

# Energy News Monitor

## NATIONAL: OIL & GAS Upstream

### ONGC manages to halve exploration cost write-offs

**June 14, 2016.** Oil & Natural Gas Corp (ONGC) is trying hard, and succeeding, in lowering exploration cost write-offs, one of the largest concerns for all oil firms. Write-off has nearly halved in a year and is expected to shrink further. Explorers spend millions of dollars gathering seismic data and drilling wells to discover areas that can commercially produce oil and gas. They have to write off expenses when the wells drilled in the process turn out to be dry, or with reserves that can't be exploited commercially. In FY16, ONGC's exploration cost write-off was ₹ 5,700 crore, sharply lower from ₹ 10,870 crore in FY15, ₹ 7,843 crore in FY14, and ₹ 10,088 crore in FY13. (economictimes.indiatimes.com)

### Kreuz Subsea completes project at D1 field off India's west coast

**June 14, 2016.** Kreuz Subsea, a Singapore-based subsea solutions provider, completed a hot tapping project on

live pipelines for an engineering procurement and construction contractor and a major oil and gas company on the west coast of India. The firm completed three hot taps and interconnecting spools in the subcontract, Kruez Subsea said. The assignment, which included five interconnecting spools connecting three hot taps adjacent to the platforms, was carried out at the offshore D1 field operated by Oil and Natural Gas Corp (ONGC) in 361 feet of waters. (www.rigzone.com)

### Videocon considers divesting upstream assets to repay debts

**June 13, 2016.** Videocon Industries Ltd, a subsidiary of India's conglomerate Videocon Group, is exploring the option of divesting its upstream oil and gas assets to repay debts as global crude oil prices rose above \$50 a barrel. After crude oil prices dipped to a 13-year low of \$27 a barrel in February, global benchmark Brent crude touched \$52 a barrel, a development that provided some relief for Indian conglomerates such as Reliance Industries Ltd and Videocon Industries, which owns

## FACT FILE

The international crude oil price of Indian Basket as computed/published today by Petroleum Planning and Analysis Cell (PPAC) under the Ministry of Petroleum and Natural Gas was US\$ 45.22 per barrel (bbl) on 16.06.2016. This was lower than the price of US\$ 46.52 per bbl on previous publishing day of 15.06.2016. In rupee terms, the price of Indian Basket decreased to Rs. 3039.39 per bbl on 16.06.2016 as compared to Rs. 3124.60 per bbl on 15.06.2016. Rupee closed weaker at Rs. 67.21 per US\$ on 16.06.2016 as against Rs 67.16 per US\$ on 15.06.2016. (PIB)

upstream oil and gas assets around the world. Videocon's exploration blocks in Brazil were valued at \$7.47 billion (₹ 500 billion) at the peak of global oil prices. In January 2014, Videocon completed the sale of a 10 percent stake in Offshore Area 1 in the Rovuma Basin in Mozambique for \$2.5 billion (₹ 150 billion) to ONGC Videsh Ltd and Oil India Ltd to repay loans.

#### **UK's Hardy Oil threatens to abandon PY-3 oilfield**

**June 12, 2016.** UK company Hardy Oil & Gas has threatened to abandon PY-3 oilfield off Puducherry if the government and field licensee ONGC did not honour production sharing contract (PSC). The London-listed company's investment plan for resuming production from the field, which was shut down in July 2011, has been pending with the Oil Ministry for one year now. To compound the woes, the terms the ministry recently approved for extending the field license have made the investment economically unviable. The PY-3 field is located off the east coast of India, 80 km south of Puducherry in water depths between 40 meters and 450 meters. The licence, which covers 81 square kilometer, produces high quality light crude oil. The field has produced over 24.8 million barrels and was shut-in in July 2011 due to the expiry of the production facilities' marine classification and the refusal by the government to allow the extension of the contract. (economictimes.indiatimes.com)

#### **Govt asks ONGC, GSPC to collaborate for developing offshore fields**

**June 9, 2016.** India is pushing its biggest oil and gas producer to collaborate and share infrastructure with a smaller, indebted provincial government run explorer to accelerate the development of offshore fields. As part of the possible closer cooperation, Oil & Natural Gas Corp (ONGC), which is developing fields in the Krishna-Godavari basin off the nation's east coast, is in talks to buy a stake in an adjacent block operated by Gujarat State Petroleum Corp (GSPC), Oil Minister Dharmendra Pradhan said. A deal would allow the companies to share pipelines and reduce costs in an area where each has spent or plans to spend at least \$3 billion. The deal is critical for GSPC, which is four years behind schedule in starting

commercial gas production despite having completed construction of a processing platform, gas pipeline and an onshore terminal. In March, ONGC approved an expenditure of \$5.07 billion to develop its block. It plans to start producing gas from its block in 2019 and oil from 2020. (www.livemint.com)

#### **Greka prepares to drill well for Essar in West Bengal's Raniganj block**

**June 9, 2016.** Greka Drilling Ltd, an Asia-focused unconventional oil and gas drilling company, commenced preparations to drill the third well for Essar Oil Ltd in the Raniganj block, West Bengal, India under a contract with the country's coal bed methane (CBM) producer signed in February. Greka Drilling has successfully drilled two directional wells for Essar under the contract. The first well was spud May 8, while the second well was completed by the same GD75 rig June 5, with a total of 8,002 feet drilled over the course of 28 days. The firm is preparing to drill the third well shortly. Under the one year contract, Greka Drilling is remunerated on a day-rate basis for drilling vertical and directional wells. (www.rigzone.com)

### **Downstream**

#### **Govt panel to prepare road map for raising refining capacity**

**June 14, 2016.** With India's oil demand projected to more than double in 25 years, government has formed an expert group to prepare blueprint for raising refining capacity by 2040. The 12-member Working Group for preparing Approach Paper for enhancing refining capacity by 2040 will be headed by Additional Secretary in the oil ministry and include directors of refineries at Indian Oil Corp, Bharat Petroleum Corp and Hindustan Petroleum Corp. It would also comprise of representatives of private sector Reliance Industries and Essar Oil besides managing directors of Numaligarh Refineries, Mangalore Refineries and Chennai Petroleum Corp, an oil ministry order constituting the Group said. India has a refining capacity of 232.066 million tons (mt), which exceeded the demand of 183.5 mt in 2015-16 fiscal. According to International Energy Agency (IEA), this

demand is forecast to reach 458 mt by 2040. Expansions underway will raise the refining capacity to about 260 mt by 2018. India has leapfrogged from a modest 62 mt per annum refining capacity in 1998 to 232 mt at end of March 31, 2016. The growth in refining capacity, which had made India a leading exporter of petroleum products since 2001-02, has been possible because of the de-licensing of petroleum refining by the government. (indiatoday.intoday.in)

#### **Assam refinery sends first consignment of paraffin wax to Kenya**

**June 8, 2016.** Assam's Numaligarh Refinery Ltd (NRL) has sent its first consignment of Type-II paraffin wax to the Rok Industries in Kenya from its marketing terminal in Golaghat, the refinery said. The 60 tonne consignment was flagged off by the refinery's Technical Director S.R. Medhi. The 50,000 tonne a year wax plant was commissioned in March last year at a cost of ₹ 676 crore. Leveraging on the inherent properties of wax-rich crude oil from Assam's oil fields, the plant is designed to produce superior quality paraffin and micro-crystalline wax. (timesofindia.indiatimes.com)

### **Transportation / Trade**

#### **India seeks better LNG deal by teaming up with South Korea and Japan**

**June 14, 2016.** India has restarted talks on a liquefied natural gas (LNG) purchasing alliance with Japan and South Korea and may also include China as Asian demand for the fuel grows. GAIL (India) Ltd is spearheading the talks, which follow a similar attempt in 2013, on India's behalf. Natural gas currently accounts for about 8 percent of India's overall energy mix. In the last

*QUCIK COMMENT*  
*Alliance of Asian gas buyers will increase India's energy security!*  
**Good!**

decade, while India's domestic natural gas production has grown by 10 percent, imports of LNG have risen by 335 percent. This is likely to grow further as India gradually shifts to an oil-based economy, Oil Minister Dharmendra

Pradhan said. India's gas demand stands at 120 million standard cubic meters per day (mscmd) whereas domestic supply is 80 mscmd, making imports imperative, data showed. (in.reuters.com)

#### **Essar Power in talks with Shell, GAIL for LNG**

**June 14, 2016.** Essar Power Ltd is seeking liquefied natural gas (LNG) to supply two power plants in western India after a global glut cut prices for the fuel by two-thirds since September 2014. The company is in discussions with suppliers including Royal Dutch Shell Plc and GAIL (India) Ltd to supply the two plants in the western state of Gujarat. (www.bloomberg.com)

