



ANGVA2U Info 19/2021. 23rd December 2021 (for ANGVA members only)

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1.0 Selected News / Articles

1.1 India

Japanese Group Invests \$120MN in AG&P City Gas

20th December 2021. By: Shardul Sharma

AG&P City Gas, a unit of Singapore-based AG&P, has received a \$120mn investment from Osaka Gas and Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development (JOIN), AG&P said on December 20.

AG&P City Gas is developing 12 city gas distribution networks in India under the brand name AG&P Pratham. The new equity financing will be used to continue to execute AG&P City Gas’s build-out of its exclusive concessions in South India and Rajasthan, the company said. In its 12 concessions, AG&P City Gas is responsible for developing and operating compressed natural gas (CNG) stations for vehicles, piped natural gas to homes, and the distribution of LNG to industrial and commercial customers. City gas projects benefit from marketing exclusivity in their designated areas for eight to ten years and construction exclusivity of related infrastructure for 25 years.

“We strongly believe that our investment in AG&P City Gas will provide Osaka Gas with a valuable asset. We look forward to developing it into one of our core businesses in Asia,” said Katz Sato, senior general manager, Asia energy business department for Osaka Gas. “With exclusive rights for a vast swath of southern India, roughly equivalent to three-quarters of the area of Japan, these 12 concessions are expected to generate over time a demand of 3.5bn m³ in gas sales volume, or approximately 50% of Osaka Gas’ recorded gas sales volume last year on a non-consolidated basis.”

JOIN, a Japanese government-private sponsored infrastructure investment fund company, received approval from the minister of land, infrastructure, transport and tourism of Japan to invest in AG&P City Gas to support Osaka Gas’s ongoing collaboration with AG&P in expanding its overseas businesses. “The partnership with AG&P and Osaka Gas is also very important because it will help Japanese companies develop a strong cargo transport business using CNG vehicles in India, which will contribute to Japan’s priority policy of carbon neutrality and protect the health and lives of thousands of Indians,” said Toshiyuki Suzuki, managing executive officer and head of the project department for JOIN.

This is the second investment that AG&P City Gas has received in four months. In August, AG&P City Gas received \$200mn from US-based I Squared Capital. Combined with the investment from the Osaka Gas and JOIN consortium, the total equity infusion available for AG&P City Gas is over \$300mn, AG&P said.

Source: <https://www.naturalgasworld.com/japanese-consortium-invests-120mn-in-agandp-city-gas-94967>

1.2 Egypt

Egypt's MSMEDA signs EGP 200 mln contracts to convert vehicles to run on natural gas

13th December 2021.



Egypt's Micro, Small, and Medium-sized Enterprises Development Agency (MSMEDA) and the petroleum ministry signed on Monday two contracts totalling EGP 200 million to finance the presidential scheme to convert old vehicles to operate on natural gas.

The conversion, financed by the MSMEDA, a government body overseen by the prime minister, will be carried out through state-owned Car Gas and Gastec companies, a statement by the petroleum ministry said following the signing ceremony.

The event was attended by Petroleum Minister Tarek El-Molla and Trade and Industry Minister Nevine Gamea, who is also the MSMEDA CEO.

The new contracts are part of a EGP 1.2 billion Go Green initiative to convert 150,000 private vehicles to run on natural gas instead of, or along with, gasoline within three years, Gamea said.

Under the Go Green initiative, launched in January, around 50,000 to 70,000 cars will be converted each year, with an annual cost ranging EGP 400-600 million.

Egypt, with over 1.3 million cars on the street for over 20 years, adopted the Go Green programme to preserve the environment and make use of the country's plentiful natural gas production, resulting from recent oil discoveries.

The MSMEDA previously provided financing of up to EGP 452 million to convert more than 72,000 vehicles to run on natural gas, Gamea said following the signing.

The step will help reduce fuel imports, decrease pollution from harmful emissions, and increase job opportunities in the transportation field, she added.

