



## ***Energy News***

**[GOOD]**

**Oil sector will benefit from investments from the savings on oil subsidies!**

**Page 9**

**[BAD]**

**This is unlikely to be the best of times for inviting bids for UMPPs!**

**Page 12**

**[WEEK IN REVIEW].....**

**[NATIONAL: OIL & GAS].....**

**[NATIONAL: POWER].....**

**[INTERNATIONAL: OIL & GAS].....**

**[INTERNATIONAL: POWER].....**

**[UGLY]**

**Rising air-pollution despite the rationing of road space shows that complex problems cannot be solved by simple solutions!**

**Page 20**

***ANALYSIS /  
ISSUES***

***DATA  
INSIGHT***

***Volume XII  
Issue 46***

***29 April 2016***

## **[APRIL 2016: THE AUDACITY OF TRYING TO APPEAR EVEN]**

“The scheme of rationing the use of personal mobility in Delhi on the basis of the number on the licence plates of petrol or diesel driven personal vehicles is supposedly back on popular demand and so it also attracted the wrath of the political parties that did not think of this first. The policy may not have a significant impact on the negative externalities of motorised mobility such as pollution and congestion but it is not a pointless exercise...”

**[RENEWABLE  
ENERGY /  
CLIMATE  
CHANGE  
TRENDS]**

# CONTENTS INSIGHT.....

## [WEEK IN REVIEW]

### COMMENTS.....

- April 2016: The Audacity of trying to Appear Even

### DATA INSIGHT.....

- Crude Oil Production: Actual versus Projections

## [NATIONAL: OIL & GAS]

### Upstream.....

- ONGC to drill 17 exploratory wells for shale gas
- Transocean bags deal for Actinia to drill offshore India for ONGC

### Downstream.....

- Aramco studying offers for Indian oil refinery stakes: Oil Minister

### Transportation / Trade.....

- RIL petroleum export volume remains above 10 mt
- India's oil imports from Middle East rise to 59 percent
- RIL looking at long-term oil supplies from Iran
- GAIL India to swap US LNG
- IGL clocks highest ever sales

### Policy / Performance.....

- Govt to save ₹ 542.2 bn as oil subsidy slides 29 percent in 2015-16
- BPCL gets green nod for ₹ 6.9 bn LPG project in West Bengal
- Govt to appoint 10k new LPG distributors in FY17
- Those giving up LPG subsidy can apply after 1 year: Oil Minister
- Low oil prices may help companies improve performance

## [NATIONAL: POWER]

### Generation.....

- Power demand crosses 15 GW in Tamil Nadu
- OPGC and OHPC form JV for development of coal blocks

### Transmission / Distribution / Trade.....

- Karnataka to buy 1 GW power to meet summer demand
- India to sell \$420 mn stake in NHPC

- Tripura to supply additional 100 MW power to Bangladesh

### Policy / Performance.....

- Power tariff hike to have adverse effect on agriculture sector: GCCCI
- Nuclear collaboration with Canada to grow further: Singh
- Cabinet likely to approve UMPPs bid paper soon
- CIL's coal stock increases to nearly 58 mt: Goyal
- AP govt aims to achieve 100 percent electrification by June
- India's energy demand to quadruple: Goyal

## [INTERNATIONAL: OIL & GAS]

### Upstream.....

- China's CNPC O&G output to reach 300 mt of oil equivalent by 2020
- As glut persists, Saudis and Kuwait struggle to restart Khafji oilfield
- CNOOC commences production from Panyu 11-5 in South China Sea
- Total's Indonesian unit sees first quarter Mahakam gas production at 1.7 Bcfpd
- US oil drillers cut rigs for 5<sup>th</sup> week to Nov 2009 lows
- Kazakhstan's Kashagan oil project to be launched in June 2017
- Statoil looks to the Arctic to increase exploration off Norway

### Downstream.....

- Exxon says planned maintenance underway at Beaumont refinery
- Global refining margins help lift crude oil prices
- Pertamina to select Indonesia refinery partner by end-April

### Transportation / Trade.....

- Eastern Libya ships first oil cargo in defiance of Tripoli
- Canada PM says thinking on pipelines has not changed
- SacOil holds off signing Mozambique gas pipeline JV
- Uganda picks Tanzania for oil pipeline route rather than Kenya
- Australian gas market gets monopoly review
- Odebrecht selling 55 percent stake in \$5 bn natural gas Peru pipeline
- TransCanada says Quebec govt halting pipeline injunction request
- Denmark considers options to secure gas supply after 2018
- British BP ships US crude to PDVSA's terminal
- Saras looking to resume Iran crude trade in coming months
- Con Edison to buy gas pipeline stake for \$975 mn
- Russia-Germany gas link polarizes Europe: Sefcovic

## Policy / Performance.....

- Qatar to scrap fuel subsidies in May as decade of surplus ends
- Russia's Novatek says Yamal LNG unlikely to get Chinese loans in May
- No urgency to freeze output with oil at \$45: Indonesia OPEC governor
- New Iran oil contracts model approved
- IEA chief says oil market, prices to return to balance by 2017
- Nigeria needs until June to repair Forcados oil pipeline: Oil Minister
- OPEC stands aloof of oil price regulation: Russian Energy Minister
- Venezuela Oil Minister warns oil prices may collapse if producers don't talk

## [INTERNATIONAL: POWER]

### Generation.....

- Atlantis and SBS plan 150 MW tidal power project in Indonesia
- Ghana commissions new 180 MW unit at Asogli power plant

### Transmission / Distribution / Trade.....

- Russia, Australia await the big 'if' of China ban on North Korean coal
- Venezuela introduces 4 hour daily power cut to deal with shortage
- Iraq signs strategic agreement with GE to boost power grid

## Policy / Performance.....

- Poland gives coal miner lifeline with state utilities' cash
- Turkey needs \$110 bn in energy investment by 2023: Erdogan

## [RENEWABLE ENERGY / CLIMATE CHANGE TRENDS]

### NATIONAL.....

- 349 mining proposals granted environment clearance in last 2 yrs: Environment Minister
- Su-Kam's solar street light is sans grid link
- Investment in clean energy at ₹ 908.4 bn in last 3 fiscals: Govt
- Don't see turf wars in govt on climate change: Mahindra
- Air pollutant concentrations rose despite odd-even vehicle rationing: TERI

- India, France launch \$1 tn potential solar programme for developing countries
- No power to make diesel vehicles switch to CNG: Govt
- India signs climate pact along with over 170 states at UN
- LM Wind Power commissions second manufacturing facility in India

### GLOBAL.....

- EU lawmakers to weigh option of faster carbon cuts after 2020
- Saudi Arabia targets 9.5 GW of renewable by 2030
- Statoil buys half of \$1.4 bn EON German wind project
- More than 170 nations gather to sign Paris climate accord
- Germany finds record carbon emissions at oldest European station
- UN assesses existing carbon markets to help meet airline demand
- Burying pollution tested with \$1.5 bn project in Australia

## COMMENTS.....

---

### *India monthly energy briefing*

## **April 2016: The Audacity of trying to Appear Even**

*Lydia Powell, Akhilesh Sati and Ashish Gupta, Observer Research Foundation*

### Conventional Fuels

#### *Oil & Gas*

The audacity of the Delhi government in trying to appear even handed in policy making grabbed most of the attention in the media this month. Generally any policy that rations products or services targets the poor but the policy to ration road space targeted the rich four wheeled population of Delhi. Naturally they fumed as they tried to get alternative modes of motorised transport to get to their golf courses. The scheme of rationing the use of personal mobility in Delhi on the basis of the number on the licence plates of petrol or diesel driven personal vehicles is supposedly back on popular demand and so it also attracted the wrath of the political parties that did not think of this first. The policy may not have a significant impact on the negative externalities of motorised mobility such as pollution and congestion but it is not a pointless exercise. It gives the impression of something being done about something that is framed as the most pressing problem; it distracts people from other more pressing problems; it provides an oversimplified narrative of a complex problem with one or two clear enemies – motorised personal vehicles or coal burning power plants; it easily lends itself to televised duels which is probably the source of inspiration for most legislative action today; most importantly it makes people believe that they are part of the solution even though they are part of the problem.

Strangely the record the 7% growth in the consumption of petroleum products for 2015-16, the highest in 15 years was being celebrated as the coming of age of India in energy consumption. Most of this consumption is accounted for by the increase in use of motorised transport. The irony is that the increase in motorised transport that is driving consumption and contributing to high growth figures that the central government is proud of is actually the problem that the Delhi government is supposedly trying to solve!

Barring kerosene all petroleum products are reported to have grown by 8-25% last financial year. While the consumption of petrol is said to have grown by 14.5% the consumption of diesel grew at 7.5%. Part of the credit is given to the 8% reduction in the price of petrol and the 11% reduction in the price of diesel. The growth in consumption of diesel is partly attributed to poor monsoons and the consequent increase in agricultural pumping. The increase in demand for logistical services from online retailers is also said to have boosted oil consumption. Aviation fuel consumption grew at a 9 year high of 12% driven by increase in capacity and the fall in oil prices. While low oil prices were boosting consumption of petroleum products it was also said to be reducing the amount of remittances of Indian workers in the Gulf. The impact of this reduction on the Indian economy is likely to be marginal but it demonstrates the intricate linkages between energy and the global economy. Contradicting all predictions of the inevitable insecurity in oil supply, an insecurity of demand has materialised with Iran and Saudi Arabia reported to be courting India as their target for security for demand! In other news we had stories on domestic oil & gas assets that were secured by the private sector with great fanfare about a decade ago being returned to state owned companies. On the international front, India was reported to be the first in Asia to buy shale gas. Whether this gas will actually flow into India is a different question.

#### *Coal*

On coal, the most surprising news that emerged in April was that Coal India Ltd (CIL) will be shifting its focus from producing coal to marketing coal. Less than a year ago CIL was enjoying the best of times as it was

thought to be the beginning of a long sellers' market for coal. What CIL is looking at now appears to be the beginning of a long and hard buyers' market.

Coal stock of CIL was reported to have increased by 4.2 million tonnes (mt) to 57.674 mt in April 1, 2016 compared to 53.46 mt on 1 April 2015. The increase in coal stock was mainly due to modest lifting by power generators in view of their comfortable coal stock position of 38.87 mt as on March 31, 2016, which is equivalent to requirement for 27 days. To facilitate liquidation of pit-head stock, the Coal Ministry has reportedly decided that the plants getting coal through the MoU route or having erstwhile tapering linkage will now have to take it via special e-auction being conducted for the power sector.

On the other hand, faced with mounting stocks CIL has slashed the prices of high grade coal by around 40%. Apart from this CIL has also scrapped the premium charged based on volumes delivered to incentivise large volume buyers to commit to higher off-take. It is not clear how many will lift coal when demand is suppressed.

Given the over-invoicing of coal imports and illegal non-banking channel funds transfer, known in local parlance as hawala, India has launched country wide investigations into coal importers over-invoicing and resorting to illegal cross-border funds transfer estimated at around \$5.3 billion. The Department of Revenue Intelligence have been directed to intensify vigil on all inward coal shipments and closer scrutiny of import documents. The illegal activity is supposed to have helped many power plants to claim higher tariff showing higher cost of fuel. It is necessary to unearth the truth quickly. Unless this is done, the quest for reformulating tariff policy to allow mandatorily pass-through fuel costs and the consequent inflation of tariff will continue.

#### *Renewable Energy*

In order to make hay while the sun shines Suzlon, a company that was celebrated as the wind beneath India's renewable wings appears to be converting itself into solar company. The fall of Sun Edison did not seem to have the expected ramifications in India where the company is reported to be an active investor. The target for solar capacity addition was reportedly breached this year with 3 GW rather than the planned 2 GW added. Meanwhile Himachal Pradesh which until just a few year ago was hoping to be floating on hydro-dollars is now announcing that it will be fully powered by solar energy by 2020.

