

Energy News

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If power for all should mean flow of electrons rather than the flow of money for poles and wires!

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India not needing additional power plants does not mean that India has conquered energy poverty!

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The government should regulate transport pollution outcomes rather than control fuel input type!

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**DATA
INSIGHT**

**Volume XII
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10 June 2016

[INDIA TAKES OFF...ON A MOTORBIKE!]

“The return in terms of avoided petroleum consumption per person for a given unit of effort by activist groups will be much greater in the United States than it is in India. The economic and social gain of a poor Indian taking off in a motor bike (albeit an inefficient one) to deliver milk to a consumer may be greater than the environmental harm that supposedly causes...”

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[NATIONAL: POWER]

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- BHEL commissions 520 MW thermal power unit in AP

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- PM Modi gets Switzerland support for elite 48 member NSG entry
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- Govt revives agency for nuclear cooperation with smaller countries
- 'Only 14 villages in Sundarbans have no power, it will be done this year'
- PFC acquires 23 percent in Shree Maheshwar Hydel Power Corp
- India won't need extra power plants for next 3 yrs
- Govt inks coal pact with MECL, NEMT
- Only 16 of 29 state regulators have issued tariff orders so far: ICRA
- Australia-India civil nuclear deal concluded, supply to start soon

[INTERNATIONAL: OIL & GAS]

Upstream.....

- Chevron to ramp up gas production in China's southwest Chuandongbei project
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- Ghana expects steady oil output as Tullow's Jubilee recovers
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- Kiliwani North production to increase in near future
- Nigerian militants say aim is zero oil output after three new attacks
- Russian oil output falls slightly in May to 10.8 mn bpd

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- Diesel margins nearly double as El Nino spurs Asia oil demand
- Total says plans to restart France's Donges refinery

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- Angola LNG returns to global market with first post-shutdown cargo
- China's oil stockpiling to boost tanker market

- Devon Energy to get nearly \$1 bn from asset sales
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Policy / Performance.....

- CNPC gears up for increased natural gas role in China in next 5 yrs
- Ireland awards second round of offshore O&G exploration licenses
- Australian O&G industry welcomes govt's funding for onshore gas research
- Colombian oil industry estimates investment needs at \$7 bn per year
- Novatek eyes cooperation with Qatargas in LNG marketing: Russian Energy Minister
- Angola Oil Minister sees chance that OPEC may decide on oil output cap
- Kuwait Oil Minister says oil price at \$50-60 is appropriate
- UAE Oil Minister expects oil price to rise in second half
- Iran Oil Minister says OPEC cannot control anything without output quotas
- OPEC fails to agree policy but Saudis pledge no shocks
- Israel approves Noble's Leviathan development plan
- China issues draft rules for strategic oil reserves
- Argentina backpedals on gas rationing measures for industry
- Venezuelan Oil Minister says OPEC has de facto output freeze

[INTERNATIONAL: POWER]

Generation.....

- J-Power executes loan agreement for 2 GW coal-fired plant in Indonesia
- Exelon will retire 2 nuclear plants in June 2017 & 2018
- Turkish company agrees \$4.2 bn deal to build Iran power plants
- Watts Bar unit 2 begins power generation
- Construction begins at 1.1 GW Site C hydroelectric project in Canada
- Clinton nuclear plant to close in 2017

Transmission / Distribution / Trade.....

- BHP Billiton sells Indonesian coal assets to Adaro
- Over 1 mn supplier change on Japan's electricity retail market
- China State Grid may buy 14 percent in Belgian energy distributor Eandis
- PG&E narrows route for high-power lines in north SJ County

Policy / Performance.....

- JBIC agrees \$3.4 bn loan for Indonesian coal station
- Chile approves equity tariffs for electricity
- Indonesian President launches first power plant in his 35 GW program
- US is looking at ways to help nuclear plants stay in business
- Russia to build four nuclear power plants in Nigeria

[RENEWABLE ENERGY / CLIMATE CHANGE TRENDS]

NATIONAL.....

- GIC, ADIA invest \$230 mn in renewable energy firm Greenko
- Solar power gets a renewed push in Delhi
- Axis Bank unveils India's first certified green bond on LSE
- India's solar power generation capacity to go up by 5 GW in 2016
- Central ministries to pledge to produce 5 GW solar power
- Adani considers SunEdison as partner for Indian solar manufacturing
- Navy pledges to spend 1.5 percent of its budget towards renewable energy
- Daimler completes solar system upgrade at Chennai plant
- India, US sign pact for enhanced cooperation in clean energy
- India among top 5 in 2015 in green energy spending

GLOBAL.....

- China's cities need \$1 tn green finance to cut pollution
- Saudi Arabia scales back renewable energy target to favor gas
- European countries sign MoU to boost cooperation in offshore wind industry
- US environmental groups question Arch Coal's bankruptcy exit plan
- TransAlta may double renewables in Alberta if prices increase
- JA Solar to supply solar modules to Front Runner demonstration PV project in China
- Chile has so much solar energy it's giving it away for free
- German govt reaches agreement with Länder over renewable plans
- DEWA said to plan 1 GW of solar-power plants
- EU gathers pace on global climate deal ratification: French Environment Minister
- American nations to start carbon-price talks: World Bank
- Italian company to build solar power plant in Egypt

COMMENTS.....

India takes off...on a Motorbike!

Lydia Powell and Akhilesh Sati, Observer Research Foundation

In the last one year a number of news items, reports and studies have highlighted India's take off in energy consumption in general and petroleum consumption in particular. The latest is the oil market report from the International Energy Agency (IEA) for May 2016 that labels India as the 'star performer' in petroleum consumption. According to the report, oil demand in the first quarter of 2016 was 400,000 b/d higher year on year representing nearly 30% of global increase. 'India will take over from China as the main growth market for oil' declares the report. News items like this often gives rise to the false idea that Indians are the new oil gluttons on the block. This news is a delight to investment banks and other financial outfits whose life is dedicated to looking for growth in consumption of something in every corner of the world. They celebrate the coming of age of the Indian consumer. The growth in the number of cars that the Indian consumer buys and the petroleum he consumes makes India an attractive destination for the speculative capital under their control.

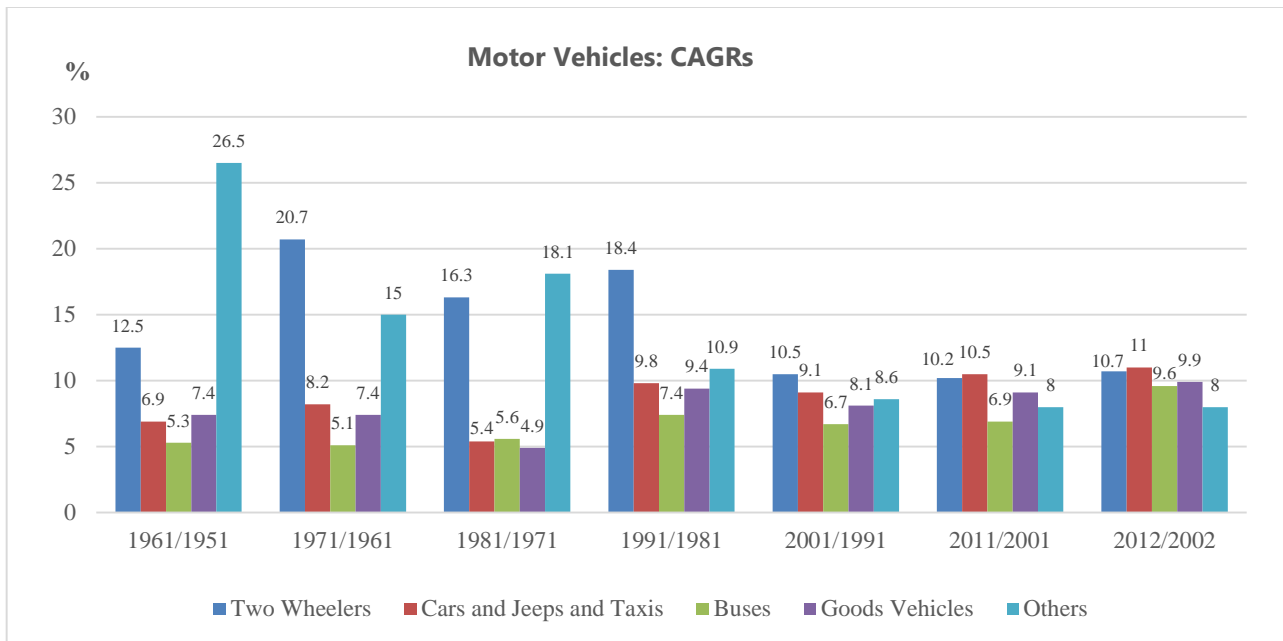
But the same news invokes horror among climate change activists. They denounce the insatiable appetite for petroleum from Indian motorists as a nightmare. According to them, if something is not done about the increase in petroleum consumption by over one billion people, the world's collective effort to combat climate change will amount to nothing. They have already put a lot of money where their mouth is. Climate activists and rich countries that see increase in petroleum consumption by developing countries as a threat to their national interest now fund a well-equipped cottage industry of research bodies and activist groups dedicated to the cause of keeping Indians away from fossil fuels. They say that they are interested in correcting market distortions so as to make the Indian energy sector more efficient. Their guns are thus trained on the state subsidies that supposedly fuels petroleum (and other fossil fuel) consumption in India.

Both narratives are over-simplified exaggerations.

According to BP's outlook for 2035, India's energy demand will grow at 4.2% per year, faster than all major economies in the World. Increase in coal consumption in India estimated at over 600 million tonnes (MT) by 2035 will be the fastest in the world according to BP. Energy in transport is expected to grow by 5.1% a year from 2014 to 2035 with oil dominating taking 93% of market share by 2035.

According to the IEA energy use in transportation in India was the fastest growing of all end use segments in energy since 2000 with growth of about 6.8% per year. 90% of this increase came from road transport says the report. According to IEA projections for 2040 growth in demand for transport is expected to outpace growth in demand for energy from all other segments. Not surprisingly this growth in demand is expected to be dominated by road transport with transport fuel demand touching 5.6 million b/d by 2040.

A closer look at the numbers provides a different picture. According to the IEA energy use in transport in India at 1.5 million b/d in 2013 accounted for only 14% of final energy consumption which is much lower than the share of energy use in transportation in many other countries. The use of energy per person for transportation at less than half a barrel a year is one sixth of world average. At the time of independence road transport carried only 15% of India's passenger movement and 14% of freight movement. Today road transport accounts for 85% of passenger movement and 66% of freight movement. Passenger cars take a small share of passenger transport as most people in India use two wheelers or public transport for daily trips. According to recent study on informal public transport systems (such as mini vans and shared motorised rickshaws), only 65 cities have public transport provided by the government in a country where 350 million live in over 7900 cities and towns. In all other cities and towns in which the majority of the population does not own a car people depend on walking, cycling and informal modes of public transport for mobility. According to the study, informal modes of transport are relatively cheap, safe and clean.



Source: Statistics by Ministry of Road Transport & Highways, available at data.gov.in

Passenger vehicle ownership at less than 20 per 1000 inhabitants is far lower than world average. Passenger cars play an insignificant role in India's overall transport partly because of the use of public transport and partly because of the use of two and three wheelers. As per government data, the share of two wheelers in total vehicle vehicles in India stood at about 72% in 2012 compared to 8.8% in 1951. The share of other passenger light duty vehicles (PLDV) such as cars and jeeps declined steeply from about 52% in 1951 to about 14% in 2012 and the share of buses declined from 11% in 1951 to 1% in 2012. The number of commercial vehicles decreased from roughly 27% in 1951 to about 5% in 2012. The only other vehicle segment (apart from two wheelers) whose share increased from about 1% 1951 to 8% in 2012 was that of miscellaneous vehicles including three wheelers, tractors, trailers etc.

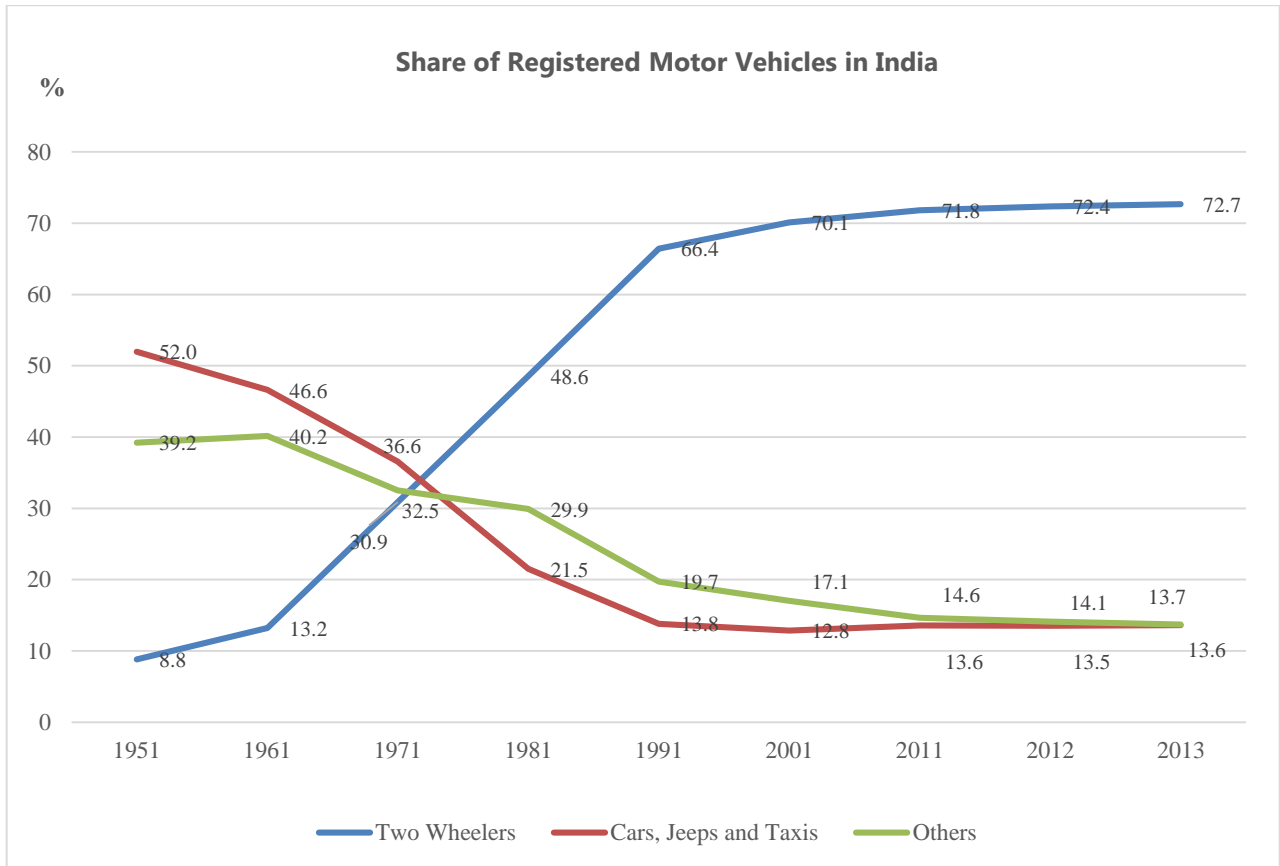
The compound annual growth rate (CAGR) of two wheelers has consistently remained above 10% on average since 1951 but it is slowing down after a peak CAGR of 20.7% in 1961-71 followed by a CAGR of 18.4% in 1981-91 (refer chart above). In 2002-12 it was just over 10%. On the other hand the CAGR of other PLDVs has demonstrated a steady increasing trend growing from 6.9% in 1951-61 to just over 11% in 2002-12. The fact that the growth rate of other PLDVs is now higher than that of two wheelers is behind the optimism of India taking off. But even by 2040 two wheelers will dominate the share of personal vehicles in India (Please refer to Data Insight at page no. 6).