Egypt has recently doubled the number of natural gas fuelling stations to 375 nationwide, with plans to set up a grid of 1,000 gas stations across the country to support the presidential initiative.

The country is also aiming to scrap and replace up to 250,000 rickety cars, including minibuses and taxis, with new ones that operate on bi-fuel systems.

Source: <https://english.ahram.org.eg/News/446357.aspx>

1.3 Pakistan

APCNGA starts countrywide protest terming CNG closure illegal

22nd December. Staff Reporter. BOLLS News



Cng Stations gas supply closed Photo: File

KARACHI: The All Pakistan CNG Association (APCNGA) on Wednesday has started a nationwide protest against the illegal gas supply cut off to CNG sector, a statement said.

A protest and sit-in was held outside the office of Sui Southern by the APCNGA and Sindh CNG Association on Wednesday, after which the protest will be extended to Punjab, it added.

APCNGA group leader, Ghiyas Abdullah Paracha said that some elements are giving wrong information to the Federal Cabinet resulting in erroneous decisions, putting hundreds of thousands of jobs and investments worth billions at stake.

He said that the Prime Minister Imran Khan should take notice of the situation and intervene to provide relief to the masses and investors.

Paracha said that the decision to discontinue gas supply to CNG stations was illegal in which the priority list of various gas consuming sectors was ignored.

According to the National Gas Policy, the CNG sector has been placed at the fourth position while the LNG sector has been placed at the second position in the LNG policy, he added.

The CNG is ranked second in the LNG policy because it pays the highest price for gas and also pays the highest taxes but now the Cabinet is taking decisions against the gas distribution scheme, Paracha said.

The sector which pays the most for gas has been shut down while the sectors which pay less are being given priority, noting that at the moment, expensive gas is being bought and sold cheaply to the favourite sectors, which is surprising because it is causing huge financial loss to the government.

Source: <https://www.bolnews.com/business/2021/12/apcnga-starts-countrywide-protest-termining-cng-closure-illegal/>

1.4 India

Rs 80,000 cr investment as 430 bids pour in for city gas licensing round

18th November 2021. Written By PTI

Bids for the 65 GAs offered in the 11th city gas licensing round came in on December 15, Petroleum and Natural Gas Regulatory Board (PNGRB) said in a statement.



The 65 GAs spread over 215 districts in 19 states and one Union territory covering 26 per cent of India's population and 33 per cent of its area. (Representational image)

As much as Rs 80,000 crore investment is envisaged in setting up city gas infrastructure in 61 geographical areas (GAs), including Jammu, Nagpur, Pathankot and Madurai, that were put on bid in the latest licensing round, oil regulator PNGRB said. Bids for the 65 GAs offered in the 11th city gas licensing round came in on December 15, Petroleum and Natural Gas Regulatory Board (PNGRB) said in a statement.

The 65 GAs spread over 215 districts in 19 states and one Union territory covering 26 per cent of India's population and 33 per cent of its area. "This round attracted an overwhelming response from investors with more than 430 bids against 61 GAs with no single bid in these GAs. The technical bids would be opened between December 17 to 22," PNGRB said.

“This initiative would help in creating a robust CGD infrastructure and play a significant role in transforming to a gas-based economy. This would bring investment of more than Rs 80,000 crore and generate employment.”

Presently, there are 228 geographical areas authorised by PNGRB in 27 states and UTs covering approximately 53 per cent of the country’s geographical area and 70 per cent of its population.

In the last city gas distribution (CGD) bidding round – the 10th CGD bidding round, 50 GAs were authorised for the development of CGD network.

In the present round, 215 districts clubbed into 65 GAs are being offered. Bids were received for 61 GAs, according to PNGRB. During 2018 and 2019, PNGRB gave out licences to retail CNG to automobiles and piped cooking gas to household kitchens in 136 GAs. This extended coverage of the city gas network to 406 districts and around 70 per cent of the country’s population.

