

ANGVA2U Info 21/2020. 12th November 2020 (for ANGVA members only)

ANGVA2U Info aims to share information, data, and news related to low and net zero carbon fuels with ANGVA members. However, these information, data, and news are collected and shared in good faith, without any guarantee of accuracies. Members are advised to use these information and data prudently and at their own risks.

+++++

1.0 Selected News / Articles

1.1 Egypt

Al-Sisi directs for expansion in natural gas vehicle conversion

3rd November 2020.



Al-Sisi's remarks came during a meeting with Prime Minister Mostafa Madbouly and Minister of Petroleum and Mineral Resources Tarek El Molla.

Egypt's President Abdel Fattah Al-Sisi directed, on Tuesday, for intensified efforts aimed at converting vehicles for natural gas operation.

The shift to natural gas will help achieve optimal economic benefit from Egypt's natural gas wealth, whilst also maximising the added value.

Al-Sisi's remarks came during a meeting with Prime Minister Mostafa Madbouly and Minister of Petroleum and Mineral Resources Tarek El Molla.

The President ordered for simplified measures to convert cars from petroleum to natural gas, granting payment facilities, whilst ensuring the merit of technical procedures used in the conversion operations.

During the meeting, Al-Sisi was briefed on the latest developments in the national project aimed at securing sustainable sources of energy. This will see the expansion in use of natural gas as a fuel for cars.

Converting cars to work with natural gas, as a cleaner fuel, will rationalise gasoline consumption, and effectively reduce harmful emissions and protect the environment by reducing air pollution.

The President also directed for a study to be undertaken in implementing programmes to replace old cars with new ones that work on natural gas. These programmes would expand on the process of converting cars to work with the clean fuel, achieving tangible economic savings for citizens, and providing them with the opportunity to own modern cars.

In the same context, President Al-Sisi directed for a speeding up of executive steps to establish new stations to supply vehicles that operate with natural gas all over the country. These would be installed according to the latest international technology, and would exploit current fuel stations, while ensuring the highest levels of safety and security.

Presidency Spokesperson Bassam Rady said that during the meeting, El Molla reviewed his ministry's efforts to develop Egypt's petrochemical industry to meet the needs of the local market. The improvements will help support many industrial sectors and export the surplus.

He noted the strategic importance of petrochemical products in keeping pace with the state's plans, and serving its development goals by providing new investment opportunities locally and internationally. These products will also help in maximising the investment opportunities available.

Source: <https://dailynewsegypt.com/2020/11/03/al-sisi-directs-for-expansion-in-natural-gas-vehicle-conversion/>

1.2 Iran

40,000 CNG Cabs for 4 Cities

31st October 2020.

Carmaker Iran Khodro and Iran Taxi Union have launched an initiative aimed at curbing the worrying air pollution in Iranian metropolises: Tehran, Mashhad, Hamedan and Isfahan, while reducing gasoline consumption



Major local carmaker Iran Khodro (IKCO), in collaboration with Iran Taxi Union, is replacing 40,000 dilapidated taxis with CNG-hybrid vehicles with Euro 4 and Euro 5 standards.

A joint initiative of Iran Taxi Union and IKCO, the scheme is aimed at curbing the worrying air pollution in Iranian metropolises: Tehran, Mashhad, Hamedan and Isfahan, while reducing gasoline consumption, IRNA reported.

Morteza Zameni, the head of ITU, said the scheme features two IKCO sedan models, namely Samand EF7 and Peugeot 405.

Zameni noted that the ultimate goal is to replace 10,000 old taxis by the current Iranian year end (March 2021).

“The sustainability of efforts strongly depends on vehicle prices, state loans and the automaker's output,” he said.

According to the head of ITU, 192,000 dilapidated vehicles are operating in the country's big cities.

Source: <https://financialtribune.com/articles/auto/105938/40000-cng-cabs-for-4-cities>

1.3 France

Shell opens its first LNG station in France

10th November October 2020. By PetrolPLaza Correspondent Pablo Plaza

The Mionnay location is the first of the 7 LNG filling stations that Shell is planning to build in France by 2023.

