

ANGVA2U Info *14/2019 13th December 2019. (for ANGVA members only)*

ANGVA2U Info aims to share information, data, and news related to NGV 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 Brief Report on ANGVA 2019

The 8th Asia Pacific Natural Gas Vehicles Association International Biennial Conference & Exhibition (ANGVA 2019), the 8th Biogas Asia Pacific Forum & Exhibition and the Electric Vehicles Indonesia Forum & Exhibition, which took place simultaneously on 25-27th November 2019 at the The Tribrata Convention Centre, Jakarta, Indonesia, were successfully concluded. A total of 16 exhibitors from 6 countries showcased their products and services at the joint exhibition area. The exhibition saw total of 621 visitors from overseas and local. For ANGVA 2019 conference, there were 300 delegates from 16 countries with 19 papers presented and 2 Panel Discussion Sessions with total of 11 panelists.



On Day 2 of the event i.e. on 27th November 2019, in a joint session of ANGVA 2019 and Biogas Asia Pacific Forum & Exhibition, ANGVA and the Biogas Asia Pacific Alliance (APBA) jointly launched a Position Paper on “*Developing A Framework for the Replacement of Fossil Based Natural Gas with Renewable Natural Gas with Blockchain Technology*”. ANGVA and APBA agreed to jointly develop the framework and seek supporters and funders for the successful implementation of the project including the establishment of a Renewable Methane Foundation to develop, promote and gain acceptance of the trading of Renewable Methane (RCH4) tokens. More information on this position paper and project can be obtained from ANGVA and APBA secretariats.

On 25th November 2019, ANGVA Board held its 38th Board Meeting. This was the last meeting for the Board Member for the term 2018-2019. On 26th November 2019, ANGVA held its 8th Biennial General Meeting (BGM) and at the BGM new Board Members (Executive Committee Members) for the term of 2020-2021 were elected. They were:

ANGVA Executive Committee (Board Member) for the term 2020-2021

Position	Name	Company	Country
President	Mr. Guan Yu	China Automotive Technology & Research Center (CATARC)	China
Senior Vice President	Mr. Robbi R. Sukardi	PT Raja Rafa Samudra	Indonesia
Vice Presidents	Mr. William Aw	Bukit Sedap Pte Ltd	Singapore
	Mr. Dian Kuncoro	PT Perusahaan Gas Negara	Indonesia
	Mr. Tanardaj Sillapavitsawakul	Tiger Automotive Co., Ltd	Thailand
	Mr. Frank Haerberli	Hexagon Purus	Germany

More information on ANGVA Board members and ANGVA can be viewed at www.angva.org.

2.0 Selected News / Articles

2.1 Estonia

The city of Tallinn is to buy 100 new, natural gas-powered buses to be used as part of the city public transport network.

Sten Hankewitz. ,11th December 2019

Tallinn to buy 100 new, natural gas-powered buses



Solaris Urbino bus tested in Poland (Solaris).

Tallinn City Transport, the city's transport-management agency, and the Polish bus manufacturer, Solaris, signed the deal on 10 December.

According to the agreement, the city will buy 60 regular-size Urbino 12 buses and 40 articulated Urbino 18 vehicles. The cost of the new buses is close to €27 million.

The first new buses will arrive in Tallinn in the summer of 2020, the transport agency said in a statement.

According to the CEO of Tallinn City Transport, Deniss Boroditš, the new buses will help the city save €1.5 million a year on fuel and maintenance.

The agency is in the coming years planning to replace all older diesel-powered buses with the natural gas-powered ones. "We're working to ensure that by 2025, there will be no diesel-powered buses roaming the streets of Tallinn," Boroditš said.

Altogether, the city is planning to acquire 350 new natural gas-powered buses in the coming years.

Tallinn City Transport currently operates 529 buses on 75 routes across the city.

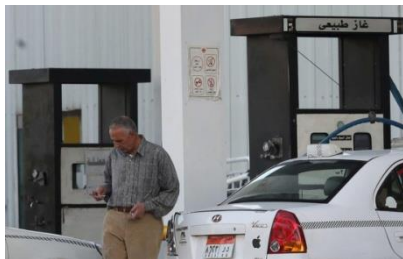
Source: <https://estonianworld.com/technology/tallinn-to-buy-100-new-natural-gas-powered-buses/>

2.2 Egypt

As petrol prices rise, more Egyptians convert to *dual-fuel vehicles

by Mahmoud Mourad. 9th December 2019 .