The push for city gas expansion is part of the government’s plan for raising the share of natural gas in the country’s energy basket to 15 per cent by 2030 from the current 6.3 per cent. The 65 GAs to be bid out in the 11th CGD bidding round include Jammu, Udhampur, Samba and Kathua districts in the Union Territory of Jammu and Kashmir. Nagpur in Maharashtra, Madurai in Tamil Nadu and Rajasthan’s Bikaner and Churu districts are among the areas being offered for bidding.

Nizamabad in Telangana, the Nilgiris in Tamil Nadu, East Medinipur in West Bengal and Pauri Garhwal in Uttarakhand are also on the list. Kurnool, Guntur and Prakasam districts in Andhra Pradesh, Assam’s Kokrajhar and Dhubri districts, Darbhanga and Madhubani in Bihar and Chhattisgarh’s Rajnandgaon and Kanker districts will be offered.

In Himachal Pradesh, Mandi, Kullu, Kinnaur and Lahaul & Spiti districts have been clubbed into one GA for the bidding and Kangra and Chamba into another.

Karnataka’s Chikkaballapur, Kerala’s Idukki and Kottayam, Madhya Pradesh’s Hoshangabad, Sagar and Vidisha districts, Jalgaon and Amravati in Maharashtra, Koraput in Odisha, Pathankot and Tarn Taran in Punjab and Tiruvannamalai in Tamil Nadu are other areas being offered for bidding. While 86 GAs, made up of 174 districts, were offered for bidding in the 9th round that concluded in August 2018, 50 GAs, comprising 124 districts, were offered in the 10th round in 2019.

[Source: https://www.financialexpress.com/industry/rs-80000-cr-investment-as-430-bids-pour-in-for-city-gas-licensing-round/2383017/](https://www.financialexpress.com/industry/rs-80000-cr-investment-as-430-bids-pour-in-for-city-gas-licensing-round/2383017/)

1.5 Germany

Shell Looks To Biomethane LNG For Heavy Vehicles And Maritime Transport

18th December 2021. By Rachel Graham (Bloomberg)



Hazira LNG (liquefied natural gas), India. Photo Courtesy Shell

Trucks in Germany could soon be running on fuel that's made partly from manure at one of Europe's biggest oil refineries.

Royal Dutch Shell Plc is aiming to produce liquefied natural gas with a bio-component for use in heavy vehicles within about two years. Trucks using the fuel can travel for 1,500 kilometers without refilling, according to Shell, which will make the new product at Rheinland, the biggest oil-processing complex in Germany.

Shell's move is among initiatives aimed at cutting carbon emissions at the Rheinland site, which includes the Godorf plant where the "carbon-neutral" LNG will be made. Its sister facility, Wesseling, was the first European refinery to start production of green hydrogen last year, albeit on a small scale. Shell plans to stop processing crude at Wesseling by 2025.

"LNG has one of the most energy-intensive processes across the oil and gas sector," said Seyhan Turan, director of Altass Consulting, whose clients include the European Commission and the Department of Business, Energy and Industrial Strategy. "Biomethane LNG is perfect for heavy-duty vehicles and maritime transport."

Biomethane can be made from food waste or other organic matter. Shell said it will use manure that would otherwise release methane if left to rot in the farmyard.

Shell's idea is to mix it with fuel made from natural gas, resulting in a carbon-neutral product. The company is now looking at either buying or building biomethane plants, it said. Chevron Corp. announced plans to build similar plants with a partner earlier this year.

The process of making biomethane will also usually yield carbon which could be sold to industrial clients, according to Turan. Shell didn't reply to an email asking whether that's the case.

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Source: <https://gcaptain.com/shell-biomethane-lng-heavy-vehicles-maritime-transport/>

1.6 Europe

Dutch project for producing bio-LNG awarded \$4.8M in funding

13th December 2021. By Sanja Pekic

Bio-LNG bunkering project FirstBio2Shipping, developed by Attero in Wilp, will receive €4.3M million (\$4.8 million) funding from the EU.