#### **HEPL to lay Jaigarh-Goa-Mangalore gas pipeline**

**June 13, 2016.** H-Energy Pvt Ltd (HEPL), a unit of real estate player Hiranandani Group, said it has bagged rights to lay a gas pipeline from Jaigarh in Maharashtra to Goa and Mangalore. The 635 km pipeline will run from Jaigarh in Ratnagiri district of Maharashtra to Panjim in Goa and onwards to Karwar in Uttara Kannada district and Udupi in Karnataka before terminating at Mangalore. (economictimes.indiatimes.com)

#### **India's gas importers benefiting from easing prices**

**June 10, 2016.** India's leading gas importers are benefiting from easing prices of liquefied natural gas (LNG) prices with promises of strong profits in the coming months, Japanese financial services firm Nomura has said in a report. GAIL is benefiting from lower natural gas price in the domestic market and imports as well as the recent strength in the petrochemical product prices. It has benefited from the revised LNG contract prices with RasGas of Qatar, according to the report, which estimates the price at \$5 per million British thermal Unit (mmBtu), down 60 percent on the year. Comparative spot LNG prices at \$4-4.5 per mmBtu are even lower. It also expects GAIL to renegotiate its LNG import contracts based on Henry Hub prices in the US. Saying the worst is over for GAIL, the report forecast 79 percent increase in the company's Earnings Per Share growth for fiscal year 2017 and 30 percent in 2018. (economictimes.indiatimes.com)

### **India begins settling Iran oil dues via Germany's EIH bank**

**June 8, 2016.** Indian refiners have turned to State Bank of India (SBI) and Germany-based bank Europaeisch-Iranische Handelsbank AG (EIH) to speed payment of billions of Iranian oil dues they still owe to Tehran, after delays in another money route. Refiners in India, Iran's top oil buyer after China, last month resumed settling their back debt of about \$6.6 billion after the lifting earlier this year of some of the sanctions against Tehran had opened up oil trade and banking channels. The first payments were handled in May by Union Bank of India via Turkey's Halkbank, which had previously handled payments before tougher European sanctions were put in place in February 2013. (in.reuters.com)

## **Policy / Performance**

### **India taking lead to create alliance of gas importers: Oil Minister**

**June 14, 2016.** The country is taking the lead for creating an alliance of gas importers across the world for "reasonable and affordable" pricing of the fuel, Oil Minister Dharmendra Pradhan said. Calling gas as an important fuel for the next two decades which will be an important constituent of the country's energy basket, Pradhan said the GAIL (India) Ltd is taking the lead in the company-to-company negotiations at the international level. It is already in touch with companies in Japan and South Korea, the Minister said, adding that China can also be a partner in the future. Pradhan said that according to some estimates, India and China will account for 90 percent of the incremental gas demand in the next two decades. Pradhan said the country imported 37 percent of its gas requirements last year. The bidding for the 67 assets offered under the latest NELP will begin after July 15, once the oil ministry gets done with roadshows in Guwahati, Bengaluru, Calgary, London, Dubai and Singapore, he said. As a potential beneficiary of the Turkeministan-Afghanistan-Pakistan-India pipeline, New Delhi wants to expedite work on it faster but geopolitics is a concern, Pradhan said. He said Prime Minister Narendra Modis foreign visits have helped the energy security agenda and the upcoming one in

Mozambique will help in expediting the commercial exploitation of the Roboma field. Pradhan said the country is also trying to work as an energy hub in Asia, and is already supplying power to neighbours including Nepal, Sri Lanka, Bangladesh and Bhutan, while negotiations are also on with Myanmar to supply power. He said that the current low prices of oil commodities is a "new normal" and the buyers will continue to have an upper-hand in deals. (indiatoday.intoday.in)

### **GSPC achieves ISO certification for KG**

**June 14, 2016.** The Gujarat State Petroleum Corp (GSPC) has successfully implemented Quality Management Systems (QMS) at its KG Asset in line with the ISO 9001 standards, the company said. The scope of the QMS certification was "Production, Processing, and Supply of Natural Gas & Hydrocarbon Condensate". GSPC had hired Allied Boston Consultants India Private to assist in the implementation of the process. The work on certification of ISO 9001:2008 was done by Bureau Veritas Certification India while BVCI did the pre-assessment audit and a two stage certification audit. (economictimes.indiatimes.com)

### **Dangers of rise in crude oil prices**

**June 13, 2016.** The low energy prices of the past two years have been a windfall for public finances. Subsidies have fallen, inflation has reduced, government-owned refiners and marketers have made profits and the central government has collected higher revenues by imposing taxes at the retail level. India's dependency on energy imports is so high that low crude oil prices are overwhelmingly positive, though there are two downsides. Remittances from Non-Resident Indian (NRIs) in the Persian Gulf and the West Asia have fallen due to slowdowns in those regions. The other issue is lower petro-product exports from India. According to various calculations, the February 2016 Budget estimates would hold good if the Indian crude basket stays at \$45-\$55 a barrel. (www.rediff.com)

### **RIL to end gas price dispute with govt**

**June 10, 2016.** Reliance Industries Ltd (RIL) will be withdrawing from its ongoing arbitration with the

government on pricing of natural gas. Not only will it bring to an end the face-off between the company and the government, it will also enable RIL to avail of the recently approved liberal gas pricing regime. Withdrawing the arbitration relating to price fixation of gas is a pre-condition for availing of the new liberal pricing formula the government approved. The decision to withdraw the arbitration comes ahead of the consortium of RIL-BP Plc-NIKO Resources readying to finalize contracts for hiring equipment and oil field services for monetizing their deep water discoveries in the Krishna Godavari basin under the new liberal gas pricing regime. BP is 30% partner in RIL's 21 gas blocks, including in the KG-DWN-98/3, known as KG D6. Canada's Niko Resources has 10% holding in KG D6. (www.livemint.com)

#### **India funds Siberian oil quest with its cheapest loans in decade**

**June 10, 2016.** India's state-owned oil companies are taking advantage of the lowest overseas loan costs in a decade to finance exploration in the wilderness of Siberia. ONGC Videsh Ltd (OVL), the overseas unit of Oil & Natural Gas Corp (ONGC), signed a \$1.16 billion nine-month bridge loan to fund the purchase of a 15 percent stake in Vankor field in Siberia from Russia's Rosneft OAO, data show. Indian Oil Corp (IOC) plans a \$1.2 billion fundraising for Russian investments in three or four months, including short- and long-term loans. Indian companies including ONGC and Indian Oil Corp will get a 49.9 percent stake in the oilfield, Oil Minister Dharmendra Pradhan said. The acquisition loans market will continue to be driven by state oil companies, able to get favorable borrowing costs due to India's investment grade rating, according to Axis Bank Ltd. Moody's Investors Service rates ONGC and explorer Oil India Ltd at Baa2, a notch above India's sovereign score of Baa3, the lowest investment-grade rating. Indian Oil Corp also carries a Baa3 ranking. (www.bloomberg.com)

#### **Centre aims to raise LPG consumer base to 70 percent in Bihar: Oil Minister**

**June 10, 2016.** Stating that LPG consumer base in Bihar at 31.5% was much lower than national average of 61.9%,

Oil Minister Dharmendra Pradhan stressed on installation of new bottling plants in the state in a bid to lift the percentage to around 70%. A second carousel has been created in Muzaffarpur LPG bottling plant with this in mind, Pradhan said. The Indane bottling plant was set up in Muzaffarpur in 2012 and the present project was an attempt to expand its capacity. A modern 24 point electronic carousel has been set up so that Indian Oil can fill LPG cylinders of various capacity like 5 kg, 14.2 kg, 19 kg and 47.5 kg, the Minister said. Pradhan said the project as part of Prime Minister's 'Ujwala Yojana' aimed at providing healthy fuel, which would be helpful for women of BPL families. The scheme to provide LPG connections to BPL families has been possible due to one crore consumer shunning their subsidies under the 'Give it up' campaign on LPG connection, he said. The Minister said out of the 1.75 crore new LPG connections provided to BPL families by Indian Oil in the country in 2015-16 fiscal, 86,000 connections have been in Bihar. (www.dnaindia.com)

#### **West Bengal CM asks Centre not to cut Bengal's kerosene quota**

**June 10, 2016.** West Bengal Chief Minister (CM) Mamata Banerjee requested the Centre to retain the state's kerosene allocation to the same level as the last financial year, after the quota was reduced by about 4,000 kl a month from April. In a letter to the Oil Minister Dharmendra Pradhan, she said the curtailment in kerosene allocation would cause grave distress to the consumers from remote villages and tribal areas, and adversely hit SC/ST, minority and the economically-weaker population. The Centre had reduced state's kerosene allocation by 4,000 kl to 74,608 kl a month from this April. Banerjee reminded the Centre that the state government cancelled 1.41 crore fake ration cards so as to provide the benefit to the targeted population. (www.business-standard.com)