Two issues may be highlighted in the context of India's take off. There is definitely a take-off but it is a quantitative take off and not a qualitative one. A country that has less than 100 motor bikes per 1000 population is not the same as a country that has 500 cars for 1000 population even if the overall oil consumption of the two countries is the same. Second the enthusiasm of activists and research groups to curb India's petroleum consumption is misplaced. Any reduction in petroleum consumption achieved by the efforts of these activist groups through efficiency gains is worth less to India on a per person basis than it may be to a country such as the United States. According to IEA's World Energy Outlook for 2013, avoided import bills from energy efficiency in oil use (primarily transport) is less than \$10 per person in India compared to over \$250 per person in USA and \$60 per person in China on account of the high levels of vehicle ownership in USA. The return in terms of avoided petroleum consumption per person for a given unit of effort by activist groups will be much greater in the United States than it is in India. The economic and social gain of a poor Indian taking off in a motor bike (albeit an inefficient one) to deliver milk to a consumer may be greater than the environmental harm that supposedly causes. The problem is that according to the new scheme endorsed by the great and the good, the guilt of owning three SUVs in the USA can be assuaged by preventing a poor Indian (or African) from getting an extra litre of petroleum for his rickety motorbike.

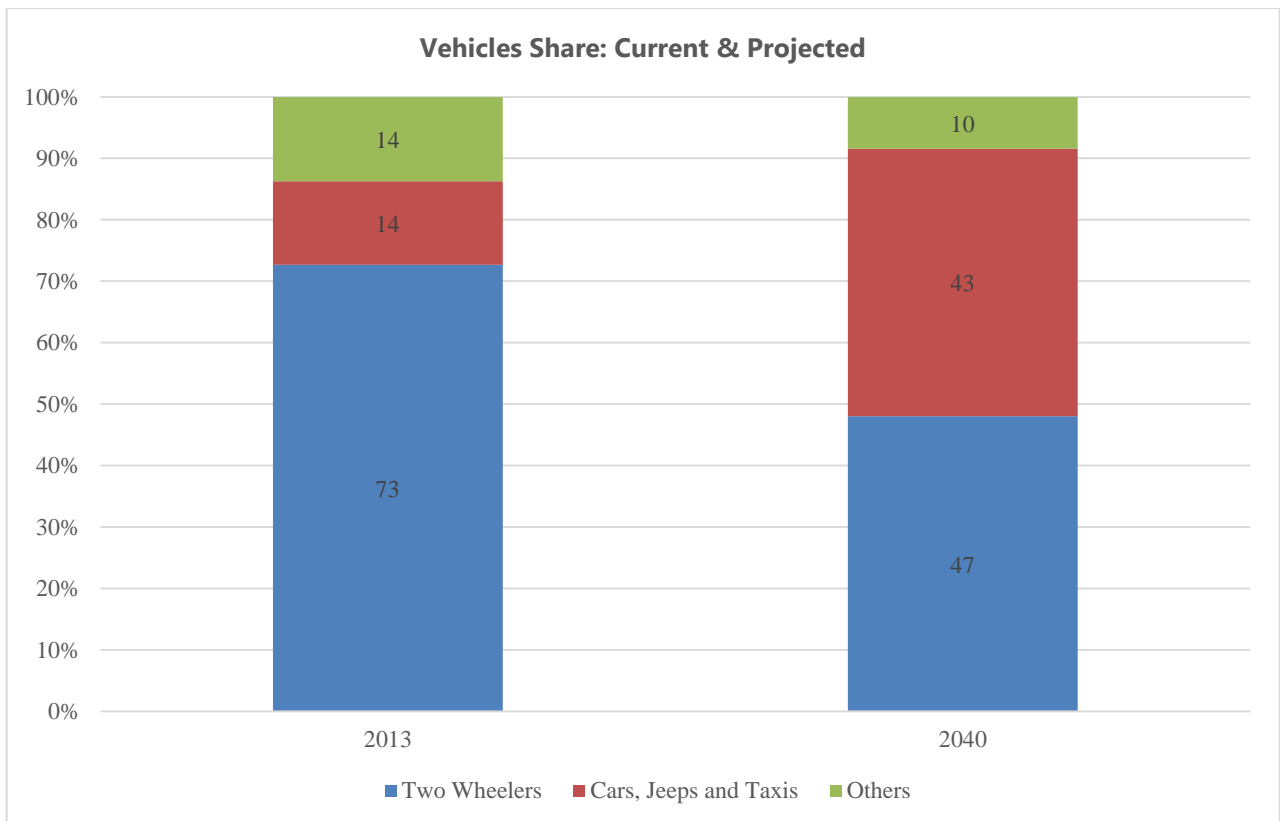
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Vehicles Scenario in India

Akhilesh Sati, Observer Research Foundation



Source: Statistical Year Book, India 2015, MoSPI



Source: Statistical Year Book, India 2015, MoSPI & WEO 2015, IEA

NEWS BRIEF

[NATIONAL: OIL & GAS]

Upstream.....

India, Iran plan to seal deal to develop offshore Farzad B field by October

June 6, 2016. India's Oil Minister Dharmendra Pradhan said Iran, currently OPEC's third largest producer, has assured the South Asian country that the latter would be granted the license to develop the offshore Farzad B gas field in the Persian Gulf although the award has been stalled by the issue of gas price. Iran had indicated earlier that it wanted to own marketing rights for gas intended for the local market and so wanted to keep domestic gas price at low rates. The Middle Eastern country have now changed its position. It wants Farzad B developers to market gas produced from the offshore field and is seeking higher prices for the fuel. Pradhan said that the price has to be right to give Indian firms developing the gas field a healthy rate of return on their investments, but it has also to be acceptable to Iran -- the owner of the natural resources. An Indian consortium had discovered 12.8 trillion cubic feet of gas reserves in the Farsi block in 2008. ONGC Videsh Ltd (OVL), the foreign upstream arm of Oil and Natural Gas Corp (ONGC), was a key partner in the joint venture, which also include Oil India Ltd and Indian Oil Corp. Iranian Petroleum Minister Bijan Zangeneh said that the Farzad B field can produce 3 billion cubic feet per day (bcfpd) of natural gas, but Iran signed a memorandum of understanding to produce only 1 bcfpd of gas from the field. Meantime, the joint venture has submitted a development plan last year for the Farzad B field with options to export the gas either in form of liquefied natural gas (LNG) or through a subsea pipeline. Indian oil and gas firms are returning to invest in the Iranian petroleum sector following the lifting of international sanctions imposed on Teheran's nuclear program earlier this year. (www.rigzone.com)

KG Basin to attract ₹ 1k bn investment: Oil Minister

June 5, 2016. Stating that Krishna-Godavari (KG) Basin will become the hub of oil and gas reserves in the country in the coming years, Oil Minister Dharmendra Pradhan said it is likely to attract new investments of ₹ 1 lakh crore. There is lot of differentiation over production costs and technology between Mumbai and the East Coast, he said. He said gas hydrate resource finding has been made in the KG Basin, though there is a need for commercially viable technology to tap it. (profit.ndtv.com)

India keen on joint development of Oil, Gas blocks in Qatar

June 5, 2016. The Indian government evinced interest in joint exploration of new oil and gas fields as well development of discovered assets in energy rich Qatar. It invited the Gulf nation to invest in the country's exploration and production sector by bidding for the blocks under the new Hydrocarbon Exploration and Licensing Policy and take part in disinvestment of Indian public sector undertakings (PSUs). Besides, a Memorandum of Understanding (MoU) was signed with Qatar Investment Authority for facilitating Qatari investment in the ₹ 40,000 crore National Investment and Infrastructure Fund. India invited Qatar to participate in the second phase of the strategic reserves storage facility being created in India. (profit.ndtv.com)

Govt seeks to attract more players for oil fields auction

June 2, 2016. With global oil giants staying shy of India in past, the government has tweaked terms to attract mainly medium-sized players for the auction of nearly four dozen small oil and gas fields in the first sale in six years. Bidding for 46 already discovered but untapped smaller oil and gas fields will open on July 15 as the government looks to boost domestic output to cut the import dependence. The government has abandoned decades-old regime of awarding oil and gas fields under a production-sharing contract (PSC) and instead discovered marginal fields have been offered under a revenue-sharing model, Director General of Hydrocarbons Atanu Chakraborty said. Under the new regime, fields will be awarded to companies offering the maximum quantity of oil and gas to the government. Moving away from PSC regime would mean minimal regulatory oversight. He said unlike rest of the world, there is no longer a scenario of over-capacity in India and demand is no longer an issue. Unlike exploration rounds previously held, there will be little risk of unknown as there already are established reserves. Last date of bidding is October 31 and results would be out on November 16. As many as 69 discovered small and marginal fields were surrendered by state-owned exploration and production companies

ONGC and Oil India. 63 of them were surrendered by ONGC as they were found to be uneconomical for a large company with huge overheads to produce at regulated price. Of these 67 have been clubbed into 46 blocks, holding proven reserves of up to 625 million barrels of oil and gas equivalent. 26 of them are on land, 18 offshore in shallow water and two in deep water. The bid round offers pricing and marketing freedom. Under a revenue-sharing model, the companies starts payment to the government as soon as production starts. In the PSC model, they were recover costs fully before sharing revenue with the government. (timesofindia.indiatimes.com)

RIL to drop arbitration over surrender of KG-D6 block area

June 1, 2016. Reliance Industries Ltd (RIL) has decided not to pursue arbitration against the government over an order that forced the company to surrender a large part of the KG-D6 block that it operates. RIL had sent a notice of arbitration to the government last year, contesting the latter's 2013 order that asked the company to relinquish about 80% of KG-D6 contract area. The company recently told the government that it no longer wished to pursue arbitration in this case. The move would help effectively end the dispute. Reliance Industries to drop arbitration over surrender of KG-D6 block area Explaining the reason for the firm to drop arbitration, the area RIL relinquished contains low volume of gas and, with oil and gas prices having crashed now, it would not have made sense to try and commercially exploit it. In the past, both the company and government have cited provisions of the production sharing contract (PSC), legal guide for operating oil and gas block, to defend their respective stands in the dispute regarding how much area the company needed to relinquish at end of exploration phase. According to the PSC, the contractor can retain only 'development areas' and 'discovery areas' at end of the exploration period and have to relinquish the rest of the block to the government. (economictimes.indiatimes.com)

Downstream.....

AP CM for oil refinery plant in Krishna district

June 7, 2016. Andhra Pradesh (AP) Chief Minister N. Chandrababu Naidu requested the authorities of the Oil and Natural Gas Corporation (ONGC) and GAIL (India) Ltd to set up a refinery plant in Krishna district with its headquarters at Machilipatnam. A delegation from the ONGC and the GAIL which met Naidu said a proposal was under their consideration to establish an LPG plant at Nagayalanka in Krishna district. Appraising the CM of the progress of works relating to gas pipeline works, the team of officials said out of the targeted 933 kilometres of gas pipeline installations, currently works are in progress in a stretch of 617 kilometres. The works in the remaining 316 kilometres stretch will take off soon. Four more gas 'dehydration' units will be established in Kesanapalli, Endamuru and Tatepaka in addition to the existing ones at Patalapuri, Mori, Narasapuram, Mandapeda and Gopavaram, they explained. Explaining the safety measures, the officials apprised the Chief Minister that controlling of the main pipeline valve with a remote will be introduced soon while maintaining that leak detection system is already in place. Exploration works are in progress in 67 oil wells and 196 natural gas wells in Godavari and Krishna Districts. (timesofindia.indiatimes.com)

India ready to help revive Nagarjuna oil refinery: Oil Minister

June 6, 2016. India is ready to revive projects including the Nagarjuna Oil Refinery in the south of the country to boost its oil sector, Oil Minister Dharmendra Pradhan said. India meets about three-quarters of its oil needs through imports and wants to expand its production and refining capacity to meet soaring demand. The Nagarjuna refinery, in the state of Tamil Nadu, was in an advanced stage of construction when it suffered severe damage in a December, 2011 cyclone. The firm lacks the financial strength to continue work at the site. Completion of the facility, with a capacity of 120,000 barrels per day, would help fill a looming shortage in processing capacity but would require a cleanup of the site and extensive renovation work. Nagarjuna Oil Refinery earlier said it was in talks with prospective investors, including state-run firms like Indian Oil Corp, as well as the royal family of Saudi Arabia, to revive the facility. (in.reuters.com)

Diesel ban will be CNG's gain, going forward

June 5, 2016. For diesel, the game seems to be almost over. In search of a 'tidier' and greener fuel India seems set to zoom in on Compressed Natural Gas (CNG). At least for now, it seems that in the run with diesel, CNG might well have the last laugh. And the biggest gainers will be the largest corporates in the country. PSUs such as ONGC, Oil India, GAIL (India) Ltd, IndianOil, BPCL, HPCL and private majors like Reliance Industries, Adani Group, Essar Oil, Gujarat Gas, Petronet LNG, GE Oil and Gas, Cairn Energy, Shell, BG India could be the ultimate beneficiaries of the 'historic' switch over. In order to popularise CNG use right technology has to be brought in and instead of converted vehicles original CNG vehicles should

be developed, Sridhar V, Partner, Grant Thornton India LLP said. In India, though incentives and tax rebates are provided by some state governments to use conversion kits and use of CNG vehicles, there is no clear CNG policy in the country, he said. However, Indian vehicles seem set to hug CNG in a big way. According to Oil Ministry estimates, there are around 1,010 CNG stations in the country and about 25.5 lakh vehicles run on the fuel (as on March 31, 2015). In China, there are 1.5-2 million vehicles that run on CNG and globally it is estimated that about 25 million vehicles use CNG as a fuel. (www.newindianexpress.com)

Transportation / Trade.....