Illustration of the FirstBio2Shipping project

The FirstBio2Shipping project is to help decarbonise maritime transport through scalable and decentralized production of bio-LNG. For this, EU granted this funding to the project partners Titan, Attero, and Nordsol.

The project is set for completion in 2023. It is to achieve a decentralised production of bio-LNG designated for use in the maritime industry. The plant is located at the Attero facility in

Wilp, the Netherlands. It will produce around 2,400 tonnes per year of bio-LNG (or liquefied biomethane).

This funding signifies the EU's recognition of the vital role that bio LNG will play in the **energy transition**. As one of the first projects to receive funding from the Fit for 55 package, the FirstBio2Shipping has also been recognised as practical. This is because it will supply existing LNG fuelling infrastructure.

Bio-LNG originates from organic waste flows, particularly domestic and agricultural waste that is available in abundance. The project will produce six million normal cubic metres a year of biogas. It will also produce 2,400 tonnes a year of biomethane, and 5,000 tonnes a year of bio-CO₂.

The biogas is upgraded and liquefied into bio-LNG by Nordsol's iLNG technology. This technology resolves various challenges in the production of small-scale LNG, including:

- producing high-quality bio LNG (not containing contaminants);
- zero methane 'slip' (not releasing unburned methane).

Also, it requires no high-temperature in gas treatment technologies, resulting in a lower total cost of ownership.

Attero and Nordsol will produce 2,400 tonnes per year of high-purity bio-LNG and 5,000 tonnes per year of liquid bio-CO₂. Titan, the exclusive long-term off-taker, will supply the bio-LNG to the maritime industry where it will cost-effectively substitute fossil fuels.

In addition, with the introduction of this first bio LNG plant for shipping, LNG-fuelled vessels can take a significant step towards meeting EU and IMO regulations.

Shipping's pathway to decarbonization via LNG, and in the longer-term green hydrogen-derived E-LNG is well underway, the companies said in conclusion.

Source: https://www.offshore-energy.biz/dutch-project-for-producing-bio-lng-awarded-4-8m-in-funding/?utm_source=lngworldnews&utm_medium=email&utm_campaign=newsletter_2021-12-14

1.7 China

Zhejiang to build about 50 hydrogen refueling stations by 2025

24th November 2021. Monica From Gasgool



Geely's fuel cell buses

Shanghai (Gasgoo)- East China's Zhejiang province is ambitious to deploy around 5,000 fuel cell vehicles (FCVs) in such fields as bus transportation, ports, and inter-city logistics service, and build about 50 hydrogen-refueling stations by 2025, according to a document Zhejiang's authorities issued earlier this month.

To be specific, over 2,500 FCVs and 20 hydrogen filling stations are set to be deployed in Jiaxing city by 2025. The rest of the targets should be fulfilled by Ningbo, Shaoxing, Jinhua, Zhoushan cities, as well as Jiashan and Changxing counties.

Besides, Zhejiang's governmental agencies will draw up regulations on the construction and operation of hydrogen filling stations, and award subsidies to relevant investors and operators based on the actual building and operation status.

As for the capability of hydrogen supply, local enterprises will be encouraged to produce FCV-used hydrogen using industrial byproduct hydrogen and industrial organic wastes, and work on reducing hydrogen making costs. The government will also support them in carrying out the pilot projects for using renewable energy sources, like wind power and photovoltaics, to produce hydrogen.

Through the combination of industrial deployment and application scenarios, Zhejiang province plans to build two “hydrogen corridors”. The one will connect the key node cities along the G92 Hangzhou Bay Ring Expressway, including Jiaxing, Hangzhou, Shaoxing, and Ningbo. The other one will utilize the G1512 Yongjin Expressway to link Jinhua and Ningbo with Zhoushan.