#### **Crude oil prices climb to eight-month high signalling gains for Indian OMCs**

**June 9, 2016.** Crude oil prices have climbed to an eight-month high, trading above \$50 a barrel, signalling major gains for Indian oil marketing companies in the first

quarter of 2016-17. State run-oil marketing companies (OMCs) such as Indian Oil Corp, Bharat Petroleum Corp and Hindustan Petroleum Corp reported losses on their crude oil inventory in 2015-16 as crude oil prices continued to move southwards. But the disruption in supplies in markets such as Nigeria, industry data from the US indicating decline in crude stockpiles, and better demand from China have sent prices soaring as crude oil touched a new high. Higher prices of crude oil also means higher dollar revenue for companies like Reliance Industries Ltd, which have accounted for up to 15% of India's exports in the past. Analysts caution that the upside in crude oil prices would be capped as any further increase may trigger a rise in output from shale gas industry which could lower the prices. Also, they feel that the current rise in prices is largely due to supply disruption and is not backed by a robust pickup in demand, which they fear is not likely any time soon. (economictimes.indiatimes.com)

#### **India becomes third largest oil consumer**

**June 8, 2016.** India has surpassed Japan to become the world's third-largest oil consumer, with its oil demand galloping 8.1 percent in 2015, according to BP Statistical Review of World Energy. With demand of 4.1 million barrels a day, India is the third-largest consumer behind the U.S. (19.39 million barrels per day) and China (11.96 million barrels per day). India accounted for 4.5 percent of world oil consumption in 2015.

India's demand growth surpassed China's 6.3 percent expansion. The U.S. oil consumption grew 1.6 percent, which accounts for 19.7 percent of the total world pie of 95 million barrels per day in 2015. Japan slipped to the fourth spot after its oil usage contracted 3.9 percent to 4.15 million barrels per day in 2015. In 2014, it used 4.3 million barrels per day, ahead of India's 3.84 million barrels per day. The Review shows that global demand for primary energy grew only 1 percent in 2015, which is significantly slower than the 10-year average. Oil remained the world's leading fuel, accounting for 32.9 percent of global energy consumption and is gaining market share for the first time since 1999. Coal came in

as the second-largest fuel by market share (29.2 percent). Natural gas' market share of primary energy consumption stood at 23.8 percent. (www.thehindu.com)

#### **Petroleum revenues utilised to fund infrastructure projects: Commerce Minister**

**June 8, 2016.** The union government has utilized the revenue earned from duties on petroleum products for funding key infrastructure projects, Commerce Minister Nirmala Sitharaman said. While passing on benefits of fall in crude prices to consumers around nine times since the NDA government came to power, it has marginally hiked the prices in line with global price of the crude as and when the prices have gone North, she said.

Nirmala dismissed suggestions that the union government has profiteered from the fall in crude oil prices. Averring that global crude is not brought on a daily basis and follows the forwards contract system, she said oil companies cannot buy crude just because their prices are low on a particular day. Since price of crude which India largely sources from oil producing nation varies and it is difficult for the government to influence the same, individual consumers might feel happy when retail prices go down, she said. (timesofindia.indiatimes.com)

#### **Cooking gas to every household, promises Andhra Pradesh CM**

**June 8, 2016.** Andhra Pradesh Chief Minister (CM) N Chandrababu Naidu said his government was keen on providing cooking gas connection to every household in the state. The CM said his government has adopted a mission mode approach to improve the quality of life of people through the launch of city gas grid, water grid and power grid among other things.

Oil Ministry has recently allocated natural gas for the proposed city gas distribution network in East and West Godavari districts. Also the public sector companies GAIL (India) Ltd and ONGC representatives informed the chief minister that they were considering a proposal to set up a new LPG plant in Krishna district. (www.business-standard.com)

## NATIONAL: POWER Generation

### **Nava Bharat Ventures set to commission Zambia thermal power plant**

**June 14, 2016.** Nava Bharat Ventures is all set to commission its first overseas thermal power project of 300 MW in Zambia and begin commercial operations in the second quarter of the current financial year. While the first unit of 150 MW will be operational by June, the second one within a month thereafter, contributing to the sales volumes and profitability. The thermal project has a long term power purchase agreement with Zambia Electricity Supply Corp. ([www.thehindubusinessline.com](http://www.thehindubusinessline.com))

### **BHEL commissions 195 MW unit at Muzaffarpur plant**

**June 14, 2016.** Bharat Heavy Electricals Ltd (BHEL) has commissioned another 195 MW unit at Muzaffarpur thermal power station in Bihar. This is the second 195 MW unit to be commissioned by BHEL at the 2x195 MW Muzaffarpur Thermal Power Station Stage-II of Kanti Bijlee Utpadan Nigam Ltd, the company said. According to the company, the first 195 MW unit was commissioned in March, 2015. ([energy.economictimes.indiatimes.com](http://energy.economictimes.indiatimes.com))

### **Power generation in Barapol soon**

**June 13, 2016.** The Barapol project, the first small hydroelectric project in the district, will be operational by mid-June. The ₹ 138 crore project developed by the Kerala State Electricity Board (KSEB) in the Ayyankunnu panchayat bordering Karnataka was commissioned in February by then Chief Minister Oommen Chandy. The project's installed capacity is 15 MW having three units of 5 MW and solar panels for generating 4 MW. ([www.thehindu.com](http://www.thehindu.com))

### **Essar Power to start 500 MW Hazira gas-based plant in 3 months**

**June 12, 2016.** Essar Power is planning to start operations at its 500 MW natural gas-based power plant at Hazira in Gujarat in the next quarter. The Bhandar Power-Hazira

plant was commissioned in 2006 and commenced full commercial operations in October 2008, but due to high price of the fuel, the company had kept the operations suspended since the past three years. It is a natural gas-fired combined-cycle captive power plant. The company will commence operations at least at the Bhandar plant in the next quarter. ([www.business-standard.com](http://www.business-standard.com))

### **Westinghouse to build six nuclear power plants in India**

**June 8, 2016.** The Nuclear Power Corp of India (NPCIL) and US firm Westinghouse have agreed to begin engineering and site design work immediately for six nuclear power plant reactors in India and conclude contractual arrangements by June 2017, the White House said. Culminating a decade of partnership on civil nuclear issues, Prime Minister Narendra Modi and US President Barack Obama during their White House meeting "welcomed" the start of preparatory work on site in India for six reactors to be built by Westinghouse. Obama and Modi welcomed the announcement by the NPCIL and Westinghouse that engineering and site design work will begin immediately and the two sides will work toward finalising the contractual arrangements by June 2017, the White House said. ([economictimes.indiatimes.com](http://economictimes.indiatimes.com))

### **BHEL commissions 3 thermal units in UP**

**June 8, 2016.** Bharat Heavy Electricals Ltd (BHEL) has commissioned three supercritical units of 660 MW each at the 1980 MW coal-based Lalitpur Super Thermal Power Project (STPP) in Uttar Pradesh (UP) within three months. All the three units have been synchronised by BHEL four months ahead of the schedule through enhanced focus on project execution using innovative erection techniques and meticulous project management, according to the BHEL. The 3 x 660 MW Lalitpur STPP has been developed by Lalitpur Power Generation Company Ltd, promoted by the Bajaj Hindusthan group, in Lalitpur in Uttar Pradesh. The main plant package contract of this 1980 MW power plant is executed by BHEL. ([www.thehindu.com](http://www.thehindu.com))

## Transmission/Distribution/Trade

### NTPC trades surplus power at IEX for the first time

**June 13, 2016.** In a first, NTPC has traded surplus power from its four thermal power stations including Vidhyanchal and Unchahar at the Indian Energy Exchange (IEX). The central generating stations are scheduled on a day-ahead basis. Usually, generating stations offering cheaper power are fully scheduled by States. In case the state does not wish to utilise the power, the power remains unrequisitioned and unsold, the IEX said. (www.thehindubusinessline.com)

### Siemens bags ₹ 780 mn order from PGCIL

**June 13, 2016.** Siemens Ltd has won an order worth around ₹ 78 crore from the Power Grid Corp of India Ltd (PGCIL) for engineering, procurement and construction project at Bhuj in Gujarat, the Indian arm of the German engineering major said. The project will boost the power handling capacity of PGCIL and create safe, reliable transmission infrastructure in western India. (economictimes.indiatimes.com)