**ANGVA Note: dual-fuel here means bi-fuel i.e. the gasoline vehicle is fitted with a CNG system to enable the vehicle to use either natural gas or gasoline as fuel. Dual fuel is normally used to refer to diesel vehicle fitted with CNG system to enable a mixture of natural gas and diesel to be used by the vehicle.*



A taxi driver walks after he filled up with gas at Natural Gas Vehicles (NGV) petrol station in Cairo, Egypt November 27, 2019. REUTERS/Moha

CAIRO (Reuters) - The number of Egyptians switching to dual-fuel vehicles is accelerating as the government pushes motorists to use cheaper, cleaner and plentiful natural gas.

About 300,000 vehicles, mostly taxis and minibuses, have been converted to dual-fuel systems since the 1990s -- a small fraction of the 11 million vehicles licensed in the country.

But authorities are encouraging more drivers to switch by subsidizing vehicle conversions, keeping compressed natural gas (CNG) prices low, and building CNG fuelling stations and conversion plants.

Nearly 32,000 vehicles were converted during the financial year from July 2018 to June 2019, two petroleum ministry officials said. The target for this financial year is 50,000 vehicles. That compares with just 6,000 conversions in 2015/16.

Officials say the number of private cars converting is rising. They hope this will soften the blow of petrol price hikes after recent subsidy removals, as well as reducing pollution and cutting the import bill for liquid fuels.

Egyptians have seen steep increases to fuel prices since 2014, with most energy prices brought up to international levels under a three-year, IMF-backed reform plan completed this year.

But gas has remained cheap compared with liquid fuels. One cubic meter of CNG costs 3.5 Egyptian pounds, roughly the equivalent of one liter of diesel at 6.75 pounds or one liter of 80-octane petrol at 6.5 pounds.

"The ministry of petroleum has maintained an appropriate price so that natural gas always stays at 50% of the 80-octane petrol (price), which encouraged drivers to turn to conversion," said Abdelfattah Moustafa Farahat, head of Egyptian International Gas Technology GASTEC.

Private cars now make up 30% of conversions, Farahat said.

GAS BOOM

Officials say a boom in natural gas production and exploration since the discovery of the giant offshore Zohr gas field in 2015 spurred them to act. Egypt became self-sufficient in natural gas in late 2018.

"The discovery of Zohr field and achieving self-sufficiency in natural gas have encouraged the state to think: why don't we use this gas as a domestic fuel and work to expand its use," said Ayman Shalaby, assistant vice chairman at the Egyptian Natural Gas Holding Company (EGAS).

GASTEC is one of two state-run companies, along with the Natural Gas Vehicles Company (Car Gas), that dominate the sector. Private and foreign companies have also entered the market the past few years.

GASTEC plans to set up 54 new dual-fuel stations with CNG over the next three years, in partnership with Italy's Eni, as well as building more fuelling stations for public buses, Farahat said. Currently, Egypt has 187 CNG fuelling stations and 72 conversion centers.

The government also has a plan for minibuses, a common form of cheap transport across Egypt. Under the scheme, 142,000 minibuses would be converted and another 88,000 old diesel minibuses replaced with biofuel equivalents over the next three years, while more than 350 fuelling stations would be built.

Motorists gave the dual-fuel system mixed reviews. Some praised cost savings on fuel, but complained of reduced power or luggage space.

Officials say conversions are preceded by technical checks and the cylinder size and shape can be adapted to the vehicle.

The government is subsidizing and providing low-interest installment plans for conversion systems, which cost 5,000-7,500 pounds (\$310-\$465), as well as encouraging assembly plants and importers to provide vehicles with built-in systems.

(Additional reporting Ahmed Ismail,; Editing by Aidan Lewis/David Evans)

Source: <https://kda1610.com/news/articles/2019/dec/09/as-petrol-prices-rise-more-egyptians-convert-to-duel-fuel-vehicles/964886/?refer-section=business/>

2.3 Iran

Gasoline consumption in Iran drops 22 pct after price hike

Source: Xinhua. Editor: Mu Xuequan. 12th December 2019.

TEHRAN, Dec. 11 (Xinhua) -- The daily gasoline consumption in Iran fell by 22 percent since Nov. 15 when the government rationed gasoline and raised the price, Eghtesadonline news website reported on Wednesday.

Iran raised 50 percent of the gasoline prices and rationed its use to 60 liters for each car per month, seeking to curb gasoline consumption and smuggling.