IOC, BPCL clinch deal with RIL, Essar to restart diesel buy

June 7, 2016. State-owned refiners Indian Oil Corp (IOC), Hindustan Petroleum Corp Ltd (HPCL) and Bharat Petroleum Corp Ltd (BPCL) buy about 12 million tonnes of diesel annually from Jamnagar refineries of Reliance Industries Ltd (RIL) and the Vadinar unit of Essar Oil. The arrangement, however, broke down earlier this year, with the private refiners seeking a better deal. Private refiners previously paid central sales tax as well as coastal freight for shipping the fuel from their plants in Gujarat to consumption points in southern and eastern India. They wanted this cost to be borne by the buyers - IOC, BPCL and HPCL. As negotiations to work out a final arrangement continued, they resorted to imports as paying both central sales tax and freight would have made the fuel expensive. Now, an ad-hoc deal has been reached wherein the private refiners will pay the central sales tax and state-run marketing firms will bear the cost of coastal shipping. The state-owned firms are buying diesel from the two private refiners on a month-on-month basis. For example, for July, they would indicate the tentative requirement by June 10 and a firm number by June 24. A final deal is in the works and may take a few weeks to conclude, they said. During April-May, the three oil marketing companies have bought about 1.2 million tonnes of diesel from RIL and Essar. They also bought a small quantity of petrol (about 0.15 million tonnes). During 2015-16, the three state-owned firms had bought over 12 million tonnes of diesel and 0.6 million tonnes of petrol from RIL and Essar. State-owned oil firms need diesel from RIL and Essar as domestic consumption is rising at 7.6 percent, its fastest pace in four years. (www.business-standard.com)

Piped gas for over 2.5 lakh households in Hyderabad by 2021: Oil Minister

June 5, 2016. Bhagyanagar Gas Ltd, a joint venture of GAIL (India) Ltd and HPCL Ltd, will connect one lakh new households in Hyderabad to Piped Natural Gas (PNG) within next two years and more than 2.5 lakh by 2021, Oil Minister Dharmendra Pradhan said. He said all preparatory work has been completed and tenders have been invited for the pipeline-laying process. He said there will be more CNG connections for transportation sector and added that more CNG facilities will be put in Hyderabad. (www.business-standard.com)

India, Bangladesh fuel trade talks

June 3, 2016. India and Bangladesh will hold official-level talks on June 12 to discuss the nitty-gritties of linking their LPG (liquefied natural gas) networks. The talks follow discussions Oil Minister Dharmendra Pradhan had with the Bangladesh government, including Prime Minister Sheikh Hasina, during his April visit. Lending an impetus to bilateral energy ties initiated during Prime Minister Narendra Modi's June 2015 visit, Pradhan proposed laying a Chittagong-Tripura pipeline through Bangladesh for supplying part of the imported LPG to India's northeast region and supplying diesel from Numaligarh refinery to Parbatipur in Bangladesh. The pipeline would allow India an easier transport route to supply LPG to the northeast and help Bangladesh expand its own distribution network for the clean fuel. (timesofindia.indiatimes.com)

Indian refiners to clear \$6.6 bn owed to Iran during sanction years

June 2, 2016. Indian oil refiners have paid about \$750 million in the past two weeks and aim to clear in the next three months the entire \$6.6 billion owed to Iran for crude purchased during the sanction years, the oil ministry said. Following the lifting of most of the sanctions on Iran, Indian refiners have begun paying Iran for the past purchases that couldn't be paid due to unavailability of the banking channel. Now the refiners are using Euro to make the payment and routing it through Turkey's Halkbank. State refiners Mangalore Refinery and Petrochemicals and Indian Oil Corp have paid \$500 million and \$250 million respectively to Iran. About 45% of the \$6.6 billion dues are owed by MRPL while 43% are owed by Essar Oil. Essar Oil declined to comment on its payment schedule. The oil ministry said the state firms have been asked to quickly clear all payment backlog and they are doing it. The government expects all refiners to settle dues in three months. In some time, the two sides will decide on the quantum of the interest payable on the dues for the period payments were held back. India is one of the biggest crude buyers from Iran. It imported about 12 million metric tonne of crude oil

in 2015-16 and is expected to sharply increase in this financial year as sanctions have been lifted. MRPL and Essar have been the biggest Indian customers of Iranian crude. Reliance Industries Ltd (RIL), which operates the world's largest refining complex in Gujarat, too has begun importing from Iran. Iran was India's second biggest oil supplier before sanctions curbed the oil trade between the two countries. But a sanctions-free Iran, aggressively seeking a share in the global oil market, wants India to raise import of Iranian crude to the level in the pre-sanction days. (energy.economictimes.indiatimes.com)

Policy / Performance.....

Govt weighs doubling capacity of LNG import terminal

June 7, 2016. India plans to more than double its liquefied natural gas (LNG) import terminal capacity in six years to cater to the rising natgas demand from refineries, fertilizer and power plants. Plans to set up new terminals and expand existing facilities will push up LNG terminal capacity to 47.5 million metric tonne per annum (mmtpa) by 2022 from the current 21.3 mmtpa, according to the oil ministry document. In 2015-16, the natural gas consumption in the country rose barely 2 percent to 52 billion cubic meters, of which 40 percent was imported as LNG. But in the last few months, the consumption has soared, rising 14 percent in April, banking on cheaper imports that rose 45 percent. As the economy expands and industries and households increase their consumption of natural gas, the dependence on imported LNG will only increase since the domestic output has been declining for years. A three-fourths collapse in natural gas prices in two years has made imports attractive. The fertilizer and power sectors have been key consumers of the natural gas in the country, depending mostly on domestic output, while refineries and petrochemicals plants have relied more on imported gas. The imported gas is liquefied at source and carried by ships to LNG import terminals where it is regasified for further supply. With expanding need for imports, Indian also needs to add more LNG terminal capacity. Currently, there are four LNG terminals at Dahej and Hazira in Gujarat, Dabhol in Maharashtra and Kochi in Kerala. The recently-built Kochi terminal is barely functional due to the delay in the construction of pipeline planned to connect the terminal with the consumers. The capacity at Dahej is expected to expand to reach 15 million tonne by the year end from 10 million tonne at present, and further to 17.5 million tonne in future, according to the oil ministry document. A new LNG terminal at Ennor in Tamil Nadu, being built by Indian Oil Corp, with a capacity of 5 million tonne, is expected to be completed in three years. Adani group is developing a 5 million tonne capacity at Dhamra in Odisha while Shell and GAIL (India) Ltd plan to set up a 5 million tonne terminal at Kakinada in Andhra Pradesh. (energy.economictimes.indiatimes.com)

Higher oil prices may create adversity: Finance Minister

June 5, 2016. With crude oil price touching 7-month high of \$50 a barrel, Finance Minister Arun Jaitley has said India can handle the current level but higher rates will impact the economy and lead to inflationary pressure. India, which depends on imports to meet 80 percent of its oil needs, will have to spend ₹ 9,126 crore (\$1.36 billion) more for every dollar per barrel increase in crude oil prices while also seeing surge in inflation. Petrol prices have been hiked five times since March, totalling ₹ 8.99 a litre while diesel rates have been raised by ₹ 9.79 per litre as international oil prices climbed to \$50 per barrel for the first time since October 2015. Every rupee per litre increase in petrol price leads to 0.02 percent rise in WPI inflation and by 0.07 percent for the same amount of increase in diesel rates. Jaitley said external factors that impact economic growth rate, which at 7.6 percent of 2015-16 has called the fastest among major economies, are oil and commodity prices. When oil prices slumped in second half of 2014 and 2015, the government hiked excise duty on petrol and diesel nine times to mop up additional revenues that helped it meet its revenue and fiscal deficit targets. In all, it raised excise duty on petrol by ₹ 11.77 a litre and that on diesel by ₹ 13.47. Jaitley said the global environment has certainly not been helpful for growth of Indian economy. (www.tribuneindia.com)

Global giants seek inroads into India's retail fuel market: Oil Minister

June 3, 2016. Global oil majors including Saudi Aramco and Total plan to tap the retail fuel market in India, Oil Minister Dharmendra Pradhan said. India's fuel markets could be a lucrative prize for the world's oil majors as they seek outlets for their gasoline and diesel. India posted the fastest oil demand growth in the world in the first quarter of 2016 and is replacing China as the driver of growth globally, the International Energy Agency said. India, the world's fourth-biggest oil consumer, recently offered Saudi Aramco a stake in refineries and petrochemical projects. Saudi Aramco wants to expand globally and is looking at potential joint ventures in several countries, including Indonesia, India, the United States, Vietnam and China. Fuel marketing in India has turned profitable after the government ended decades-old control over the retail prices

of gasoline and diesel. The oil ministry has agreed to grant a licence to BP to market jet fuel in India. (timesofindia.indiatimes.com)

Goa reduces VAT on petrol

June 1, 2016. The Goa government reduced the value added tax (VAT) on petrol by 5 percent to retain the price below ₹ 60 in the state. This is the second reduction in a fortnight. After the latest hike announced, the petrol prices in Goa had gone up to ₹ 62.25. The same has been reduced to ₹ 59.65 after the VAT was brought down to 15 percent, Additional Commissioner of Commercial Taxes, Rajan Satardekar, said. He said that the reduction of 5 percent has been notified and the decision has been taken by the government in conformity with budget speech of the Chief Minister Laxmikant Parsekar in March last hiking the VAT on petrol from 15 percent to 22 percent. He had said that Goa will not allow petrol prices to go beyond ₹ 60. (www.thehindubusinessline.com)

Petrol price up by ₹ 2.58, diesel by ₹ 2.26

June 1, 2016. Indian Oil Corp (IOC) hiked the petrol prices by ₹ 2.58 a litre and diesel by ₹ 2.26 per litre. With this change, petrol will cost ₹ 65.60 per litre in Delhi after the increase while diesel will cost ₹ 53.93 a litre. Zone wise price movement shows that petrol prices will be comparatively cheaper in Chennai with ₹ 65.04 and costlier in Mumbai with ₹ 70.18 per litre. The announcement was the second hike this month. The prices were last hiked on May 17. According to IOC, the hike in prices is due to the movement in the international oil market and INR-USD exchange rate. Since deregulation in 2014, oil marketing companies now have the liberty to hike or cut prices according to global price movement. IOC, Bharat Petroleum Corp Ltd (BPCL) and Hindustan Petroleum Corp Ltd (HPCL) revise rates of the fuel on 1st and 16th of every month based on the average oil price and the foreign exchange rate in the preceding fortnight. While movement of prices in the international oil market will continue to be observed closely, developing trends will reflect on the future price movement. (indiatoday.intoday.in)

Govt & petro dealers in West Bengal facing heavy loss due to cross border issue

June 1, 2016. Petroleum dealers in West Bengal expect the new state Government to take up their proposal with center to save it and provide respite to the dealers from huge sales loss as well. The issue stands on NH31, Popularly known as Assam Road that connects entire NE region with rest of the country. A stretch of over 250 km of it runs through northern West Bengal at places coming closer than even 10 km from Indo-Bhutan border. As per North Bengal Petrol Dealers Association (NBPDA) estimation, near 150 outlets on and around NH31 are losing around 10% - 20% of their total sales due to this unique situation. Volume wise it comes to a loss of near 240 kiloliter Diesel and 120 kiloliter of Petrol in a single day. (economictimes.indiatimes.com)

[NATIONAL: POWER]

Generation.....