Shell continues to expand its European network of gas filling stations with the opening of its first LNG station in France, reports Gaz-Mobilité. The Mionnay location is the first of the 7

LNG filling stations that the company is planning to build on French soil by 2023 in the framework of the European Commission's CEF programme.

Mionnay LNG station has been built as an annex to an existing Shell location along the A46 motorway that connects Givors and Anse. The site covers an area of 4,000 m² and includes 2 pumps and 3 tracks. Open to all LNG vehicles on the market, it will be accessible via the Shell LNG card.

As part of the European Commission's CEF programme, Shell has committed to building at least 39 LNG stations in Europe by 2023 - including the 7 locations in France. The Anglo-Dutch company intends to go further and build over 100 LNG stations by 2026.

Shell's current European LNG filling station network comprises 20 sites, with 7 locations in The Netherlands, 6 in Belgium, 5 in Germany, 1 in Spain, and 1 in Turkey.

Source: <https://www.petroplaza.com/news/25947>

1.4 India

Adani, European major Snam tie up to explore shift to biogas, biomethane

6th November 2020. Shine Jacob.

The two firms will form JV for setting up a CNG compressor making unit in India.



As part of the strategic partnership, Adani Group and Snam intend to explore several opportunities in the energy space, where each Group brings complementary capabilities to the table.

Gautam Adani-led [Adani Group](#) announced on Friday that it has entered into a strategic collaboration with Italy-based Snam, Europe's leading gas infrastructure company, to explore the hydrogen value chain in India and global markets, as well as the development of biogas, biomethane, and low-carbon mobility.

The collaboration was part of the virtual summit between Indian Prime Minister, Narendra Modi and Italian Prime Minister, Giuseppe Conte held on Friday. Further, a non-binding agreement has been signed between Snam and Adani Gas [a joint venture company of [Adani Group](#) and Total of France (formerly known as Total SA)] to create a joint venture for setting up a CNG compressors manufacturing facility in India. This would help in promoting the development of refuelling infrastructure for sustainable mobility and fostering the use of natural gas, as envisioned by the Government of India.

[Adani Group](#) Chairman, Gautam Adani, said, "In line with India's target of 450 GW of [renewable energy](#) by 2030, the Adani Group has embarked on one of world's most ambitious carbon offset programs. Given the commitment of our Government to sustainability and the sheer scale of need, India will be one of the most attractive transition markets for low carbon electricity technologies. We intend to play an essential role in this energy mix transition."

As part of the strategic partnership, Adani Group and Snam intend to explore several opportunities in the energy space, where each Group brings complementary capabilities to the table. Both Adani Group and Snam have a strong interest in exploring the promise of green hydrogen. "Our recent ranking as the world's largest solar power company is a validation of

our intent and we will continue to diversify our energy portfolio. Therefore, our multi-pronged partnership with Snam has several strategic nuances. Given India's urban and rural differences, biogas and biomethane cannot be considered in isolation from the nation's broader energy system needs. The ability to simultaneously decentralize and decarbonise energy production and be able to provide clean energy and cooking fuel to rural India is a national need that we must fulfill and technologies that can help economically produce biogas and biomethane are optimal choices," Adani said

He added that the ability to leverage scale and technology to produce 100 per cent green hydrogen using renewable energy is the most economical and cleanest way to serve a concentrated set of end-users and industrial clusters. "In this context, the combination of Adani's ability to provide the largest national energy platform and Snam's broad technology expertise can be pivotal in helping India accelerate its sustainability journey," he said.

While Snam has been a strong proponent of hydrogen adoption in Europe, green hydrogen is a natural extension to the Adani Group's ambitious renewable portfolio. Snam chief executive officer Marco Alverà said, "India will have a key role in reaching the global climate goals, and Snam aims to contribute to this process with its know-how and its realisation capacity. The partnership with a significant group like Adani, undertaken at both an Indian and global level, goes in this direction: together we want to develop joint-projects in energy transition, from biomethane to hydrogen, in order to enable the decarbonization of India and other countries, and create new development opportunities".