*Views are those of the authors*

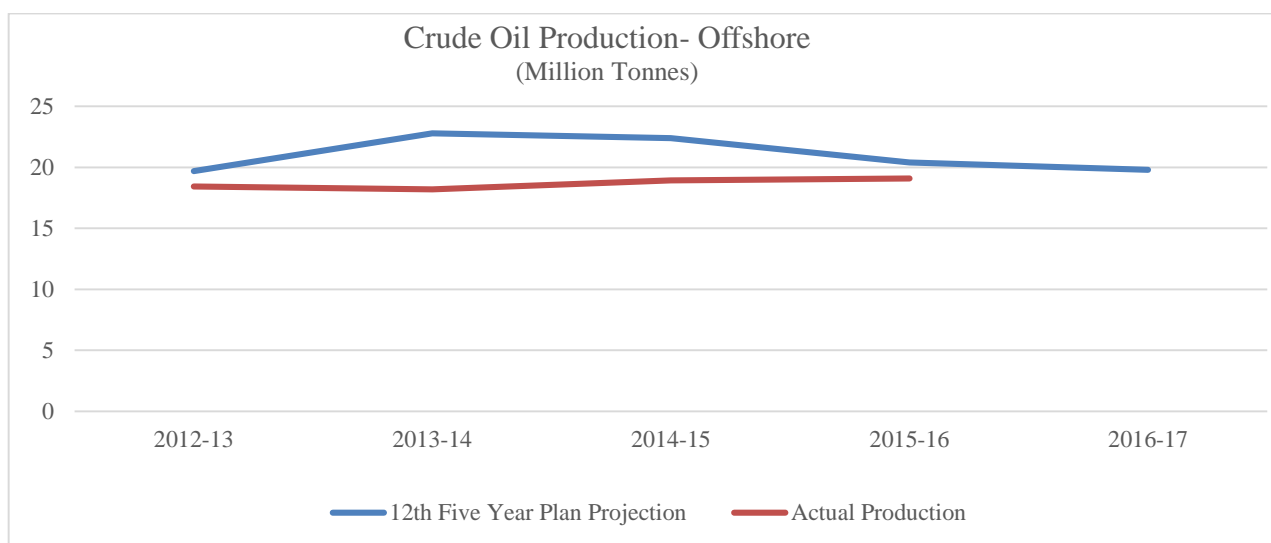
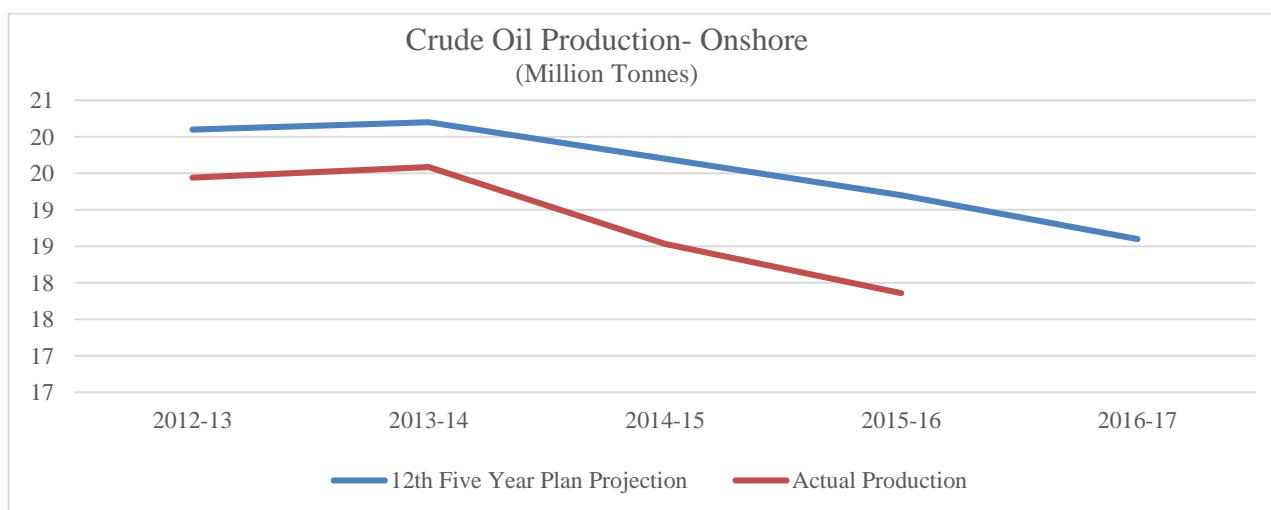
*Authors can be contacted at [lydia@orfonline.org](mailto:lydia@orfonline.org), [akhileshs@orfonline.org](mailto:akhileshs@orfonline.org), [ashishgupta@orfonline.org](mailto:ashishgupta@orfonline.org)*

## Crude Oil Production: Actual versus Projections

*Akhilesh Sati, Observer Research Foundation*

Crude Oil Production (Million Tonnes)		2012-13	2013-14	2014-15	2015-16	2016-17
<b>Onshore</b>	12th Five Year Plan Projections	20.1	20.2	19.7	19.2	18.6
	Actual Production as per Ministry of Petroleum	19.4	19.6	18.5	17.9*	-
<b>Offshore</b>	12th Five Year Plan Projections	19.7	22.8	22.4	20.4	19.8
	Actual Production as per Ministry of Petroleum	18.4	18.2	18.9	19.1*	-

\* Provisional



Source: Ministry of Petroleum & Natural Gas

# NEWS BRIEF

## [NATIONAL: OIL & GAS]

### *Upstream.....*

#### **ONGC to drill 17 exploratory wells for shale gas**

**April 24, 2016.** Oil and Natural Gas Ltd (ONGC) is planning to explore as many as 17 shale gas and oil wells in both east and west coasts with an investment of around ₹ 700 crore. According to the minutes of a recent meeting of the Expert Appraisal Committee (EAC) of Ministry of Environment and Forests, the PSU sought the ministry's nod to prepare Terms of Reference for exploring the wells. The PSU said this is the first time that the oil and gas company has taken up shale gas exploration in such a big scale. Also, it first time that it has taken up shale gas exploration in the Krishna-Godavari basin. According to the minutes, ONGC sought permission for drilling 11 exploratory wells for shale oil/shale gas in Cambay basin at Mehsana, Ahmedabad and Bharuch districts of Gujarat, one well in Cauvery basin at Nagapattinam in Tamil Nadu and five wells in KG Basin at East and West Godavari districts of Andhra Pradesh. According to a report released in 2013 by US Energy Information Agency, India has 63 trillion cubic feet of shale gas trapped under rocks. (timesofindia.indiatimes.com)

#### **Transocean bags deal for Actinia to drill offshore India for ONGC**

**April 22, 2016.** Transocean Ltd reported in its fleet update that the company has secured a three year contract with Oil and Natural Gas Corp (ONGC) for the Actinia (mid-water semisub) to work offshore India. The semisub will commence work on the contract, with fetches a dayrate of \$101,000, from May 2016 to June 2019. Actinia, which has been laid idle since August 2015, had previously worked for ONGC from June 2012 to July 2015. Transocean also bagged a contract for the Deepwater Invictus to drill two wells offshore Trinidad for BHP Billiton between May and August at a dayrate of \$350,000, while the firm's Dhirubhai Deepwater KG2 clinched a six month contract commencing in May. (www.rigzone.com)

### *Downstream.....*

#### **Aramco studying offers for Indian oil refinery stakes: Oil Minister**

**April 25, 2016.** Saudi Aramco is considering proposals to buy stakes in Indian oil refining and petrochemical projects, India's Oil Minister Dharmendra Pradhan said, as the world's biggest oil exporter seeks outlets for its oil. India, the world's third-biggest oil consumer, imports almost 80 percent of its crude requirements, mostly from Middle East nations. In the first quarter, Saudi Arabia was India's biggest exporter of oil, sending about 889,000 barrel per day (bpd) to the country, or about 21 percent of the total. Pradhan met with Saudi Aramco chairman Khalid al-Falih and sought Saudi investment in a planned 1.2 million bpd refinery on India's west coast, the expansion of the Bina refinery and a petrochemical plant at Dahej, he said. Three Indian state refiners - Indian Oil Corp, Hindustan Petroleum Corp and Bharat Petroleum Corp - plan to build the 1.2-million bpd refinery on the country's west coast at a cost of more than 1 trillion rupees (\$15.02 billion) to meet the country's growing fuel demand. Bharat Oman Refineries Ltd is expanding the capacity of the Bina refinery in Central India by 30 percent to 156,000 bpd while OPAL, majority owned by Oil and Natural Gas Ltd, is building a petrochemical plant in Western Gujarat state. Saudi Aramco Chief Executive Amin Nasser said his company will be looking to expand its downstream investments in China, Malaysia, India, Vietnam and Indonesia. Saudi Aramco's expansion into refineries in major markets help guarantee demand for its crude oil exports amid intensifying global competition. India will be the most important driver of world energy demand growth in the years to come with its oil consumption rising by 6 million bpd to about 10 million bpd by 2040, according to the International Energy Agency. (www.newindianexpress.com)

### *Transportation / Trade.....*

#### **RIL petroleum export volume remains above 10 mt**

**April 26, 2016.** If Reliance Industries Ltd's (RIL's) performance is anything to go by, there seems to be a rebound in petroleum export volumes from India. Sixty-three percent of the company's petroleum product sales were in the export market in the quarter ending March. RIL's exports have remained in excess of 10 million tonnes (mt) for three continuous quarters. RIL says it weighs realisation in local and export markets and accordingly pushes products. The prevailing low



prices, however, brought down its export earnings by 36 percent. The company said its sales from domestic retail outlets was the highest among its peers at 240 kilolitres a month during the quarter. Some 200 outlets were added during the last quarter, with volumes more than doubling over 2014-15. RIL opened 950 retail outlets in India during 2015-16 against a target of 1,000.

In April 2015, the company said it was aiming to restart the entire network of 1,400 outlets in 2015-16. Diesel retail sales in the domestic market were up 42 percent over the quarter ending December 2015. The biggest private sector refiner continued to sell less than half its petroleum products in the domestic market during the quarter. Of the total 17.8 mt refinery throughput, RIL sold 3.7 mt in the domestic market, 10.8 mt in the export market and used 2.6 mt during January-March 2016. Sales in the domestic market were marginally down from four mt in October-December.

