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HOUSEHOLD ELECTRIFICATION GATHERS MOMENTUM

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India

The Indian government missed a self-imposed target to electrify every home, delaying the success of a marquee $2.3 bn development goal that his party plans to showcase before national elections early this year. After bringing electricity connections to 23.9 mn households across 25 states, about 1.05 mn homes in four states still lack power, the government's Press Information Bureau said, the year-end deadline. The central government has set several milestones for its rural electrification plan since 2014 -- bringing connections to all villages by 1 May, then to all homes by the end 2018. After full electrification is achieved, the next goal will be to ensure reliable uninterrupted supplies by 31 March. The government in September 2017 set out to electrify nearly 40 mn homes, a target that has been shrinking and shifting along the way. The deadline was brought forward from its original 31 March. The government said the states of Assam, Rajasthan, Meghalaya and Chhattisgarh are still to be electrified, made no mention of the 31 December target. It also mentioned that the state of UP started a campaign to identify any "left out" households and provide electricity connections.

The aim of the power sector in 2018 was electrification of all villages in the country. And, 19,000 villages were electrified in a record two years in the last stage. Saubhagya, the ambitious project of electrifying 23 million houses, has completed 99 percent of its target. But the problems of power discoms continue. The Aggregate Technical and Commercial losses — an indicator of operational performance – of many large states remains high, and way behind the target of 15 percent. With industrial demand for power improving, connecting more households will only increase demand further. So, coal supply has to improve to meet the demand.

Complete household electrification in the country under the ₹ 163.20 bn Saubhagya scheme would be completed latest by February. According to the latest information on the Saubhagya portal, as many as 22.1 mn households have been electrified under the scheme and 7.865 mn families are to be energised in the programme. Free electricity connections are provided to all households in rural areas and poor families in urban areas. State-run REC Ltd has been designated as the nodal agency for the scheme.

The government is likely to achieve its 100 percent household electrification target in the country ahead of Republic Day as it has already energised 23.9 mn out of the targeted 24.9 mn households under ₹ 163.20 bn Saubhagya scheme. The power ministry said India has achieved yet another milestone in the power sector with completion of electrification in hundred percent households in 25 states at the year-end. It said that only about 1.48 mn households are left to be electrified in 4 states like Assam, Rajasthan, Meghalaya and Chhattisgarh. These states are also taking all concerted efforts to achieve, at the earliest, saturation of household electrification in their respective states. Since the launch of Saubhagya in UP, 7.44 mn households have been electrified and the state has declared saturation of all 75 districts. The government of UP has launched a special campaign in all parts of the state to identify any left out un-electrified households and to provide electricity connections to such households. Under the campaign, a special vehicle 'Saubhagya Rath', is moving around in villages/towns and any left out households may approach them to avail electricity connection under the scheme. Any left out household requiring electricity connection may dial 1912 to avail the facility. The Centre had launched Saubhagya scheme in September 2017, to achieve the goal of universal household electrification in the country by 31 March 2019. The scheme envisages to provide last mile connectivity and electricity connections to all remaining households in rural as well as urban areas.

With the last of the nearly 1.1 mn households without electricity in the latest census getting power supply, Maharashtra has achieved 100% electrification, the MSEDCL said. The Maharashtra government had set itself a deadline of 31 December 2018 for 100% electrification under the Centre's Saubhagya Yojna, launched in September 2017. MSEDCL supplies electricity to 12.5 mn agriculture, industrial and commercial consumers. Households from the economically weaker section were given free connections while others were charged ₹ 500. The ₹ 500 will be recovered in ten instalments in electricity bills of the consumers. Under the scheme, the highest number of connections (150,000) were provided in Pune district. MSEDCL had a major achievement in February when it provided electricity supply to Gharapuri island (Elephanta)— which received supply for the first time since independence.