Source: https://www.business-standard.com/article/companies/adani-european-major-snam-tie-up-to-explore-shift-to-biogas-biomethane-120110601882_1.html

1.5 France

Endesa to supply biogas from wastewater in NGV stations

9th November 2020. PetrolPlaza Correspondent Pablo Plaza

Endesa-Sigeif Mobilités' (bio)NGV stations in Région-Île-de-France will supply the green fuel sourced from wastewater and sludge starting in 2023.



© Endesa

Endesa will start supplying in 2023 biogas sourced from wastewater and sludge at its network of (bio)NGV stations located in Région-Île-de-France. The new green energy will arrive in Endesa-Sigeif Mobilités' stations following the signature of a supply contract agreement between the Spanish multi-energy company and SIAAP, the main wastewater treatment syndicate in the Paris region.

The supply contract awarded to Endesa includes the purchase of 40GWh/year of biomethane from 2023, and up to 220GWh/year from 2030. Endesa and Sigeif Mobilités will be able to supply 15,000 tonnes of BioGNV per year, equivalent to the annual consumption of 1,000 heavy-duty vehicles.

Endesa and Sigeif Mobilités jointly operate three (bio)NGV stations in Ile-de-France region, located in Bonneuil-sur-Marne, Wissous, and Saint-Denis. The sites are open 24 hours a day to all types of vehicles, including HGVs and coaches.

Endesa currently runs 8 public and 3 private NGV stations in France. The company's objective is to reach 40 (Bio)NGV stations in France by 2024.

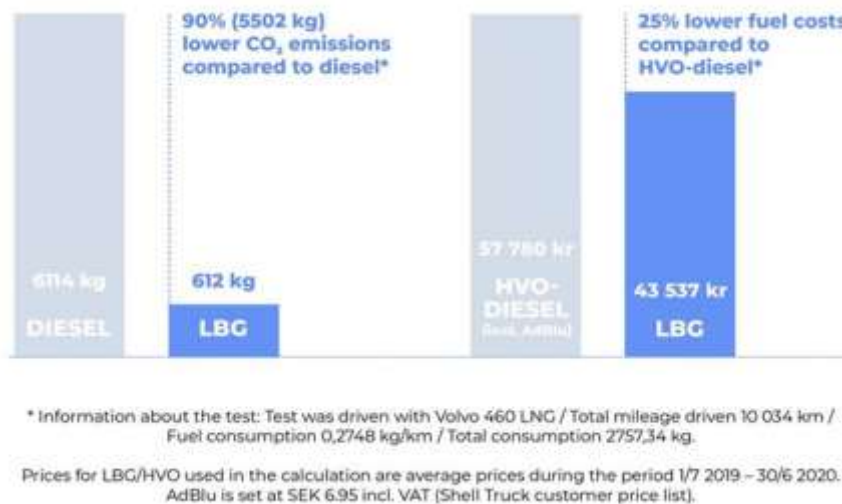
Sigeif Mobilités is a local semi-public company created by Sigeif, the Caisse des Dépôts and the Région-Île-de-France.

Source: <https://www.petroplaza.com/news/25941>

1.6 Sweden

Swedish LBG road trial shows 90 percent emissions reduction

9th November 2020. Bioenergy International.



In Sweden, the results of a one-month trial period during which Orkla's transport partner GDL switched to liquefied biogas (LBG) show that fossil carbon dioxide (CO₂) emission reductions of 90 percent as well as 25 percent lower fuel costs compared to renewable diesel (HVO) are possible (graphic courtesy Gasum).