RIL PETROLEUM EXPORTS						
Quarter ended						
	2014-15		2015-16		Change	
	Earnings (₹ crore)	Volume (mt)	Earnings (₹ crore)	Volume (mt)	Earnings %	Volume %
Jun	37,480	10.9	30,935	8.46	-17	-22.30
Sep	58,507	10.9	36,564	11.1	-38	1.80
Dec	66,065	11.1	42,636	10.9	-35	-1.80
Mar	66,600	8.5	36,717	10.8	-45	11.30
<b>Total</b>	<b>2,28,652</b>	<b>31.4</b>	<b>1,46,852</b>	<b>41.26</b>	<b>-36</b>	<b>31.20</b>

Source: RIL

The company said it successfully placed products in Turkey, East Africa and Australia, beside introducing a new gasoline grade, 91/81. It recorded the highest ever yearly production of ultra-low sulphur diesel at 15.7 mt. Petroleum exports were to the West Asia, the US, South East Asia and Australia. Gasoil exports were to Europe, Africa and South East Asia. The company also placed premium Petroleum grades (Alkylate, PBOB) in Latin America and the American market at healthy netbacks. While the firm plans to leverage information technology for retail sales, it also wants to deploy the Reliance JIO platform to upgrade its fleet management programme. ([www.business-standard.com](http://www.business-standard.com))

### India's oil imports from Middle East rise to 59 percent

**April 25, 2016.** India's oil imports from the volatile Middle East region rose to 59 percent in the first 11 months of the last fiscal, reversing a previous decline. Oil Minister Dharmendra Pradhan said that India imported 109.09 million tonnes (mt) of crude from 10 countries in the Middle East between April 2015 and February 2016, which was 59.22 percent of the total oil imports during the period. In fiscal 2014-15, India had imported 109.88 mt, or 58 percent, of its total oil need of 189.44 mt, from the Middle East. The increase was mainly on account of the rise in imports from Iraq, which saw the biggest jump from around 24.5 mt in each of the past three years, to 32.97 mt during April-February 2015-16. Pradhan said Saudi Arabia continues to remain India's principal crude oil supplier, selling 37.10 mt in April-February period of the last financial year, which was an increase over the 35 mt supplied in 2014-15. Iran supplied 10.58 mt of oil in the first 11 months of 2015-16, as against 10.95 mt in entire 2014-15. The minister said Africa overtook South America to become the second biggest source of crude oil supplies during the period in question, supplying 35.69 million tonnes of oil, over the 28.10 mt imported from South America. In 2014-15 Africa had supplied 33.05 mt. Pradhan said that India imported nearly all of its 8.16 mt of liquefied petroleum gas (LPG) supplies during the April-February of last fiscal from the Middle East. ([www.business-standard.com](http://www.business-standard.com))

### RIL looking at long-term oil supplies from Iran

**April 22, 2016.** Reliance Industries Ltd (RIL) said it is looking to buy more crude from Iran as the company seeks to rebuild ties to benefit from shorter shipping distances. The company had made small purchases from Iran in the current quarter and was currently engaged in talks for bigger supplies, indicating that it could also get into a long-term supply contract. India is set to import at least 400,000 barrels per day (bpd) of Iranian oil in the year from April 1, with refiners looking to ramp up purchases after the sanctions targeting Tehran ended in January. Iran was India's second biggest oil supplier before economic sanctions aimed at Iran's nuclear program hampered its trade relations. Now, Indian buyers are being drawn back to Iran in part by freight discounts that increase as more barrels are purchased. ([www.reuters.com](http://www.reuters.com))

### GAIL India to swap US LNG

**April 21, 2016.** GAIL (India) Ltd will swap one-third of the liquefied natural gas (LNG) it has contracted from the US with a gas seller nearer to the country to save on transportation costs. GAIL, in two deals, contracted 5.3 million tonnes a year of super-cooled gas (LNG) from the US starting 2018. Of this, it reckons 3-3.5 million tonnes will be shipped to India for consumption by local industries like power and fertiliser plants. To overcome this, GAIL plans to swap 1-2 million tonnes per annum of LNG from the US with a seller in Africa, the Middle East or Asia-Pacific. GAIL has issued a tender seeking expression of interest from swapping part of the 3.5 million tonnes per annum of LNG it has contracted from Sabine Pass



Liquefaction, LLC, US on FOB basis for 20-year period with supplies expected to commence from Q1, 2018. Doing this would help GAIL save on 10-15 days needed for a ship to travel from the US to India and back. For the other seller, the same benefit will accrue, besides saving on the transportation cost. In the tender, GAIL said it wants to swap some of the US LNG volumes from Sabine Pass with firms that have customers in countries in which LNG trade is not prohibited by US law and sanctions. In exchange it wants equivalent supplies on a delivered basis at Dahej import terminal in Gujarat and Dabhol facility in Maharashtra. GAIL sought bids from interest parties by May 5 for a five year swap. GAIL also holds a 20 percent stake in Carrizos Eagle Ford Shale acreage in the US. Of the US volumes, the company has sold 2 million tonnes of LNG to overseas users. (indiatoday.intoday.in)

### IGL clocks highest ever sales

**April 20, 2016.** Indraprastha Gas Ltd (IGL) recorded highest compressed natural gas (CNG) sale of 26.7 lakh kg a day after more vehicles switched to the cleaner fuel with the start of second round of 'odd-even' rule for plying of private cars. IGL is setting up one CNG dispensing station every two days, a world record, to meet the increased demand for gas. Previously peak sale volume was 26.4 lakh kg per day. With the Delhi government from April 15 starting the second phase of odd-even rule under which cars will only be allowed on the road on alternate days, going by whether their number plates are odd or even. IGL is setting up CNG dispensing stations at a record pace. The remaining CNG stations would be set up by May, IGL said. Delhi has the highest number of CNG stations in the world and no city has ever expanded its network by more than 30 stations in a year. IGL said the talk of making the 'odd-even' rule a permanent fixture has led to more number of cars converting to CNG. IGL, the sole supplier of CNG to automobiles and piped cooking gas to households in the national capital region, is the country's largest CNG retailer. Also, the company offers a discount of ₹ 1.5 per kg if refueling is done during odd-hours midnight to 5 am starting this January. Out of the 1026 CNG stations currently in operation in the country, about 34 percent are located in Delhi and adjoining NCR towns. (timesofindia.indiatimes.com)

### Policy / Performance.....

### Govt to save ₹ 542.2 bn as oil subsidy slides 29 percent in 2015-16

**April 25, 2016.** Subsidy on petroleum products have come down by nearly 29% in 2015-16, marking a saving of ₹ 54,223 crore from the year-ago period on the back of low crude prices and market reforms. Latest government data pegs subsidy on domestic LPG and kerosene, the only two fuels subsidised by the government, at ₹ 22,085 crore in 2015-16 against ₹ 76,308 crore in 2014-15. Subsidy on LPG is estimated at ₹ 12,092 crore for 2015-16, down from ₹ 40,569 crore in 2014-15. Similarly, subsidy on kerosene declined to ₹ 9,993 crore in 2015-16 from ₹ 24,804 crore in 2014-15, Oil Minister Dharmendra Pradhan said. The lower subsidy bill comes as icing on the cake for policy makers. India's crude oil import bill for 2015-16 is likely to be half the previous year's tab. The savings, combined with the additional mop-up through excise duty hikes, would provide a wide financial berth for the government's social sector projects. Outgo on crude import is estimated to drop 45% from \$113 billion in 2014-15 to \$62 billion, assuming an average price of \$35 a barrel for the mix of crude India buys and an exchange rate of ₹ 67 to a dollar for February and March 2015, according to the Petroleum Planning & Analysis Cell, the oil ministry's market tracker. Market reforms, namely deregulation of diesel pricing from October 2014, and effective implementation of the scheme to transfer cash subsidy on LPG directly into consumers' account also helped save government's outgo. While there is no subsidy on diesel since October 19 2014, the cash transfer scheme has plugged leakage of subsidy by eliminating ghost connections, one of the key factors responsible for diversion of subsidised cylinders into the black market for commercial use. Buoyed by the savings, the government is pushing state-run fuel retailers to expand their network and is set to launch on May 1 an ambitious ₹ 8,000 crore programme to provide free of cost gas connection in the name of women from five crore BPL (below-poverty line) families in the next three years to increase clean fuel penetration in rural areas. Overall LPG coverage has been going up in the last few years in the country, estimated at 61.9%. This is to be raised to 75%, with minimum 60% coverage at state level and at least one distributor in each block by 2019, Pradhan said. (timesofindia.indiatimes.com)

### BPCL gets green nod for ₹ 6.9 bn LPG project in West Bengal

**April 25, 2016.** Bharat Petroleum Corp Ltd (BPCL) has got green nod for its ₹ 694 crore project of developing LPG import terminal as well as storage, bottling and bulk distribution facilities at Haldia Dock Complex in West Bengal. At present, domestic production of LPG is around 12.38 million metric tonne per annum (mmtpa), much lower than the estimated demand of 18.65 mmtpa for this year. The proposed project aims to boost supply and help achieve the government's

target of making LPG available to each household by 2018. The proposed project will ensure LPG supplies to far-flung areas of eastern and north-eastern regions and will create an infrastructure to import the eco-friendly LPG fuel. As per the proposal, BPCL will set up an import terminal at Haldia to import 1 mmtpa of refrigerated Propane and Butane and transfer it through 7.5-km long twin transfer pipeline for LPG production, despatch of bulk LPG via road tankers and bottling of LPG in cylinders. The proposal also includes setting up of a bottling plant comprising two LPG-mounded bullet storage facility of 350 tonnes capacity each, besides loading facilities, allied machineries, loading gantries for bulk tanker and filled cylinder despatch through road within the land allotted. (economictimes.indiatimes.com)

### Govt to appoint 10k new LPG distributors in FY17

**April 23, 2016.** Oil Minister Dharmendra Pradhan said 10,000 new LPG distributors will be appointed in the current financial year. The ambitious ₹ 8,000 crore scheme will provide 5 crore free LPG connections to BPL (below poverty line) families using the money saved from 1.13 crore cooking gas users voluntarily giving up their subsidies. Modi will launch the Pradhan Mantri Ujjwala Yojana in Ballia on 1 May and do a repeat function at Dahod in Gujarat on 15 May. Pradhan said 61% households in the country have LPG connections, while in Uttar Pradesh 53% houses have gas connections. Besides increasing production in refineries, the government is taking other steps to increase availability of LPG for consumers, Pradhan said. (www.livemint.com)

### Those giving up LPG subsidy can apply after 1 year: Oil Minister

**April 23, 2016.** Those who voluntarily give up the LPG cylinder subsidy under the government's Give It Up scheme can ask for it after a year, Oil Minister Dharmendra Pradhan said. He said his Ministry had not used the data from income tax returns to cut subsidy for people earning over ₹ 10 lakh a year. The government must make clear at what LPG price point it is willing to reconsider giving back the subsidy to those who gave it up, he said. The Minister announced that so far 1.13 crore people had given up the LPG subsidy and around 50 percent of them were from Maharashtra, Uttar Pradesh, Delhi, Karnataka, and Tamil Nadu. India imports 40 percent of its 21 million tonne LPG requirement, which the Minister said would rise sharply following the provision of new connections. (www.thehindu.com)

### Low oil prices may help companies improve performance

**April 20, 2016.** Low oil and commodity prices are likely to help companies post better earnings numbers in the fourth quarter of the just-concluded fiscal, the SBI Ecowrap report said. The report said that net sales are likely to rise at a lower pace than growth in operating profit margins during the period. The yearly SBI Composite Index for April 2016 has increased moderately to 52.2, a five-month high, compared to the last month's low decline of 49.5 due to better market factors, the report said. (timesofindia.indiatimes.com)

## [NATIONAL: POWER]

### Generation.....

### Power demand crosses 15 GW in Tamil Nadu

**April 21, 2016.** Even before the peak summer of 'Kathiri' began, electricity demand in the Tamil Nadu hit an all-time high at 15,191 MW. The previous all-time high demand was registered at 14,969 MW on April 15. This year has been hectic for power managers with all-time high demand crossing the 14,000 MW mark in the past three months. The last recorded peak demand was 13,775 MW on June 24, 2014. Tamil Nadu Generation and Distribution Corp Ltd (TANGEDCO) said the record demand was because of various load factors, including air conditioners and agricultural pump sets. TANGEDCO's thermal stations are almost generating 4,200 MW every day operating at more than 90 percent plant capacity along with the Central generating thermal stations. Helping with meeting the electricity demand are hydro stations pumping more than 1,000 MW, wind units producing 800 MW and solar units generating 500 MW a day. (www.thehindu.com)

### OPGC and OHPC form JV for development of coal blocks

**April 21, 2016.** Two state government entities --Odisha Power Generation Corp Ltd (OPGC) and Odisha Hydro Power Corp Ltd (OHPC) formed a joint venture (JV) namely Odisha Coal and Power Ltd (OCPL) to explore coal from Manoharpur and Dip-side Manoharpur blocks. The blocks would cater to the coal requirement of OPGC's 4x600 MW thermal power plant at Banharपाली in Jharsuguda district. Formation of the JV was essential as the Centre had allocated the two blocks to OCPL

on August 2015. Though the state government issued notification for formation of OCPL in February, 2015 to avail the two coal blocks, details of stake sharing between OPGC and OHPC were not finalized. While OPGC has a stake of 51 percent in the JV, OHPC owns 49 percent share according to an agreement signed between OPGC and OHPC in presence of Energy Minister Pranab Prakash Das. The new entity would have seven-member board of directors comprising four from OPGC while three others from OHPC. Both the entities would spend around ₹ 1500 crore for development of the blocks. The OPGC is developing a rail corridor for transportation of coal from the blocks located in Sundargargh district to the plant. The Chief Minister Naveen Patnaik urged Prime Minister Narendra Modi during a meeting in New Delhi to ensure interim coal linkage for OPGC plant till the two blocks starts operations. (timesofindia.indiatimes.com)