### Vedanta might bid for coal mines to meet energy needs

**June 13, 2016.** Natural resources major Vedanta is planning to acquire coal mines via auctions as the mining conglomerate seeks to ensure fuel security for its energy-guzzling aluminium plants. The government has not finalised the dates for holding a fourth round of coal mine auctions, annulled in December 2015. The company added imported coal prices softened 20 percent in 2015-16. Power constitutes 40 percent of the input cost of making aluminium metal and is a major factor for producers. (www.business-standard.com)

### Power theft affecting electricity supply in Delhi

**June 12, 2016.** Power theft across parts of North, West and East Delhi, even by families having metered connections, is affecting uninterrupted electricity supply in the national capital, which has been hit by a spate of outages of late, authorities claim. The officials identified areas such as Jaffarpur, Mundka, Karawal Nagar,

Seelampur, Mandawali, Chandni Mahal and Jehangirpuri among others where AT&C losses range between 25-60 percent. According to an estimate, Delhi loses around ₹ 1,000-1,300 crore annually due to power theft. With the rising mercury, Delhi's peak power demand had touched a record high of 6,188 MW last month. Sharing an analysis, a power sector expert explained that power theft

#### QUICK COMMENT

*Power theft not only affects power supply but also signals poor governance!*

**Bad!**

and quality of power supply in an area were correlated as losses at the distribution transformer level about 10 percent, brings down power reliability to around 97-98 percent, resulting in outages. (www.financialexpress.com)

### Adequate power supply for summer season: Haryana Power Department

**June 10, 2016.** Haryana Power Department said it has made adequate arrangements for power supply in the state to ensure hassle-free summer and paddy season. The power department has made arrangements to supply electricity for 24 hours a day to the industries and urban domestic consumers, 14 hours to rural domestic consumers and eight hours to agricultural consumers, Haryana Power Utilities said. (www.financialexpress.com)

### JSW Energy participates in tender floated by PCKL

**June 8, 2016.** JSW Energy said it has taken part in the recent tender floated by the Power Company of Karnataka Ltd (PCKL) in which bids were opened. The company said that whenever any proposal results into execution of binding documents it will comply with the provisions of the Securities and Exchange Board of India and make requisite disclosures accordingly. (profit.ndtv.com)

## Policy/Performance

### Ghana looking to India for civil nuclear energy cooperation

**June 13, 2016.** The West African nation Ghana is looking to India for a civil nuclear route to augment and diversify

its energy requirements and to the Indian railways to connect with its hinterland and the Saharan region to its north. These were among the 'new' areas earmarked for exploration as President Pranab Mukherjee's state visit took concrete economic dimensions during delegation level talks. On bilateral trade, the President mooted an ambitious \$5 billion target over the next three years from the current \$3 billion turnover. It was not mentioned, but Ghana appears to be taking a cue from India's rapid strides in the nuclear field, including its bid to gain membership of the Nuclear Suppliers' Group. (www.business-standard.com)

#### **CIL's coal price hike to push power tariff by 8-10 percent: Tata Power**

**June 12, 2016.** Power tariff is likely to increase by 8-10 percent in the country after Coal India Ltd (CIL) decided to hike the commodity's prices, Tata Power CEO and Managing Director Anil Sardana has said. He warned against early exuberance over the UDAY scheme and claims of electricity surplus by the government. CIL had increased weighted average coal prices by 6.2 percent over the current price to garner additional revenue of ` 3,234 crore this fiscal. Sardana was also of the view that it is time to change gears and talk about consumers, which is not happening for last many years. The Centre has planned to be power surplus nation by having overall energy surplus of 1.1 percent with a target of generating 1,178 billion units during this fiscal. (economictimes.indiatimes.com)

#### **New fuel assembly on anvil for Kudankulam**

**June 12, 2016.** Russia has offered a new type of fuel assembly for the reactors at the Kudankulam power plant which will increase the period between replacements by 10 months and save millions of dollars in downtime while the process is on. The present fuel assemblies used in Kudankulam need replacement after around eight months. The new version however will need replacement only after around a year and a half, Oleg A Grigoryev, Vice President of TVEL, the company through which Rosatom, the Russian atomic power corporation supplies fuel, said. The Kudankulam plant uses the UTVS type of fuel assembly that consists of spacer grids floating on the

load-bearing skeleton. Talks are on for using a new type of fuel assembly, called the TVS-2M, which consists of spacer grids welded to guide channels. This assembly increases the number of operational days for the plant by increasing the fuel cycle, which means a greater gap before the next change. He said that in around four years time, both reactors of Kudankulam will have this new fuel assembly. The first 1,000 MW at the Kudankulam Nuclear Power Plant is at present generating to its full capacity. Fuel has been loaded in the second 1,000 MW reactor and it is likely to start generating power by mid-July. The ground breaking for the third and fourth units, also of 1,000 MW each, was performed earlier this year. (www.business-standard.com)

#### **Another 2.05 lakh LED streetlights in Andhra Pradesh shortly**

**June 12, 2016.** As many as 3.45 lakh LED streetlights have already been installed in Andhra Pradesh and the government is looking at a target of 5.5 lakh such streetlights with the aim to save energy to the maximum extent possible, Chief Minister (CM) N Chandrababu Naidu said. This is in addition to the 2 crore LED bulbs which have brightened the lives of people across the state in the last few months. The CM directed the 13 district collectors to ensure that all government offices and schools use only LED bulbs and other energy-efficient electrical appliances from now on. He said that 5-star rated electrical items such as LED bulbs consume less power when compared to other appliances. The project is one of the priority programmes which will help Andhra Pradesh become the No 1 state in the country on the energy-efficiency front sooner than later, Naidu said. These programmes will protect the environment and also promote economic growth with low carbon footprint, he emphasised. The whole country is watching our development and taking suggestions from us, the CM said. The AP State Energy Conservation Mission has written to all the collectors to furnish details of the existing electrical appliances in government offices. The necessary LED bulbs and 5-star rated electrical appliances would be supplied soon so that the government's goal of energy-efficiency is achieved. (energy.economictimes.indiatimes.com)

# INTERNATIONAL: OIL&GAS

## Upstream

### Iran's crude oil production at 3.8 mn bpd

**June 14, 2016.** Iran's crude oil production has reached 3.8 million barrels per day (bpd), Oil Minister Bijan Zanganeh said. Tehran has managed to export more than 2 million barrels per day after the lifting of sanctions. Iran's oil exports have doubled since February, Bijan Zanganeh said. (af.reuters.com)

### ConocoPhillips, ENAP to explore for gas in southern Chile

**June 13, 2016.** Chilean state oil company ENAP has signed a deal with ConocoPhillips to explore and eventually exploit gas deposits in the nation's remote southern Magallanes region. The deal in which ENAP will retain a 51 percent stake in the project. The project will be rolled out in phases depending on the success of each stage, with ConocoPhillips possibly investing between \$70 and \$100 million over the next four years. (www.reuters.com)

### OPEC has its way as China oil output cut by most in 15 yrs

**June 13, 2016.** China's crude production dropped by the most in 15 years in another sign that OPEC's strategy of flooding markets to drive out higher-cost suppliers is working in the world's biggest energy consumer. The Asian nation reduced oil output in May by 7.3 percent from a year ago to 16.87 million metric tons, according to data from National Bureau of Statistics. (www.bloomberg.com)

### PDVSA near deals to boost Schlumberger presence

**June 11, 2016.** Venezuela's state oil company, PDVSA, is close to reaching deals to boost Schlumberger's presence after the oilfield services provider said in April it would reduce operations because of payment problems, PDVSA said. PDVSA, the exclusive operator of the OPEC country's vast oilfields, has run up billions of dollars in unpaid bills to service providers as a result of cash-flow problems. U.S. oil services company

Halliburton Co in April said it would begin curtailing activity in Venezuela. (www.reuters.com)

### Gazprom Neft plans 5 percent rise in 2016 production

**June 10, 2016.** Gazprom Neft, one of Russia's top 4 oil producers, plans a more than 5 percent increase in its oil and gas output this year, its chief executive officer (CEO) Alexander Dyukov said. Russia is already producing near record-highs, adding to the global oil glut. Producers in OPEC, of which Russia is not a member, did not agree on production targets. Gazprom Neft plans to produce 85-86 million tonnes of oil equivalent. Dyukov said Gazprom Neft plans to increase production at Iraqi Badra to 2.6 million tonnes of oil in 2016 after 1.4 million tonnes in 2015. (af.reuters.com)