UP is set to achieve 100 percent electrification by the month-end. UP is among the states where a large number of households are to be covered under the Saubhagya scheme for providing electricity connections. According to the power ministry's Saubhagya portal, around 11 percent or 3.446 mn households in about 24 districts, as on 11 December, were yet to be provided with power connections under the Centre's ambitious scheme. All the districts falling under Dakshinanchal and Paschimanchal Vidyut Vitran Nigam have been electrified. The districts falling under Madhyanchal and Purvanchal Vidyut Vitran Nigam would be electrified by December 31. The power department would celebrate a symbolic 'Diwali' on 26 Janurary to mark the 100 percent electrification. UP, once the biggest roadblocks to the Centre's complete electrification programme, will get close to ₹ 15 bn grant as it finished the household electrification drive within the stipulated deadline of 31 December. The achievement came as a surprise to many as at the beginning of December, the state had faced a daunting task of energizing 5.5 mn households. The state overestimated un-electrified households. Also, houses with illegal connections have been identified as electrified, helping in reducing the targets. The overall targets for the country under the scheme have also come down from the initially estimated 40 mn to 35 mn, and finally by the end of the year, to 24.9 mn. The Pradhan Mantri Sahaj Bijli Har Ghar Yojana, or Saubhagya, envisages providing energy access to all by March 2019 and includes release of electricity connections by drawing a cable from the nearest electricity pole to the household premise, installation of energy meter wiring for a single light point with LED bulb and a mobile charging point. The Saubhagya scheme was launched on 25 September 2017, at a cost of ₹ 163.20 bn including gross budgetary support of ₹ 123.20 bn from the Centre. The states that completed the scheme by 31 December would be given an additional 15% grant by the Centre as incentive. The scheme is being funded to the extent of 60% by central grants, 30% by bank loans and 10% by states. Barring Rajasthan, Assam, Chhattisgarh and Meghalaya, all states have achieved 100% household electrification. UP, which hosted close to half of the targeted un-electrified households, announced achieveinmg100% electrification, the power ministry said. Since the launch of Saubhagya, 7.44 mn willing households have been electrified and the state government has declared saturation of all 75 districts. The state has launched a door-to-door campaign for any of those left out in un-electrified households. The Saubhagya dashboard showed that of the 24,901,600 households that have been identified, 96.15% have been energized, while 3.85%, or 957,950, households are remaining. Karnataka and Arunachal Pradesh attained full electrification. The power ministry expects to complete electrification of all targeted households by 26 January. The ministry had earlier planned to complete the programme against the original deadline of 31 March. On an average, about 700,000 houses are being energised every week. Experts have said the newly connected households will get translated into growth in power demand within a year with the release of pent-up and fresh demand from rural areas.

Following orders from the state government, the UP Power Corp Ltd has devised a special scheme to support financially weak power consumers of rural and slum areas using katia (illegal power connection). Such connections will be replaced with regular connections. No penalty will be charged from the beneficiaries. The scheme, called "Katia Hatao, Saiyojan Pao", will be run across the state till 31 January. To avail the scheme, those using illegal connections have to declare themselves before 31 January. If they are caught after that, they might face action. Also, those who have already been found stealing electricity cannot avail the benefits of "Katia Hatao, Saiyojan Pao". The scheme will be applicable to those living within 40 meter distance of the power supply line.

The power ministry announced it has decided to make all electricity meters smart and prepaid within three years beginning 1 April 2019. It said the move towards smart meters is a pro-poor step as consumers need not pay the whole month's bill in one go. Instead they can pay as per their requirements. Manufacturing of smart prepaid meters will also generate skilled employment for the youth. State governments had earlier signed the Power for All document and had agreed to supply round-the-clock power supply to their consumers. The distribution licensee will provide round-the-clock power to their consumers by 1 April 2019 or earlier, the ministry said. However, power regulatory commissions may grant extension in this timeline under exceptional circumstances.

Despite making a remarkable progress in electricity distribution over the years, India still faces challenges to meet its growing demand for power and reliable supply still remains low in the country, the World Bank said in a report. India has made enormous progress in expanding household access to electricity and reducing power shortages over the last few years. The report recognised that shortly after independence in 1947, India began adopting legislative measures to develop the core electricity sector followed by reforms in later years, but despite of all these the state power utilities have struggled to improve their performance. The inefficient state government owned power plants, under-investment in transmission, under-priced electricity, high losses of distribution utilities, groundwater depletion from cheap electricity are the key challenges to India's power generation sector. With the total installed generation capacity more than doubling over the past decade from 154.7 GW in 2006-07 to 345.5 GW in 2017-18, India is the world's third largest producer of electricity, after China and the US. Significant capacity additions and lower than expected demand growth have helped reduce power shortages significantly, the report said. The Central Electricity Authority predicts that India is likely to become a power surplus country in fiscal 2019, it said. As per 2018 Global Competitiveness Report, India ranks at 80th position among 137 economies in the reliability of its electricity supply, the report said.