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

#### **Karnataka to buy 1 GW power to meet summer demand**

**April 26, 2016.** Karnataka government has floated tenders for purchase of 1,000 MW power from private producers to meet the peak summer demand. The peak demand in the state has touched 9,550 MW, Energy Minister D K Shivakumar said. He expressed confidence of managing the demand by purchasing power from private producers. He dismissed reports of frequent unscheduled power cuts in the state and said there is no proposal to introduce scheduled load shedding. He announced raising the exception limit for captive generation cess from the existing 250 KW to 500 KW for industries having captive units. (www.newindianexpress.com)

#### **India to sell \$420 mn stake in NHPC**

**April 26, 2016.** India will sell a 11.36 percent stake in state-controlled hydropower producer NHPC to raise ₹ 28 billion (\$420 million), kicking off the government's privatisation programme for this year. The government wants to raise ₹ 565 billion from the sale of stakes in state-owned enterprises in the 2016/17 financial year. That is 19 percent lower than last year's target, which the government failed to hit. The floor price for the NHPC stake sale is ₹ 21.75 per share. The offer is at a 6 percent discount to the company's closing price of ₹ 23.05. The government is also seeking bids from merchant bankers and brokers to manage the sale of a 10 percent stake in state energy company Oil India Ltd (OIL), the Finance Ministry said. (in.reuters.com)

#### **Tripura to supply additional 100 MW power to Bangladesh**

**April 23, 2016.** Tripura has agreed to supply an additional 100 MW of electricity to Bangladesh, over the 100 MW of power the northeastern state is supplying to the neighbouring country, Tripura's Power and Transport Minister Manik Dey said. A 47-km double circuit transmission line has been erected, linking the power grid at Surjyamaninagar in western Tripura to the Comilla power grid in Bangladesh, to supply electricity to the neighbouring country. The 100 MW electricity being supplied to Bangladesh by Tripura from March 23 is in addition to the 500 MW Bangladesh is already receiving from India's West Bengal. The state-owned North East Electric Power Corp, under the union power ministry, commissioned the 101 MW capacity Monarchak project in western Tripura. The central government-owned Oil and Natural Gas Corporation (ONGC) has also commissioned its biggest 726 MW capacity commercial power project in southern Tripura's Palatana, 60 km south of Agartala. The ₹ 10,000 crore gas-based Palatana plant, which supplies power to seven of the eight northeastern states, is a hallmark of the cooperation between both countries, as Bangladesh ensures smooth passage of heavy project equipment and turbines to Palatana through its territory by road and waterways from Haldia port in West Bengal. The minister said there are some issues about the supply of gas to Monarchak power project by ONGC. Indian and Bangladesh had formed a company - Bangladesh-India Friendship Power Company Ltd - to set up a coal-fired 1,320 MW (660X2 MW) capacity power plant at Rampal in the country's southeastern coastal area. Prime Minister Narendra Modi discussed power supply from Tripura with Bangladesh Prime Minister Sheikh Hasina. Modi had declared that India would eventually enhance the power supply to Bangladesh to 1,100 MW. (www.business-standard.com)

### **Policy / Performance.....**

#### **Power tariff hike to have adverse effect on agriculture sector: GCCI**

**April 26, 2016.** The power tariff hike order by Joint Electricity Regulatory Commission (JERC) in Goa would have an adverse effect on the agri sector, the Goa Chamber of Commerce and Industry (GCCCI) has said. The GCCCI said, when Chief Minister Laxmikant Parsekar apprised of the proposed tariff plan, our sub-committee members had expressed dissatisfaction over the move and were of the view that such an increase in energy tariff would be counterproductive to the efforts of the government to promote agriculture activity in its full spectrum in the Goa. The feedback from those involved in the varied

agricultural activities allied to the traditional agriculture is that the steep hike in the electricity charges as proposed by electricity department and approved by the JERC is not in the interest of agriculture in Goa, the GCCI said. (economicstimes.indiatimes.com)

### **Nuclear collaboration with Canada to grow further: Singh**

**April 26, 2016.** Minister of State (Independent Charge) for Development of North Eastern Region (DoNER) Jitendra Singh said the nuclear collaboration with Canada has proved mutually beneficial for the two countries and is bound to grow further in the years to come. Singh was speaking to Canadian High Commissioner to India, Nadir Patel, who called on him to brief him about the current status of collaboration between India and Canada in nuclear science/power and other areas of bilateral interest. Singh recalled the meeting between Prime Minister Narendra Modi and his Canadian counterpart Justin Trudeau during the former's visit to Canada last year. Patel also offered to provide inputs to boost various developmental activities going on in the north-eastern states of India and said he may like to undertake an exploratory visit to north-east in the months to come. (www.newkerala.com)

### **Cabinet likely to approve UMPPs bid paper soon**

**April 25, 2016.** The Union Cabinet is likely to give green signal soon to standard bid document which will facilitate auctioning of domestic coal-based four or five Ultra Mega Power Projects (UMPPs), entailing an investment of ₹ 30,000 crore each. The Power Ministry is in the process of finalising the standard bid document for imported coal-based UMPPs. Once that is done, UMPPs like Cheyyur in Tamil Nadu can go under hammer. Earlier, the bid document for domestic coal could not be put up before the Cabinet due to some legal glitch. Government had planned to float tenders for three UMPPs in 2015-16. In the 2015 Budget speech, Finance Minister Arun Jaitley had said the government propose to set up five new UMPPs of 4,000 MW each, in the plug-and-play mode. All clearances and linkages would be in place before the projects are awarded by a transparent auction system. This should unlock investments to the extent of ₹ 1 lakh crore, Jaitley had said. The government had aborted bidding for Cheyyur (Tamil Nadu) and Bedabahal (Odisha) projects in January last year due to tepid private sector response. In the case of Tilaiya UMPP, all power procurers have signed the termination notice served by Reliance Power to end the contract for the project. Reliance Power, in August 2009, had won rights to set up a 3,960 MW power plant at Hazaribagh in Jharkhand after bidding a levelised tariff of ₹ 1.77 per unit, but couldn't start work on the project as the state government had not provided the required land even after more than five years. (www.businesstoday.in)

### **CIL's coal stock increases to nearly 58 mt: Goyal**

**April 25, 2016.** CIL's coal stock has increased to 57.674 million tonnes (mt) as on April 1, 2016 mainly due to regulated lifting by power producers. The increase in coal stock is mainly on account of regulated lifting by power utility sector in view of their comfortable coal stock position of 38.87 mt as on March 31, 2016, which is equivalent to 27 days' requirement, Coal and Power Minister Piyush Goyal said. The minister said that Coal India Ltd (CIL) has recently taken several measures to liquidate coal stocks which includes offering of coal to power utilities/independent power producers (IPPs) under special e-auction window at a reduced reserved price. The other measures include supply under "as is where is" scheme for power utility sector consumers wherein coal is offered for lifting by consumers through their own logistics and exclusion of supply of higher grades of coal (G1 to G5) from calculation of performance incentives for all sectors and additional coal against import component being supplied to consumers consequent to enhanced production. (www.dnaindia.com)

### **AP govt aims to achieve 100 percent electrification by June**

**April 24, 2016.** The Andhra Pradesh (AP) Government has set a target of achieving 100 percent electrification of all the habitations in the State this year. Chief Minister N Chandrababu Naidu will declare electrification of all households at a meeting scheduled on June 8, 2016. The State has so far electrified 1.37 lakh households during 2014-15 and 2.37 lakh households during 2015-16. (www.thehindubusinessline.com)

### **India's energy demand to quadruple: Goyal**

**April 20, 2016.** Power Minister Piyush Goyal has said that India will become the largest energy market with the country's demand set to quadruple in the coming years. Goyal said a rise in India's energy demands is more significant in view of the global scenario when most developed economies are witnessing a declining trend in their energy demand. India has set a renewable energy target of 175 GW of renewable energy by 2022 that comprises 100 GW of solar and 60 GW of wind capacity. (www.business-standard.com)

## [INTERNATIONAL: OIL & GAS]

### Upstream.....

#### China's CNPC O&G output to reach 300 mt of oil equivalent by 2020

**April 26, 2016.** China National Petroleum Corp (CNPC), parent of PetroChina, said that its oil and gas (O&G) output would reach 300 million tonnes (mt) of oil equivalent a year by 2020. CNPC's domestic oil refining capacity will be capped at around 200 mt a year by 2020, it said. (af.reuters.com)

#### As glut persists, Saudis and Kuwait struggle to restart Khafji oilfield

**April 26, 2016.** Kuwait and Saudi Arabia appear no closer to restarting their jointly operated Khafji oilfield, despite Kuwait saying the sides had agreed to ramp up output after an 18-month shutdown. Any delay in the restart of the Neutral Zone field that produced 280,000 to 300,000 barrels per day (bpd) before environmental problems forced its closure in October 2014 will be seen as a boost to global oil markets struggling to shake off a glut that has sent prices diving over the past two years. Wafra, which has an output capacity of about 220,000 bpd of Arabian Heavy crude, has been shut since May 2015 due to operational difficulties. Khafji and Wafra are part of a long-standing dispute between Kuwait and Riyadh, mainly over operation rights. Kuwait has limited spare production capacity and therefore been hit harder than Saudi Arabia by the closures. Kuwait's production capacity is estimated at 3.2 million bpd, compared to Saudi Arabia's 12 million bpd. (af.reuters.com)

#### CNOOC commences production from Panyu 11-5 in South China Sea

**April 25, 2016.** CNOOC Ltd announced that the Panyu 11-5 oilfield, located in the Pearl River Mouth Basin of the South China Sea, has commenced production. Panyu 11-5 saw the drilling of three additional horizontal wells. There is currently one well on production, with an output total of approximately 3,270 barrels of crude oil per day (bopd). The oilfield is expected to reach a peak production level of approximately 3,900 bopd later this year. Panyu 11-5 is an independent oilfield in which CNOOC holds a 100 percent operated interest. (www.rigzone.com)

#### Total's Indonesian unit sees first quarter Mahakam gas production at 1.7 Bcfpd

**April 25, 2016.** Total E&P Indonesia, a unit of French oil firm Total sees first quarter natural gas production from the Mahakam Block at 1.7 billion cubic feet per day (Bcfpd), above its target of 1.5 Bcfpd for 2016, the company said. Its first quarter oil production was in line with its targets at 65,000 barrel per day, the company said. (www.rigzone.com)

#### US oil drillers cut rigs for 5<sup>th</sup> week to Nov 2009 lows

**April 22, 2016.** U.S. energy firms cut oil rigs for a fifth week in a row to the lowest level since November 2009, oil services company Baker Hughes Inc said, as energy firms continue to slash spending despite a bigger than 60 percent spike in futures since hitting a near 13-year low in February. The number of U.S. oil rigs currently operating compares with the 703 rigs operating in the same week a year ago. In 2015, drillers cut on average 18 oil rigs per week for a total of 963 for the year, the biggest annual decline since at least 1988 amid the biggest rout in crude prices in a generation. Energy firms have sharply reduced oil and gas drilling since the collapse in crude markets began in mid-2014. U.S. crude futures fell from over \$107 a barrel in June 2014 to a near 13-year low around \$26 in February. U.S. crude futures were fetching around \$45 a barrel for the balance of 2016 and about \$47 for calendar 2017. Analysts at Cowen & Co, a U.S. financial services firm, expect U.S. oil and natural gas land rigs to bottom between 375 and 400 sometime in the second quarter before increasing in the fourth quarter. The total land rig count was 401, according to Baker Hughes. (www.reuters.com)

