

ANGVA2U Info 11/2018. 4th December 2018. (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 guarantees of accuracies. Members are advice to use these information and data prudently and at their own risks.

+++++

1.0 The International Energy Agency (IEA) World Energy Outlook 2018

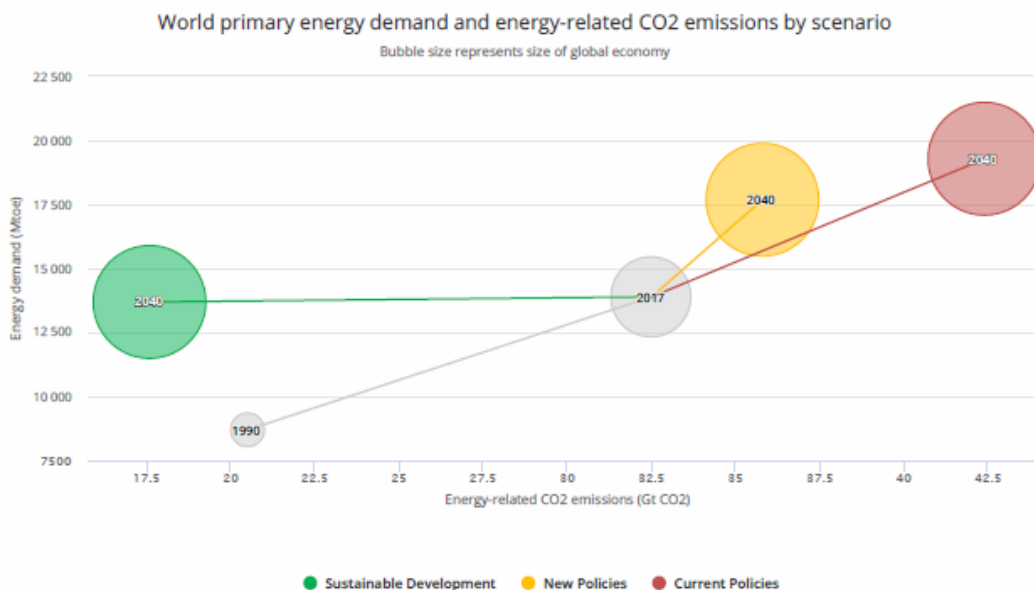
The World Energy Outlook (WEO) is an annual flagship publication of the IEA, widely recognized as an authoritative source of global energy analysis and trends. WEO does not aim to forecast the future, but provides a way of exploring different possible futures, the levers that could bring them about, and the interactions that arise across a complex energy system. WEO is a scenario-based analysis using as reference the scenario based on “no change in current policies”.

WEO 2018 is based on three scenarios i.e. Current Policies Scenario; New Policies Scenario; and Sustainable Development Scenario. None of these potential pathways is preordained; all are possible. The actions taken by governments will be decisive in determining which path we follow.

According to WEO 2018:

- i. The Current Policies Scenario will lead to increasing strains on almost all aspect of energy security and a major additional rise in energy-related CO2 emissions;
- ii. The New Policies Scenario, which includes policies and targets announced by governments, leads to a better global situation, but there is still no peak in global energy-related CO2 emissions; and,
- iii. The Sustainable Development Scenario, which includes accelerated clean energy transitions, will put the world on track to meet goals of the United Nations Sustainable Development agenda including energy access, air quality and climate objective and is fully in line with achieving the long-term objectives of the Paris Agreement (adopted under the 21st meeting of the Conference of Parties (COP21) on December 12, 2015 in Paris). However, the gap to deliver the outcome of Sustainable Development Scenario remains huge as compared to the other two scenarios. See figure 1.

Figure 1



To deliver the outcomes of the Sustainable Development scenario, the power sector has to proceed further and faster with the deployment of low-emissions generation. Renewable energy technologies will need to provide the main pathway to the provision of universal energy access. All economically viable avenues to improve efficiency have to be pursued, keeping overall demand in 2040 at today's level. Electrification of end-users need to grow strongly, but so too does the direct use of renewables – bioenergy, solar and geothermal heat – to provide heat and mobility. The share of renewables in the power mix has to rise from one-quarter today to two-thirds in 2040; in the provision of heat it has to rise from 10% today to 25% and in transport it has to rise from 3.5 % today to 19% (including both direct use and indirect use, e.g. renewable-based electricity).