In Sweden, a one-month trial period during which Orkla's transport partner GDL switched to liquefied biogas (LBG) has ended with very interesting results. Together with its partners Gasum and Volvo trucks, Orkla says that it has achieved fossil carbon dioxide (CO₂) emission reductions of 90 percent as well as 25 percent lower fuel costs compared to renewable diesel (HVO).

In June 2020, Orkla Foods Sweden, a subsidiary of Norway-headed Orkla ASA, a leading Nordic manufacturer and supplier of branded consumer goods, Nordic gas major Gasum Oy and global truck-maker Volvo Trucks partnered in an effort to lower road transport emissions.

For a one-month trial period, Orkla's transport partner GDL used liquefied biogas (LBG) to fuel transports between Orkla's warehouse in Helsingborg and its ketchup and sauce production facility in Fågelmara, Blekinge to learn more about the potential economical, operational, and environmental benefits of using as a transportation fuel.

The results are now in.

The test has shown that we can reduce carbon dioxide emissions by as much as 90 percent while having a very stable transport solution to operate. Something that really supports Orkla's goal of all domestic transport being completely fossil-free by 2025, said Daniel Kojic, Transport Manager, Orkla Foods Sweden.

The expanding station network in Sweden makes it easier for transport and logistics companies across the Nordics to begin using LBG. Gasum runs 13 of the total of 23 liquefied gas filling stations in Sweden.

Gasum's new filling station in Helsingborg made it possible to drive a gas-powered truck between Orkla's warehouse in Helsingborg to the Felix ketchup and dressing production facility in Fågelmara.

The trial period has provided us with a lot of data regarding the economics and sheer practical side of using a gas-powered truck, and the feedback from drivers has been very positive. Refueling has been quick and easy, just as fast as refueling with diesel, and there is less noise compared to diesel trucks. It's definitely our ambition to drive in an even more climate-smart way and with tests like this, it's obvious that gas has great potential, said Anders Wendelius, CEO, GDL.

Renewable transport fuels are the future

Renewable liquefied gas is becoming more and more popular as the transport industry works towards sustainable solutions. The ambitious goals of clients and the climate targets being set in the EU and at national levels are accelerating the transition to cleaner fuels.

Thanks to LBG, the CO2 emissions from the transports were reduced by as much as 90 percent.

It's very pleasing that Orkla confirms how easy and successful it is to drive and refuel gas-powered vehicles. Their test shows what we see ourselves – that transport with gas-powered heavy-duty vehicles is an important step in the transition to fossil-free transports. We can see very good development on the Swedish market, thanks to the operational economy, well-proven technology, and increasing access to liquefied gas, explained Stefan Strand, Managing Director, Volvo Trucks, Sweden.

According to Gasum, biogas is the circular economy at its best. Made from organic waste, biogas upgraded to biomethane (aka renewable natural gas – RNG) and then liquefied to LBG helps to reduce CO2 emissions by up to 90 percent compared to fossil diesel.

The results of this trial period prove that filling times are as fast as with diesel, there are notable cost savings and on top of that, the CO2 emission reductions are significant. It goes to show that renewable fuels are the future, and the future is already here. Incentive programs in Sweden like Klimatklivet, Klimatpremien, and DriveLBG are important since they ease the transition and encourage more people to take the step and invest in gas-powered vehicles already today, ended Mikael Antonsson, Director Traffic Sweden, Gasum.

[Source: https://bioenergyinternational.com/storage-logistics/swedish-lbg-road-trial-shows-90-percent-emissions-reduction](https://bioenergyinternational.com/storage-logistics/swedish-lbg-road-trial-shows-90-percent-emissions-reduction)

1.7 China

Hyundai to supply 3,000 hydrogen trucks to China

5th November 2020. By Hyung-Seok Seo skytree08@donga.com

Hyundai Motor Company will supply hydrogen-electric trucks to China, accelerating its hydrogen economy business expansion in the country.

The South Korean automaker announced on Wednesday that it signed memorandums of understanding (MoUs) to build a hydrogen economy ecosystem with businesses in the Jing-Jin-Ji metropolitan region where capital Beijing is located and the Yangtze Delta where Shanghai is located.