NTPC to invest ₹ 300 bn in FY17 to increase capacity

June 7, 2016. NTPC Ltd will spend ₹ 30,000 crore in 2016-17 to step up power generation capacity as electricity demand is picking up due to ongoing efforts to turn around distribution companies under the Ujwal Discom Assurance Yojana (UDAY), NTPC said. The power utility, which accounts for about a sixth of the country's 302 GW of power capacity—mostly from coal-fired plants—is reviewing its long term corporate plan to branch out more into renewable sources of energy, in line with the government's commitment to meet 40% of its electricity needs from non-fossil fuels by 2030. NTPC is trying to produce 10 GW of the proposed 100 GW of solar power capacity that the government has planned to install by 2022. The gap between the government fixed price and the cost of production plus a 12% return on investments is granted as subsidy based on the audited sales quantity figures. The increase in power demand is evident from the fact that in the last two months, the company's plants have been utilising 82% of their capacity, NTPC said. It was 78.61% in 2015-16 against the national average of 62%. (www.livemint.com)

Power generation hit at NTTPS

June 3, 2016. Generation of 840 MW at Dr. Narla Tatarao Thermal Power Station (NTTTPS) came to a halt in the early hours due to tripping of feeders connected to units 3 to 6. However, engineers restored power generation by evening. The four

units with 210 MW capacity each went out of order after lightning struck the feeders and generation had to be suspended. The other units functioned normally. Due to the suspension of generation, many areas in the region, including Vijayawada city, experienced several interruptions in power supply in the early morning. However, the supply was stabilised after a few hours. (www.thehindu.com)

Maithon Power generation increased by almost 7 percent in FY16 as compared to FY15

June 2, 2016. Maithon Power Ltd (MPL), a 74:26 joint venture between Tata Power and Damodar Valley Corporation (DVC), announced that it has increased its generation by 7 percent in FY16 as compared to previous year. MPL generated 7172 million units (MUs) in FY16 as compared to 6684 MUs in FY15. MPL is the first successful public-private partnership (PPP) in green field generation project in the country. The plant has implemented 2 x 525 MW coal-fired power project power in Jharkhand, which had languished for more than a decade. The power project benefits close to 16 million domestic consumers apart from supplying cost competitive power to industry and agriculture. MPL will continue to be a competitive source of power and help meet states growing demand for electricity. (www.newkerala.com)

NHPC plans to commission 610 MW hydro projects this fiscal

June 2, 2016. National Hydroelectric Power Corp (NHPC) expects to commission nearly 610 MW hydro projects this fiscal. The company is hopeful of commissioning one unit of 200 MW of the 800 MW Parbati II in Himachal Pradesh. The 520 MW Parbati III project was commissioned completely in 2014, but due to insufficient availability of water the project was not operating in its full capacity. NHPC said the Parbati II project will be completely operational by November 2018. (economictimes.indiatimes.com)

BHEL commissions 520 MW thermal power unit in AP

June 1, 2016. Bharat Heavy Electricals Ltd (BHEL) said it has commissioned another 520 MW coal-based power generating unit in Andhra Pradesh (AP). The unit has been commissioned at the 2x520 MW Vizag thermal power project of Hinduja National Power Co Ltd (HNPC), Visakhapatnam, it said. Significantly, in Visakhapatnam district, four 500 MW thermal sets supplied and executed by BHEL are already in successful operation at Simhadri Super Thermal Power Station of NTPC, it said. BHEL has recently secured prestigious orders for setting up two supercritical thermal power projects involving one unit each of the country's highest rating 800 MW sets, in Andhra Pradesh. (www.business-standard.com)

Transmission / Distribution / Trade...

Smartphone apps help bring reliable power to 1.3 bn people

June 7, 2016. At any given minute in India, you can find out how much electricity is for sale and at what price with a few swipes across a smartphone screen -- a level of transparency in the nation's power sector that's increasing the odds of far-reaching change to end blackouts. The unprecedented instant access, which shows untapped power supplies and comparatively cheap available electricity while millions go without reliable supplies, highlights deep flaws in the state-level distribution system. The picture painted by the data is increasing pressure on local officials to embrace Prime Minister Narendra Modi's plan to fix the woes of indebted state retailers so all of India's 1.3 billion people have access to electricity by 2019. Required to sell power below cost for years, India's cash-strapped power distributors stacked up unpaid loans of almost ₹ 5 trillion (\$74 billion) as of September. The losses have eroded their ability to purchase enough power to meet demands of customers and invest in infrastructure to support new connections and increase efficiency. Transforming those distributors, operated by India's states, to run more efficiently and ensure they have funds to purchase greater supplies is key to Modi's promise of lighting up the \$2 trillion economy. Eighteen of India's 29 states, and one of its union territories, has agreed to join Modi's debt plan for the state power distributors, according to a tally by the central government as of May 20. Proponents of Modi's plan say Vidyut Pravah, the smartphone app that updates every 15 minutes with regional power availability, shortages and prices, holds distributors accountable and improves the odds they'll see through their side of the restructuring bargain. Rajasthan's three distribution companies had a combined ₹ 850 billion of debt as of last year, the most among all states in India. Under the debt recast plan, the local government has taken over ₹ 600 billion of loans, leaving distributors with debt of ₹ 250 billion, according to Ajmer Vidyut Vitran Nigam Ltd, a power distributor in the northern state of Rajasthan, said. The central government's debt recast plan has increased demand for electricity from the distribution companies, according to state-run generator NTPC Ltd. The electricity deficit in Uttar Pradesh has nearly halved over the past year to 6.4 percent in April, even as demand rose. The state has taken on ₹ 400 billion of debt held by distribution utilities, leading to monthly savings of ₹ 4 billion on interest payments and spurring higher power purchases

and distribution, according to the Uttar Pradesh Electricity Regulatory Commission. Modi's administration has linked 8,095 villages to power transmission lines, and seeks to bring reliable supplies to about 9,900 more, according to Grameen Vidyutikaran, a separate app set up by his government. After promising 24x7 electricity and economic development to win a record political mandate in 2014, failure could damage his party's chances in the next elections. (www.bloomberg.com)

Surplus TN allows generators to sell power outside state

June 6, 2016. The Tamil Nadu (TN) government has allowed private power companies to sell electricity to other states by lifting Section 11 of the Electricity Act 2003. An order to this effect was issued by the government on May 31. The last time the government withdrew the section was in 2014 but within a few months, it re-imposed the section due to shortage. According to the order, there is surplus power to the extent of 300 MW. Along with Kudankulam unit 2, the surplus may increase in the coming months. It is good to allow the surplus power to sell outside and let them make money and also supply to power starved states and thus help them in the crisis situation. Let us hop the TN govt. (timesofindia.indiatimes.com)

Policy / Performance.....

Goa to host two-day conference of state power ministers

June 7, 2016. Goa will host a two-day conference of state power ministers from across the country on June 16-17 to review, plan and monitor the sector. The conference will be inaugurated by Minister of State for Power, Coal and Renewable Energy Piyush Goyal. The conference will review, plan and monitor the power scenario across the country. (www.business-standard.com)

Arunachal likely to allow developers to opt out of 34.2 GW hydro projects

June 7, 2016. Hydropower projects of around 34,620 MW in Arunachal Pradesh may face shutdown as the state government is likely to give the developers a chance to walk out of the projects and rebid if they want. The state government prepared a list of 189 hydro power projects that were identified to be set up in Arunachal Pradesh and asked PFC Consulting to work out a method to optimize the operations. Of the 189 projects, only four have seen the light of the day with around 8-15% investment done and five projects have seen less than 4% expenditure. In 30 projects with 34,620 MW, the developers have made no investment so far and the state government plans to re-auction these as the projects have neither found any lenders nor any strategic investors. To promote hydropower, the government has brought various changes in tariff policy, including not excluding hydro power from renewable energy obligation and allowing flexibility in depreciation rate among others. (energy.economictimes.indiatimes.com)

PM Modi gets Switzerland support for elite 48 member NSG entry

June 6, 2016. Switzerland pledged its support to India's entry into the elite 48-member nuclear trading nations' club called Nuclear Suppliers Group (NSG). India has been lobbying hard for years to get the membership in the club. However, India has been kept out of the group so far because of China's opposition on the ground that India has refused to sign the Nuclear Non-Proliferation Treaty even as the country developed its own nuclear technology. (energy.economictimes.indiatimes.com)

Power for all reality by 2019: Goyal

June 6, 2016. Union Minister of State for Coal, Power, New & Renewable Energy, Piyush Goyal has declared that the road map is ready for ensuring 24x7 affordable power for all. He said the Ministries of Power, Coal and New & Renewable Energy have worked together to lay a firm foundation for creating a power surplus environment in the country. He said in a significant transformation, India has become power surplus, with record capacity addition taking place in the last two years. He said that 7,779 remote villages out of 18,452 un-electrified villages have already been connected. (timesofindia.indiatimes.com)

Govt revives agency for nuclear cooperation with smaller countries

June 5, 2016. As India moves closer to getting membership of the Nuclear Suppliers Group (NSG) which would admit it into a group of countries who play by agreed rules on nuclear commerce, the Modi government has resurrected a virtually defunct organisation to become the nodal agency for nuclear cooperation with smaller countries. The Global Centre for Nuclear Energy Partnership (GCNEP), which got a home near Bahadurgarh, Haryana in 2014, four years after it was

announced by former PM Manmohan Singh in September 2010, will be the training and cooperation agency for India's nuclear outreach to different countries. Bangladesh and Sri Lanka, with whom India has signed nuclear cooperation agreements are the first countries where India is using the facilities and skills in GCNEP to train its personnel and guide them through nuclear programmes on proliferation, safety and security fronts. If India does manage to get into the NSG this year - which is a touch-and-go affair, given China's opposition - India plans to open nuclear cooperation with a number of countries. With the government keen on incentivizing nuclear manufacturing through the Make in India programme, India plans to become a nuclear supplier in the years to come. (timesofindia.indiatimes.com)

'Only 14 villages in Sundarbans have no power, it will be done this year'

June 4, 2016. State Power Minister Sovandeb Chatterjee said by the end of this year, the government wants to achieve 100 percent electrification in rural areas of the state. Following the first administrative meeting of the West Bengal government, Chatterjee said that except 14 villages of Sunderbans in South-24 Parganas, all rural areas will have electricity by this month. The West Bengal Chief Minister Mamata Banerjee has promised that Sunderbans would be provided electricity through the power grid and work has been started for this purpose. Chatterjee said by the end of 2016, all government offices would be powered by solar energy. The minister said that the West Bengal State Electricity Distribution Company Ltd has come up with a mobile app named Bidyut Sahyogi. (indianexpress.com)

PFC acquires 23 percent in Shree Maheshwar Hydel Power Corp

June 3, 2016. Power Finance Corp (PFC) said it has acquired over 23 percent stake in Shree Maheshwar Hydel Power Corp Ltd (SMHPCL) by invoking pledged shares and partially converting debt into equity. PFC is one of the lenders of Shree Maheshwar Hydel Power Corporation Ltd and have given a loan of ₹ 700 crore to SMHPCL along with guaranteeing ₹ 400 crore to the bond holders of SMHPCL. (profit.ndtv.com)

India won't need extra power plants for next 3 yrs

June 2, 2016. India won't need any new power plants for the next three years as it is flush with generation capacity, according to a government assessment. But, ironically, more than a third of the country's population still lives without power. The country can manage for the next three years with existing plants that are currently under-utilised, and those that are under construction and upcoming renewable energy projects, assessment made by the power ministry for reviewing the National Electricity Policy shows. The policy, originally issued in 2005 as a roadmap to the Electricity Act of 2003, is being altered in the backdrop of changes in the power sector. This clearly signals that any thermal power plant that is yet to begin construction should back off, the power ministry said. India has power plants with capacity to generate 300 GW. These are operating at 64% capacity because of inability of state distribution utilities to purchase electricity and sluggish economic growth. About a tenth of the total capacity is stranded due to lack of power purchase agreements while another 50 GW is under various stages of construction. Meanwhile, there are plans to build renewable energy capacity of 175 GW by 2022. India's per capita electricity consumption, though increasing, is lowest among the BRICS nations and about one-third the world's average. The energy deficiency is a low 2.1%, but experts feel latent demand from remote areas is not being accounted for. The glut-like situation is a result of the previous government's initiatives to boost electricity generation, coupled with high investor interest the sector had witnessed. Experts said companies have put new projects and expansion plans on hold. This may lead to huge deficits in the period after 2019 as power plants take several years to be commissioned. (economictimes.indiatimes.com)

Govt inks coal pact with MECL, NEMT

June 2, 2016. The state government has put the process of coal exploration from mines in Krishna and West Godavari districts on fast-track. The government has roped in public sector majors - Mineral Exploration Corp Ltd (MECL) and National Mining Exploration Trust (NMET) to realise the coal exploration plans within the next 12 months. The state government entered into a Memorandum of Understanding (MoU) with MECL and NMET. With scientific studies indicating that there are vast coal reserves along the tracts of K-G Basin in Chintalapudi (West Godavari) and Nuzvid (Krishna), the state government immediately prepared plans to extract black gold. Preliminary studies showed that K-G basin could be having reserves of 3,000 million tonnes of coal. Besides finding the exact location of the mineral reserves, the public sector firms would also extend support in exploration and marketing of the goods, mines and geology minister Peethala Sujatha said. She said they were planning to start production by 2017, for which the initial process of identifying the exact coal

blocks would be completed by this December. While MECL would deploy workers and required machinery to track the mineral reserves, NMET would take up the job of exploration. (timesofindia.indiatimes.com)

Only 16 of 29 state regulators have issued tariff orders so far: ICRA

June 2, 2016. Nearly half of all the state electricity regulatory commissions (SERCs) have failed to issue tariff orders for FY17 while state-run power distribution companies in big states such as Rajasthan, Tamil Nadu and West Bengal are yet to file tariff petition with the regulators for the current fiscal, ratings agency ICRA said in a report. Among the 16 discoms that have secured tariff orders from the regulators, the average hike has been a modest 5% as against proposed tariff revision of 5-33% in petitions filed by utilities. As per a judgment by the appellate tribunal for electricity (APTEL) in 2011, the state utilities must file tariff petition for upcoming fiscal year petition by November. The respective state regulators must issue tariff orders before the close of fiscal. The judgment also recommended that regulators can take suo motu action in determining tariff revision if utilities fail to file the same within the stipulated time. ICRA said that the recently held Assembly elections could also have led to delay in the tariff determination process for FY2017 in the states of Assam, Kerala, Tamil Nadu and West Bengal.