### BP, Eni announce new gas discovery off Egyptian coast

**June 9, 2016.** Energy majors BP and Eni announced a significant natural gas discovery off the Egyptian coast. The discovery is in the Baltim southwest exploration prospect in the East Nile Delta. It is 10 km north of the Nooros gas field which was discovered in July last year and has a production rate of 65,000 barrels of oil equivalent per day, the companies said. (www.reuters.com)

### US shale gas production will double by 2040

**June 9, 2016.** According to the United States (US) Energy Information Administration (EIA), most of gas production growth in the US is expected to come from shale gas and tight oil plays through 2040. In 2015, hydraulically fractured wells accounted for 2/3 of US gas production, with gas production from shale gas and tight oil plays making up about half of the US total dry gas production in 2015. (www.enerdata.net)

### Statoil makes minor gas discovery in North Sea

**June 9, 2016.** Statoil Petroleum AS has made a minor gas/condensate discovery in well 30/11-13, located in the

North Sea. The well encountered gas columns at two levels in the top part of the Tarbert formation, a total of 16 feet and 101 feet, respectively, of which 13 and 72 feet had good to moderate reservoir properties. The preliminary estimation of the size of the discovery is between 35 and 105 million standard cubic feet of recoverable oil equivalents. (www.rigzone.com)

#### **Cameroon oil output up nearly 20 percent this year**

**June 8, 2016.** Cameroon's crude oil production rose 19.4 percent between January and April, compared with a year earlier, to 12.3 million barrels, the state oil company SNH said. The Central African country has been pumping oil since 1977, hitting a peak of 185,000 barrels per day (bpd) 10 years later before slipping. The state firm announced it had begun field work on its floating liquefied natural gas project, an export plant which is being developed by Norwegian shipping company Golar LNG and is due to start production in 2017. (in.reuters.com)

### **Downstream**

#### **Total says French protests not delaying refineries restart**

**June 14, 2016.** French oil and gas company Total said that a nationwide protest by hard-line CGT trade union, was not impacting restart operations at three of its five refineries in France which are resuming after being halted by strikes. Total said that it was restarting its Donges, Normandy and Feyzin refineries after a 27-day strike by CGT against a planned government labour reform bill let to production shut down and the plants. Total said full restart operations were ongoing at the refineries as planned and were not being delayed by the nationwide protests that has turned violent in some places in the capital. (af.reuters.com)

#### **Citgo, Aruba clinch deal to reactive refinery**

**June 10, 2016.** Venezuela's PDVSA unit in the United States, Citgo Petroleum, and Aruba signed an agreement to reactivate a 235,000 barrel per day refinery on the Caribbean island, an investment designed to help process the South American's oil producer's extra heavy crude. The Aruban government reported last month that the

agreement involves a 25-year lease to allow Citgo to operate the refinery, after investments amounting to at least \$1 billion. (www.reuters.com)

#### **Iran to seek investors for \$3 bn refinery to serve Asia**

**June 8, 2016.** Iran will seek international investors for a \$3 billion refinery project in the country's south as the Persian Gulf nation looks to boost sales of its oil and natural gas products in Asia. The refining complex on Iran's Persian Gulf coast will seek to raise as much as 80 percent of the capital needed from international partners or financiers, Siraf Refineries Infrastructure Co. said. The Siraf project will consist of eight plants, each with a capacity of 60,000 barrels a day of condensate. (www.bloomberg.com)

### **Transportation / Trade**

#### **IEA sees oil market balance in 2016, surplus to re-emerge next year**

**June 14, 2016.** The oil market is now in balance thanks to unplanned outages and robust demand, particularly from emerging economies, but this equilibrium will tilt into surplus again early next year, the International Energy Agency (IEA) said. The agency said that demand growth in 2017 is likely to reach 1.3 million barrels per day (bpd), the same level at which it estimates growth for this year, having revised up its May 2016 forecast of 1.2 million bpd. Most of the anticipated demand growth this year and in 2017 is expected to come from nations that are not part of the Organisation for Economic Cooperation and Development (OECD), the agency said. (www.reuters.com)

#### **Iran oil exports on track for 4 ½ year high**

**June 14, 2016.** Iran's oil exports are on track to hit the highest in almost four and a half (4 ½) years in June, as shipments to Europe recover to near pre-sanctions level. Tehran's oil sales have nearly doubled since December, the last month before sanctions targeting its disputed nuclear programme were lifted, and the increase in sales should help offset some of the current global supply outages. June loadings of crude and condensate are up by

about 100,000 barrels per day (bpd) from last month to 2.31 million bpd in June. The overall figure is more than a double the same month a year ago, and the highest since January 2012, before Western sanctions were introduced, based on U.S. Energy Information Administration data. Exports to Europe in June recovered to about 580,000 bpd, up from 530,000 bpd in May and nearly six times greater than prior to sanctions being lifted. Before sanctions were enforced in mid-2012, Iran was exporting about 2.2 million bpd of crude, with Europe taking about 600,000 bpd, according to the International Energy Agency. (www.reuters.com)

#### **Russia's Sechin predicts dogfight for oil markets**

**June 14, 2016.** Igor Sechin, head of Russia's largest oil producer Rosneft and the country's most influential energy executive, said in an interview that he expects the fight for global energy market share to intensify. In the interview with *Il Sole 24*, Sechin questioned the rationale of Russia's plans to sell almost 20 percent of Rosneft as part of a wider privatization scheme, saying the company's share price did not match its fundamentals. Russia has been muscling in on Asian markets, where Saudi Arabia was once the unchallenged dominant supplier. (www.reuters.com)

#### **TransCanada to build \$2.1 bn gas pipeline in Mexico**

**June 13, 2016.** TransCanada Corp said it would build and operate a \$2.1 billion natural gas pipeline in Mexico, as the Canadian company ramps up in the Latin American country at a time when its key projects closer to home are facing delays. TransCanada said the Sur de Texas-Tuxpan pipeline project would be built through a joint venture with a unit of Semptra Energy and be backed by a 25-year transportation service contract with Mexico's state-owned power company. (in.reuters.com)

#### **Egypt to cut gas supplies to industry in August**

**June 13, 2016.** Egypt will divert natural gas supplies away from industry in August to meet increased demand from electric power plants, the country's state gas board EGAS said. Natural gas shortages have in the past forced EGAS to ration gas supplies to industry during months of peak

consumption, crippling production and hampering Egypt's economic recovery. (af.reuters.com)

#### **TransCanada to conduct work on Keystone pipeline in July, August**

**June 9, 2016.** TransCanada Corp (TRP.TO) will conduct two separate 24-hour outages on its Keystone crude oil pipeline in July upstream of Steele City, Nebraska, according to a customer notice. Work will be done on July 7 and 19, the notice said. The Canadian pipeline company will also conduct a 96-hour outage on the pipeline upstream of Steele City from Aug. 30 to Sept 2, it said. (www.reuters.com)

#### **Cheaper LNG will push Pakistan to import more gas**

**June 9, 2016.** Pakistan is to ramp up its LNG imports, having named the winning bid to develop a second terminal at Karachi's Port Qasim, and pledged to take advantage of falling prices to ship in more gas. Pakistan GasPort Ltd is to build the US\$135 million terminal to handle an initial 4.5 million tonnes a year through Port Qasim under a 15 year contract with state-owned Pakistan LNG Terminals. However, the company plans to add another terminal that will double capacity by 2018, taking advantage of the global supply glut. (www.lngworldshipping.com)

#### **Shell resumes Iranian oil purchases**

**June 9, 2016.** Royal Dutch Shell has resumed purchases of Iranian crude, becoming the second major oil firm after Total to restart trade with Tehran after the lifting of sanctions, traders said and ship tracking data showed. According to shipping data, Shell fixed Suezmax tanker Delta Hellas to bring 130,000 tonnes of Iranian crude from Kharg Island on July 8 to continental Europe. Traders said the cargo would unload in Rotterdam. Iran's crude exports are now close to pre-sanctions levels of around 2.5 million barrels per day. (www.reuters.com)

#### **Argentina's energy needs draw fuel tankers from around the globe**

**June 8, 2016.** A flotilla of 21 fuel tankers from Europe, the Caribbean, Brazil and the United States is steaming

toward Argentina as it ramps up imports of gasoil and liquefied natural gas to record levels this year. Still a long way from regaining the energy self-sufficiency lost in 2010, the South American country has bought 49 cargoes of LNG so far this year and will buy 90 in all, the energy ministry said. Argentina tried to limit costly LNG purchases to about 25 cargoes a year since it inaugurated its second regasification plant in 2010, only to end up purchasing more than planned to meet growing shortfalls. (www.reuters.com)