#### Kazakhstan's Kashagan oil project to be launched in June 2017

**April 21, 2016.** Kazakhstan's oil Kashagan project will likely be launched in June 2017, the China National Petroleum Corp (CNPC) said. The Kazakhstan economy ministry said it planned to start commercial oil production at the Caspian offshore oil field in December 2016. After huge delays and cost overruns, Kashagan finally launched output in September 2013 but halted production a few weeks later after gas leaks were detected in its pipelines. (www.reuters.com)

#### Statoil looks to the Arctic to increase exploration off Norway

**April 20, 2016.** Oil firm Statoil is looking to a rebound in exploration activity offshore Norway in the next few years with a focus on the Arctic, having curbed activity due to the oil price slump, the firm said. Exploration activity in the coming years is crucial to secure Statoil's future production in its home base, which faces a decline from current levels after 2025 if



mature fields are not replaced by new resources. It can take up to 15 years from discovery to a field to come on stream. The so-called 23<sup>rd</sup> round is an Arctic-focused oil licensing round, set to open unexplored acreage in the Barents Sea in the Arctic, closer to the country's border with Russia. The awards are expected to be announced before July. Such discoveries were absolutely necessary if Statoil is to preserve production at today's levels until 2030. Around half of the undiscovered resources offshore Norway lie in the Barents Sea. But a 62 percent drop in crude prices since mid-2014 has put a break on activities in the Arctic, where it is more costly to develop projects, mainly due to the lack of infrastructure. Statoil presented a new set of technologies tailored for the Barents Sea, known as Cap-X, designed to reduce costs and increase the efficiency of subsea developments. However, not everyone sees the same possibilities as Statoil. Shell withdrew its application from the 23<sup>rd</sup> licensing round earlier this month, while other majors such as ExxonMobil, Eni and Total did not apply, partly because they are searching for larger discoveries in other parts of the world. (www.reuters.com)

## **Downstream.....**

### **Exxon says planned maintenance underway at Beaumont refinery**

**April 23, 2016.** Planned maintenance has begun on units at Exxon Mobil Corp's 344,600 barrel per day (bpd) Beaumont, Texas refinery. The refinery has shut a 110,000 bpd crude distillation unit for a revamp lasting between 60 and 70 days to prepare for an eventual expansion of the refinery. (www.reuters.com)

### **Global refining margins help lift crude oil prices**

**April 21, 2016.** Global refining margins have improved significantly in recent weeks which should support strong demand for crude and lend some strength to both spot prices and spreads in the short term. While diesel markets remain oversupplied and margins poor, gasoline consumption is booming and margins have improved sharply, improving economics for many refineries. There is no straightforward way to estimate the profitability of turning crude into products in real time since every refinery processes a different slate of crudes and produces a different slate of products. Even for the same refinery, crude and product slates can vary significantly over short periods as the refinery's planning department takes advantage of short-term opportunities in the market place. But the multitude of indicators on refinery margins all point to an improvement in the United States and globally since the lows hit in February, which is helping support crude oil prices. The most generic refining indicators compare the cost of acquiring a benchmark crude and processing it into major products such as gasoline and diesel. The 3-2-1 crack spread compares the acquisition cost of three barrels of crude with the selling price of two barrels of gasoline and one barrel of diesel. The 3-2-1 crack has improved from a low of around \$12 per barrel in early February to around \$18 so far in April, based on futures prices for U.S. light sweet crude, gasoline and diesel. (www.reuters.com)

### **Pertamina to select Indonesia refinery partner by end-April**

**April 20, 2016.** Indonesia's Pertamina will select a development partner for the \$12 billion Tuban refinery project by the end of April, around two months later than initially estimated, the state-owned energy company said. Pertamina is currently in talks with Saudi Arabian national oil giant Saudi Aramco, China's Sinopec Corp, Kuwait Petroleum International (KPI), Russia's Rosneft and a consortium involving Thailand's PTT Global Chemical and Thai Oil. Pertamina had initially expected to finalise a partner by February. Indonesia's fuel output has been hit by a lack of investment in its refining sector since the last refinery was completed in 1994. Pertamina currently has 1 million barrels per day (bpd) in refining capacity, which it plans to raise to 2.3 million bpd through upgrades and additional plants. The new Tuban refinery, which will eventually be integrated with the TPPI petrochemical refinery that Pertamina took over in late 2015, will have a crude processing capacity of 300,000 bpd and is targeted for completion in 2021. (af.reuters.com)

## **Transportation / Trade.....**

### **Eastern Libya ships first oil cargo in defiance of Tripoli**

**April 26, 2016.** A government based in eastern Libya has shipped its first cargo of crude in defiance of authorities in the capital Tripoli, a bold move that could deepen the divisions that have brought chaos since the fall of Muammar Gaddafi. The Tripoli authorities asked the U.N. Security Council to blacklist the India-flagged tanker Distya Ameya, which left the eastern Libyan port of Hariga overnight carrying oil they said could not be lawfully sold. The eastern government has set up its own National Oil Corp (NOC) to act in parallel to the Tripoli-based NOC that is recognized internationally as the only legitimate seller of Libyan oil. The tanker departed Hariga carrying 650,000 barrels of crude bound for Malta, NOC said. It

was not immediately clear how the eastern NOC could conduct a sale given the international opposition. One possibility might be to attempt a ship-to-ship transfer in international waters. The United States has stopped unauthorized sales of Libyan oil in the past, sending special forces in 2014 to board a tanker off Cyprus loaded with crude shipped by a group pressing for more autonomy in eastern Libya. The U.S. troops forced that ship to return. The eastern NOC has long been trying to sell its own oil, but until now those efforts have been blocked by the NOC in Tripoli, with the support of Western countries. The NOC in Tripoli says any sale by its eastern rival would breach U.N. Security Council resolutions and put the future of Libya's economy at risk. (www.reuters.com)

### **Canada PM says thinking on pipelines has not changed**

**April 26, 2016.** Canadian Prime Minister (PM) Justin Trudeau said he still opposed a crude oil pipeline travelling through a British Columbia rainforest but declined to speculate on whether a changed route for Enbridge Inc's proposed Northern Gateway pipeline would work. Trudeau and his cabinet came under pressure from the energy-dependent province of Alberta during a cabinet meeting in the landlocked province, with Premier Rachel Notley pressing her case for pipelines to help bring Alberta oil to tidewater. Asked whether his Liberal government would be open to the Northern Gateway pipeline if the terminus in British Columbia was changed from Kitimat to Prince Rupert, Trudeau said his determination to protect the environment was firm and declined to speculate on hypothetical routes. Northern Gateway would carry Alberta oil sands crude to a deepwater port in British Columbia. The slump in oil prices has hit Canada's economy, especially in the province of Alberta which is tied to the energy sector, and has increased pressure from some quarters to get pipelines built. Notley, whose left-leaning New Democrat government has worked to improve relations with Ottawa, appealed to Trudeau and his cabinet over the weekend to support efficient ways to get oil to market. Notley said she came away from the meeting with the feeling they were on the same page about pipelines and environmental concerns. (www.reuters.com)

### **SacOil holds off signing Mozambique gas pipeline JV**

**April 25, 2016.** SacOil Holding Ltd held off joining its partners in signing a joint venture (JV) agreement to build a \$6 billion pipeline to transport gas from offshore Mozambique to South Africa's commercial heartland of Gauteng. SacOil said its partners, including Mozambique's national oil company, China Petroleum Pipeline Bureau and China Petroleum & Technology Development Corp, signed the agreement on the African Renaissance Pipeline. The 2,600 kilometer (1,616 mile) pipeline will be funded mostly by Chinese banks and could be operational by 2020, SacOil said. The pipeline is among the projects seeking to exploit gas discoveries in the Rovuma Basin, off the northern coast of Mozambique. (www.bloomberg.com)

### **Uganda picks Tanzania for oil pipeline route rather than Kenya**

**April 23, 2016.** Uganda will build a pipeline for its oil through Tanzania rather than Kenya, which had wanted to secure the export route. Picking a route is vital for oil firms to make final investment decisions on developing reserves found in Uganda and Kenya, which are among a string of hydrocarbon finds on Africa's eastern seaboard. Land-locked Uganda, which found oil in a western region around Hoima, said it would build a pipeline through Kenya, linking its fields to Kenyan discoveries in Lokichar and on to Lamu on Kenya's north coast. But in March this year Uganda changed tack, saying it was now planning a pipeline from Hoima to Tanga on Tanzania's coast, prompting a last-minute push by Kenya for another switch. Kenyan Lands Minister Jacob Kaimenyi said the Uganda and Kenya pipelines would be developed independently. France's Total, one of the oil firms developing Uganda's fields, had raised security concerns about the Kenyan route. A Kenyan pipeline could at points run near Somalia, from where militants have launched attacks on Kenya. Britain's Tullow Oil, with stakes in both countries, had backed the Kenyan route, saying it would be cheaper if oil from both pipelines followed the same route. The firm said it would now work with both governments on the two pipeline projects. (www.reuters.com)

### **Australian gas market gets monopoly review**

**April 22, 2016.** A competition watchdog in Australia said it was growing concerned by the tight market control from a few gas players and an uncertain supply outlook. The Australian Competition and Consumer Commission issued its report on a year-long investigation into the regional gas market. It found suppliers as well as pipeline operators were exploiting their market positions to the detriment of its buyers and industry customers. Some end users in south-eastern states like Victoria, the report said, may be faced with steep price increases for natural gas if market fluidity doesn't improve. The commission noted that it was taking a particular interest in a marketing joint venture controlled by Exxon Mobil and Australian energy and mining giant BHP Billiton, which is suspected of monopolizing its position in certain regional gas markets. The report



calls on the government to enact measures to bring new gas supplies to domestic markets, increase regulation over some sectors and open up the industry to more public scrutiny. (www.upi.com)

### **Odebrecht selling 55 percent stake in \$5 bn natural gas Peru pipeline**

**April 22, 2016.** Odebrecht SA, the engineering company at the center of a massive graft probe in Brazil, is selling its 55 percent stake in a \$5 billion natural gas pipeline project in Peru. Spanish utility Enagas SA is interested in buying 6 percent of Odebrecht's stake, San Frutos, who heads Enagas' Peru unit, said. Enagas and Grana y Montero, which owns 20 percent in the pipeline concession, took over management of the project to distance it from the probe in neighbouring Brazil. San Frutos said he expects negotiations on financing on the pipeline to wrap up in July and that construction was ahead of schedule with 35 percent complete. Odebrecht's previous plans to build a similar pipeline had been snagged on a lack of financing. (www.reuters.com)

### **TransCanada says Quebec govt halting pipeline injunction request**

**April 22, 2016.** TransCanada Corp said the Quebec government is suspending its request for an injunction against the Energy East crude oil pipeline after the company agreed to submit to a provincial environmental assessment. Quebec sought an injunction to ensure the Energy East project complied with the province's environmental law in early March, throwing up another potential hurdle to the project. (www.reuters.com)

### **Denmark considers options to secure gas supply after 2018**

**April 22, 2016.** Danish energy transmission network operator Energinet.dk is investigating gas supply alternatives in case of the closure of the Tyra platform in the North Sea, after Danish group Maersk Oil announced in April 2016 that the Tyra gas fields would stop production on 1 October 2018 if no economically viable solution for continued operations is identified during 2016. More than 90% of Denmark's gas production is processed through the Tyra facilities and smaller facilities are also connected to Tyra East and West, including the neighbouring unmanned facility. Denmark has already expanded its gas system to Germany to secure a second source of supply. According to Energinet.dk, it may be necessary to expand the gas transmission network after 2020, partly because the decline in gas supply from the North Sea, and partly to ensure the future gas supply. (www.enerdata.net)