ICRA said the limited tariff hike has been accompanied by higher subsidy dependence for utilities in Bihar and Karnataka. The overall subsidy dependence for FY17 for the distribution utilities at all-India level is estimated at ₹ 75,700 crore, an increase of 7% against the previous fiscal. This is estimated to account for nearly 19% of the revenue requirement approved for the utilities for the current fiscal. The increase in subsidy can be mainly attributed to the increase in subsidy for the discoms in Bihar, Karnataka and Maharashtra, ICRA said. It said that subsidy dependence in other states such as Andhra Pradesh, Gujarat, Haryana, Madhya Pradesh, Punjab, Rajasthan, Tamil Nadu, Telangana and UP continues to remain significant owing to the highly subsidised or free power supply scheme to agriculture consumers and to some sections of domestic consumers in these states. (www.financialexpress.com)

Australia-India civil nuclear deal concluded, supply to start soon

June 1, 2016. Australia said, as it has concluded the nuclear agreement with India, the supply of uranium will begin in a short period of time. Australian High Commissioner to India Harinder Sidhu said that concluding contracts and supply can take some time but active engagement is underway on supplying uranium to India. The Australia-India nuclear cooperation agreement permits Australian companies to commence commercial uranium exports to India. Australia has about 40 percent of the world's uranium reserves and exports nearly 7,000 tonnes of yellow cake annually. India and Australia began talks on the Civil Nuclear Cooperation Agreement in 2012 after it lifted a long-standing ban on selling uranium to energy-starved India. India, which has nuclear energy contributing just 3 percent of its electricity generation, will be the first country to buy Australian uranium without being a signatory to the nuclear non-proliferation treaty. When asked Australia's stand on India's entry into the Nuclear Suppliers Group (NSG), she said that her government is "very very supportive" of India's entry into NSG. (www.firstpost.com)

[INTERNATIONAL: OIL & GAS]

Upstream.....

Chevron to ramp up gas production in China's southwest Chuandongbei project

June 7, 2016. Chevron Corporation's fully-owned subsidiary Unocal East China Sea will ramp up production in the Luojiashai and Gunziping gas fields, its biggest investment in China, the firm said. The company will use all three of its gas trains, with combined outlet capacity of 258 million cubic feet of natural gas per day, after the success of the first stage of the Chuandongbei project, it said. The development will be carried out in three stages -- the first comprising the development of the Luojiashai and Gunziping gas fields, as well as the construction of the Xuanhan gas processing plant. The field's production commenced with the start of the first train in January, after delays due to discrepancies with Chinese partner the China National Petroleum Corporation (CNPC) over how to develop the technically tricky gas fields. The two companies signed a 30 year production sharing contract in 2007, aiming to supply 7.6 billion cubic metres of gas a year. The agreement granted Unocal 49 percent interest in the \$6.4 billion dollar project and CNPC the remaining stake. The Chuandongbei project covers over 800 square kilometres in Sichuan Province and the Chongqing Municipality, containing potentially recoverable natural gas resources of 3 trillion cubic feet. (www.reuters.com)

IOG to drill Skipper well in July

June 7, 2016. Independent Oil and Gas plc (IOG) announced that an appraisal well on the Skipper oil discovery, which lies in Block 9/21a in license P1609 in the Northern North Sea, is scheduled to be drilled in July. The vertical well will be drilled to 5,600 feet with the primary objective of retrieving good quality reservoir condition oil samples, in order to optimize the Skipper field development plan and to drill two mapped reservoir structures beneath the Skipper oil field in the Lower Dornoch and Maureen formations. Drilling of the Skipper appraisal well, of which IOG is 100 percent owner and operator, is expected to take 22 days to complete. (www.rigzone.com)

Ghana expects steady oil output as Tullow's Jubilee recovers

June 6, 2016. Ghana's oil output is expected to average 110,000 barrels per day (bpd) in 2016, similar to last year, as output is ramped up at Tullow Oil's Jubilee Field, the ministry of petroleum said. Production at Jubilee was interrupted earlier this year due to technical problems but output resumed last month, the ministry said. Africa-focussed Tullow Oil restarted output at 30,000 bpd in May. The ministry first production at the new Tullow operated TEN offshore field was expected on 17 August and that four unnamed firms searching for oil in the Tano Basin had lost their exploration licenses after failing to meet the necessary requirements. In Ghana, government negotiations with Tullow helped save 100 jobs in the petroleum industry, after the firm initially flagged 130 jobs were on the line, the ministry said. (af.reuters.com)

Exxon Mobil plans to invest \$10 bn in Vaca Muerta shale region in Argentina

June 6, 2016. Exxon Mobil is reportedly planned to invest more than \$10 bn in shale projects in Argentina over the next few decades. The pilot program is being developed by Exxon's subsidiary XTO Energy in partnership with provincial energy company Gas y Petroleo de Neuquen. Exxon Mobil has already invested \$200 mn in exploratory drilling in the region, which is claimed to be the world's second-largest shale gas deposit. In the next few months, the oil giant plans to make additional \$250 mn investment on the pilot project. If successful, the full development of the project would commence during a period of 20 to 30 years. According to the US Energy Information Administration (EIA), Argentina holds the world's second-largest shale gas reserves after China. It has fourth-largest shale oil following Russia, the US and China. The Argentina government estimates that the development of the Vaca Muerta would require \$200 bn investment in the long-term to address its energy crisis. (explorationanddevelopment.energy-business-review.com)

Kiliwani North production to increase in near future

June 6, 2016. Aminex plc announced that production from the Kiliwani North Development License in Tanzania will increase to 30 million cubic feet per day in the near future as a nearby gas plant and subsea pipeline is commissioned. Kiliwani North-1 (KN-1) has booked contingent resources (2C) of 28 billion cubic feet gross. (www.rigzone.com)

Nigerian militants say aim is zero oil output after three new attacks

June 3, 2016. The Niger Delta Avengers militant group has claimed responsibility for three new attacks on Nigeria's oil infrastructure, promising to cut production to zero. The Niger Delta Avengers say oil firms are responsible for pollution and say the poor swampland region fails to reap any benefit from its reserves. It said its attacks had brought Nigeria's oil production to just 800,000 barrels per day (bpd), from 2 million bpd. Nigeria's oil ministry said that output was 1.6 million bpd. Even if the most recent attacks, which also included facilities belonging to Chevron under its Escravos grade, took out all exports of the oil linked to them, June production would remain near 1.2 million bpd. (www.reuters.com)

Russian oil output falls slightly in May to 10.8 mn bpd

June 2, 2016. Russian oil output stood at 10.83 million barrels per day (bpd) in May, slightly down for a second straight month but still close to a record high reached earlier this year. Russia, the world's top oil producer, had been steadily increasing oil output despite a fall in global oil prices as a weaker rouble helped to offset oil companies' losses. OPEC (Organization of the Petroleum Exporting Countries) meets in Vienna after major crude producers in April failed to seal a deal to freeze output to help the market stabilize. Preliminary data from the Russian energy ministry showed that Russia produced 45.79 million tonnes of oil last month - or 10.83 million bpd as an average, down from 10.84 million bpd in April. Russian oil output hit its highest in nearly 30 years in March at 10.91 million bpd. According to the latest data, Lukoil and production sharing agreement projects were among those with lower output last month. Monthly production at Gazprom Neft, the oil arm of state gas company Gazprom, rose. According to energy ministry data, gas production in Russia was at 46.11 billion cubic meters (bcm) last month - or 1.49 bcm per day, compared to 49.88 bcm in April, or 1.66 bcm per day. (www.reuters.com)

Downstream.....

Diesel margins nearly double as El Nino spurs Asia oil demand

June 3, 2016. Diesel, one of the worst performing fuels in the refining complex for years, has seen its fortunes turn around as extreme hot weather has boosted demand, especially at power generators in South Asia. Asia has been struggling to absorb excess diesel as an economic slowdown across the region curbed consumption of the industrial fuel. The International Energy Agency warned that global gasoil demand was crumbling. But the fuel's crack spread, or the profit a refiner gets for producing a barrel of diesel from Dubai crude, nearly doubled to \$11.74 a barrel from its low point this year of \$6.22 on April 6 after India, Pakistan and other Asian countries boosted imports. The strength in imports into these affected countries will continue in coming weeks, analysts at energy consultancy FGE said. The El Nino phenomenon is expected to last till June, after which conditions should normalize. India imported 510,000 tonnes of diesel in April DL-INIMP, the biggest volume in five years, as state-owned refiners ramped up imports after supplies from private companies became too expensive in the absence of discounts on taxes and shipping. Pakistan bought 215,000 tonnes for May in a rare move due to summer demand and supply disruptions caused by a recent strike at Kuwait Petroleum Corp, its long-term supplier. Vietnamese trading company Petrolimex doubled gasoil purchases in April to 140,000 tonnes from March, and maintained the same volume in May. Those purchases cut Asia's diesel surplus, which is forecast by FGE to drop by about 50,000 bpd in the second quarter from the same period a year ago. Without the weather-induced incremental demand in the second half of the year, Asia's gasoil surplus is expected widen again to an average of 935,000 bpd in the second half of this year, up 77,000 bpd from a year ago, FGE said. (in.reuters.com)

Total says plans to restart France's Donges refinery

June 2, 2016. French oil and gas firm Total said it plans to restart its 220,000 barrels per day Donges refinery after 94 percent of the plant's workers voted to resume work. Refinery workers with the hardline CGT trade union joined nationwide strikes against plans by the French government to reform labour laws, leading to a temporary production shut-down at Donges and three other Total refineries in France. Total began shutting down units at the refinery on May 21. The CGT called for an unlimited strike at the refinery, which employs 650 people, but some workers complained they were not consulted. It takes about three to four days to restart a refinery. Production at four of Total's five refineries in France has been halted by the strikes, which have caused fuel supply disruptions and shortages at gas stations. (af.reuters.com)

Transportation / Trade.....

Angola LNG returns to global market with first post-shutdown cargo

June 6, 2016. Angola's recently refurbished liquefied natural gas (LNG) export project launched a tender late to sell its first cargo since the plant was unexpectedly shutdown in April 2014, traders said. The cargo was loaded between June 3 and 5 on board the Sonangol Sambizanga tanker and bid submissions are due on the morning of June 13, traders said. After producing a limited number of cargoes, Angola LNG will then be shut down again for additional testing, traders said. (af.reuters.com)

China's oil stockpiling to boost tanker market

June 6, 2016. Moves by China to stockpile oil are providing a further boost to the tanker shipping market which is already buoyant due to global bargain-hunting caused by lower crude prices, shipowners said. Rates for supertankers transporting 2 million barrel cargoes of crude surged to record highs in late December of over \$110,000 a day and have stayed close to \$60,000 a day in recent weeks, helped by firm appetite for cargoes and a tight supply of ships available for hire. China is expected to add 70-90 million barrels to its strategic crude oil purchases in 2016 as it takes advantage of low prices, a survey has shown. China is the world's second-biggest crude importer, importing 32.58 million tonnes and challenging the United States for top spot. (www.reuters.com)

Devon Energy to get nearly \$1 bn from asset sales

June 6, 2016. U.S. oil and natural gas producer Devon Energy Corp said it would sell assets in Texas for nearly \$1 billion and that it was making progress on the sale of other assets as part of its plan to improve its finances through divestitures. Devon said it would sell producing assets in east Texas for \$525 million and in Anadarko Basin's Granite Wash area for \$310 million. The company will sell its royalty interests in the northern Midland Basin in the Texas region for \$139 million. The company said it expected to make an announcement within the next several weeks on the sale of its 50 percent interest

in Canada's Access Pipeline, which carries heavy oil across northeastern Alberta. Devon said it was making progress toward selling more Midland basin assets that produced an average of 25,000 barrels of oil equivalent per day in the first quarter. (www.reuters.com)

Oregon derailment likely to reignite oil-by-rail safety concerns

June 5, 2016. A Union Pacific train carrying crude oil derailed and burst into flames along Oregon's scenic Columbia River gorge in the first major rail accident involving crude in a year. While no injuries were reported, the train remained engulfed in flames six hours after the derailment. The accident has already renewed calls for stronger regulation to guard communities against crude-by-rail accidents. Union Pacific Corp, owner of the line, said 11 rail cars from a 96-car train carrying crude oil derailed about 70 miles east of Portland, near the tiny town of Mosier. Oil spilled from one car, but multiple cars of Bakken crude caught fire, Oregon Department of Transportation said. The crude was bought by TrailStone Inc's U.S. Oil & Refining Co and bound for its refinery in Tacoma, Washington, some 200 miles northwest of the derailment, the company said. While rail shipments have dipped from more than 1 million barrels per day in 2014 as a result of the lengthy slump in oil prices, the first such crash in a year will likely reignite the debate over safety concerns surrounding transporting crude by rail. Since 2008, there have been at least 10 major oil-train derailments across the United States and Canada, including a disaster that killed 47 people in a Quebec town in July 2013. The incident comes eight months after lawmakers extended a deadline until the end of 2018 for rail operators to implement advanced safety technology, known as positive train control (PTC), which safety experts say can avoid derailments and other major accidents. The measures included phasing out older tank cars, adding electronic braking systems and imposing speed limits, all meant to reduce the frequency and severity of oil train crashes. (www.reuters.com)

CUCBM inks deal to supply gas from China's Linxing PSC to Huasheng

June 2, 2016. Sino Gas & Energy Holdings Ltd disclosed that China United Coal Bed Methane Co Ltd (CUCBM) has inked a gas sales agreement (GSA) on behalf of its 49 percent owned subsidiary Sino Gas & Energy Ltd (SGE), the operator of the Linxing Production Sharing Contract (PSC) in China's Ordos Basin, to supply Xing Xian Huasheng (Huasheng) 10.5 million standard cubic feet per day of gas produced from the Linxing Central Gathering Station. Under the GSA, Huasheng -- a Shanxi-based gas distribution company -- will pay \$7 (CNY 1.61) per thousand cubic meter for the gas over two years, which can be extended by mutual agreement. The contracted gas price is effective until the end of 2016 and is adjustable to take into account changes in local market conditions and Government policies as they are implemented. (www.rigzone.com)

Norway sees US gas as chance for Europe to diversify supplies

June 2, 2016. U.S. exports of shale gas stand to increase confidence in the fuel as a long-term energy source while giving Europe the chance to diversify its natural gas supplies, Norway Petroleum and Energy Minister Tord Lien said. Exactly how much U.S. gas will affect Europe's market depends on the volume and cost of the fuel that ends up traveling across the Atlantic, Lien said. Only one tanker of U.S. liquefied natural gas has been delivered to Europe since shipments began leaving from Louisiana in February, data show. Norway is meanwhile becoming more of a natural gas producer than an oil one as crude production has declined in recent years, Lien said. (www.downstreamtoday.com)

Trans Mountain solicits pipeline nominations for June

June 1, 2016. Kinder Morgan Inc solicited nominations for space on its Trans Mountain pipeline system mainline for June, as supply shortages from Canada's oil sands appeared to be reaching the West Coast. The pipeline, which moves crude oil and refined products from Edmonton, Alberta, to the West Coast, is typically oversubscribed, so the available capacity was seen as unusual. Trans Mountain received reduced nomination this month, after a raging wildfire in Alberta shuttered more than a million barrels per day of crude production. The company said that decline had been offset by an increase in other products being shipped on the line, and said it expected the system to be full or nearly full during June. (www.reuters.com)

Policy / Performance.....