Hyundai Motor Company first signed MoUs with major energy and financial companies in the Yangtze Delta on October 27. The goal is to supply over 3,000 hydrogen-electric trucks of Hyundai Motor Company to the region by building hydrogen charging stations and hydrogen production facilities and launching financial services to support hydrogen-electric cars.

Later on Wednesday, the automaker signed MoUs with Antai Science and Technology and Hebei Steel Industrial Technology Service to build hydrogen charging stations, pilot hydrogen-electric trucks, and supply over 1,000 hydrogen-electric trucks by 2025 in the Jing-Jin-Ji metropolitan region.

Hyundai Motor Company supplied hydrogen trucks by lending them for fees to reduce the cost burden of logistics companies for initial purchases.

Source: <https://www.donga.com/en/article/all/20201105/2232227/1/Hyundai-to-supply-3-000-hydrogen-trucks-to-China>

1.8 China

Air Products to launch 30 tonnes per day liquid hydrogen plants in China in 2022

10th November 2020. Reporting by Muyu Xu and Shivani Singh, editing by Louise Heavens

BEIJING (Reuters) - New York-listed Air Products [APD.N](#), the world's largest hydrogen producer, is expected to launch a 30 tonnes per day liquid hydrogen production plant in eastern China in 2022.

The project, based in Haiyan county in Zhejiang province, would be the first large-sized commercial liquid hydrogen plant in China and the largest of its kind in Asia, told the company on Tuesday.

With total investment of \$1 billion, Air Products also plans to set up production lines for key hydrogen equipments at the Haiyan plant, which started construction in June.

China, the world's biggest greenhouse gas emitter, since 2015 listed hydrogen as one of the key technologies among the country's national manufacturing upgrade plan and recognised hydrogen as an energy source in a national law for the first time in early 2020.

According to data from China's Green Belt and Road Initiative Centre, a Beijing-based think tank, China produces more than 20 million tonnes of hydrogen annually, mostly coming from coal, and accounting for one third of the world's total production.

China is expected to accelerate development of its hydrogen industry following President Xi Jinping's vow to steer the country towards "carbon neutrality" by 2060.

Air Products also signed a Memorandum of Understanding (MoU) with China Jiutai Group, a chemical producer based in Inner Mongolia, to set up a joint venture to produce high-purity hydrogen and liquid hydrogen basing on Jiutai's existing coal-to-syngas facilities, according to a statement posted by Jiutai on Friday.

Source: <https://in.reuters.com/article/us-china-energy-hydrogen-air-products/air-products-to-launch-30-tonnes-per-day-liquid-hydrogen-plants-in-china-in-2022-idINKBN27Q12U>

1.9 United States of America

Linde to produce green hydrogen for mobility in California

6th November 2020. PetrolPlaza

Following recent upgrades to Linde's existing plant, the company will now supply green hydrogen to fuel up to 1,600 vehicles a day.



Linde will start producing green hydrogen at its plant in Ontario, California, supporting the growing needs of hydrogen mobility customers in the region. The company will be able to provide green hydrogen to fuel up to 1,600 vehicles a day, according to a company's press release.

© Linde

"Linde has been safely producing and distributing hydrogen in southern California for more than 50 years. By adding green hydrogen capabilities to our Ontario site, Linde will be helping to reduce carbon emissions in California," said Linde Vice President, West Region, Armando Botello.

Linde is a global leader in the production, processing, storage and distribution of hydrogen. The company has installed over 190 hydrogen fueling stations and 80 hydrogen electrolysis plants worldwide.

Source: <https://www.petrolplaza.com/news/25932>

2.0 ANGVA's Mission Statement

Following the launching of ANGVA Mission Statement on 28th October 2020, a little tweak was made resulting in the following final mission statement:

"Together we propagate and support the efficient utilization of low to net zero carbon fuels for cleaner air and better life in the Asia Pacific Region".

End