

ANGVA2U Info 13/2020 14th July 2020 (for ANGVA members only)

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1.0 Selected News / Articles

1.1 Egypt

Egypt's Industry Minister reveals full strategy to convert gasoline-powered cars to natural gas

13th July 2020. By Amr Mohamed Kandil



FILE – Filling up natural gas – Wikimedia Commons/Andreas Geick

CAIRO – 13 July 2020: While touring a housing project on Sunday aiming at giving accommodation to residents of unsafe slums, Egyptian President Abdel Fattah El Sisi was quoted as saying that “new cars will not be licensed until they are converted to natural gas.” The president’s remarks were then elaborated by the industry minister so that people know what group of vehicles are mainly targeted by the decision.

Sisi’s remarks mainly addressed car owners whose vehicles are 20 years old or even older. Those owners can sell their old cars to the government to be dismantled for spare parts as a deposit for a new car with no interest payments, in accordance with the President’s directives.

Through an inventory conducted in coordination with the Ministry of Interior, there are 1.8 million vehicles considered under the initiative, which is set to be implemented over the course of two to five years, at a cost of LE 320 billion (\$20 billion), A Cabinet’s statement quoted Minister of Industry Nevin Game’ as saying.

Over three years, there is a plan to convert 147,000 vehicles to natural gas instead of gasoline, in coordination with the Ministry of Petroleum, at a cost of LE 1.2 billion (\$75.15 million).

However, converting 240,000 microbus vehicles running on diesel was found to be hard, the minister said, adding that these vehicles will be replaced with gas-powered ones, through a finance program that extends over four years at a cost of LE 53 billion (\$3.3 billion).

The ministry also aims at building 366 natural gas stations nationwide to fuel the gas-powered vehicles.

New cars?

New cars are also targeted in the plan. According to the statement, the minister said a new initiative will be launched to “encourage” car owners to convert their cars to run with bi-fuel system (gasoline and natural gas) in case they are qualified to work with gas.

However, this initiative will require that these cars are locally manufactured, at least to some extent prescribed by the Industry Ministry.

Concerning cars that were manufactured less than 20 years ago and whose engine efficiency has not decreased by more than 25 percent over time, Game’ added in a separate interview.

Benefits and risks

In an interview with 90 Minutes program on Al-Mihwar channel, Game' said fueling cars with natural gas will reduce the cost to half for car owners. She also denied reports that converting cars to operate on gas harm their engines.

Earlier, former Petroleum Minister Osama Kamal said the conversion process will help the state save hard currency, reduce pollution and save other fuel sources for petrochemicals industry.

However, Dhruv Narayan Kaushik, an Indian B-tech Automobile Engineering graduate, argues that using Compressed Natural Gas (CNG) in cars is a "double-edged sword."

Kaushik said that CNG has better fuel consumption, as its gaseous nature efficiently mixes with air, and therefore better thermal efficiency can be achieved. He added that the better combustion of natural gas leads to unburned hydrocarbons in the exhaust.

However, he said that the better thermal efficiency of natural gas means higher temperature after combustion, causing the formation of Nitrogen Oxises (NOx), which pollutes environment.

Kaushik said that higher temperature can also reduce the life span of the parts in the cylinder block. Unlike Petrol and Diesel, natural gas does not have a lubrication effect inside the combustion chamber aiding in the piston movement, he added.

However, some people argue that modern engines have hardened valve seats so they don't suffer side effects of using CNG.

Source:<https://www.egypttoday.com/Article/3/89615/Egypt%E2%80%99s-Industry-Minister-reveals-full-strategy-to-convert-gasoline-powered>

1.2 Vietnam

HCM Ciy takes steps to reduce vehicle emissions

13th July 2020. VNA.

Ho Chi Minh City is carrying out multiple methods and programmes to reduce air pollution and CO2 emissions in its aim to create a "clean, green and beautiful" city.



*Vehicles move on Mai Chi Tho street in HCM City
(Photo: VNA)*

HCM City (VNA) – Ho Chi Minh City is carrying out multiple methods and programmes to reduce air pollution and CO2 emissions in its aim to create a "clean, green and beautiful" city.

Nguyen Thi Thanh My, deputy director of the city Department of Natural Resources and Environment, said that environmental programmes implemented since 2016 aim to reduce 70 percent of the total volume of emissions by transport.

The department has called on the public to use public transport instead of individual vehicles and to use E5 bio-fuel, a mix of RON 92 (95 percent) and bio-fuel ethanol (5 percent), which has replaced RON 92 and co-exists with A95.

Bui Hoa An, deputy director of the city Department of Transport, said the department has worked with many transport enterprises to replace old polluting buses and put 1,680 new buses into use on 52 streets.