Under the New Policies Scenario, oil use for car peaks in the mid-2020s, but petrochemicals, trucks, planes and ships still keep overall oil demand on a rising trend. Improvements in fuel efficiency in the conventional car fleet avoid three-times more in potential demand than the 3 million barrels per day (mb/d) of oil displaced by 300 million electric cars on the road in 2040. But the rapid pace of change in the passenger vehicle segment (a quarter of total oil demand) is not matched elsewhere. Petrochemicals are the largest source of growth of oil use. Even if global recycling rates for plastics were to double, this would cut only around 1.5 mb/d from the projected increase of more than 5 mb/d. Overall growth in oil demand to 106 mb/d in the New Policies Scenario comes entirely from developing economies.

Natural gas and oil will continue to meet a major share of global energy demand in 2040, even in the Sustainable Development Scenario. Not all sources of oil and gas are equal in their environmental impact. WEO 2018 first comprehensive global estimate of the indirect emissions involved in producing, processing and transporting oil and gas to consumers suggests that, overall, they account for around 15% of energy sector greenhouse gas emissions (including CO₂ and methane). There is a very broad range in emissions intensities between different sources: switching from the highest emissions oil to the lowest would reduce emissions by 25% and doing the same for gas would reduce emissions by 30%.

According to the WEO 2018, the world is gradually building a different kind of energy system, but cracks are visible in the key pillars:

- **Affordability:** The costs of solar PV and wind continue to fall, but oil prices climbed above \$80/barrel in 2018 for the first time in four years; and hard-earned reforms to fossil fuel consumption subsidies are under threat in some countries.
- **Reliability:** Risks to oil and gas supply remain, as Venezuela's downward spiral shows. One-in-eight of the world's population has no access to electricity and new challenges are coming into focus in the power sector, from system flexibility to cyber security.
- **Sustainability:** After three flat years, global energy-related carbon dioxide (CO₂) emissions rose by 1.6% in 2017 and the early data suggest continued growth in 2018, far from a trajectory consistent with climate goals. Energy-related air pollution continues to result in millions of premature deaths each year.

Affordability, reliability and sustainability are closely interlinked; each of them, and the trade-offs between them, require a comprehensive approach to energy policy. Government policies will shape the long-term future for energy.

The World Energy Outlook 2018 was released by IEA on 13th November 2018. More information on this can be viewed at www.iea.org/weo2018/

2.0 Selected News

2.1 Poland

COP24: 'We can't afford to fail in Katowice,' says UN's Guterres

By [Seana Davis](#) • last updated: 03/12/2018



"We can't afford to fail in Katowice." They were the words of UN Secretary-General António Guterres as he made his opening remarks at the COP24 climate change conference.

Katowice, Poland, is hosting two weeks of talks on how to tackle global warming.

Guterres, speaking at lunchtime on Monday, said the political will to fight climate change had faded since the Paris accord three years ago. The agreement in December 2015 saw countries agree to step up efforts to fight the problem.

But Guterres said climate change was running away from us. He claimed temperatures were rising, oceans were warming and glaciers receding faster than expected.

It comes after the International Panel on Climate Change (IPCC) released a damning report earlier this year, which estimates that global greenhouse emissions would need to be curbed by 45% by 2030 in order to stay below a 1.5-degree rise in temperature.

Guterres added, however, there were reasons for optimism. He said public opinion — and young people in particular — was shifting to call on governments to do more about climate change

Source: www.euronews.com/2018/12/03/live-un-guterres-addresses-reporters-at-cop-24-climate-change-event

2.2 China

Beijing issues yellow alert for heavy air pollution

Source: Xinhua| 2018-11-30 15:42:48|Editor: Li Xia

BEIJING -- Beijing has issued a yellow alert Friday for heavy air pollution as a round of smog will hit the city at the weekend, local authorities have said.

A series of measures will be taken from Saturday, including the suspension of a number of outdoor construction operations, the restriction of heavy-polluting vehicles, and the production halt or restriction of some manufacturing companies, according to the municipal air pollution emergency response office.

The yellow alert is issued when the air quality index surpasses 200 for two consecutive days.