CNPC gears up for increased natural gas role in China in next 5 yrs

June 6, 2016. China National Petroleum Corp (CNPC) projected a larger role for natural gas over the next five years as the company positioned itself to boost its supplies and expand the transportation capacity for the fuel during this period, CNPC's Deputy Director of Planning Zhao Zhongxun said. The Chinese state-owned firm supplies more than two-thirds of

the country's natural gas consumption, which, according to statistics from the U.S. Energy Information Administration, stood at 5.7 trillion cubic feet in 2013, or 12 percent higher in 2012. CNPC plans to sell more than 26.5 trillion cubic feet of natural gas between 2016 and 2020, a 40 percent increase over the previous five years, Zhao said. CNPC already imports a third of its natural gas from Central Asian countries such as Kazakhstan and Turkmenistan, with future supply augmented by imports from Russia commencing in 2019 upon completion of the Chinese section of Sino-Russia pipeline, Zhao said. The Chinese government plans to boost the share of natural gas in the country's total energy mix to 10 percent by 2020, double the current level, Gao Jian, a senior analyst at commodities consultancy Sublime China Information Co Ltd said. (www.rigzone.com)

Ireland awards second round of offshore O&G exploration licenses

June 6, 2016. The Irish Government has awarded 14 new offshore oil and gas (O&G) exploration licenses to selected companies as part of the second phase of the 2015 Atlantic margin licensing round. The phase 2 awards, which follow the country's the first phase of awards of the licensing round made in February 2016, brings the total number of licensing options to 28. Selected firms under the second phase of the licensing round include AzEire, Capricorn, Europa, Faroe, Petrel, Ratio, Scotia, as well as Predator with Theseus as partner and Providence with Sosina as partner. The firms selected for the licensing options will undertake work programs to improve the understanding of the potential of petroleum present offshore Ireland. Ireland offered 14 licensing options in February 2016 to firms including Eni with BP as partner, Europa, ExxonMobil with Statoil as partner, Nexen, Scotia, Statoil with ExxonMobil as partner, and Woodside. (www.energy-business-review.com)

Australian O&G industry welcomes govt's funding for onshore gas research

June 6, 2016. The Australian Petroleum Production and Exploration Association (APPEA) reported that the local petroleum industry welcomed the Australian Government's \$2.9 million (AUD 4 million) commitment to the Commonwealth Scientific and Industrial Research Organization (CSIRO) to engage in social and environmental research around natural gas development. Australia's Minister for Resources, Energy and Northern Australia Josh Frydenberg announced the new funding at the annual APPEA Conference in Brisbane. APPEA said the funding would build on the valuable work already conducted by the Gas Industry Research and Environmental Alliance (GISERA) in Queensland and New South Wales. APPEA said that Australia's oil and gas industry is completing an unprecedented \$146.4 billion (AUD 200 billion) wave of investment, generating \$12.4 billion (AUD 17 billion) in exports, paying billions of dollars in government revenues and creating and supporting thousands of jobs. (www.rigzone.com)

Colombian oil industry estimates investment needs at \$7 bn per year

June 6, 2016. According to the Colombian Oil Association, Colombia will need around US\$7bn per year in investments to boost oil exploration and avoid massive crude oil imports. Domestic crude oil production rose steadily between 2007 and 2013 but declined slightly in 2014. The Colombian Oil Association estimates that the country will have to import crude oil as of 2022 if no investment is made into exploration and production. Investments are expected to reach US\$610 mn for exploration and US\$3.2bn for production in 2016. (www.enerdata.net)

Novatek eyes cooperation with Qatargas in LNG marketing: Russian Energy Minister

June 3, 2016. Russia's No.2 gas producer Novatek would be interested in a tie-up with Qatargas, the world's biggest LNG exporter, as it seeks to expand its gas trading business, Russian Energy Minister Alexander Novak said. Novatek plans to start its own liquefied natural gas production next year at its plant in Russia's Yamal peninsula, which it is building with France Total and China's CNPC and Silk Road Fund. Novatek has long been seeking ways to export Russian gas. Novatek's Yamal LNG project will have a total capacity of 16.5 million tonnes of LNG per year, split over three production lines of 5.5 million tonnes capacity each. About 95 percent of Yamal's future production has been already pre-sold, but industry sources and analysts have said the plant will be able to produce additional cargoes to sell on the spot market. Despite Western sanctions imposed on Novatek and its major shareholder Gennady Timchenko, a close ally of Russian President Vladimir Putin, over Moscow's role in the Ukraine crisis, the company secured \$12 billion in loans for Yamal LNG in April. (af.reuters.com)

Angola Oil Minister sees chance that OPEC may decide on oil output cap

June 2, 2016. Angolan Oil Minister Jose Botelho de Vasconcelos said he believed there was a possibility that he and his OPEC counterparts could reach a decision on a possible ceiling on the group's crude output. Botelho de Vasconcelos said

that an oil price of \$60 was not bad, but "\$80 would be better." Oil Ministers from the OPEC meet in Vienna. Several OPEC sources said Saudi Arabia and its Gulf allies would propose to set a new collective ceiling in an attempt to repair OPEC's waning importance and end a market-share battle that has sapped prices and cut investment. (www.reuters.com)

Kuwait Oil Minister says oil price at \$50-60 is appropriate

June 2, 2016. Kuwaiti acting Oil Minister Anas al-Saleh said oil at \$50 to \$60 a barrel is an appropriate price. International Brent crude oil futures was just under \$50 a barrel. Saleh said that OPEC's strategy is working, and the organisation would make sure it continued to make it work. (www.reuters.com)

UAE Oil Minister expects oil price to rise in second half

June 2, 2016. UAE Oil Minister Suhail bin Mohammed al-Mazroui expects the oil price to pick up in the second half of this year, he said. Mazroui said the market needs the oil price to appreciate to sustain investment in the sector. Benchmark Brent crude was trading at just under \$50 a barrel. (www.reuters.com)

Iran Oil Minister says OPEC cannot control anything without output quotas

June 2, 2016. Iranian Oil Minister Bijan Zanganeh said OPEC cannot control anything if it doesn't set individual country production quotas and insisted Tehran deserved a high quota based on historic output. Zanganeh said a fair quota for Iran should be 14.5 percent of OPEC's overall oil output. The group is producing 32.5 million barrels per day (bpd), which would give Iran a quota of 4.7 million bpd well above its current output levels. (www.reuters.com)

OPEC fails to agree policy but Saudis pledge no shocks

June 2, 2016. OPEC failed to agree a clear oil-output strategy as Iran insisted on steeply raising its own production, though Tehran's arch-rival Saudi Arabia promised not to flood the market and sought to mend fences within the organization. Tensions between the Sunni-led kingdom and the Shi'ite Islamic Republic had blighted several previous OPEC meetings, including in December 2015 when the group fell short of agreeing a formal output target for the first time in years. Strains were less acute, however, as new Saudi Energy Minister Khalid al-Falih showed Riyadh wanted to be more conciliatory and his Iranian peer Bijan Zanganeh kept his criticism of Riyadh to an unusual minimum. In a rare compromise, OPEC also decided unanimously to appoint Nigeria's Mohammed Barkindo as its new secretary-general after years of friction over the issue. Saudi Arabia and its Gulf allies had tried to propose OPEC set a new collective ceiling in an attempt to repair the group's waning importance. But meeting ended with no new policy or ceiling amid resistance from Iran. Zanganeh said Tehran would not support any new collective output ceiling and wanted the debate to focus on individual-country production quotas, effectively abandoned by OPEC years ago. (www.reuters.com)

Israel approves Noble's Leviathan development plan

June 2, 2016. The Israeli government has approved Noble Energy Inc's proposed development plan for the offshore Leviathan field. Noble Energy Inc's proposed development plan for the Leviathan field offshore Israel has received approval from the Petroleum Commissioner in Israel's Ministry of National Infrastructure. The company plans to install a subsea system that connects production wells to a fixed platform located offshore, with the tie-in onshore in the northern Israel. The platform is expected to have an initial production capacity of 1.2 billion cubic feet of natural gas per day and capability to produce up to 2.1 billion cubic feet of natural gas per day. According to Tudor, Pickering and Holt, production is expected to begin in 2019, with phase one of Leviathan's latest project design to cost \$3.5 billion to \$4 billion gross. Leviathan is expected to provide a second source of supply and entry point into Israel's domestic natural gas transport system, while also delivering exports to regional countries, Noble reported in a June 2 press statement. Leviathan is estimated to hold 22 trillion cubic feet of recoverable natural gas resources. The approval comes after the project encountered a major roadblock in March, when Israel's Supreme Court blocked a previous agreement between the field's shareholders and Israel, the terms of which would have stayed unchanged for 10 years. The price for natural gas is linked to the Public Utility Authority Index and includes a firm floor price. If approved by regulators, the agreement is expected to generate total gross revenues of more than \$2.5 billion, Noble said. (www.downstreamtoday.com)

China issues draft rules for strategic oil reserves

June 1, 2016. China is planning changes to the way it handles oil reserves by allowing private companies to build and operate some of its strategic stockpiles, while also requiring companies to maintain compulsory inventories, potentially

boosting its future imports. Beyond allowing private companies to build and operate some strategic petroleum reserves (SPR), draft rules issued by the National Energy Administration (NEA) will also oblige companies to keep compulsory oil reserves. The government determines the size of such mandatory reserves based on oil consumption, the rules published on the NEA website said. By mid-2015, China had stockpiled about 190.5 million barrels under its SPR program, or roughly one month of net crude imports. Beijing's goal is to stockpile reserves amounting to 90 days of net imports, which is the standard for SPRs in most western countries. In the draft rules, the government defines the country's SPRs as including government stockpiling and companies' compulsory stockpiling reserves. Approval to use strategic oil reserves must come from the state council, the draft rules stipulated. The strategic oil reserves include crude oil and oil products like gasoline, diesel and jet fuel. The NEA is seeking public feedback on the draft rules until June 18. (www.reuters.com)

Argentina backpedals on gas rationing measures for industry

June 1, 2016. Argentina will loosen gas consumption restrictions announced, the Energy Ministry said, a day after ordering industrial producers to reduce gas usage to zero to ensure supply for households. A government committee had approved the measure as natural gas supply was hit by delays in the unloading of two ships carrying liquefied natural gas and by union conflicts at producers in the south of the country, which is entering winter. The oil workers union that represents employees at private producers in the Tierra del Fuego region cut gas supply to the rest of the country in protest over raising utility charges. (af.reuters.com)

Venezuelan Oil Minister says OPEC has de facto output freeze

June 1, 2016. Venezuelan Oil Minister Eulogio Del Pino said OPEC has a de facto oil output freeze as its overall production stood steady in the past few months. Del Pino was a key architect of a proposal to freeze oil output earlier this year, but the plan fell apart in April after Saudi Arabia said it would take part only if rival Iran also participated. (www.reuters.com)

[INTERNATIONAL: POWER]

Generation.....

J-Power executes loan agreement for 2 GW coal-fired plant in Indonesia

June 6, 2016. PT Bhimasena Power Indonesia, a joint venture between J-Power (34%), Itochu (32%) and Adaro Energy (34%), has executed a US\$3.4 bn loan agreement with a group of Japanese banks to finance its 2,000 MW PLTU Batang coal-fired power project in Central Java (Indonesia). The cost of the project is estimated at IRup56 bn (US\$4 bn). The Batang plant, which is already under construction, will consist of two 1,000 MW ultra-supercritical (USC) units fuelled with domestic sub bituminous coal. The first unit is expected to be commissioned in June 2020 and the second one in December 2020. Power will be sold to Indonesian state-owned electric power utility PT PLN under a 25-year power purchase agreement. The construction of the power plant has been delayed for 4 years due to protests from local communities arguing that the development of the power plant will damage their agriculture land. (www.enerdata.net)

Exelon will retire 2 nuclear plants in June 2017 & 2018

June 6, 2016. US energy utility Exelon has announced the early retirement of the Clinton and Quad Cities nuclear power plants in Illinois (United States), due to a lack of progress on the Next Generation Energy Plan legislation to be issued by the state of Illinois and expected to support the plant's continued operation. The plants have lost a combined US\$800 mn in the past seven years, despite being two of Exelon's best-performing plants. The 1,065 MW Clinton power plant commissioned in 1987 will close on 1 June 2017 while the Quad Cities nuclear plant will close on 1 June 2018. (www.enerdata.net)

Turkish company agrees \$4.2 bn deal to build Iran power plants

June 5, 2016. Turkish energy company Unit International has reached a deal worth \$4.2 billion with Iran's energy ministry to build seven natural gas power plants, in what it said was the biggest investment in Iran since the lifting of sanctions. A total of seven power stations, to be built in seven separate regions of Iran, would have a combined installed capacity of 6,020 MW, the company said. The company signed a 20 year agreement with Iranian officials to build the power plants on a build-operate-transfer (BOT) model. Iran's Deputy Energy Minister, Husheng Felahetiyani, said that the country would soon sign a deal worth around \$3 billion with Turkish companies to build power plants with an installed power of 5,000

MW. Felahetiyan said that the power trade between Iran and Turkey would increase. Iran now sells around 350 MW of electricity to Turkey. The United States, the European Union and the United Nations lifted most sanctions on Iran in January under a deal with world powers whereby Tehran agreed to curbs on its nuclear program. (www.hurriyetdailynews.com)