Of the new buses, 500 use compressed natural gas (CNG) that is more environmentally friendly. The number of buses with CNG accounts for 20 percent of the city's total buses of 2,595. They do not emit dust and smoke and save 30 percent to 40 percent of fuel.

The Department of Transport is continuing to build more transport infrastructure, including the metro line No 1, an underground tunnel at An Suong Intersection, and the Thu Thiem Bridge 2, as well as upgrades of Chu Y and Kenh Te bridges to reduce traffic congestion and emissions.

In May, the department worked with the Vietnam Automobile Manufacturers Association and the transport ministry's Institute of Transport Science and Technology to set up eight sites to test free of charge emissions from people's motorbikes.

An said that testing emissions was needed because many people did not keep their older motorbikes maintained, leading to double the volume of emissions compared to new motorbikes.

The Department of Natural Resources and Environment has installed two automatic air monitoring stations equipped with modern devices worth 495 billion VND (21 million USD) to replace the manual air monitoring systems, which took more time to analyse samples and did not update indexes and figures for the public.

The two stations are located at Saigon Hi-tech Park in the eastern part of the city and Binh Tan Educational Sup-department in the city's western area. These systems provides data for a five minute period, and are expected to help control [air pollution](#), said My of the Department of Natural Resources and Environment.

The department plans to install 16 more air monitoring stations at streets, residential areas and industrial parks by 2030. The data will be used to issue warnings and make proper plans to resolve problems related to air pollution.

Reports from environmental monitoring stations at Hang Xanh Interchange, Dien Bien Phu street, and An Suong intersection show that emissions have fallen by 80 percent of the targeted plan, including 40 percent for Co₂, nearly 30 percent for hydrocarbon, and nearly 90 percent for NO_x. However, total volume of emissions from vehicles is still high compared to figures in 2016.

An of the transport department said the department will continue increasing the number of buses with CNG and plan transport infrastructure toward lower carbon and greenhouse gas emissions.

According to the Ministry of Natural Resources and Environment, the city is one of the localities with largest greenhouse gas emissions in the country, with 38.5 million of tonnes of CO₂, accounting for nearly 16 percent of the country's total emissions. Of the number, emissions from vehicles account for 45 percent.

In June, HCM City had about 8.5 million vehicles, including 7.8 million motorbikes. The number of motorbikes is expected to increase to 9 million by the end of this year, releasing nearly 17 million tonnes of carbon, hydrocarbon and NO_x. The volume is expected to increase to more than 44 million tonnes by 2030 if the city does not implement solutions to reduce emissions.

According to the HCM City Respiratory Society, [vehicle emissions](#) contain substances that cause acute respiratory diseases and blood conditions, and are especially harmful to children and the elderly. NOx exists in the air for a long time, leading to acid rain, which damages plants and land.

Source: <https://en.vietnamplus.vn/hcm-city-takes-steps-to-reduce-vehicle-emissions/178450.vnp>

1.3 Iran

\$948 taxi fleet renovation plan on agenda

8th July 2020. www.tehrantimes.com.

TEHRAN – The administration has put a plan worth \$948 million on the agenda for renovating the old domestic taxi fleet, aimed at replacing 129,000 clunker cars with natural gas vehicles, hybrid, and electric cars.

There are currently around 318,000 taxis playing roads across the country, of which 192,000 should be renovated, IRNA reported on Tuesday.

The situation of clunker taxis in Iran is worrying, making a negative impact on the country's air quality, Morteza Zamani, director general of urban taxis union said last year.

There are currently 150,000 clunker taxis in the country, which will reach up to 240,000 by the next 2 years, constituting 75 percent of the country's total taxi fleet, he added.

Referring to the renovation scheme of 90,000 clunker taxis over the past three years, he noted that some 186,000 taxis were extremely old, aged 10 or more, and required to be replaced with newer ones.

Air pollution incurs a financial loss of about 140 million rials (nearly \$3,300) for each family in Iran annually, however, both high-priced vehicles and low-cost fuel are to blame for the air pollution severely haunting big cities of the country, said Behzad Ashjaei, secretary of the technical inspection committee of the Department of Environment.

According to the World Health Organization, seven million people die from air pollution every year, making it the greatest environmental threat to health today. Urban air pollution, in particular, is increasing by 8 percent every five years, and 95 percent of cities worldwide do not meet the World Health Organization's guidelines.

According to statistics, some 4,000 to 5,000 Tehrani citizens die each year from direct exposure to particulate matter (PM) emissions, and air pollution brings Iran a loss of over \$2.6 billion per year, or about \$2,000 a day.

The Municipality of Tehran has prepared a comprehensive plan to mitigate air pollution in the metropolis, based on which a total budget of 174 trillion rials (nearly \$4 billion) is required over the course of four years. The plan focuses on reducing particulate matter and the concentration of PM 2.5, so it reduces primary PM sources and secondary precursors like nitrogen oxides (NOx) and volatile organic compounds (VOCs).