The total economic cost imposed by distortions in the power sector on the Indian economy annually is $86.1 bn, or roughly 4.13 percent of the GDP in FY2015-16, according to the World Bank. The economic cost of distortions was one order of magnitude higher than the fiscal cost of subsidies to distribution utilities which was worth $8.8 bn (0.42 percent of GDP) in 2015-16. The excessive health cost borne by the population and external costs due to excessive emissions of global warming gases are estimated at $35.4 bn a year. These distortions are followed by regulatory distortions upstream, including the under-pricing of coal and the cross-subsidisation of passenger railway service from freight, both of which exacerbate coal shortages, resulting in a combined welfare loss of 0.19 percent of the GDP. Further, groundwater depletion induced by electricity subsidies costs 0.12 percent of GDP; inefficient electricity generation and distribution cost the economy an estimated 0.1 percent of GDP a year; and electricity cross-subsidies, which undermine the international competitiveness of manufacturing, cost 0.1 percent of GDP, the bank said. The bank said some of the analysis, including plant-level analysis on generation efficiency, is based on data from fiscal year 1999-2000 to fiscal year 2011-2012, the latest year in which data were available at the time of the analysis.

The Haryana government has started a new scheme for defaulters who have not cleared their pending electricity dues since 2005. Under the scheme, which will end on 31 December, the DHBVN is giving relaxation to consumers falling under 20 kW domestic and up to 5 kW non-domestic categories. Pending bills prior to 2005 have been waived off in view of the provisions of the waiver scheme. DHBVN said the scheme would also be applicable for settlement of theft cases, provided the consumer deposits 50% of the assessed amount without surcharge and the compounding amount in full and withdraws the court case, if any. The consumers whose cases are at present in any judicial forum on account of billing disputes will not be covered under this scheme. However, if the consumer withdraws the case, he will be eligible to take benefits of the scheme. Applicant or consumer shall be required to submit KYC documents, to avail the benefits of the scheme.

The government in Gujarat announced a complete waiver of ₹ 6.25 bn in unpaid electricity bills, under its one-time settlement scheme for over 600,000 people living in rural parts of the state. The move comes a day after the newly-formed Congress governments in Madhya Pradesh and Chhattisgarh announced farm loan waivers, fulfilling a promise made by the party ahead of the Assembly polls. The state government scheme would also benefit those who had been booked for electricity theft and subsequently lost their power connection. Under the scheme, irrespective of the due amount, including principal and interest, people living in rural areas can get back their electricity connection by paying just ₹ 500. Those who were either booked for electricity theft in the past or lost their connection for any other reason, can also take benefit of this scheme, which will be effective till February-end. This scheme will help farmers, the poor and middle class citizens living in rural parts.

In a recent audit by the government, it has been found out that as many as 120 government schools in Bijnor district still lack power connections. The students in these schools have no other choice but to study without fans in the scorching heat and without light in low visibility and foggy winter days. According to the data provided by the basic education department, around 120 government schools including 70 primary and 50 upper primary, are in the district running without power supply. The data emerged only after education department collected reports from entire district. Now, the basic shiksha adhikari has instructed the concerned persons to apply for power connection in these schools. It is not yet clear if these schools ever applied for power connection or not. It is worth mentioning that 14 districts of west UP including Bijnor, Moradabad, Rampur, Sambhal, Amroha, Meerut, Ghaziabad, Gautambudhnagar, Bulandshahar, Hapur, Saharanpur, Muzaffarnagar, Shamali etc were declared completely electrified on 31 October. A teacher who wished to remain anonymous said that the terrain of many schools isn't conducive to lay a power line, which is why many schools are reeling under lack of power supply.

As per the assessment made by the NITI Aayog, Bihar has been ranked sixth in the country in terms of power availability, transmission capacity and power consumption, among other parameters, which in a way had also boosted business and trade in electric goods and items. The state's 13.9 mn households have been given power connection compared to mere 2.4 mn households in 2005. Revenue yielded by the sale and trade of electric goods and items under the GST regime was the seventh highest in all the revenue yielding categories of the state. The state had 4,592 dealers in electric goods and items registered under GST. The GST had also been reduced from the previous 28% to 18%. The present power availability in the state was to the tune of 5,139 MW, while the peak power demand in 2005 was around only 700-900 MW. The electricity transmission capacity of the system had been increased to 10,000 MW, and by the end of this year, all the old rickety electric wires would be replaced. Bihar State Power Holding Power Corp Ltd has already started installing prepaid electricity meters and the process would complete in the next two years.