### **British BP ships US crude to PDVSA's terminal**

**April 22, 2016.** British BP has shipped a U.S. crude cargo to PDVSA's terminal in Curacao, the third one that the firm has sent since winning a tender along with China Oil to provide the Venezuelan state-run company with some 8 million barrels of light oil, according to data. Venezuela started regular crude purchases last year and since then it has been launching tenders on the open market for at least one monthly cargo. In March it decided to secure provisions for the whole second quarter, doubling crude imports to some 95,000 barrels per day (bpd). The tanker NS Century chartered by BP loaded crude at Beaumont and Port Arthur, Texas, on the U.S. Gulf Coast and set sail to PDVSA's Bullenbay terminal on the Caribbean island of Curacao. BP must deliver 2.7 million barrels of U.S. West Texas Intermediate (WTI) crude to PDVSA in April in cargoes of 550,000 barrels each, and it also will provide 2.7 million barrels of Nigeria's Qua Iboe crude in May-June. For its part, China Oil, which delivered its first WTI crude cargo to PDVSA after a nine-day wait, must send 2.7 million barrels of U.S. crude. (www.reuters.com)

### **Saras looking to resume Iran crude trade in coming months**

**April 22, 2016.** Italian refiner Saras hopes to resume taking shipments of Iranian crude oil in the coming months if not weeks. Saras, which is part owned by Russian oil giant Rosneft, used to take a significant part of its crude feedstock from Iran before the U.S.-led embargo on the country. Saras said the group had renewed its contract with National Iranian Oil Company but added there were still some hurdles to overcome on the banking payment front. (af.reuters.com)

### **Con Edison to buy gas pipeline stake for \$975 mn**

**April 21, 2016.** Consolidated Edison Inc., owner of New York City's biggest utility, will invest about \$975 million in a joint venture with Crestwood Equity Partners LP that will own natural gas pipelines and storage linking the most prolific U.S. gas field to northeast markets. The joint venture will own four gas storage sites with combined capacity of 41 billion cubic feet and three natural gas pipelines capable of shipping 2,940 million cubic feet of the heating and power-plant fuel a day. The deal follows Con Edison's acquisition in January of a 12.5 percent stake in Mountain Valley Pipeline LLC, a proposed 300 mile (483 kilometer) conduit connecting West Virginia gas fields with Transco, a major interstate pipeline to New York. (www.bloomberg.com)

### **Russia-Germany gas link polarizes Europe: Sefcovic**

**April 20, 2016.** A plan to expand a natural gas pipeline from Russia to Germany is driving a wedge into the European Union, with some eastern members feeling their needs are being overlooked by the richer and more energy-diversified west, Maros Sefcovic, the European Commission's chief for energy union, said. The € 10 billion (\$11 billion) Nord Stream 2 pipeline isn't aligned with the principles of the bloc's laws and raises questions about the continent's energy security, Sefcovic said. The pipeline, able to meet almost 15 percent of current EU gas demand, is key to Russia's plans to boost exports. The planned link, which would pump Russian gas directly to Germany, has met resistance from eastern EU members including Poland, Slovakia and the Baltic States. Russian pipeline gas export monopoly Gazprom PJSC is pursuing Nord Stream 2 with western European companies from Germany's EON AG to Paris-based Engie SA and plans to start it in 2019. Nord Stream 2 isn't subject to regulation under the EU's so-called third energy package, Gazprom Chief Executive Officer Alexey Miller said. The company expects exports to Europe to rise to a record this year. In its current form the project doesn't comply with EU legislation and many issues still need to be solved with the German regulator, potentially putting off potential investors, Sefcovic said. (www.bloomberg.com)

### **Policy / Performance.....**

### **Qatar to scrap fuel subsidies in May as decade of surplus ends**

**April 26, 2016.** Qatar will scrap gasoline and diesel subsidies next month as the world's richest nation per capita is set to plunge into deficit this year after more than a decade of budget surpluses. The world's biggest exporter of liquefied natural gas is in the second year of a \$200 billion infrastructure upgrade to help it host soccer's 2022 World Cup. The decision to link transportation fuel to international prices follows a Jan. 30 percent increase in local gasoline prices for the lowest available grade. Unlike some of its oil-rich neighbours that have cut spending, Qatar will increase outlays to 35.1 percent of GDP this year compared with 33.1 percent in 2015, according to the International Monetary Fund (IMF). As part of belt-tightening plans, the United Arab Emirates eliminated fuel subsidies last year, while Saudi Arabia, Oman and Bahrain reduced support. Reducing and scrapping subsidies, curbing spending and seeking non-oil revenue sources has become a priority for crude exporters from Saudi Arabia to Algeria that are grappling with low prices. Qatar is expected to post a budget deficit of 2.7 percent of gross domestic product this year, after recording a surplus of 10.3 percent in 2015, according to IMF estimates. It had an average budget surplus of 9.3 percent of GDP between 2000 and 2012. (www.bloomberg.com)

### **Russia's Novatek says Yamal LNG unlikely to get Chinese loans in May**

**April 26, 2016.** Leonid Mikhelson, the head of No.2 Russian gas producer Novatek, said the Yamal LNG project was unlikely get loans from China next month. China National Petroleum Corp (CNPC), which controls 20 percent in Yamal LNG, said the project would receive around \$10 billion in loans from Chinese banks in May. Novatek holds 50.1 percent in Yamal LNG. France's Total and CNPC control 20 percent each while China's Silk Road Fund owns 9.9 percent in the project, which plans to start liquefied natural gas production next year. (af.reuters.com)

### **No urgency to freeze output with oil at \$45: Indonesia OPEC governor**

**April 25, 2016.** Indonesia's governor to the Organization of the Petroleum Exporting Countries (OPEC) said that oil at \$45 a barrel was "not bad" and that there would be no urgency to freeze output if crude remained at that price. Despite failure to reach a deal to curb oil output and support prices at an April 17 meeting of OPEC and non-OPEC producers, crude prices have maintained a general upward trend since hitting a 12-year trough in mid-January. The Southeast Asian nation, which rejoined OPEC as its 13<sup>th</sup> member in December last year, needs \$50 crude to sustain its oil and gas industry. Indonesia's OPEC governor said that a deal was imminent for importing Iranian condensate and LPG, but not for crude as Iran's sour oil grades were not compatible with its refineries' need for sweet crude. (www.reuters.com)

### **New Iran oil contracts model approved**

**April 22, 2016.** The head of Iran's petroleum contracts committee, Seyed Mehdi Hosseini, said the government had approved a model for new contracts but it was still being processed by a commission. Hosseini said that bidding and negotiations for Iran's oilfields will start in June or July. He said that the National Iranian Oil Company may also carry out negotiations for some individual projects. He invited international oil companies to "start sending their interests" on

potential projects. Iran hopes to attract international oil companies to invest in its oil sector and boost production with the new contracts. (www.reuters.com)

### **IEA chief says oil market, prices to return to balance by 2017**

**April 21, 2016.** International Energy Agency (IEA) chief Fatih Birol said he expects the oil market to come back into balance from oversupply by next year, providing there is no major economic downturn. Birol said low oil prices have cut oil investment by about 40 percent in the past two years, with sharp falls in the United States, Canada, Latin America and Russia, and the world's reliance on Middle East oil will accelerate substantially in the next few years. Birol said conditions were difficult for shale oil producers despite a recovery in Brent oil prices to above \$45 a barrel. He said Iran's crude oil exports could rise by half a million barrels per day this year after Western sanctions against the country were lifted. Iran is determined to recover its share of the world oil market, and can withstand low prices since it has sold oil for as little as \$6 a barrel in the past, Iranian oil policy said. (www.newindianexpress.com)

### **Nigeria needs until June to repair Forcados oil pipeline: Oil Minister**

**April 21, 2016.** Repair work on a Nigerian pipeline feeding the key Forcados export terminal will last until June, Nigerian Oil Minister Emmanuel Ibe Kachikwu said. Unknown gunmen attacked the pipeline run by Royal Dutch Shell in February, reducing Nigeria's oil output by some 250,000 barrels a day. (af.reuters.com)

### **OPEC stands aloof of oil price regulation: Russian Energy Minister**

**April 20, 2016.** Decision-making within the Organization of the Petroleum Exporting Countries (OPEC) has become more complicated and since 2008 the international oil cartel has taken no action to regulate the global oil market, Russian Energy Minister Alexander Novak said. Novak, in remarks at an energy forum, said he had witnessed disagreement among OPEC members during the Doha meeting on a proposed oil output freeze last weekend. (www.reuters.com)

### **Venezuela Oil Minister warns oil prices may collapse if producers don't talk**

**April 20, 2016.** Venezuelan Oil Minister Eulogio Del Pino warned that global oil stocks were nearly full and the oil price could collapse if producers did not resume talks about freezing output levels. He said oil inventories were 90 percent full, while producers continue to produce about 1.5-2.0 million barrels per day of oil more than the market demands. The minister said a price of \$60-70 per barrel was required to allow producers to resume investing in new fields to replace declining mature fields. (www.reuters.com)

## **[INTERNATIONAL: POWER]**

### **Generation.....**

### **Atlantis and SBS plan 150 MW tidal power project in Indonesia**

**April 25, 2016.** Tidal power project developer Atlantis and renewable power project developer SBS have entered into a Memorandum of Understanding (MoU) to establish a joint venture to develop a 150 MW tidal power plant in Indonesia. The project would be developed in stages, with an initial 12 MW plot and scaling up to 150 MW, for a total cost of US\$750 mn. SBS has completed a feasibility study and signed a 25-year power purchase agreement with the state-owned power utility PT PLN in August 2015. (www.enerdata.net)

### **Ghana commissions new 180 MW unit at Asogli power plant**

**April 25, 2016.** The first unit (180 MW) of the second phase (360 MW) of the Sunon Asogli power plant Project at Kpone (Ghana) has been commissioned. The second unit is expected by 2017 and will raise the capacity of the Sunon Asogli power plant from 200 MW to 560 MW. A third phase of 700 MW is under consideration. (www.enerdata.net)

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

### **Russia, Australia await the big 'if' of China ban on North Korean coal**

**April 26, 2016.** Australia and Russia could emerge the relative winners if China does restrict imports of North Korean coal, as it has pledged to do. However, any time the word "if" appears in a sentence, it usually is the most important word. The

big "if" is whether China will act to decisively choke off one its nuclear-armed neighbour's biggest export earners, or whether Beijing will tolerate massive smuggling across the border, as has happened during previous sanctions-related trade bans. China banned the importation of several minerals from North Korea, including coal, as part of new United Nations sanctions on Pyongyang aimed at curbing the rogue state's nuclear weapons program. Certainly, the North Koreans were maximizing coal exports to China ahead of the ban, with Chinese customs data showing the country became the second-biggest supplier in March. Virtually all of the coal North Korea supplies is anthracite, which is a higher-quality grade mainly used for power generation. North Korea's share of China's anthracite's imports was 89 percent in March, and 88.6 percent for the first quarter, meaning it dominates this grade of coal. Russian anthracite had a landed cost of \$71.72 a tonne in March, while Australian supplies were \$75, both of which are substantially more expensive than the \$45.13 for North Korean coal. This means it is also possible that Chinese customers will seek different grades of coal from anthracite to replace what they had been getting from North Korea. But even if this is the case, assuming that Chinese buyers can't find suitable domestic coal, Russia and Australia are still better placed to supply higher quality coal than other competitors. (www.reuters.com)

#### **Venezuela introduces 4 hour daily power cut to deal with shortage**

**April 25, 2016.** The government of Venezuela has announced that electricity supply in the 10 most populous states would be suspended for four hours a day for 40 days to alleviate the severe power crisis. Venezuela, which is structurally plagued with difficulties to ensure power supply, is facing a drought caused by the El Niño weather phenomenon and its hydropower generation is reduced to minimum levels. (www.enerdata.net)