Due to adverse weather conditions, the Beijing-Tianjin-Hebei region will be affected by the smog. The air quality is expected to improve on Sunday evening. Under Beijing's current three-tier color warning system, yellow alert is the least severe, followed by orange and red.

Source: www.xinhuanet.com/english/2018-11/30/c_137642042.htm

2.3 India

Volkswagen India bets on CNG over electric

By Sumantra B Barooah 29 Nov 2018



Audi, the premium brand from the Volkswagen (VW) stable will launch its first fully electric model, the E-Tron late next year in India. The electric mobility play for the Volkswagen Group is likely to remain only in the premium space for some time.

The German group doesn't see business viability for electric vehicles (EV) in the volume segment, primarily due to high battery costs and, secondly, a lack of clarity "on what the government intends doing". "Right now, the economics of electrics work for premium cars, and not for everyday cars. Those just do not work. In Europe also, everyone is trying to make the economics work. But it's really tough," says Gurpratap Boparai, chief of the Volkswagen Group in India.



Volkswagen has an "open mind" as far as electric mobility go. According to Boparai, the Group plans to launch models from all brands in the EV space and will evaluate when is the right time to bring any of them of them to India. He also adds, however, that in India an electric car's CO2 footprint is "no less" than that of a BS VI car. And that's because of fossil fuel as a major source of electricity generation in India. Also because EV batteries have to be imported, Boparai sees CNG as "an excellent option" for a country like India.

Gurpratap Boparai: "CNG makes more sense if we can get a network in."

"Maybe CNG makes more sense if we can get a network in. Let's not forget if we get electrics, the batteries are going to come from China. We may be assembling the batteries here but the cells will still be imported. We may be reducing our oil import bill but we may end up increasing other import bill," says Boparai. It is to be noted that at the SIAM annual convention this year [Union Petroleum and Natural Gas minister Dharmendra Pradhan announced that 10,000 CNG stations will be set up in India over the next 10 years.](#) It won't be surprising to see Volkswagen introducing its 1-litre TGI engine in India.

In the conventional vehicle space, Boparai and team are busy at work to action the India 2.0 project. There's a strong focus on being more competitive than ever before. For example, the Skoda-led plan will see the new models with localisation level of 95 percent within six months of launch. That's much more than the maximum level of 76 percent that some Volkswagen models have reached years after their launch. The first model under the India 2.0 project will be launched in 2021. It will be an SUV wearing the Skoda badge. The SUV will be shared with Volkswagen. Boparai says that it will be more than just badge engineering. The SUV will be followed by a sedan, which again will be sold under both brands.

The overall investment figure of Rs 7,900 crore may see a downward revision as the company is trying to achieve all the stated targets under India 2.0 at a lesser cost. With more competitive products, to be launched first in India, and a wider presence Volkswagen and Skoda jointly is aiming at a "realistic" market share target of 5 percent by 2025.

Source: www.autocarpro.in/news-national/volkswagen-india-bets-on-cng-over-electric-41457

2.4 Italy

Italy's SNAM signs deal with Volkswagen for gas-powered cars

Monday, November 26, 2018 5:10 a.m. CST

MILAN (Reuters) - Italian gas group Snam has a deal with Seat, a unit of German car maker Volkswagen, to boost the use of natural gas to power cars, the two companies said on Monday.

Snam and Seat will explore ways to develop fuel station networks and create new products.

"For SEAT, one out of every five vehicles sold in Italy uses compressed natural gas (CNG)," Seat President Luca de Meo said, adding that the deal would "further enhance the development of CNG in Italy and export this success case to other countries."

Italy has become the leading market for CNG technology, accounting for 55 percent of all vehicles sold in Europe this year powered by the fuel.

(Reporting by Giancarlo Navach, writing by Valentina Za, editing by Edmund Blair)

Source: [//kfgo.com/news/articles/2018/nov/26/italys-snam-signs-deal-with-volkswagen-for-gas-powered-cars/](http://kfgo.com/news/articles/2018/nov/26/italys-snam-signs-deal-with-volkswagen-for-gas-powered-cars/)

2.5 China / Russia

Rosneft, Beijing Gas to build 170 CNG stations in Russia

Last update: December 3, 2018



The Russian and Chinese companies have formed a joint venture to develop a strong network of compressed natural gas refuelling stations.