It was envisaged that primary PM sources will be reduced by 55 percent and secondary precursors by 45 percent.

The plan claims that the main reasons behind air pollution intensification in the capital are lack of clean and cheap public transport, overcrowded transport fleet, poor quality vehicles, extremely old public transportation fleet, and poor urban development policies.

Source: <https://www.tehrantimes.com/news/449779/948m-taxi-fleet-renovation-plan-on-agenda>

1.4 India

GAIL plans to invest in compressed bio-gas start-ups

10th July 2020. India Infoline News Service.

The company has opened up fresh rounds for solicitation, which shall open till July 24, 2020.



Natural gas transmission company, GAIL (India) Limited announced that it is planning to invest in companies operating in the area of compressed bio-gas (CBG) through its start-up initiative, 'Pankh'.

The company has opened up fresh rounds for solicitation, which shall open till July 24, 2020. The start-ups that are interested in equity funding can apply on GAIL's official website, the company said in a release to the exchanges.

Given the vast biomass resources in the country, Government of India (GOI) is giving special emphasis on its utilization by encouraging the setting-up of CBG plants. Further, oil and gas companies are ready to give a commitment to the offtake of CBG by issuing a letter of intent (LOI).

GAIL began the initiative 'Pankh' in July 2017, to identify and promote innovative ventures in a bid to support Prime Minister Narendra Modi's objective to nurture the spirit of entrepreneurship.

In order to promote this initiative, the company has created a corpus of Rs50cr for investing in start-ups and would also provide mentoring to them in core areas of the company, i.e. natural gas and its derivatives. So far, the company has made investments in 24 start-ups operating in various areas through four solicitation rounds.

The stock of GAIL India Limited was trading at Rs102.65 at 2 pm on Friday, down by 2.70% or Rs2.85 per share on BSE.

Source: https://www.indiainfoline.com/article/news-top-story/gail-plans-to-invest-in-compressed-bio-gas-start-ups-120071000517_1.html

1.5 Canada

Cyropeak LNG completes largest truck LNG delivery to NWT

8th July 2020. By Adnan Bajic

Richmond, BC-based Cryopeak LNG Solutions has completed a milestone delivery of LNG in the Northwest Territories.



Courtesy of Cryopeak LNG

The company said in its statement it has completed the largest ever delivery of liquefied natural gas by truck in NWT, with the shipment being delivered to a power generation facility in Inuvik.

The facility is owned by Northwest Territories Power Corporation (NTPC), where natural gas is the primary fuel to support this northern community.

The delivery is in line with the continued focus of NTPC to make low carbon electricity available across NWT.

Cryopeak noted it has been delivering LNG to Inuvik for 3 years.

The shipment of LNG totaled approximately 18,000 gallons and was completed using Cryopeak's proprietary Super B-Train transportation trailer.

The Super B-Train is designed with up to 70 percent greater load capacity than standard trailers operating in Canada today.

Source: https://www.offshore-energy.biz/cryopeak-lng-completes-largest-truck-lng-delivery-to-nwt/?utm_source=lngworldnews&utm_medium=email&utm_campaign=newsletter_2020-07-09

1.6 Czech Republic

GasNet opens first mobile LNG station in Czech Republic

13th July 2020. By Adnan Bajic

GasNet, a Czech natural gas distributor, has put into operation the first public mobile self-serve unit for liquefied natural gas (LNG) on the Czech market.



Courtesy of GasNet

The facility is located in Klecany near Prague, in the direct proximity of Highway D8 at the Volvo Group truck center Prague North in Klecany.

“LNG technology has been tried and tested over more than 20 years. We estimate that the number of LNG-powered trucks in the Czech Republic will be increasing fast, at a similar rate as is the case with compressed natural gas (CNG). Likewise, we are confident that LNG will play a key role in meeting the Czech Republic's environmental

targets for the years 2025 and 2030 as regards reducing emissions,” says GasNet's chief financial officer **Thomas Merker**.

Demand for LNG as a fuel has been recently rising throughout Europe. As elsewhere, LNG-powered vehicles are currently the only proven, realistic option for meeting the EU's emission targets for truck transport in the Czech Republic.

Compared to diesel engines, LNG vehicles produce a significantly lower amount of emissions, generate less noise, and have lower operating costs over comparable traveling distances.

According to the National Clean Mobility Action Plan, there will be 6,900 LNG-powered trucks and 30 fueling stations in the Czech Republic by the year 2030.

Source: https://www.offshore-energy.biz/gasnet-opens-first-mobile-lng-station-in-czech-republic/?utm_source=lngworldnews&utm_medium=email&utm_campaign=newsletter_2020-07-14

1.7 Germany

Rolande enters German LNG-fueling market

10th July 2020. BY Adnan Bajic

The Dutch liquefied natural gas (LNG) fueling infrastructure specialist Rolande has entered the German market with its first facility in Ulm.