Prior to the new policy, Iranians used 98.7 million liters of gasoline per day on average between Oct. 23 and Nov. 14. However, during the three weeks after the plan was implemented, the average daily consumption fell to 76.6 million liters per day.

The fuel quota of 60 liters for each car per month was first introduced in 1981 and again in 2007.

The price of compressed natural gas (CNG) in Iran stayed unchanged, and its daily consumption was increased by 3 million cubic meters since Nov. 15.

Source: http://www.xinhuanet.com/english/2019-12/12/c_138623951.htm

2.4 Pakistan

Govt bans CNG school vans in Peshawar

Web Desk. 11th December 2019



PESHAWAR: The Khyber Pakhtunkhwa (KP) government has imposed a ban on the use of Compressed Natural Gas (CNG) kits in school vans, ARY News reported on Wednesday.

According to details, the deputy commissioner, Peshawar following directives of Peshawar High Court has ordered strict action against vans using Compressed Natural Gas kits.

The ban has also been imposed on the use of substandard and uncertified CNG kits in public transport. Anyone found flouting the order would be dealt with under Section 188. This order shall come into force hence forthwith for a period of 30 days, said a notification issued here on Wednesday.

Earlier in July, the Oil and Gas Regulatory Authority (OGRA) imposed a ban on usage of liquefied petroleum gas (LPG) in school transport, vans and public vehicles.

Source: <https://arynews.tv/en/govt-bans-cng-school-vans/>

2.5 Belgium

First public bioCNG station inaugurated in Belgium

Oscar Schneider. The Brussels Times. 10th December 2019



The first bioCNG station open to the public in Belgium was inaugurated on Tuesday at the Total fuel pump located at the entrance of the Marché matinal in Brussels.

© Belga

This is the fourth compressed natural gas (CNG) station in the Brussels region, but the first whose fuel is 100% sustainable and renewable, the company said at a press conference at the headquarters of SIBELGA, which runs the capital's electricity and gas network.

Belgium has about 18,500 CNG-powered vehicles, of which around 1,000 are in Brussels. They cost 70% less per kilometre to operate than those that use diesel, and 80% less than gas-fuelled ones, according to a study by the Commission for the Regulation of Electricity and Gas (CREG), said Didier Hendrickx of the Gas.be Federation.

From an ecological point of view, the savings are also significant: 20% less carbon dioxide and an 80% reduction in particles.

Owners of CNG-fuelled vehicles now have 130 stations to choose from in Belgium, including four in Brussels and about ten in the suburbs. Total, Dats and Q8 have plans to install more in the short term, said Hendrickx. He feels Brussels will need about 20 by 2030.

CNG, which is “almost carbon neutral” offers “all the advantages: less noise, fine particles, pollutants and expense,” stressed Total Belgium General Director Bernadette Spinoy, who aims to add a new station per month next year. For now, the CNG is not produced in Belgium but imported from the Netherlands through the gas-distribution network.

The station chosen to host Belgium’s first bioCNG station, “at a Brussels point of entry and exit”, is next to the headquarters of SIBELGA, whose director, Marie-Pierre Fauconnier, explained that the utility also wished to make its contribution. “The greening of our fleet of 373 vans represents a cost of just 2%,” she disclosed. “The aim is to reach a target of 50% of green vehicles in 2021 and 100% by 2028.”

The 20 charging stations the company has on its site will soon be joined by two slow-fill CNG stations.

Source: <https://www.brusselstimes.com/all-news/belgium-all-news/83000/first-public-biocng-station-inaugurated-in-belgium/>

2.6 China

China’s electric car sales slump, squeezing automakers

AP. Newsletter. 10th December 2019.



China's leaders are promoting electric cars to help transform the country into a creator of profitable technologies, but sales are stalling as thousands of buyers make a similar choice.

Despite the end of subsidies, Beijing still is spending heavily to promote electrics.

BEIJING - Looking for a new car, Yang Zhibo considered an electric but balked at prices that are thousands of dollars higher after Beijing wound down multibillion-dollar subsidies that made China the biggest market for the technology.

The 27-year-old employee of a beverage distributor picked a gasoline-powered Chevrolet instead.

"I am afraid the technology is not mature and the price is too high," Yang said.

China's leaders are promoting electric cars to help transform the country into a creator of profitable technologies, but sales are stalling as thousands of buyers make a similar choice.

That is squeezing automakers that are spending heavily on development as regulators shift the burden to them by imposing mandatory sales quotas. The wrenching transition is revealing the difficulty of luring mainstream buyers to a fledgling, expensive technology.