## Policy / Performance

### Nigeria must 'radically' boost exports: President

**June 14, 2016.** Nigeria must "radically" increase its exports to ease shortages of foreign exchange in the oil-dependent West African nation, President Muhammadu Buhari said. The government will help local businesses by encouraging more investment in infrastructure and lowering taxes on small companies, he said. (www.bloomberg.com)

### Croatia signs six onshore O&G production sharing agreements

**June 14, 2016.** The government of Croatia has approved the signing of production sharing agreements (PSAs) for exploration and exploitation of oil and gas (O&G) in six onshore exploration blocks in the north and east of the country. The first onshore license round was opened in July 2014, offering six onshore exploration blocks in the Drava, Sava and Eastern Slavonia regions, and closed in June. The agreements will last 5 years and the concession for exploitation will be valid for 25 years, if commercially viable resources are discovered. (www.enerdata.net)

### Britain's record traffic is boosting fuel consumption

**June 14, 2016.** Britain's consumption of road fuel is growing at the fastest rate for more than a decade as the impact of economic growth and lower prices more than offsets improvements in vehicle efficiency. Britain's motorists consumed 36.0 million tonnes of motor spirit (gasoline) and road diesel in the 12 months ending in March, up from 35.2 million tonnes in the prior 12-month period. Fuel consumption has been rising since

2013/14 and the increase predates the collapse in oil prices from mid-2014. Fuel is taxed much more heavily in Britain than in the United States and emerging markets, so the drop in oil prices has had a much more modest on pump prices. Nonetheless, lower fuel costs have improved driving affordability and are probably contributing to the strong growth in both traffic volumes and fuel sales. Pump prices declined by about 25 percent for both gasoline and diesel between mid-2013 and the first quarter of 2016. (www.reuters.com)

### Venezuela in talks with China for grace period in oil-for-loans deal

**June 14, 2016.** Venezuela is in talks with China to obtain a grace period in its oil-for-loans deal that would improve the OPEC nation's capacity to make bond payments amid an economic crisis. Venezuela has borrowed over \$50 billion from China under the financing arrangement created by late socialist leader Hugo Chavez in 2007, in which a portion of its crude and fuel sales to the world's second-biggest economy are used to pay down loans. (www.reuters.com)

### In Oklahoma, \$50 oil may test new quake regulations

**June 13, 2016.** Oil producers around the country enticed by crude's jump to \$50 a barrel are hoping to get production back on line, but for producers in Oklahoma, new regulatory barriers may keep key parts of the state shut due to worries about earthquakes. Crude's recent rebound will mark the first test of more stringent regulations recently implemented in Oklahoma - and already, companies are looking for workarounds. Seismic activity has soared in the state in the last five years, linked to disposal of saltwater from fracking activity. In Oklahoma, those concerns revolve around the increased seismic activity which is tied to the creation of wastewater wells. Scientists are uncertain about whether the regulations can stop the phenomenon, which has serious implications for Oklahoma, one of the top U.S. energy-producing states. Until now, low oil prices meant producers were not drilling anyway. But that might change now that crude has posted its first sustained climb to \$50 in nearly a year. (www.reuters.com)

### **Oil price fall may even curb global growth: ECB**

**June 13, 2016.** The fall in oil prices over the past two years will add less to global growth than earlier thought and the overall impact could even be negative, the European Central Bank (ECB) said. Initial oil price falls were driven by over-supply, normally a boost to global growth, but weak demand has also contributed more recently, a drag on the global economy, the ECB said. (www.reuters.com)

### **Japan May spot LNG prices fall to lowest in more than 2 yrs**

**June 9, 2016.** Prices for liquefied natural gas (LNG) spot cargoes for Japan, the world's top buyer, fell in May to the lowest since the trade ministry started publishing figures more than two years ago, the Ministry of Economy, Trade and Industry data showed.

The average price of spot LNG contracted in May fell by 10 cents from the previous month to \$4.10 per million British thermal units, the data showed. (www.reuters.com)

### **Global energy demand grew by only 1 percent in 2015**

**June 9, 2016.** The global demand for primary energy grew by only 1% in 2015, marginally lower than 1.1% recorded a year ago and significantly slower than the 10-year average of 1.9%, according to the BP Statistical

Review of World Energy. The slowdown in energy demand reflected continued weakness in the global economy and lower growth in Chinese energy consumption as the country shifts from an industrial to a service-driven economy. The US shale revolution has unlocked huge swathes of oil and gas resources, and rapid technology gains have supported strong growth in renewable energy. Natural gas and oil also recorded solid growth in 2015, while global demand for coal saw its largest fall on record, the Review said. (www.business-standard.com)

### **Nigeria Senate probes Chevron's \$10 bn gas project**

**June 8, 2016.** A Nigerian Senate committee has asked Chevron Nigeria Ltd to explain why a gas-to-liquids joint venture with the state-run petroleum company cost about three times more to complete than initially estimated. (www.bloomberg.com)

### **Mexico plans next bidding round for energy opening by end-July**

**June 8, 2016.** The next bidding round in the opening of Mexico's oil sector will be called by the end of July and consist of 15 shallow water blocks for exploration and extraction in the Gulf of Mexico, Energy Minister Pedro Joaquín Coldwell said. Coldwell announced the round, denominated 2.1, at an event in the northern city of Monterrey. (af.reuters.com)

## **INTERNATIONAL: POWER Generation**

### **Eskom commissions new unit at Ingula hydropower project**

**June 14, 2016.** South Africa's power utility Eskom has commissioned the fourth 333 MW unit of its 1,332 MW Ingula hydropower project. The unit was connected to the South African grid in March 2016. It is the first of four units to commercially support the National Grid ahead of schedule.

The US\$1.65 bn peaking hydropower project is being built between Ladysmith and Harrismith in the Little Drakensberg and is expected to be completed by the end of 2016. (www.enerdata.net)

### **US quarterly coal production reaches lowest level since 1981**

**June 13, 2016.** According to the United States Energy Information Administration (EIA), coal production in the United States reached its lowest quarterly level since the second quarter of 1981 in the first quarter of 2016 with 173 million tonnes (mt). (www.enerdata.net)

### **Batang power plant could generate \$80 mn a month**

**June 10, 2016.** A power plant in Indonesia's Central Java province could generate revenue of \$80 million per month for the consortium that will build and operate it,

the Indonesian coal producer PT Adaro Energy Tbk said. The 2,000 MW Batang coal-fired power plant - which will be run by venture partners Adaro, Japan's Itochu Corp and Electric Power Development Co Ltd (J-Power) - is expected to be completed in early 2020, Adaro said. (www.reuters.com)

#### **DTE Energy to close 3 coal fired power plants in Michigan by 2023**

**June 9, 2016.** US-based utility DTE Energy is planning to shut three coal fired power plants in Michigan by 2023 as it shifts its focus towards newer and cleaner energy production. The power plants include the River Rouge facility, the St. Clair facility in East China Township, and the Trenton facility. The eight coal-fired energy generating units in three power plants are planned be closed between 2020 and 2023. The three power generation facilities generated about 25% of the total electricity produced by DTE in 2015. (fossilfuel.energy-business-review.com)

### **Transmission/Distribution/Trade**

#### **Nigeria considers revoking planned privatisation of power distribution**

**June 13, 2016.** The Nigerian parliament may review the privatisation policy enacted by the federal government and may revoke agreements paving the way for the privatisation of national power utility Power Holding Company of Nigeria (PHCN), in a context of degraded power supply in the country. The Niger Delta Power Holding Company (NDPHC) is accumulating debts owing to the inability of Nigerians to pay electricity bills. (www.enerdata.net)

#### **Greece will sell a stake in power grid operator ADMIE in June 2016**

**June 9, 2016.** Greece's national power utility Public Power Corp (PPC) will launch the sale of a stake in its power transmission network operator ADMIE by the end of June 2016, to comply with the terms of a third international bailout. The launch of the tender will be approved by PPC's general assembly and the tender will be published a few days later; it is expected to be concluded by mid-October 2016. In July 2014, the

previous government passed a reform bill paving the way for the privatisation of a up to 30% stake in PPC in 2015. The privatisation was part of the country's efforts to liberalise its energy market, as required by the European Union and the IMF to disburse the next tranche of a €240 bn bailout programme. Privatisation plans, which also included oil refinery Hellenic Petroleum, national gas company DEPA and power transmission grid ADMIE, were frozen by a new government in January 2015. (www.enerdata.net)

### **Policy/Performance**

#### **Pakistan expects \$58 bn in power investments by 2022**

**June 14, 2016.** The government of Pakistan expects that up to US\$58 bn will be invested in the country's power sector through 2022. Pakistan plans to solve the power crisis by 2018, thanks to 4,000 MW of new LNG-fired power plants expected by mid-2017, and to develop around 30,950 MW of power generation capacity by 2022. The bulk of the 10,400 MW portfolio under the China-Pakistan Economic Corridor is currently under execution (8,630 MW). (www.enerdata.net)