#### **Iraq signs strategic agreement with GE to boost power grid**

**April 24, 2016.** Iraq's Oil Ministry said it had signed a long-term "strategic framework agreement" with General Electric (GE) which comprised several projects to boost national power resources. The ministry said one of the projects would generate more than 400 MW for oil installations by summer. Other initiatives aim to maintain existing infrastructure and reduce gas flaring from oil fields to boost electricity production for use in the industrial and energy sectors. The ministry did not specify the agreement's value or timeframe but said it was the result of two years of negotiations. Iraq signed a \$328.8 million deal with GE in January to boost electricity production capacity by 1,000 MW. (www.reuters.com)

### **Policy / Performance.....**

#### **Poland gives coal miner lifeline with state utilities' cash**

**April 26, 2016.** Poland's government sealed a restructuring deal for its loss-making coal-mining industry with cash injections from state-owned power producers, cementing efforts to keep the country's \$545 billion economy running on the black fuel. The deal is centered on a 1.5 billion zloty (\$388 million) injection from PGE SA, Energa SA and PGNiG SA to help the European Union's largest coal producer gain profitability within two years after a record loss in 2015. Five banks, including units of Banco Santander SA and BNP Paribas SA, also signed the deal in Katowice, southern Poland, to give the new company, to be renamed Polska Grupa Gornicza Sp. z o.o., financing options. Analysts at Haitong Bank SA and Bank Zachodni WBK SA said the Warsaw-listed utilities involved in the deal face the risk of more costs unless coal prices, which plunged to multi-year lows in 2016, extend a recent rebound. A total capital increase will amount to 2.42 billion zloty, the companies said. As part of the refinancing of the coal miner, lenders and state coal trader Weglokoks SA will also buy PGG bonds for around 1 billion zloty, which the battered producer will start paying back in 2019. (www.bloomberg.com)

#### **Turkey needs \$110 bn in energy investment by 2023: Erdogan**

**April 24, 2016.** Turkey will need to invest \$110 billion in energy projects to help it meet its long-stated goal of becoming one of the world's top ten economies by 2023, President Tayyip Erdogan said. Erdogan has championed a number of ambitious goals for Turkey by 2023, the centenary of the founding of the modern Turkish republic, including boosting annual output to \$2 trillion from the current \$800 billion. Turkey, the world's 17<sup>th</sup> largest economy according to data from the World Bank, imports almost all of its energy needs, at an annual cost of about \$50 billion. Aiming to curb that, Ankara wants at least 5 percent of its electricity generation to come from nuclear power in less than a decade, reducing its dependence on natural gas largely from Russia. (www.reuters.com)

# [RENEWABLE ENERGY / CLIMATE CHANGE TRENDS]

## National.....

### 349 mining proposals granted environment clearance in last 2 yrs: Environment Minister

**April 26, 2016.** Government accorded environmental clearances to 349 mining proposals in the last two years. The Environment Ministry accorded 349 environmental clearances in the mining sector from April 1, 2014 to March 31, 2016. 264 environmental clearances are for non-coal mining sector and the rest for coal mining sector, Environment Minister Prakash Javadekar said. He said there are 141 proposals for grant of environmental clearance in the mining sector currently pending at various levels. He said the Environment Ministry has notified Environmental Impact Assessment (EIA) notification 2006. ([www.business-standard.com](http://www.business-standard.com))

### Su-Kam's solar street light is sans grid link

**April 26, 2016.** Su-Kam Power Systems announced the introduction of a solar street light that also incorporates a lithium ion battery, which means that the street light does not need to be connected to the grid, and can also function during power outages. The government had in January 2015 launched a Street Light National Programme, which envisaged the replacement of 3.5 crore conventional street lights, which was estimated to save nine billion units of electricity a year. The government has replaced 750,780 street lights, which would save around 99 million units of electricity, according to the programme website. The new street lights, which Su-Kam said are manufactured in India, will come in six models ranging from 4W to 50W. ([www.thehindu.com](http://www.thehindu.com))

### Investment in clean energy at ₹ 908.4 bn in last 3 fiscals: Govt

**April 25, 2016.** An investment of ₹ 90,841.16 crore was made in the renewable energy sector in the country during three fiscals to 2015-16, government said. New & Renewable Energy Minister Piyush Goyal said that the Ministry of New and Renewable Energy has provided financial support of ₹ 6,541.04 crore towards capital subsidy/viability gas funding/generation based incentives in the three-year period till March 31, 2016. The maximum investment was in wind energy sector at ₹ 46,831.86 crore during the period, followed by solar at ₹ 30,440 crore, biogas & bagasse cogeneration at ₹ 7,382.40 crore and small hydro (up to 25 MW) at ₹ 6,186.90 crore. The minister said that the ministry has released ₹ 941.88 crore to the states under schemes for providing solar power to villages in the country. The minister said that the tentative power generation capacity addition from sources like thermal, hydro and nuclear is 16,654.5 MW during the current fiscal. ([www.businesstoday.in](http://www.businesstoday.in))

### Don't see turf wars in govt on climate change: Mahindra

**April 25, 2016.** Mahindra Group Chairman Anand Mahindra said there is "unity" in the Indian government for moving towards the goal of tackling climate change and he does not see any "turf war" but a clear agenda that energy and development are important. Mahindra said Power Minister Piyush Goyal and Environment Minister Prakash Javadekar "theoretically should be at opposite ends of the pole" since one is tasked with rescuing the coal industry while the other is tasked with putting a tax on that resource. He emphasised that the industry in India now has to come together and form a coalition to help the government in tackling the problem of climate change. Mahindra had said the signing of the Paris agreement provided corporations the first step towards "visibly integrating our interests with the interests of the future of the planet." ([www.business-standard.com](http://www.business-standard.com))

### Air pollutant concentrations rose despite odd-even vehicle rationing: TERI

**April 25, 2016.** An air quality assessment conducted by the Tata Energy Research Institute (TERI) during the last 11 days of the odd-even vehicle rationing scheme in the Delhi-NCR found that the 24-hourly pollutant concentrations had increased considerably due to decrease in wind speeds and higher contributions from backgrounds. The TERI study said that PM2.5 (particles with diameter less than 2.5 micro-meter) concentrations had violated the limits at most stations in the NCR. It said that the PM2.5 concentrations are 1.3-2.7 times above the prescribed standards at various locations in the NCR. TERI also said that the PM10 levels, which consist of particles from both natural and anthropogenic sources, showed higher violation of 1.6-3.2 times of the standard. The downwind towns in NCR like Noida Ghaziabad, and Gurgaon showed

PM2.5 concentrations of 103, 124, 88  $\mu\text{g}/\text{m}^3$ , respectively, which are also impacted by Delhi's emissions transported through the winds towards these towns in this season. TERI analysed the effects during the last phase and concluded that congestion levels were reduced, but limited reductions were observed in air pollutant concentrations. TERI said it will release regular updates with analysis of air quality in Delhi and nearby towns, using its own monitoring devices in five out of nine locations across Delhi/NCR. ([www.newkerala.com](http://www.newkerala.com))

### **India, France launch \$1 tn potential solar programme for developing countries**

**April 23, 2016.** India and France have launched a programme with \$1 trillion potential to help developing countries harness fully their solar resources for a clean energy future to meet the "biggest challenge humanity has ever faced". Power Minister Piyush Goyal and French Environment Minister Segolene Royal announced the solar finance programme that aims to lower the cost of finance and facilitate the flow of more than \$1 trillion investment to members of the International Solar Alliance (ISA). A second programme they launched at the ISA meeting held during the signing ceremonies for the Paris Climate Change Agreement here aims to make available solar technology for farmers. The meeting was attended by representatives of over 25 countries including the US, Brazil, Bangladesh and Nigeria. Beyond providing clean energy and dealing with climate change, the harnessing of solar energy was also about energy security, he said. Goyal said he was confident that the programmes will ensure flow of affordable finance for solar projects and serve the interests of the farming communities in the ISA member countries. ([timesofindia.indiatimes.com](http://timesofindia.indiatimes.com))

### **No power to make diesel vehicles switch to CNG: Govt**

**April 23, 2016.** The state government told Gujarat High Court (HC) that the government has got no suo motu powers to convert diesel engines to CNG engines. This is with regard to the HC direction to switch all vehicles to natural gas. In an affidavit, the state government has said that the conversion of diesel engine to CNG requires detailed deliberation and an in-depth study. It would not serve the purpose of prevention of air pollution. Moreover, it is not possible to convert diesel engine to CNG engine. Batting for diesel-run vehicle in certain categories, the government highlighted, by citing study report of Indian School of Petroleum and Energy, how the diesel engine technology is improving day-by-day. The affidavit explains how if CNG is used, there is reduction in particulate matter but the other pollutant show a considerable increase. In fact, there is considerable increase in emission of greenhouse gases in actual driving condition. The government has cited an example of Gujarat State Road Transportation Corporation (GSRTC) to explain how it would not be practical to convert its vehicle to CNG for intercity services and how it cannot claim any carbon credit despite opting for CNG vehicles to an extent. Besides, the government has sought court's permission to carry out more surveys and research on vehicles running on different fuels under the supervision of Gujarat Pollution Control Board (GPCB). ([timesofindia.indiatimes.com](http://timesofindia.indiatimes.com))

### **India signs climate pact along with over 170 states at UN**

**April 22, 2016.** As many as 175 countries, including India, China and the US, signed the Paris Agreement on climate change at the UN headquarters in New York, which coincided with 'International Mother Earth Day'. This was the first day of the signing ceremony of the historic global deal, marking a significant step that has brought together developing and developed nations for beginning work on cutting down greenhouse gas emissions to combat global warming. Environment Minister Prakash Javadekar signed the agreement in the UN General Assembly hall at a high-level ceremony hosted by UN Secretary-General Ban Ki-moon. At 171 nations, the signing ceremony for the climate agreement set the record for the most countries to sign an international agreement on one day, previously set in 1982, when 119 countries signed the Law of the Sea Convention. The signing is the first step toward ensuring that the agreement comes into force as soon as possible. After the signing, countries must take the further national (or domestic) step of accepting or ratifying the agreement. The agreement can enter into force 30 days after at least 55 Parties to the UNFCCC, accounting for at least 55 percent of global emissions, ratify the agreement. India has maintained that the burden of fighting climate change cannot be put on the shoulders of the poor after decades of industrial development by the rich nations. It has announced plans to quadruple its renewable power capacity to 175 GW by 2022 as part of the government's plan to supply electricity to every household. India seeks to add 100 GW of photovoltaic capacity, 60 GW of wind power, 10 GW of biomass and five GW of hydro projects. Finance Minister Arun Jaitley had said that notwithstanding its development need, India is completely committed to protecting the climate. India, which along with the United States and China, is world's top greenhouse gas emitter, has maintained that its energy needs will be enormous going forward as it needs to lift millions out of poverty, develop its infrastructure and provide basic amenities like toilets, affordable houses and expand public



transport. About 13 countries, mostly Small Island Developing States, are expected to deposit their instruments of ratification immediately after signing the agreement. The signature ceremony is a legal formality, with only Heads of State or Government, foreign ministers, or other representatives with "formal powers" from their governments signing the agreement. In the agreement, all countries agreed to work to limit global temperature rise to well below 2 degrees Celsius, and to strive for 1.5 degrees Celsius. (zeenews.india.com)

### **LM Wind Power commissions second manufacturing facility in India**

**April 21, 2016.** Denmark-based LM Wind Power has commissioned its second manufacturing plant in the country at Halol near here and is looking to invest additional € 13 million to boost capacity. With the commissioning of its Vadodara manufacturing plant, which entailed an investment of around ₹ 190 crore, the company expects the capacity to go up to 2,500 MW over the next 2-3 years. The company already has a capacity of 1,600 MW. LM Power already has an operational facility in Karnataka. (indiatoday.intoday.in)