An industry shakeout lies ahead as novice Chinese producers that rushed into the market are forced to merge or close. Development costs are so high that global competitors including Volkswagen and Ford are teaming up to split the burden.

"China is recognizing you don't need 400 EV companies. You need maybe 20," said Bill Russo, CEO of consulting firm Automobility Ltd. and a former Chrysler executive. "That means some have to fall off the competitive landscape."

In November, purchases of electric and gasoline-electric hybrid SUVs and sedans tumbled 43.7% from a year earlier to 95,000, according to the China Association of Automobile Manufacturers. Sales for the first 11 months of the year were up 1.3% at just over 1 million vehicles.

China accounts for half of electric vehicle sales worldwide, making any change in its market critical for the global industry.

Worldwide, EV sales were up 13% over a year earlier in the 10 months through October at 1.7 million, according to Bernstein Research. Sales in North America were off 2% at 301,000 while Europe rose 37% to 395,000.

In China, about 70% of the 1.2 million electric or gasoline-electric hybrid models sold over the past year went to government and company fleets, according to Bernstein. Almost 500,000 bought by consumers were in cities that offer incentives such as being exempt from registration fees or license plate waiting lists.

"Few real consumers buy EVs except when forced by regulations," Bernstein researchers Robin Zhu, Luke Hong and Xuan Ji said in a report.

Until June, combined subsidies to buyers from the national and some city governments including Beijing and Shanghai could run as high as 50,000 yuan (\$7,100) for vehicles with the longest range.

Industry analysts say one reason for the slump is that anyone who wanted an electric rushed to buy it before subsidies ended. Sales spiked 85 percent in April over a year earlier.

Yang, the car buyer in Beijing, said prices of electric cars he looked at were at least 20,000 yuan (\$2,800) more than a comparable gasoline model. That is a big gap in a market where half of cars sell for less than 100,000 yuan (\$14,200).

"I also worry that when an electric car has a problem, it will cost me a fortune to repair," said Yang.

Under the new system, automakers must earn credits for selling electrics or buy them from competitors that exceed their quota.

Volkswagen and Ford announced a deal in June to share development costs of electric and self-driving technology. Every global brand has launched a joint venture with a Chinese partner to develop lower-cost models for the local market.

Global brands also face competition from local success stories including BYD Auto, a unit of battery-maker BYD Ltd., and state-owned BAIC.

BAIC says it sold 160,000 pure-electric vehicles last year and BYD Auto says it sold 152,000.

Battery supplier CATL Ltd. is competing with Japan's Panasonic and South Korea's LG Chem to be the industry's biggest global producer.

"There will be a few foreign companies that stay in the game, but there will be a few leading Chinese companies that can dominate," said Russo.

The heavy spending on EVs comes as cash flow is under pressure from weak demand for gasoline-powered models.

Sales of SUVs, sedans and minivans for the 11 months through November were off 10.5% from a year earlier at just over 1.9 million. That puts the global industry's biggest market on track to shrink for a second year.

Despite the end of subsidies, Beijing still is spending heavily to promote electrics.

State-owned utilities and other companies have blanketed China with charging points.

As of June, the total number installed had passed 1 million, according to the Cabinet's National Energy Administration. That included 410,000 on the street and 590,000 in homes or parking garages.

Regulators also are pressing operators of delivery, taxi and other fleets to use electrics.

The country's biggest ride-hailing service, Didi Chuxing, says it is the biggest global operator of electric vehicles, with more than 600,000 in its fleet. A rival service launched by automaker Geely, called Cao Cao, says its entire 30,000-vehicle fleet in 30 cities is electric.

Wang Xiuli, a mother of one who works in marketing in Beijing, feels the pressure of regulations that are pushing electric sales even without subsidies.

Wang, 30, bought a gasoline-powered Skoda this year because a BYD or BAIC electric cost thousands of dollars more. But she couldn't get a Beijing license plate due to limits imposed to control congestion - curbs that are waived for buyers of electrics.

"My next car should be an electric one," she said. "Even though it will cost more, I have no other way but to buy one."

Source: <https://auto.economictimes.indiatimes.com/news/industry/chinas-electric-car-sales-slump-squeezing-automakers/72461186>

2.7 Japan

World's first liquefied hydrogen carrier launched

Sam Chambers. 11th December 2019.



Kawasaki Heavy Industries's Kobe dockyard launched today the world's first liquefied hydrogen carrier, opening up a new chapter in maritime energy transportation.