The MERC has reviewed its tariff order and allowed power factor incentive for industries. The commission has asked MSEDCL to refund excess charges collected from industries from 1 September 2018 when the new tariff order came into force. However, MERC has imposed a condition on refund. They will get it only if they maintain power factor between 0.95 to 1 (lag or lead). Four industrial associations had filed a review petition in MERC in which they demanded several changes including re-introduction of power factor incentive. MSEDCL had devised its own methodology for calculation of power factor and was fixing tariff. This had led to sharp increase in industrial power bills. In the earlier tariff order there was no clarity on lagging power factor, which had led to confusion and sharp increase in the bills.

The Tamil Nadu government defended the move to erect high voltage transmission towers through agricultural lands in western districts of the state and said protests by farmers against it were being "instigated". Tamil Nadu ruled out the possibility of laying underground cables, as demanded by farmers and opposition, saying such a technology was not available for high voltage transmission. The project is envisaged to transmit power from Chattisgarh. Tamil Nadu would get 4,000 MW once the project was completed. It involved transmission of a total of 6,000 MW of electricity from Chattisgarh with 4,000 MW meant for Tamil Nadu and the rest for Kerala. Work for developing infrastructure for the project was already underway in other states including Andhra Pradesh and Telangana, through which the transmission line would pass.

The Supreme Court issued a notice to Sasan Power on a plea moved by Haryana Power Purchase Centre, Ajmer Vidyut Vitran Nigam, MP Power Management Company, and Punjab State Power Corporation seeking to stay the Appellate Tribunal for Electricity's judgment that allowed several claims of the company. On 20 November last year, the tribunal had set aside the CERC's order which disallowed Sasan Power's claims seeking compensation. Sasan Power had approached CERC with a plea that owing to changes in law during the construction of the power plant, the increase in the declared price of land, the cost of implementation of resettlement and rehabilitation, geological reports, among others for the power station, Moher, Moher-Amlohri Extension and Chhatrasal captive coal blocks had led to a significant increase in its capital costs. Owing to these, it had asked the CERC to either ask the state to pay increased compensations, or allow it to raise tariffs.

SBI, the country's largest public sector lender, has said that there is no future of gas based power plants in the country and the bank may have to write-off its investments in the sector. An earlier subsidy scheme using the Power System Development Fund helped gas-based power plants did not have the desired impact and investments in the gas-based power plant sector may have to be written off. India's total installed power capacity stood at 345 GW at the end of September 2018. Of this, 7.2 percent or 25 GW comprised gas-based power plants. However, gas-based projects were responsible for only 3.8 percent or 49.77 bn units of India's total electricity generation in the last FY2017-2018. This was mainly because 14,305 MW of gas-based capacity is currently stranded due to non-availability of domestic gas and un-affordability of imported gas. The power ministry submitted that a capacity of 14,305 MW was classified as stranded under the scheme of Utilization of gas based power plants. The capacity of 14,305 MW includes commissioned as well as new gas based capacity which was ready for commissioning.

The MERC has allowed BEST to extend its existing 676.69 MW power purchase agreement with Tata Power for another 5 years. According to the Tata Power, after the due diligence for ensuring the reliability of supply and cost competitiveness for the BEST consumers in Mumbai, the commission, in its order on 2 January 2019, approved the extension. The commission's order came after BEST inter alia submitted that the cheapest option before it is the extension of its present PPA with Trombay Thermal Power Station and Hydro plants of Tata Power. The BEST and Tata Power have agreed for an extension of PPA with existing terms and conditions. The process of power tie-up was undertaken by the BEST in 2017-18 for its distribution company consumers for the period of next five years starting 1 April 2019. The existing power tie-up of 677 MW between BEST & Tata Power is scheduled to expire on 31 March 2019.

Relief for Adani Power and Tata Power may be delayed as some of the states that procure power from the firms' Mundra units are yet to arrive at a decision on tariffs. This, even after the Supreme Court had set an eight-week deadline for doing so. Maharashtra is one of the five states that procures power from the Mundra units of the firms. Rajasthan, Gujarat, Haryana and Punjab are the other four. Some buy power from both. On 29 October, the Supreme Court had directed the CERC to decide within eight weeks on approving revised tariffs for Adani Power, Tata Power and Essar Power for their imported coal-based power units in Gujarat. These units have been struggling financially owing to an increase in coal prices higher than the tariffs fixed in the PPAs. Coal prices were higher than expected due to a change in Indonesia's export policy for coal. In December, the Gujarat government resolved to accept the recommendations of the high-powered committee in giving some relief to Mundra UMPP. Tata Power in November had said that within eight weeks, the states needed to get the necessary approvals from their respective cabinets, and approach the CERC and the regulator needs to clear it. Tata Power operates a 4,000 MW UMPP at Mundra and Adani Power operates a 4,620 MW power unit.