**Global.....**

### **EU lawmakers to weigh option of faster carbon cuts after 2020**

**April 26, 2016.** The European Parliament may push to accelerate carbon reductions in the European Union (EU) emissions market over the next decade, under an option outlined by Ian Duncan, the lead lawmaker on a reform of the world's biggest cap-and-trade program. Representatives of political groups in the EU Parliament's environment committee will weigh an option to propose increasing the pace of greenhouse-gas cuts to 2.4 percent or 2.6 percent a year after 2020. That compares with 2.2 percent put forward by the European Commission, the bloc's regulatory arm, following endorsement by EU heads of governments. An increase of the so-called linear reduction factor to 2.4 percent would "bring us in line with the lower end of our 2050 decarbonization target" of between 80 and 95 percent, Duncan said. Elevating the factor further to 2.6 percent would bring the EU in line with the upper end of the political target for mid-century, he said. The EU emissions trading system (ETS) is Europe's flagship policy tool to reduce greenhouse gases blamed for climate change. It imposes decreasing pollution caps on about 12,000 installations owned by manufacturers and utilities. The carbon price slumped by more than 70 percent in the past eight years as an economic crisis cut industrial output and inflated a glut of allowances. The European Parliament and its 28 member states started legislative work last year on a draft law to adjust the EU ETS to a tougher emission-reduction target for 2030. To enter into force, it needs majority backing by the assembly and qualified majority support from national governments. Duncan is tasked with drafting a report in the environment committee, which leads legislative work on the EU ETS reform in the assembly. After a vote on the report in the committee his responsibilities will also include representing the Parliament in negotiations with member states and steering the reform through a plenary vote. (www.bloomberg.com)

### **Saudi Arabia targets 9.5 GW of renewable by 2030**

**April 25, 2016.** Top oil exporter Saudi Arabia plans to generate 9.5 GW of electricity from renewable energy by 2030, it said as it approved its Vision 2030 reform plan. The plan, a package of economic and social policies is designed to free the kingdom from dependence on oil exports. In 2012, the world's top oil exporter said it would install 17 GW of nuclear power by 2032 as well as around 41 GW of solar capacity. (www.reuters.com)

### **Statoil buys half of \$1.4 bn EON German wind project**

**April 25, 2016.** Statoil ASA, Norway's biggest oil company, bought a 50 percent stake in EON SE's Arkona offshore wind farm, entering the German market and widening its renewable-energy portfolio as it scales back its funding for traditional fossil-fuel projects. Statoil and EON will invest more than € 1.2 billion (\$1.4 billion) in the project, which lies 35 kilometers (56 miles) off the German island of Ruegen, the Stavanger-based company said. Electricity production is scheduled to start in 2019 and will power as many as 400,000 households, it said. Siemens AG will supply the turbines. The project is Statoil's first wind-power venture outside the U.K., where it holds a stake in the Sheringham Shoal wind farm, the company's only commercial wind project in production. For EON, it's the second large-scale renewable power development announced in as many months and is part of a strategy to invest as much as € 1.5 billion annually in new clean energy projects. At the end of last year, Statoil made a final investment decision on the 2 billion-kroner (\$243 million) Hywind Scotland project, the world's first floating wind farm. Statoil has also decided to go ahead with the Dudgeon project in 2014 and is a partner on two Dogger Bank projects, which were approved by the U.K. in 2015. Statoil has now committed to investing about 20



billion kroner in offshore-wind projects from 2012 to 2019, and that figure is likely to rise. Statoil is currently working with auction processes in Denmark, the Netherlands, Germany and France. ([www.bloomberg.com](http://www.bloomberg.com))

### **More than 170 nations gather to sign Paris climate accord**

**April 22, 2016.** The Paris climate accord should be the starting point for nations fighting global warming, not the finish line, United Nations Secretary-General Ban Ki-moon said at a signing ceremony for the landmark agreement. Ban challenged leaders from 171 nations gathered at United Nations headquarters to move beyond promises of the accord brokered in December and undertake steps to reduce pollution and slow warming linked to rising seas, heat waves and droughts. It calls for countries to voluntarily reduce fossil-fuel emissions in hopes of limiting global warming to 2 degrees Celsius (3.6 degrees Fahrenheit) above temperatures at the start of the industrial revolution. The effort will require titanic shifts in how societies generate electricity, fuel vehicles and run factories, in large part by forsaking coal, oil and natural gas for renewable energy. It's broader than any previous climate agreement, applying to all nations, rich and poor alike. It will cost an estimated \$12.1 trillion over the next 25 years for the 195 countries that have said they will sign the agreement. The ceremony set a record for the largest number of nations to sign an international agreement on a single day, drawing officials from the U.S., China, India and 168 other states that brokered the deal in December. Nations have set their own emission targets and have vowed to increase their ambitions every five years. Most set goals for 2025 or 2030. The U.S. and other large developed nations have pledged \$100 billion annually to help poorer nations meet their targets. The world's two largest polluters -- China and the U.S. -- have set ambitious targets. China has agreed to peak its emissions by about 2030. The U.S. has vowed to cut greenhouse gases by 2025 to levels at least 26 percent below the point they stood in 2005. President Obama plans for the U.S. to join the accord as an executive agreement without consent from Congress, contending the deal complies with existing U.S. law. The pact would face stiff opposition from Republicans who control Congress and, in many instances, question the science behind climate change. If a Republican wins the White House in November, the government could pull out of the agreement or block U.S. efforts to meet its goals. A new administration, however, may face significant global pressure to uphold its climate commitments. ([www.bloomberg.com](http://www.bloomberg.com))

### **Germany finds record carbon emissions at oldest European station**

**April 22, 2016.** Germany measured the highest carbon-dioxide levels on record at Europe's oldest testing facility, underscoring the urgency to halt global warming while global leaders met Friday in New York to pledge emissions curbs. Carbon dioxide levels at government monitoring stations in the Black Forest and Alps reached a record 402.5 and 400 parts per million respectively last year, the Environment Ministry said. At the Schauinsland station in the Black Forest, Europe's oldest measuring station, carbon dioxide concentrations are up a fifth since 1972 and almost half since pre-industrial times. Carbon dioxide concentrations at the stations are rising an average of 2 parts per million every year, the ministry said. Data from the stations are feed into a global monitoring operated by the World Meteorological Organization, a United Nations unit. Germany's Zugspitze station on Germany's highest mountain, with a summit in the troposphere, gives especially accurate readings, the ministry said. Representatives of more than 150 nations are gathering in New York to sign the Paris climate accord, setting in motion an unprecedented global effort to reduce pollution and slow rising temperatures linked to floods, heat waves and droughts. It calls for countries to voluntarily reduce fossil-fuel emissions in hopes of limiting global warming to 2 degrees Celsius (3.6 degrees Fahrenheit) above temperatures at the start of the industrial revolution. ([www.bloomberg.com](http://www.bloomberg.com))

### **UN assesses existing carbon markets to help meet airline demand**

**April 21, 2016.** A United Nations (UN) aviation panel is assessing whether existing carbon trading programs can be used in a proposed emissions market for airlines as it lays out its supply criteria for the first time. The environment committee of the UN's International Civil Aviation Organization (ICAO) in Montreal is gauging the "potential needs" of an aviation carbon market for after 2020, it said. The Committee on Aviation Environmental Protection wants aircraft operators to be able to buy credits from existing carbon offset programs as well as "allowances from emissions-trading schemes" to meet the industry's pollution limit. ICAO agreed in 2013 to create its own global market after the European Union suspended expanding its carbon market to cover international flights, a move that triggered protests from China and Saudi Arabia to Brazil. ICAO estimates the market will need credits and allowances covering 142 million to 174 million metric tons of emissions in 2025, which is similar to Vietnam's carbon emissions from energy use in 2014. With passenger numbers forecast to double by 2034, the airline industry is set to provide new demand for carbon contracts as existing UN offset markets and Europe's emissions-trading system languish because of oversupply. The EU's carbon market, the world's

biggest, allocates emission permits to power plants, factories and airlines, which must surrender them to cover discharges within the bloc. The UN's Clean Development Mechanism allows polluters to offset domestic emissions with credits earned from investing in carbon-cutting projects elsewhere. ([www.bloomberg.com](http://www.bloomberg.com))

### **Burying pollution tested with \$1.5 bn project in Australia**

**April 20, 2016.** The idea that significant amounts of greenhouse gases can be buried underground will be tested soon at a remote island off northwest Australia, where oil companies led by Chevron Corp. are poised to inject pollutants 2 kilometers (1.25 miles) into the Earth's crust. The A\$2 billion (\$1.5 billion) carbon capture and storage (CCS) project at Barrow Island about 37 miles off the coast will be the biggest of its kind when it starts by next year. The Western Australian government insisted on Barrow CCS as a condition of approving Gorgon, whose developers also include oil majors Exxon Mobil Corp. and Royal Dutch Shell Plc. At the time the investment decision was made in 2009, the government was planning to introduce a carbon trading system that would have underpinned the economics of the project. The development will inject as much as 4 million tons of carbon dioxide per year at Barrow Island, reducing Gorgon's emissions by 40 percent. The number of large carbon capture facilities operating may rise to 22 by next year from 15, according to the Global CCS Institute, an industry group that seeks to encourage development of the technology. Another nine projects are in advanced stages of planning. New facilities are scheduled to begin in the U.S., Canada and Abu Dhabi. ([www.bloomberg.com](http://www.bloomberg.com))

**Dear Reader,**

*You may have received complimentary copies of the ORF Energy News Monitor. Our objective in bringing out the newsletter is to provide a platform for focused debate on India's energy future. You could be a partner in this effort by becoming a subscriber. You could also contribute recommendations for India's energy future in the form of brief insightful articles.*

*We look forward to receiving your patronage and support.*

**ORF Centre for Resources Management**

## **ABOUT ENERGY NEWS MONITOR**

*This is a weekly publication of the ORF Centre for Resources Management that covers analysis articles as well as national and international news on energy categorised in a more useful manner. The year 2015 is the 12<sup>th</sup> continuous year of publication of the Newsletter.*

*ORF objective  
in bringing out the newsletter is to  
provide a platform for focused debate on  
India's energy future*

**Subscription rate** (for soft copy): ₹ 1000 per annum

To subscribe please visit [here](#) OR

SMS <ENERGY> <Your Name> <Organisation> <Mobile No.> <Email Id> to 9871417327

**Registered with the Registrar of News Paper for India under No. DELENG / 2004 / 13485**

*Published on behalf of Observer Research Foundation, 20 Rouse Avenue, New Delhi-110 002.*

*Disclaimer: Information in this newsletter is for educational purposes only and has been compiled, adapted and edited from reliable sources. ORF does not accept any liability for errors therein. News material belongs to respective owners and is provided here for wider dissemination only. Sources will be provided on request.*

**Publisher:** Baljit Kapoor

**Contact:** Vinod Kumar Tomar

ORF Centre for Resources Management,

20 Rouse Avenue, New Delhi - 110 002,

Phone +91.11.4352 0020, Extn 2120,

Fax: +91.11.4352 0003,

E-mail: vinodtomar@orfonline.org

**Editorial Adviser:** Lydia Powell

**Editor:** Akhilesh Sati

**Content Development:**

Ashish Gupta,

Dinesh Kumar Madhrey

## **About Observer Research Foundation**

---

*Observer Research Foundation was established on September 5, 1990 as non-profit public policy think-tank. It provides informed and viable inputs for the policy and decision-makers in the government and to the political and business leadership of the country by providing informed and productive inputs, in-depth research and stimulating discussions.*

## **ORF Mission: Building partnerships for a Global India**

---

### **ORF Objectives:**

- *Aid and impact formulation of policies and evolve policy alternatives.*
- *Create a climate conducive to effective implementation of these policies.*
- *Strengthen India's democratic institutions to enable coherent, reasoned and consistent policy-making.*
- *Provide reasoned and consensual inputs representing a broad section of opinion to improve governance, accelerate economic development, and ensure a better quality of life for all Indians.*
- *Monitor strategic environment*
- *Work towards achieving international peace, harmony, and co-operation.*
- *Give direction to India's long-range foreign policy objectives.*