Watts Bar unit 2 begins power generation

June 5, 2016. The newest reactor at the Watts Bar Nuclear Plant began generating electricity. The Tennessee Valley Authority synched Unit 2 reactor to the grid for the first time and licensed operators have begun an initial test run of generation equipment. The team is using this run to collect data to be sure generating equipment is prepared for continuous full-power operation later this summer. The next step is full-plant testing of systems and controls at increasing reactor power levels up to 100 percent power by this summer. Combined with Watts Bar Unit 1, the plant will supply power to roughly 1.3 million homes in the TVA service area. (www.timesfreepress.com)

Construction begins at 1.1 GW Site C hydroelectric project in Canada

June 2, 2016. Peace River Hydro Partners have commenced the main civil works construction of the planned 1.1 GW Site C dam and hydroelectric power generation project on the Peace River in north-eastern British Columbia, Canada, marking an important construction milestone. The work is a part of a CAD\$1.75 bn (\$1.2 bn) contract awarded by British Columbia Hydro and Power Authority (BC Hydro) to Peace River Hydro Partners. Under the contract, the Acciona-led consortium is responsible for the construction of an earth fill dam, two diversion tunnels and a roller-compacted-concrete foundation for the generating station and spillways. The project construction work is planned to be completed in 2024. The hydroelectric project is expected to contribute to the BC Hydro's effort to meet an estimated 40% increase in power demand over the next two decades. (hydro.energy-business-review.com)

Clinton nuclear plant to close in 2017

June 2, 2016. The 29-year-old Clinton nuclear power plant, which employs some 700 people in central Illinois, will close on June 1, 2017, Exelon Corp said. The company said that the typical residential ratepayer would pay an additional 25 cents a month to keep the Clinton and Quad Cities nuclear plant, slated for a June 1, 2018 closure, in operation. The Clinton and Quad Cities plants have lost a combined \$800 million in the past seven years, despite being two of Exelon's best-performing plants, the company said. The Clinton plant is one of the newest in the United States, having gone online in 1987. The average age of U.S. commercial reactors, according to the U.S. Energy Information Administration, is about 35 years. (www.news-gazette.com)

Transmission / Distribution / Trade...

BHP Billiton sells Indonesian coal assets to Adaro

June 7, 2016. HP Billiton said it has agreed to sell its coal assets in Indonesia to its partner, Adaro Energy, following a slump in prices for metallurgical coal. BHP did not disclose the price for its 75 percent stake in IndoMet Coal, which it first flagged was up for sale in April. The amount is well below the \$335 million Adaro paid for a 25 percent stake in IndoMet in 2010. Analyst had said that BHP would be lucky to get \$200 million for its stake due to regulatory uncertainty in Indonesia and the sharp slump in coal prices. IndoMet holds seven coal contracts of work in Central and Eastern Kalimantan, including the 1 million tonnes a year Haju mine, which started producing last year. Haju made up less than 2 percent of BHP's metallurgical coal output in the first nine months of its current fiscal year. (www.reuters.com)

Over 1 mn supplier change on Japan's electricity retail market

June 7, 2016. Since the opening of the retail electricity market in Japan on 1 April 2016, more than 1 million retail electricity customers have switched suppliers, accounting for 1.7% of total retail electricity consumers. Tokyo Electric Power Company (TEPCO) has lost nearly 650,000 customers, while Tokyo Gas has signed more than 300,000 electricity customers. The market opening reform aimed at ending the monopoly of the ten regional electricity companies and at boosting competition. (www.enerdata.net)

China State Grid may buy 14 percent in Belgian energy distributor Eandis

June 7, 2016. State Grid Corp of China, through its international branch State Grid International Development Ltd, has been selected by Belgian electricity and gas distributor Eandis as preferred bidder to acquire a 14% stake in the company.

Eandis (Elektriciteit, Aardgas, Netten en Distributie) was created by seven intercommunal electricity companies to distribute electricity in 229 cities in Flanders (Belgium). Until late 2014, Electrabel used to own a 30% stake in Eandis, that was transferred to the seven companies (Gaselwest, IMEA, Intergem, Imewo, Iveka, Iverlek and Sibelgaz) on 1 January 2015. A signing is expected before the end of June and a closing of the whole operation is expected by the end of 2016. (www.enerdata.net)

PG&E narrows route for high-power lines in north SJ County

June 6, 2016. Pacific Gas and Electric Co (PG&E) is moving closer to determining a route for new high-power transmission lines that would cut across northern San Joaquin (SJ) County. Still, few specifics are known. The company will hold a series of open houses where it will unveil maps showing three broadly defined west-to-east corridors within which the 230 kilovolt power lines could be built. The utility says it hopes the public will provide suggestions upon seeing the maps at the upcoming meetings. The point of the project is to connect a substation near Eight Mile Road west of Interstate 5 to substations in Lodi and Lockeford. Smaller 60KV power lines serve the area around Lodi today, leaving a gaping hole between high-powered lines near Interstate 5 and similar lines that terminate in Lockeford. The maps to be shown will depict potential corridors along Eight Mile Road and Highway 12, and a third farther north running from the Thornton area east to Acampo. Depending on which west-to-east corridor is used, the new power lines also might need to run parallel to Interstate 5 between Stockton and Thornton. A large area east and southeast of Lodi is also under consideration to hook in with the Lockeford substation. The new power line would accommodate current and future growth, the utility says, while also improving reliability for about 50,000 homes and businesses in the north county. The project may also help the publicly owned Lodi Electric Utility save money on access charges that it currently pays for the smaller power lines. (www.recordnet.com)

Policy / Performance.....

JBIC agrees \$3.4 bn loan for Indonesian coal station

June 6, 2016. The Japan Bank for International Cooperation (JBIC) agreed on a \$3.4 billion loan for the controversial Batang coal power project, after years of delay. JBIC will contribute just over \$2 billion to the loan to fund the 2,000 MW coal-fired power plant in Central Java. Other Japanese banks including Sumitomo Mitsui, Mizuho and Bank of Tokyo-Mitsubishi are also joining the loan, JBIC said. Financial close of the loan for the coal-powered station was delayed two months, just one of many hitches for the project. Indonesia's Supreme Court had earlier thrown out a landholders' lawsuit on technical grounds, paving the way for the government to take over the remaining land for the project. Construction was meant to begin in 2012, but has been repeatedly delayed as dozens of landowners refused to give up their paddy fields for the power plant. PT Bhimasena Power Indonesia (BPI) - a joint venture set up by Indonesian coal miner PT Adaro Energy Tbk and Japan's Itochu Corp and Electric Power Development Co (J-Power) - is building and operating the project. (www.reuters.com)

Chile approves equity tariffs for electricity

June 6, 2016. The Senate of Chile has approved a bill amending the General Electrical Services Law and setting mechanisms for a greater equity in electricity tariffs. The bill aims at reducing the gaps in electricity rates paid by end-consumers in different zones of the country. End consumers in cities having more than 200 MW of installed power capacity will benefit from a discount on the price charged for electricity. The discount will be up to 50%, depending on the intensity factor of each commune. A mechanism of residential tariff equity will be introduced to adjust the distribution component in residential bills, so as to cap the highest residential electricity bills to 10% of the average bill in Chile. (www.enerdata.net)

Indonesian President launches first power plant in his 35 GW program

June 4 2016. Indonesian President Joko "Jokowi" Widodo inaugurated a 100 MW gas-fired power plant in Paguat, Pohuwato regency, Gorontalo, approximately 200 kilometers from the provincial capital. The power plant was the first realization of Jokowi's 35,000 MW power generation program planned to be completed before his first term in office ends. With the operation of the Paguat power plant, he said, Gorontalo would have a surplus electricity supply of 45 MW. Jokowi said the development of the Anggrek 50 MW steam-fueled power plant in North Gorontalo regency, which had been halted for seven years, must be completed soon. With a budget of Rp 395 billion (US\$29.13 million), the project was only 49 percent finished as of now. (www.thejakartapost.com)

US is looking at ways to help nuclear plants stay in business

June 3, 2016. The U.S. government sees nuclear power as critical to meeting climate change goals and is looking at ways in which regulators may be able to compensate plants more to keep them running, Energy Secretary Ernest Moniz said. While the federal government is limited in what it can do to save nuclear reactors struggling to stay in business, it's working on a study that'll offer regulators ways they can ensure nuclear generators are paid for their "full valuation of services," Moniz said. (www.bloomberg.com)

Russia to build four nuclear power plants in Nigeria

June 2, 2016. The Nigerian government has taken a final investment decision on an \$80 bn, Russian-led programme of nuclear power plant construction. Four plants will be built, operated and majority owned by Russia's nuclear energy firm, Rosatom. Each plant will cost \$20 bn, and their combined generating capacity by 2035 would be 4,800 MW. The first plant will be sited in Kogi State, and is planned to be finished in 2025. According to a document produced by the Nigeria Atomic Energy Commission and the Ministry of Power said that the decision was taken after the completion of an environmental impact assessment of the sites, and the completion of design for the plants. (www.globalconstructionreview.com)

[RENEWABLE ENERGY / CLIMATE CHANGE TRENDS]

National.....

GIC, ADIA invest \$230 mn in renewable energy firm Greenko

June 7, 2016. Greenko Energy Holdings, one of India's leading renewable energy companies, said it is raising \$230 million in equity from an affiliate of Singapore sovereign wealth fund GIC and an entity owned by the Abu Dhabi Investment Authority (ADIA). GIC invested its share of \$80 million in March and the ADIA entity will invest the remaining \$150 million, the company said. The funds will contribute to the continued growth of Greenko's business through the development of new renewable energy projects, including low-risk expansions of existing wind farms, it said. (in.reuters.com)

Solar power gets a renewed push in Delhi

June 7, 2016. The city is set to become environment friendly in terms of power generation with the state cabinet approving a solar power policy. The approach outlines regulations and mandates incentives and tax breaks for the generation of rooftop solar power in the capital. The government plans to offer a generation-based incentive of ₹ 2 per unit to domestic producers, while building owners will be permitted an additional construction height of two metres if a solar panel is installed on the rooftop. Prepared in consultation with the Delhi Dialogue Commission after extensive consultations with local and international experts, the policy hopes to install 1,000 MW of solar power capacity in Delhi by 2020 and double that in the five years that follow. Delhi's Power Minister Satyendar Jain said that solar power was the most viable form of green energy for the capital. (timesofindia.indiatimes.com)

Axis Bank unveils India's first certified green bond on LSE

June 7, 2016. Axis Bank raised \$500 million at the London Stock Exchange (LSE) after it unveiled India's first internationally-listed certified green bond to finance climate change solutions around the world. One of India's leading private sector capital markets banks opened trading at the LSE with the bond, which is certified by the Climate Bonds Standards Board. Axis Bank said the proceeds of the bond will be invested in green energy, transportation and infrastructure projects, reinforcing India's commitment to produce 175,000 MW of renewable power by 2022. (www.thehindu.com)

India's solar power generation capacity to go up by 5 GW in 2016

June 7, 2016. India is expected to see an additional solar power generation capacity of 5 GW this year, much higher than witnessed in 2015, the clean energy consultant Mercom Capital said in a report. Cumulative solar installations in India crossed the 7.5 GW mark as of May 2016, with about 2.2 GW installed so far this year, more than all of the solar installations in 2015, it said. India's solar project pipeline has now surpassed 22 GW with 13 GW under construction and 9 GW in the Request for Proposal (RfP) process, it said. The government has shown a strong commitment to renewables and its push towards solar is beginning to show results. At the end of 2015-16 fiscal, solar represented 2.5 percent of the net installed capacity in India, up from 1.4 percent a year ago, and was the fastest growing new energy source in the country. Solar

accounted for 17.4 percent of all renewable energy generation last financial year compared to 10.5 percent in 2014-15. (indianexpress.com)

Central ministries to pledge to produce 5 GW solar power

June 6, 2016. The Centre will now lead by example in propagating the use of solar energy. At a workshop on rooftop solar to be held in New Delhi, 50-odd central ministries will pledge to install solar panels on the rooftops of the buildings they occupy as well as on vacant lands they own to produce power. A list provided by the Ministry of New and Renewable Energy said the Ministry of Railways would commit to setting up 500 MW, Department of Atomic Energy 500 MW, Department of Food and Public Distribution 355.23 MW, Department of Defence Production 232.25 MW and the Ministry of Steel 230 MW. PSUs specialising in setting up solar projects have been assigned specific ministries to work with. (energy.economictimes.indiatimes.com)

Adani considers SunEdison as partner for Indian solar manufacturing

June 6, 2016. Adani Green Energy Ltd is considering technical partnership for the third phase of a solar manufacturing project in India with one of three companies, including US-based SunEdison. The renewables arm of India's Adani Group is currently evaluating the technologies offered by SunEdison, Hong Kong-based Golden Concord Holdings (GCL) and Texas-headquartered OCI Solar Power. As part of a \$2 billion foray into integrated solar manufacturing, Adani Green Energy plans to build a factory to produce not only solar cells and modules, but also wafers and polysilicon. The company has already started work on the first phase of the project, which involves the construction of a cell and module manufacturing facility with a capacity of 1.2 GW. In the second phase, it will expand that capacity to 2 GW and begin wafer production. The third phase will mark the start of polysilicon production and Adani Green Energy will need a technical tie up for it. At present, India practically has no manufacturers of polysilicon or polysilicon wafers, just 14 manufacturers of solar cells producing 1,212 MW of cells annually and 81 makers of solar modules who produce a total of 5,620 MW per year. Earlier this year, SunEdison announced that it had ceased polysilicon production at its plant in Pasadena, Texas, because of China's decision to impose a 53.6% tariff on the company's polysilicon. It continues to be involved in SMP, a polysilicon joint venture facility in Korea that uses a different technology. (renewables.seenews.com)

