according to data compiled by the Ministry of Trade, Industry and Energy.

In July, the government announced that the number of hydrogen fuel cell buses registered in the country had reached 1,000 units, a significant increase from 650 recorded in the previous year.

The government plans to raise the figure to 20,000 by 2030.

"Korea will continue to closely monitor the supply of hydrogen to ensure the stable operation of hydrogen buses and prevent any inconvenience for hydrogen car drivers," Lee Ho-hyeon, a senior ministry official, said.

Source: <https://koreajoongangdaily.joins.com/news/2024-12-27/business/industry/Hydrogen-fuel-demand-in-Koreas-mobility-sector-soars-64-in-2024/2210218>

4.1.2 Man seriously injured after faulty Hyundai hydrogen bus explodes at refuelling station in South Korea

23rd December 2024. By Leigh Collins. Editor, Hydrogen Insight

There was an explosion in the rear of the Elec City vehicle when the driver started the motor after refuelling, according to local reports



The aftermath of the bus explosion on the morning of 23 December. Photo: Chungcheongbuk-do Fire Department

Three people were injured — one seriously — after a Hyundai hydrogen bus exploded at a refuelling station in the city of Chungju, central South Korea, at about 11.15am this morning.

According to local reports, an “F” warning light on the bus’s dashboard had been coming on since last weekend, which indicated a problem with the fuel-cell stack, and Hyundai told the bus operator to take it to a nearby service centre for inspection.

However, the bus needed charging ahead of its journey, so the driver and mechanic drove to a local hydrogen refuelling station in the Mokhaeng-dong part of the city.

About ten seconds after the refuelling was completed, the driver switched on the motor, and an explosion occurred at the rear of the bus, where the fuel cell is situated, sending debris flying into the face of a 34-year-old refuelling station employee, causing serious injuries with a 10cm tear above his eye, according to daily newspaper Hankyoreh.

The driver and mechanic also suffered abrasions to their faces, the newspaper reported.

As a precaution, Chungju city has suspended services on all its hydrogen buses until the cause of the accident has been identified.

Hyundai, the Korea Gas Safety Corporation, the Korea Transportation Safety Authority and the Ministry of Trade, Industry and Energy are all reported investigating the exact cause of the accident.

Source: https://www.hydrogeninsight.com/transport/man-seriously-injured-after-faulty-hyundai-hydrogen-bus-explodes-at-refuelling-station-in-south-korea/2-1-1757947?utm_campaign=2024-12-24&utm_content=hydrogen&utm_medium=email&utm_source=email_campaign&utm_term=recharge

4.2 Vietnam

Pure Hydrogen to supply clean buses in Vietnam

30th October 2024. Key Developments, Vietnam



Australia-based Pure Hydrogen Corporation Limited (Pure Hydrogen) has signed three agreements for supply of clean buses in Vietnam.

The agreements comprise sale of three hydrogen fuel cell minibuses, two hydrogen fuel cell coaches, two electric buses, hydrogen equipment and charging infrastructure for electric vehicles. The vehicles will be delivered to Vietnam ASEAN Hydrogen Club (VAHC) and another entity, the details of which have not been disclosed.

HDrive International, a subsidiary of Pure Hydrogen, will deliver two additional electric buses and allied charging equipment to VAHC in 2025.

In July 2024, Pure Hydrogen had signed a memorandum of understanding (MoU) with VAHC to supply up to five hydrogen buses and allied infrastructure for a trial in Ho Chi Minh City. This initiative marked the first trial of hydrogen-based vehicles in Vietnam.

Source: <https://southeastasiainfra.com/pure-hydrogen-to-supply-clean-buses-in-vietnam/>

4.3 Malaysia

The Government of Malaysia aims for 2 million tonnes of hydrogen production by 2030

2nd December 2024. Key Developments, Malaysia

The Government of Malaysia has announced plans to produce 2 million tonnes of hydrogen annually by 2030, with the goal of scaling up to 16 million tonnes by 2050 under the Emission Driven Scenario (EDS). This initiative, part of the Hydrogen Economy and Technology Roadmap (HETR), is expected to generate significant revenue, with projections reaching RM905 billion by 2050. The global green hydrogen market is set to grow to USD189.19 billion by 2050, and Malaysia aims to capture 2 per cent of this market.

To achieve this, Malaysia will phase out grey hydrogen and focus on green hydrogen, with blue hydrogen serving as a transitional fuel. It is also exploring subsidies for hydrogen-related projects and aims to support demonstration projects in transportation, power generation, and industrial processes to accelerate hydrogen adoption.

Source: <https://southeastasiainfra.com/the-government-of-malaysia-aims-for-2-million-tonnes-of-hydrogen-production-by-2030/>

5.0 Electricity – Electric Vehicles (EVs)

5.1 Indonesia

V-Green to build 100,000 EV charging stations in Indonesia

17th December 2024. Indonesia, Key Developments



V-Green has signed a letter of intent with Prime Group to develop 100,000 electric vehicle (EV) charging stations in Indonesia over the next three years. The partnership, which involves an investment of up to USD1.2 billion, aims to enhance the EV infrastructure in Indonesia, with the rollout set to begin in 2025. Initial efforts will focus on major cities like Jakarta, Surabaya, and Bali, with plans for expansion to other regions in subsequent phases.

Meanwhile, the specific types of charging stations are yet to be disclosed, the project will likely prioritise AC charging points, though DC charging stations are not ruled out. The collaboration with Prime Group, a conglomerate with international reach, is expected to secure the necessary financing for large-scale expansion.

V-Green, which operates independently from VinFast’s charging department, intends to create a comprehensive charging network that will serve all EV brands, not just VinFast. The partnership aims to strengthen V-Green’s global EV charging network, starting in Indonesia and potentially expanding to other regions like the Middle East, Europe, and the U.S.

Source: <https://southeastasiainfra.com/v-green-to-build-100000-ev-charging-stations-in-indonesia-2/>

5.2 Malaysia

Plans announced to double EV charging stations in Malaysia to 4,000 by 2025

30th October 2024. Key Developments. Malaysia



The Government of Malaysia has announced plans to double its electric vehicle (EV) charging stations to 4,000 by 2025, supporting its goal to use EVs as official vehicles during its ASEAN chairmanship. This expansion aligns with the country’s ambition to reduce carbon emissions by enhancing

EV accessibility and promoting sustainable transportation.

With a target to reach 40 per cent renewable energy (RE) in its national energy mix by 2030, up from the current 20 per cent, the government is working closely with the private sector. Additionally, the government is also supporting partnerships are key to achieving Malaysia’s climate goals and enhancing energy security.

Source: <https://southeastasiainfra.com/plans-announced-to-double-ev-charging-stations-in-malaysia-to-4000-by-2025/>

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