#### **Sweden says to cut tax on nuclear power generation**

**June 10, 2016.** Sweden said it would phase out some taxes on nuclear power in a move that should extend the life of the country's reactors adding it would also permit new reactors to be built to replace those that are closed due to age. The tax on thermic effect will be gradually phased out over a two-year period starting 2017, the government said. (af.reuters.com)

#### **South Korea will retire ageing coal-fired power plants**

**June 9, 2016.** The Ministry of Energy of South Korea has announced that ageing coal-fired power plants would be shut down to limit air pollution and fine dust emissions; around 10 coal-fired power plants of 40 years or more will be the first ones to shut down. Coal still accounts for more than 40% of the country's power mix and South Korea still plans to build 19 new coal-fired power plants by 2022. (www.enerdata.net)

# RENEWABLE ENERGY/ CLIMATE CHANGE TRENDS

## National

### **Govt releases draft National Wind-Solar Hybrid Policy**

**June 14, 2016.** The government has sought for public comments on draft National Wind-Solar Hybrid Policy which aims at providing a framework to promote large grid connected wind-solar PV system for optimal and efficient utilisation of transmission infrastructure among others. The goal of the policy is to reach wind-solar hybrid capacity of 10 GW by 2022. India has set an ambitious target of reaching 175 GW of installed capacity from renewable energy sources including 100 GW from solar and 60 GW from wind by 2022. (www.financialexpress.com)

### **Govt aims to start environment friendly LNG barge on Ganga by 2018 end**

**June 14, 2016.** The government is making efforts to ensure that environment friendly liquefied natural gas (LNG)-fuelled barges commence navigation on the National Waterway-1 on the river Ganga by the end of 2018. Inland Waterways Authority of India (IWAI) and Petronet LNG have been asked to plan and coordinate their work plans in a manner such that LNG barges could commence navigation on NW-1 by December 2018, the shipping ministry said. Petronet LNG will design, construct and operate LNG unloading, storage, bunkering and reloading facilities on the national waterways, the ministry said. Action has already been initiated for preparing detailed feasibility report and it is expected to be completed by December 2016, the ministry said. Introduction of LNG barges is being considered in Goa too, as national waterways there offer immense opportunities in transportation of iron ore and are closer to LNG storage facilities, the ministry said. (www.newsx.com)

### **NDA did well on pollution but slow on flagship schemes: CSE**

**June 14, 2016.** The Centre for Science and Environment (CSE) appreciated the BJP-led central government's work

on pollution control and monitoring but also pointed out tardiness in its flagship programmes like sanitation and Ganga rejuvenation. CSE said several positive measures with respect to pollution control and monitoring have been proposed, but termed the Climate Change Conference-COP21, held last year in Paris as a "missed opportunity". The undermining of people's participation in green clearances is also worrisome. The National Democratic Alliance (NDA) government continues to dilute the public hearing process, CSE said. However, the study appreciated the central government's technology-based mechanisms like Continuous Emissions Monitoring Systems (CEMS), air quality index, LPG connections to poor families, six waste management rules and announcements to setup Euro VI emissions standards by 2020. (timesofindia.indiatimes.com)

### **Kerala start-up listed in the global league of six firms for clean energy campaign**

**June 13, 2016.** Kerala's start-up on clean energy, Avant Garde Innovations emerges as the first start-up in the world to join the new international ISO 50001 Energy Management Coalition. The US White House has listed the start-up's involvement in the new ISO 50001 campaign which was launched by the international energy leaders at the recently concluded seventh clean energy Ministerial at San Francisco in the US. This Kerala start-up is now among the global league of the first six companies that has made its commitment for environmental sustainability and climate stewardship. (timesofindia.indiatimes.com)

### **Tata Power to acquire Welspun Renewables Energy for \$1.3 bn**

**June 13, 2016.** Tata Power Renewable Energy has signed an agreement to acquire Welspun Renewables Energy for ₹ 92.49 bn (\$1.37 bn). The acquisition is a part of Tata Power Renewable Energy, a renewable energy unit of Tata Power, effort to expand its clean energy portfolio to 2.3 GW. Welspun Renewables, a part of the \$3 bn

Welspun Group, has 1,140 MW of renewable energy assets in India. (solar.energy-business-review.com)

### **ABB connects 648 MW solar plant in TN to national grid**

**June 13, 2016.** Engineering company ABB has commissioned five sub-stations to integrate a 648 MW solar power project at Kamuthi in Tamil Nadu (TN) to the national transmission grid, it said. As part of the government's plan of achieving 100 GW of solar power by 2022, the Centre has issued a proposal to implement 25 ultra-mega solar power projects with capacity of 500 to 1,000 MW over a period of five years, ABB said. (www.newkerala.com)

### **Adani group wins bid to set up a 100 MW solar unit in Chhattisgarh**

**June 13, 2016.** An Adani Group company has won the project to set up a 100 MW solar power unit in Chhattisgarh, in an auction where none of the bidders quoted below the reserve price. Parampujya Solar Energy, an arm of Adani Green Energy, sought the lowest viability gap funding (VGF) of ₹ 59 lakh per MW among three bidders in the latest solar auction conducted by Solar Energy Corp of India (SECI). The reserve price in SECI's reverse auctions is set at ₹ 4.43 a unit. The winner has to supply electricity at the price it bid. The Ministry of New and Renewable Energy provides VGF, or subsidy, of up to ₹ 1 crore per MW to solar developers. The losing bids by Azure Power and Spectrum Coal & Power sought VGF of ₹ 84 lakh and ₹ 89 lakh, respectively. In two other recent solar auctions as well 400 MW in Andhra Pradesh in May and 125 MW in Uttar Pradesh in March the winning tariff had been ₹ 4.43 per unit. Solar tariffs fell steeply in 2015, but this year, except for a single bid for a 70 MW project at the Bhadla Solar Park in Rajasthan of ₹ 4.34 per unit, developers have refused to go below the SECI reserve price of ₹ 4.43 per unit. (energy.economictimes.indiatimes.com)

### **India finds place in the sun after energy ties with US**

**June 12, 2016.** One of the key takeaways of Prime Minister Narendra Modi's recent US visit was a strong

message about India's commitment to play a positive catalyst in the global initiative to address the menace of climate change. In his address to the US Congress, Modi made it clear that last year's Paris climate deal that India helped broker with the Barack Obama administration was one of the cornerstones of India-US relationship. When Modi presented India nationally determined contribution—featuring a promise to use 100 GW of solar power by 2022—at Paris, it began with a hymn from the Vedas: 'Unto Heaven be Peace, Unto the Sky and Earth be Peace, Peace be unto the Water, Unto Herbs and Trees be Peace.' India has pledged to draw 40 percent of its power requirement from non-fossil fuels by 2030. By launching the International Solar Alliance (ISA) to develop solar technologies, India has led from the front.

#### *QUICK COMMENT*

*India need not sit on US shoulders to find a place in the Sun!*  
**Ugly!**

Obama and Modi launched a new off-grid solar plan under the auspices of the ISA. Under the 20-nation Mission Innovation pact launched at Modi's initiative, India has promised to double its clean energy R&D funding from \$72 million to \$145 million by 2019. The US-India agreement struck last week suggested that India would ratify the Paris deal by next year. The agreement, on parameters for an amendment under the Montreal Protocol to curb hydrofluorocarbons, is a significant shift from India's historic opposition to phasing out the greenhouse gas. By launching the International Solar Alliance, India has led from the front. Under the 20-nation Mission Innovation pact launched at Modi's initiative, India has promised to double its clean energy R&D funding. (www.newindianexpress.com)

### **Rising heat could cut 3.6 percent of India's daylight work hours**

**June 10, 2016.** India is set to lose 3.6 percent of annual daylight work hours by 2025 due to rising temperatures, reveals an IndiaSpend analysis of data in a new United Nations report. The loss of daylight work hours could increase to 5.2 percent in 2055 and eight percent in 2085,

assuming a consistent rise of 2.7°C, according to the United Nations Development Program (UNDP) report. In May, India recorded its highest-ever temperature of 51°C in the town of Phalodi in the western state of Rajasthan. In the southern state of Telangana, as many as 315 people died this year (until May) from heat-related causes, and as IndiaSpend reported in April 2016, heat-wave deaths in India increased 296 percent, or three times, over the last 23 years. Outdoor workers with a moderate and heavy workload exceeded the threshold limit value of 28°C and experienced 18-35 percent productivity loss, according to a 2014 study from Chennai. 4°C temperature rise can lead to 13.6 percent work-hour loss. In India, an eight percent loss in daylight work hours can be reduced to seven percent if the temperature rise is limited to 2.4°C, but the work-hour loss will surge to 13.6 percent if the temperature rises by 4°C. Those in the lowest-income group - heavy labour and low-skill agricultural and manufacturing jobs - are among the most susceptible to climate change, according to the UNDP report. ([www.newindianexpress.com](http://www.newindianexpress.com))