Navy pledges to spend 1.5 percent of its budget towards renewable energy

June 5, 2016. Navy has consulted the Ministry of New and Renewable Energy on harnessing energy sources from the ocean. As part of its green initiatives, Navy has pledged to spend 1.5% of its budget towards renewable energy generation and is consulting the Ministry of New and Renewable Energy on harnessing energy sources from the ocean. Under this scheme, Solar PV projects are being undertaken at various naval stations across all Commands. Naval stations, with scarce available land, have resorted to deploying rooftop solar panels. In January this year, the Navy set up an energy and environment cell at the Naval Headquarters to monitor implementation of green measures. The Navy has set itself a target of 21 MW Solar PV installation. The initiative is in line with the National Mission of Mega Watt to Giga Watt towards achieving 100 GW Solar PV installations by 2022. (www.dnaindia.com)

Daimler completes solar system upgrade at Chennai plant

June 3, 2016. Daimler India is deepening its commitment to renewable power. The wholly-owned subsidiary of Daimler AG running a commercial vehicle plant at Oragadam near Chennai has just made additions to photo voltaic installations at the plant. The overall technical capacity has been increased from 0.8 MW to 3.3 MW. The new solar field has been built on an idle patch of land within the confines of the plant's test track for commercial vehicles. It consists of over 10,000 solar panels. With this upgrade, Daimler says one fourth of the average power required during the day will be met through green power. Daimler said the effort to go green also includes a 60,000 kilolitre water storage pond, two sewage treatment plants used for irrigation. (energy.economictimes.indiatimes.com)

India, US sign pact for enhanced cooperation in clean energy

June 2, 2016. India and the US signed a Memorandum of Understanding (MoU) to enhance cooperation in the area of clean energy and climate change. PK Pujari, Secretary, Union Ministry of Power, and Richard Verma, US Ambassador to India, signed the MoU. The objective of the MoU is to enhance cooperation on energy security, clean energy and climate change through increased bilateral engagement and further joint initiatives for promoting sustainable growth. These activities are intended to increase incentives for innovation, including research and development, and voluntary and mutually-agreed technology transfer, as well as deployment of clean energy technologies in both countries; contribute to

a global effort to curb the rise in greenhouse gas emissions; and enhance resilience to the impacts of climate change. (www.centralchronicle.com)

India among top 5 in 2015 in green energy spending

June 1, 2016. India was among the top five countries in 2015 in terms of investment in renewable energy, solar photovoltaic (PV) and solar water heating capacity, wind and hydropower capacity, the Renewables Global Status Report prepared by REN21, a group of energy experts, government representatives and NGOs, said. India was fifth in terms of investment in renewable power and fuels last year after China, US, Japan and Britain, the REN21 report said. India also became fifth in solar PV capacity addition along with the same group of countries, which added the largest share of green energy during 2015, it said. In wind power capacity addition too, India was fifth in 2015, behind China, US, Germany and Brazil, it said. (www.newkerala.com)

Global.....

China's cities need \$1 tn green finance to cut pollution

June 7, 2016. China's cities need about 6.6 trillion yuan (\$1 trillion) of green financing over the next five years to reach its pollution-reduction targets, according to the report, which was commissioned by the Green Finance Committee of China Society for Banking and Finance and Bloomberg Philanthropies. Financial markets will need to cover as much as 90 percent of investment funding for clean transportation, energy-efficient buildings and renewable power through 2020, according to the report. As millions of Chinese have flocked to economic opportunities in cities, urban pollution has grown and forced the government to respond to public health concerns. Beijing's smog hazards prompted authorities in December to impose limits on factory output and construction. The volume of pollution from China's export manufacturers has also contributed to smog levels in Japan and the U.S. west coast, according to the U.S. National Academy of Sciences. Green transportation, including 3,000 kilometers of new rail and a 4.8 million fleet of electric cars, will need about 4.45 trillion yuan of funding, according to the report. Making buildings more energy efficiency will require 1.65 trillion yuan while another 500 billion will be needed to install 64 GW of solar power, according to the report, which was written in partnership with the Paulson Institute, Energy Foundation China and the Chinese Renewable Energy Industries Association. China has pledged to peak carbon emissions around 2030 when more than 1 billion people are expected to be living in its cities. Reducing urban pollution -- which account for 70 percent of the country's total energy-related carbon emissions -- is seen as key for China to reach its climate targets. (www.bloomberg.com)

Saudi Arabia scales back renewable energy target to favor gas

June 7, 2016. Saudi Arabia is scaling back renewable power targets as the world's biggest oil exporter plans to use more natural gas, backing away from goals set when crude prices were triple their current level, according to Energy Minister Khalid Al-Falih. The kingdom aims to have power generation from renewable resources like the sun make up 10 percent of the energy mix, a reduction from an earlier target of 50 percent, Al-Falih said. Al-Falih provided new details of the country's revived solar power program as he joined other ministers to announce parts of a plan adopted by the cabinet to overhaul the country's economy. Solar-power should be the main renewable energy option for the nation, Ibrahim Babelli, the country's deputy minister for economy and planning, said. Saudi Arabia aims to increase renewable energy production to 9.5 GW, according to the country's Vision 2030 outline announced in April. State oil company Saudi Aramco has a 10 MW solar installation on the roof of a parking lot at its headquarters in Dhahran. The Persian Gulf nation has already scaled back its renewable energy ambitions, including in January 2015 when it delayed by nearly a decade the deadline for meeting its solar capacity goal, saying it needed more time to assess technologies. The kingdom's earlier solar program foresaw more than \$100 billion of investment in projects aimed at generating 41 GW of power by 2040. (www.bloomberg.com)

European countries sign MoU to boost cooperation in offshore wind industry

June 7, 2016. European countries have signed a Memorandum of Understanding (MoU) and work program to enhance their cooperation in offshore wind industry. The agreement has been signed at the Energy Council in Luxembourg by Germany, Netherlands, Luxembourg, Norway, Sweden, France, Denmark, Ireland and Belgium to reduce the costs and accelerate the deployment of offshore wind power. The deal focuses on the development of offshore wind energy to ensure a sustainable, secure and affordable energy supply for the participating countries while reducing greenhouse gas

emissions. The deal will focus on reducing offshore wind costs through cooperation on spatial planning, grids, finance, technical standards and regulation such as health and safety rules. (wind.energy-business-review.com)

US environmental groups question Arch Coal's bankruptcy exit plan

June 3, 2016. A coalition of U.S. environmental groups said Arch Coal's plan to emerge from bankruptcy fails to describe how the coal producer would finance its mine clean-up obligations. Coal companies are required to provide bonds on future clean-up costs but during decades of strength in the coal sector many were allowed to self-bond, a federal program that accepted companies' own balance sheets as collateral. That has become a concern since Chapter 11 bankruptcy filings by some of the biggest coal companies in the United States. The self-bond program is now under federal review. The plan should not "relieve the responsibility" of a future owner or operator from complying with federal laws on cleaning waters or restoring mined land, the coalition formed by Sierra Club, Ohio Valley Environmental Coalition and West Virginia Highlands Conservancy said. (www.reuters.com)

TransAlta may double renewables in Alberta if prices increase

June 3, 2016. TransAlta Renewables Inc is waiting for the right "market conditions" before reinvesting in its provincial hydropower and wind assets that would double the company's low-carbon generation in Alberta, according to Chief Executive Officer Brett Gellner. Alberta electricity generator TransAlta has about a dozen hydropower sites in the province that could be re-designed to generate more electricity in addition to wind power assets that could be re-fitted with newer, more powerful turbines, Gellner said. The company has 850 MW of hydro and 550 MW of wind in the province, he said. Before proceeding with expansion TransAlta is looking at the price of electricity and pending regulations for renewable energy certificates that the government has promised, Gellner said. Another issue is how the company will be compensated for the phase-out of its coal generating stations, he said. Alberta will need at least another 4,000 MW of low-carbon electricity generation as the province phases out coal and replaces the fossil fuel by 2030. The provincial electricity operator said that the first competitive bids for renewable power permits under the new system will take place by the end of the year. TransAlta has more than 70 power plants in Canada, the U.S. and Australia. (www.bloomberg.com)

JA Solar to supply solar modules to Front Runner demonstration PV project in China

June 2, 2016. JA Solar will supply 420 MW of photovoltaic (PV) modules for the first phase of the Front Runner demonstration PV project in Datong, Shanxi province, China. The first phase of the Front Runner project has a total installed capacity of 950 MW, with JA Solar delivering 44% of the modules. Front Runner program was established by China's National Energy Administration for promoting the development of advanced solar PV technology by domestic suppliers. This demonstration project is the first project among several GW-scale projects. Total investment for the first phase of this project is around Yuan10 bn (\$1.6 bn) and will feature 13PV power stations. After completion, the project is expected to generate about 1.5 billion kWh of on-grid energy per year and can contribute over Yuan250 mn in tax revenue and save 480,000 tonnes of carbon emissions per year. (solar.energy-business-review.com)

Chile has so much solar energy it's giving it away for free

June 2, 2016. Chile's solar industry has expanded so quickly that it's giving electricity away for free. Spot prices reached zero in parts of the country on 113 days through April, a number that's on track to beat last year's total of 192 days, according to Chile's central grid operator. While that may be good for consumers, it's bad news for companies that own power plants struggling to generate revenue and developers seeking financing for new facilities. Chile's increasing energy demand, pushed by booming mining production and economic growth, has helped spur development of 29 solar farms supplying the central grid, with another 15 planned. Further north, in the heart of the mining district, even more have been built. Solar capacity on Chile's central power grid, known as SIC, has more than quadrupled to 770 MW since 2013. Much of that comes from the grid's northern sections, the Atacama region that's home to the copper industry. Total installed capacity increased 5 percent in the past year, with half coming from solar farms, according to the grid operator, Cdecsic. SIC supplies power to the regions where 90 percent of the country's residential demand is located. The country is expected to install almost 1.4 GW of solar power this year, up from 371 MW in 2015. (www.bloomberg.com)

German govt reaches agreement with Länder over renewable plans

June 2, 2016. The German government has reached an agreement with the 16 Länder on reforms to the renewable energy law, agreeing to cap the development of onshore wind capacity at 2.8 GW per year to curb the costs of renewable support on end-consumer bills. The government wants to switch from a guaranteed payment scheme to a competitive auction

system, where renewable power producers would only receive a tariff if their project wins a tender. The draft law is expected to come into force in early 2017. Germany still aims at reaching a share of 40-45% of renewables in total power generation by 2025 but will seek to slow down the rapid development of onshore wind capacities. (www.enerdata.net)

DEWA said to plan 1 GW of solar-power plants

June 2, 2016. Dubai Electricity & Water Authority (DEWA) is seeking partners to help build 1,000 MW of solar-power plants as the Persian Gulf emirate works to diversify its energy sources, according to two people with knowledge of the information. The planned facilities will be the first utility-scale plants in Dubai to use concentrated solar power technology. (www.bloomberg.com)

EU gathers pace on global climate deal ratification: French Environment Minister

June 2, 2016. The European Union's executive will propose this month a procedure for ratification by the bloc of a global climate agreement, according to French Environment Minister Segolene Royal. Royal discussed the EU plans with European Commission President Jean-Claude Juncker in Brussels. The 28-nation bloc wants to lead the global fight against greenhouse gases, which scientists blame for heating up the planet. European Union (EU) ministers will then discuss the procedure during their quarterly gathering on June 20 in Luxembourg, Royal said. Europe aims to approve the deal, agreed to by more than 190 nations at a UN gathering known as COP21 in December in Paris, before it enters into force when at least 55 parties, accounting for 55 percent of global emissions, have ratified it. Ratification of the Paris agreement in Europe needs to take place at the EU level and at the national level, with varying rules in member states. The proposal to be presented by the commission will clarify the procedure. Royal said another issue she discussed with Juncker was EU financing for renewable energy projects in Africa. She would like the details of the aid to be clarified before the next round of UN climate talks scheduled to take place in November in Morocco. (www.bloomberg.com)

American nations to start carbon-price talks: World Bank

June 1, 2016. Four American nations are set to start talks on ways to co-operate on carbon pricing, according to the World Bank. Government officials from Chile, Colombia, Mexico and Peru will meet late June through July 1 in Santiago to discuss emission-reduction tools including markets and taxes, according to Thomas Kerr, the head of the Carbon Pricing Leadership Coalition, a World Bank program to promote climate protection among business, government and the public. Measures to put a price on emissions, either through taxes or trading systems, are increasing as the United Nations Paris climate deal struck in December requires countries to boost efforts to cut pollution causing global warming. China's plan to introduce a national greenhouse-gas market next year may double the value of the world's carbon-pricing programs, the Washington-based bank said in a report. The Pacific Alliance, a trade group that includes Mexico, Chile, Colombia and Peru, holds a summit meeting on July 1. Mexico's Ministry of Environment and Natural Resources, or Semarnat, confirmed that Mexico was invited to attend a carbon pricing event, though it's still deciding whether to participate. (www.bloomberg.com)

Italian company to build solar power plant in Egypt

June 1, 2016. Italian energy company TerniaEnergia has secured an order worth approximately \$19.2 million for the construction of an industrial-scale solar power plant in Egypt with a total capacity of 47 MW. The company acquired the order on behalf of "an Italian leading utility," the renewables, energy efficiency and waste management firm announced. The solar park will be constructed at a location in the Benban area of Aswan, situated roughly 900 km from the nation's capital. Covering approximately 150 hectares, the plant will be using Italian-made 3Sun solar panels mounted on steel structures. Solar energy has been hailed as Egypt's best bet when it comes to renewable energy sources and the country has initiated a number of projects in recent years to enhance its solar energy capacity. In December last year, the European Bank for Reconstruction and Development (EBRD) announced that it allocated \$500 million to support Egypt's solar energy program in 2016. Many of the projects would be located in Upper Egypt and stand as the world's largest solar park upon completion. Also, in a bid to encourage solar energy use by private citizens, the Ministry of Electricity and Energy in October introduced a feed-in tariff system to encourage private investment in renewable energy. Through this system, regular citizens can install solar energy panels atop their buildings and connect these panels to the government's power grid in exchange for monthly payments for generating power. As a whole, Egypt seeks to source 20 percent of its energy needs from renewables by 2020. (egyptianstreets.com)

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