Rosneft and Beijing Gas Group Company Limited have set up a joint venture for construction and operation of a network of CNG stations in Russia with the Chinese company owning a 45% share.

© istock.com/Leonid Eremeychuk

Through this joint venture they will build about 170 CNG stations in Russia, and consider the options of using LNG as a motor fuel. The document will enable the development of strategic cooperation between the partners in the use of natural gas as an ecological fuel, according to a press release.

The development of the CNG station network in Russia is among key priorities of Rosneft's retail business.

Beijing Gas belongs to Beijing Enterprises Group Limited and is a leading company in the area of natural gas supplies and power infrastructure construction in the Beijing region. It manages over 20 gas projects in the People's Republic of China.

Source: www.petrolplaza.com/news/9734

2.6 India

IOCL set to give big push for green CNG in Tamil Nadu

Published: 04th December 2018 04:15 AM | Last Updated: 04th December 2018 04:15 AM

By [SV Krishna Chaitanya](#). Express News Service

With India planning to reduce crude oil imports by 10% by 2022, there is increased emphasis on alternate and sustainable source of fuels.



Representational Image.

CHENNAI: With India planning to reduce crude oil imports by 10% by 2022, there is increased emphasis on alternate and sustainable source of fuels. TN, a non-starter so far, is going to foray into green CNG in a big way.

The petroleum major IOC is likely to put-up several CNG stations in Namakkal and Coimbatore regions as the mega 400 MT biogas waste plant in Namakkal will be producing compressed biogas, which is otherwise known as green CNG and can be used in vehicles.

Namakkal plant, commissioned in 2012, jointly by IOC Sister company IOT Infrastructure and Energy Services Limited (IOT), and German-based Mabagas GmbH & Co. KG (Mabagas), enjoying equal share, was generating electricity from biogas. But now, it has been decided to purify the bio-gas from generating green CNG using indigenous technology developed by IOC R&D Centre in Faridabad.

SSV Ramakumar, director, IOC R&D, said the Namakkal plant was one of the best in the world that digests waste/bio-mass sources like agriculture residue, cattle dung, sugarcane press mud, municipal solid waste, sewage treatment plant waste, etc to produce bio-gas through a process of anaerobic decomposition. "After purification, it is compressed and called CBG, which has pure methane content of over 95%. CBG is exactly similar to the commercially available natural gas in its composition and energy potential," he said. He said the key is that the Namakkal plant uses IOC developed microbes, instead of German microbes for processing. What is observed was IOC microbes generates 85% methane out of one tonne of biomass, when compared to 55% using other lands.

Also, under Sustainable Alternative Towards Affordable Transportation (SATAT), the Union Petroleum ministry is encouraging entrepreneurs to set-up 5,000 CBG production plants in India and make available CBG in the market for use in automotive fuels. Three State-owned PSU Oil Marketing Companies (i.e. IOC, BPCL and HPCL), assure off-take guarantee in geographical areas of production with a minimum assured price of ` 46 per kg, which is very attractive. Ramakumar told Express that Namakkal plant transformation would happen in six months. "CBG produced at this plant will be transported through cascades of cylinders to the fuel station networks of IOC for marketing as a green transport fuel alternative," he said, and added that the technology was available for licensing.

Second R&D centre coming-up

IOC is well on its way to set up a second R&D unit which is expected to be the world's largest sustainable campus, and aims to be a Net Zero Energy Building, which means power and water will be sourced from within. Ramakumar said the new campus, which would 8 km from the existing plant, will cost ` 2,300 cr. It is envisaged to have LEED Platinum Certification for the campus. Structured doctoral programmes in the campus, with residential facilities for PhD scholars will be offered.

Source: www.newindianexpress.com/states/tamil-nadu/2018/dec/04/iocl-set-to-give-big-push-for-green-cng-in-tamil-nadu-1906977.html

3.0 Events

The 36th ANGVA Board Meeting will be held as scheduled on 5th December 2018 (Wednesday) at PGN office in Jakarta, Indonesia, 1600 hrs to 1800 hrs. Members interested to attend as observers to this board meeting are requested to contact ANGVA Secretariat.

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