This vessel was developed to provide a means of transporting liquefied hydrogen at 1/800 of its original gas-state volume, cooled to -253°C .

Kawasaki Heavy plans to install a 1,250 cu m vacuum-insulated, double-shell-structure liquefied hydrogen storage tank on the ship and complete the vessel's construction by late 2020. Once complete, the Suiso Frontier will be used for testing next year aimed at the establishment of an international

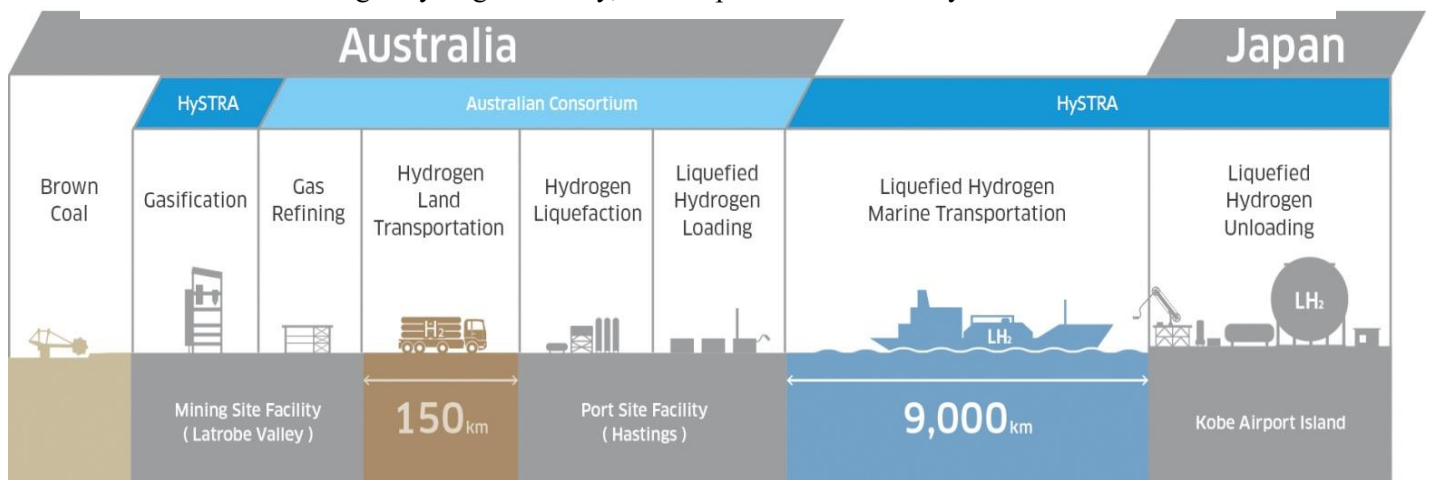
hydrogen energy supply chain in which liquefied hydrogen produced in Australia will be shipped to Japan.

“With the goal of making hydrogen just as common a fuel source as petroleum and natural gas, Kawasaki joined together in 2016 with Iwatani Corporation, Shell Japan, and Electric Power Development (J-POWER) to form the CO2-free Hydrogen Energy Supply-chain Technology Research Association (HySTRA),” Kawasaki Heavy stated in a release today.

Kawasaki officials admit that this first prototype will need to be scaled up in size if the trade is to take off. At 116 m in length, the Suiso Frontier will be able to transport only 1,250 cu m of liquefied hydrogen in a single tank once complete. The largest LNG carriers, by comparison, can carry 200 times as much cargo.

A liquefied hydrogen unloading terminal is being built in Kobe, and a brown coal gasification facility is being constructed in Australia. In addition, a consortium comprising Kawasaki, Iwatani and J-POWER along with Marubeni Corporation and AGL Loy Yang, was formed in 2018 and has received financial support from the Australian and Victorian governments to build a gas refining facility, and a hydrogen liquefaction and loading terminal.

“In 1981, Kawasaki became the first Asian company to manufacture a liquefied natural gas (LNG) carrier, and now as the world’s first company to complete a liquefied hydrogen carrier it will further its efforts toward achieving a Hydrogen Society,” the shipbuilder stated today.



Source: <https://splash247.com/worlds-first-liquefied-hydrogen-carrier-launched/>

3.0 ANGVA related / participated events

Events that will be organized and participated by ANGVA next year are under preparation and will be released as soon as possible.

4.0 End

Any comments and suggestions on the topics and information covered and to be covered in future are most welcome. Please send your comments and suggestions to Lee Giok Seng at email: leegs@angva.org