#### **Moody's expects COP21 agreement to propel wind power installations in India, Brazil and, Africa**

**June 9, 2016.** Moody's predicts new wind power equipment growth over the next five years to come from emerging markets like India, Brazil and Africa as momentum for wind turbine sales have been shifting from mature markets in Europe and the US to emerging markets. In 2015, installed capacity of wind turbines in China reached 145.3 GW, surpassing for the first time European Union's capacity of 141.6 GW. In 2015 all emerging markets combined, accounted for 62% of new equipment orders. The 21<sup>st</sup> session of the U.N. Framework Convention on Climate Change Conference of the Parties' (COP21) calls for increased investments to meet a targeted reduction in CO<sub>2</sub> emissions will support sales for wind turbine manufacturers. ([economictimes.indiatimes.com](http://economictimes.indiatimes.com))

#### **DMIC states asked to mull options to 5 gas-fired plants**

**June 9, 2016.** The Centre has asked three states along the Delhi-Mumbai Industrial Corridor (DMIC) to consider

using land allotted for five gas-based power plants to set up "industrial areas" or renewable energy projects following the non-availability of gas. The gas-fired projects, each with capacity of 1,000-1,200 MW, were to come up in Madhya Pradesh, Maharashtra and Gujarat as part of the corridor. Power, Coal and New & Renewable Energy Minister Piyush Goyal had said that gas-based generating projects in the country were facing a deficit in the availability of domestic gas and most of the gas-based power plants were operating at a very low Plant Load Factor. ([www.thehindu.com](http://www.thehindu.com))

#### **Gujarat Refinery commissions 400 kW Grid Tied solar power plant**

**June 8, 2016.** Gujarat Refinery has successfully commissioned 400 kW Grid Tied solar power plant on the roof top of south block control room in its premises. The refinery had previously commissioned 250 kW solar power plants for reducing the carbon footprints and moving towards the sustainable operations. With its 3<sup>rd</sup> solar power plant, Gujarat Refinery has successfully commissioned its total 650 kW Grid tied Solar Power plant on the roof tops of various buildings of the refinery to cater partial daytime electricity requirements. ([timesofindia.indiatimes.com](http://timesofindia.indiatimes.com))

#### **MNRE to promote upto 100 MW as small hydropower projects: NITI Aayog**

**June 8, 2016.** NITI Aayog agreed that projects upto 100 MW could soon be promoted and taken up as small hydropower projects under Ministry of New and Renewable Energy (MNRE) in Arunachal Pradesh. Arunachal Chief Minister (CM) Kalikho Pul had sought the support of the planning body to help develop state's untapped hydropower potential in realising the Prime Minister's vision of 24x7 power for all by 2022. ([www.arunachaltimes.in](http://www.arunachaltimes.in))

### **Global**

#### **Nissan to develop ethanol-based fuel cell technology by 2020**

**June 14, 2016.** Nissan Motor Co said it was developing fuel cell vehicle (FCV) technology using ethanol as a

hydrogen source in what would be an industry first, and planned to commercialize its system in 2020 as part of efforts to develop cleaner cars. The automaker said running costs for the FCVs would be roughly similar to those of electric vehicles, while declining to give details on vehicle pricing. (www.reuters.com)

#### **Researchers develop new solar absorber to improve efficiency of solar thermal technology**

**June 14, 2016.** Researchers from Massachusetts Institute of Technology (MIT) and the Masdar Institute of Science and Technology have developed a new device that can improve efficiency of solar thermal technology. The new solar absorber, which is designed using simple and cost-effective fabrication technique, can harness more sunlight, which will then be converted into heat while enhancing efficiency. The fabrication technique involves patterning tiny holes to the solar absorber. The holes with diameters less than 400 nanometers are cut into the absorber at regular intervals. By penetrating the entire absorber, the tiny holes improve the range of absorbed solar energy. The device, which requires very little material, has the potential to absorb close to 90% of all the light wavelengths that reach Earth's surface while maintaining low emission levels. MIT said that the work will contribute to a larger Masdar Institute-MIT research project, which intends to develop a solar-powered combined electrical power plant and cooling system. (www.energy-business-review.com)

#### **Film links melting glaciers, land loss in Bangladesh**

**June 14, 2016.** Melting ice in Antarctica puts as many as 30 million people in Bangladesh at risk of losing their homes over the coming century, according to a new documentary focused on the human cost of climate change. The film, "Thirty Million," made its premiere at the United Nations, where British filmmaker Daniel Price said the danger of the seas rising a full meter by 2100 was a worst case scenario but needs to be taken seriously. Rising waters on the nation's low-lying coast along the Indian Ocean's Bay of Bengal could displace some 30 million people, according to studies. A 2012 report by Unnayan Onneshan, a Bangladesh think-tank, said the sea level rise hitting one meter by 2100 would affect

25,000 square kilometers, or 18 percent of the country's total land, and displace an estimated 31.5 million people. The film, which uses aerial shots of lush forests and sleepy rivers to illustrate the South Asian country's beauty, can be seen online at thirtymillionfilm.org. Estimates of global sea levels rising by roughly a meter by 2100 come from the UN's Intergovernmental Panel on Climate Change. (in.reuters.com)

#### **Germany needs emissions-free car fleet by 2030**

**June 13, 2016.** All new cars registered in Germany need to be emissions free by 2030 at the latest to help meet pollution reduction goals. Germany's pledge to cut carbon dioxide output by 80 percent to 95 percent by 2050 will be in jeopardy unless the country radically reduces transportation pollution, Deputy Economy Minister Rainer Baake said. Since cars typically have a 20-year lifespan, registrations of new diesel and gasoline cars needs to be cut over the next 15 years, he said. (www.bloomberg.com)

#### **Beijing records highest electric vehicle registrations**

**June 11, 2016.** Beijing has recorded the highest ever number of requests for electric vehicle (EV) registration in a third round of applications that ended on June 8. A total of 17,600 individual and company applicants submitted applications for EVs, about 5,000 more than the previous round, according to bjhyjd.gov.cn, which announces Beijing's car quota allocation every two months. Beijing plans to allow 60,000 new energy vehicles on the road this year, with 25,424 already assigned in the first two rounds. This year's quota will probably be used up in the next round which ends in August. Unless the quota is increased, new applicants will have to wait until next year. (www.thehindu.com)

#### **Carbon price corridor system could fix Europe ETS: French committee**

**June 10, 2016.** A carbon price corridor mechanism with floor and ceiling prices, and an auction system, could help fix the European Emissions Trading System (ETS), in which prices have tumbled due to a glut of permits, according to a proposal by a French committee. (www.reuters.com)

### **EIB to support development of 90 MWe geothermal plant in Iceland**

**June 10, 2016.** European Investment Bank (EIB) has agreed to grant €125 mn (\$142 mn) in financing to Iceland's electricity generator Landsvirkjun to fund the development of new geothermal power station. The funding will also be used by the National Power Company of Iceland to design, construct and operate the 90 megawatt electrical (MWe) geothermal power station and its geothermal wells located at Theistareykir, near Húsavík in north-eastern Iceland. About nine geothermal wells with over 50 MWe capacity have already been drilled and tested at the project location in Húsavík. (geothermal.energy-business-review.com)

### **Japanese solar summers may trim peak fossil fuel power costs**

**June 9, 2016.** Japan's peak power prices may ease as the country's solar-power expansion taps scorching summers to displace fossil fuels. The resource-poor country, which

has boosted solar capacity more than sevenfold since 2011, may follow a similar path as Germany, where electricity prices fell along with fossil fuel use during high consumption periods, analysts said. (www.bloomberg.com)

### **Poland seeks to take Tesla's electric revolution for a bus ride**

**June 8, 2016.** Poland is looking to plug in to the nascent electric car and bus industry to help it ditch the unpopular reputation as a country whose economy is hooked on coal. The government wants to boost the number of electric vehicles made in the country of 38 million people to 1 million in 2025 from 427 last year. Encouraging cities to build up green credentials would help raise bus production to 1,000 a year by 2020, Deputy Development Minister Jadwiga Emilewicz said. The next stage will be output of plug-in cars or auto parts and offer citizens subsidies and tax incentives to buy them. (www.bloomberg.com)

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