Courtesy of Rolande LNG

Rolande plans to expand the German network with new stations in Dortmund, Duisburg, Grasdorf, Lübeck and Ziesar. New facilities will be operational before the end of this year.

Rolande is planning further expansion of the network in Germany for 2021. Each of these filling stations is already equipped for later use of bio-LNG, the company said in its statement.

The Ulm facility features two LNG pumps and two CNG pumps. It has a daily capacity for up to 150 vehicles.

Rolande noted its network will further enhance the German LNG fueling infrastructure that currently counts 21 operating public filling stations.

The filling station in Ulm is part of the Connect2LNG project. European Commission is financing the project through its CEF program. The aim of the Connect2LNG project is the development of a European LNG fuelling network by commissioning five stations in Germany and France.

Additionally, Germany is subsidizing the use of LNG and CNG as fuel. Trucks that run on compressed or liquefied natural gas are exempted from the German road toll until December 31, 2023.

Moreover, the operators profit from state subsidies for purchases of new vehicles until the end of 2020.

Source: https://www.offshore-energy.biz/rolande-enters-german-lng-fueling-market/?utm_source=lngworldnews&utm_medium=email&utm_campaign=newsletter_2020-07-13

1.8 USA

California's largest capacity hydrogen station opens for business

7th July 2020. By Jonna Sampson



California's first hydrogen station with four fuelling positions has opened in Fountain Valley.

Developed by FirstElement Fuel, it is California's largest capacity station to date (1,200kg of hydrogen per day) and has a total of five nozzles – four H70 nozzles and one H35 nozzle.

The next largest station for passenger cars is the True Zero station in Oakland (800kg of hydrogen per day), which opened in late 2019.

With four fuelling positions, four cars will be able to fuel simultaneously, increasing the number of vehicles served in a shorter time.

This and future stations like it will help meet the needs of the growing fuel cell passenger car market in the Orange County area and across California.

The station offers 100% renewable hydrogen. California requires that at least 33% of hydrogen fuel come from renewable sources.

For stations that qualify for the Low Carbon Fuel Standard ZEV infrastructure credit, that amount increases to 40%.

The Fountain Valley True Zero station will be open 24 hours a day and is located at 18480 Brookhurst Street, Fountain Valley, CA 92708.

Source: <https://www.h2-view.com/story/californias-largest-capacity-hydrogen-station-opens-for-business/>

1.9 The Netherlands

Air Liquide and Port of Rotterdam to launch 1,000 hydrogen trucks and infrastructure by 2025

7th July 2020. By Joanna Sampson

Air Liquide yesterday unveiled plans for 1,000 hydrogen-powered zero emission trucks and 25 hydrogen stations on the roads connecting the Netherlands, Belgium and West Germany by 2025.

Part of a joint initiative with the Port of Rotterdam Authority, the project already has several partners representing the whole supply chain signed up.

It is one of the largest projects in Europe for the development of hydrogen trucks and related infrastructure and will contribute to improve air quality by reducing an estimated amount of more than 100,000 tonnes CO₂ emissions per year, which is equivalent to 110 million kilometres driven.

Read the full story on [H2 View](#), a content and information service dedicated to the development and acceleration of the hydrogen economy, launched by gasworld in July 2019.

Source: <https://www.gasworld.com/1000-hydrogen-trucks-and-infrastructure-by-2025-/2019470.article>

1.10 Saudi Arabia

NEOM join forces for green hydrogen venture

8th July 2020. By Sarah Smith, Digital Editorial Assistant. Energy Global.

Air Products, in conjunction with ACWA Power and NEOM, has announced the signing of an agreement for a US\$5 billion world-scale green hydrogen-based ammonia production facility powered by renewable energy. The project, which will be equally owned by the three partners, will be sited in NEOM, a new model for sustainable living located in the north-west corner of the Kingdom of Saudi Arabia, and will produce green ammonia for export to global markets.

The joint venture project is the first partnership for NEOM with leading international and national partners in the renewable energy field and it will be a cornerstone for its strategy to become a major player in the global hydrogen market. It is based on proven, world-class technology and will include the innovative integration of over 4 GW of renewable power from solar, wind and storage; production of 650 tpy of hydrogen by electrolysis using thyssenkrupp technology; production of nitrogen by air separation using Air Products technology; and production of 1.2 million tpy of green ammonia using Haldor Topsoe technology. The project is scheduled to be onstream in 2025.

Air Products will be the exclusive off-taker of the green ammonia and intends to transport it around the world to be dissociated to produce green hydrogen for the transportation market.

<https://www.energyglobal.com/other-renewables/08072020/air-products-acwa-power-and-neom-join-forces-for-green-hydrogen-venture/>

End