Source:

https://autonews.gasgoo.com/new_energy/70019196.html?utm_source=edma&utm_medium=email&utm_content=endingyue&utm_campaign=service&systemPlat=EDM_EN&userId=leegs@angva.org&From=2021-11-25

1.8 India

Various hydrogen-powered vehicles developed under projects supported by Govt: Nitin Gadkari

21st December 2021. By PSU CONNECT

18% blend of Hydrogen with CNG (HCNG) has been notified by this Ministry vide GSR 585(E) dated 25th September 2020.



Union Minister for Road Transport and Highways Shri Nitin Gadkari

Union Minister for Road Transport and Highways, Shri Nitin Gadkari in its written reply in the Rajya Sabha said to promote vehicles operating on hydrogen fuel, this Ministry has issued a notification, vide G.S.R. 889(E), dated 16.09.2016, for use of Hydrogen as an automotive fuel in the country. The specifications for Hydrogen for Internal Combustion Engine have been specified in Annexure IV-W of the said notification.

18% blend of Hydrogen with CNG (HCNG) has been notified by this Ministry vide GSR 585(E) dated 25th September 2020. This Ministry vide GSR 579(E) dated 23rd September 2020 has notified safety norms regarding hydrogen fuel cell vehicles and its components.

Various hydrogen powered vehicles have been developed and demonstrated under projects supported by Government of India. These include 6 Fuel Cell buses (by Tata Motors Ltd.), 50 hydrogen enriched CNG (H-CNG) buses in Delhi (by Indian Oil Corporation Ltd. in collaboration with Govt. of NCT of Delhi), 2 hydrogen fuelled Internal Combustion Engine buses (by IIT Delhi in collaboration with Mahindra & Mahindra), fifteen hydrogen-fuelled 3wheelers (by IIT Delhi in collaboration with Mahindra & Mahindra), 2 Hydrogen-Diesel dual fuel cars (by Mahindra & Mahindra) and one fuel cell car (by CSIR-National Chemical

Laboratory, CSIR-Central Electrochemical Laboratory and CSIR-National Physical Laboratory). However, commercialization of hydrogen fuelled bus has not been undertaken in India so far.

Source: <https://www.psuconnect.in/news/Various-hydrogen-powered-vehicles-developed-under-projects-supported-by-Govt:-Nitin-Gadkari/30528/>

1.9 Azerbaijan

Azerbaijan to launch electric buses in Baku by late 2022

21st December 2021. By Samir Ali.



BAKU, Azerbaijan, Dec. 21

Electric buses will be launched in Baku by the end of 2022, Trend reports citing Azerbaijan's Baku Transport Agency (BTA).

According to the agency, over the past six years, 34 percent of the bus fleet has been replaced by environmentally friendly Euro 6 buses with a CNG engine.

"The goal is to bring this figure to 75 percent and commission electric buses by the end of next year. Compared to buses working on diesel, CNG buses emit 30 percent less carbon dioxide and 32 percent less nitrogen dioxide," the agency said.

"In 2019, the volume of emissions of pollutants from road vehicles decreased by 3 percent (32.5 tons), and per capita - by 5.8 percent (5.9 kg) compared to 2015," reminded BTA.

Source: <https://en.trend.az/azerbaijan/society/3530167.html>

1.10 Indonesia

Work commences on an USD129 billion green industrial zone in Indonesia

22nd December 2021.



Construction work has commenced on a USD129 billion green industrial estate in Borneo, Indonesia. This project will be financed by investments from the Government of China and the United Arab Emirates (UAE). Construction on the Green Indonesian Industrial Estate is scheduled to be completed by 2024.

Once completed, the 30,000-hectare industrial zone will be a production hub for solar panels, electric vehicle (EV) batteries, industrial silicon, among other. The estate will be powered by a 9,000 MW hydropower plant located in Indonesia, which is currently under construction. The USD17.8 billion facility is being built by Kayan Hydro Energy with funding from China-based Power Construction Corporation (PCR).

Till date, at least ten key Chinese investors have committed to investment in the zone.

Source: <https://southeastasiainfra.com/work-commences-on-an-usd129-billion-green-industrial-zone-in-indonesia/>

End