The Gujarat state electricity board has approached the CERC, seeking its approval to amend the terms of the PPA for 2,000 MW signed with Adani Power for procuring electricity from the company's imported coal-based plant in Mundra. The development comes after the Supreme Court extended a lifeline to the three troubled imported coal-based power plants of Tata, Adani and Essar in Gujarat by allowing the CERC to facilitate pass-through of future fuel price escalation, as per the recommendations of a high-level committee. The Gujarat government had constituted the committee in July this year to assess if the power plants could be revived through appropriate financial and contractual restructuring. The power regulator has asked Adani Power and Gujarat Urja Vikas Nigam to address them by 14 January 2019. Adani Power had signed two PPAs with Gujarat (1,000 MW each) in 2007 at ₹ 2.89/unit and ₹ 2.35/unit. Gujarat's average power purchase price is ₹ 3.49/unit. Analysts have noted that if the CERC approves the high-level committee recommendations, Adani Power's tariff would rise by ₹ 0.80/unit.

The government has removed restrictive riders which discouraged neighbouring countries to buy power from India's spot power markets. It barred plants with CIL fuel linkage or captive mines from selling power outside India, a move that could help imported coal-based units in the private sector to have a larger pie of the markets in neighbouring countries. The 2016 guidelines allowed cross border trade only through the 'term ahead' market and did not allow trading in the more attractive 'day-ahead' market. The latest guidelines for cross-border electricity trade issued by the power ministry, have removed such conditions. However, foreign entities would be required to participate in power exchanges only through Indian power trading entities. Independent power producers had asked the power ministry to clarify if fuel sourced from CIL linkage or captive mines can be used to export power. The clarity was sought after NVVN, a wholly owned arm of NTPC Ltd, had emerged as the successful bidder in the auction for power supply to Bangladesh. The Association of Power Producers had said that exporting power using domestic coal would be "hampering domestic consumer interest". NVVN had won contracts for supply of 300 MW power to Bangladesh till May 2033 from power stations of the DVC. As much as 7,203 mn units were supplied to Nepal, Bangladesh and Myanmar in FY18. Bangladesh is the largest buyer of Indian power. Adani Power has signed a 25-year power purchase agreement with the BPDB to supply a net capacity of 1,496 MW to the neighbouring country from the firm's upcoming 1,600 MW imported coal-based plant in Godda, Jharkhand. Sembcorp Gayatri Power, which runs a 1,320 MW imported coal-based power plant in Andhra Pradesh, had received letters of intent from the BPDB to supply 250 MW to the neighbouring nation for 15 years.

The state-owned power distribution utility, Mahavitaran Ltd, has accused the TPS of overdrawing electricity from state grid and earning undue profit to the extent of ₹ 91.6 mn. The SLDC is investigating the matter. The

Mahavitaran has complained to the SLDC that between June and September this year, TPC sold 27.71 mn units on energy exchange by overdrawing from the state grid and earned ₹ 157.2 mn in revenue. It drew power at ₹ 2.37/kWh and paid ₹ 65.6 mn, but earned ₹ 157.2 mn in a period of three months and five days. The Mahavitaran has asked SLDC to investigate its complaint for the said period and for such instances in the past.

The government will soon auction power transmission contracts worth over ₹ 80 bn connecting renewable energy projects in western and northern states while it has deferred a decision on lines worth ₹ 55 bn. Contracts worth about ₹ 35 bn have been awarded on nomination basis to Power Grid Corp of India Ltd. Private sector firms such as Tata Power, Adani Power Transmission, L&T Infra, Torrent Power, Kalpataru Power Transmission and Megha Engineering had earlier bid for such contracts. The government has compressed the timeline for implementing the projects to 18 months while setting September 2020 as the target completion date for some projects. Power transmission companies have welcomed the move but have demanded the government to half the auction timeline from the planned 140 days to 70 days. The companies have also said the government can auction transmission lines instead of deferring them and a green signal can be given later to the selected company to match the schedule of generation projects.

Madhya Pradesh power discoms have suffered a major setback in the last 15 years with their losses rising by a whopping 900% to ₹ 360 bn ever since the electricity board was dismantled into three discoms, alleged joint group of engineer and worker unions in energy sector. Blaming the wrong policies for the massive loss, the union has decided to go on a strike on 8 and 9 January. Concerns were raised against the decisions initiated in the name of power reforms in the past 25 years.

Capital's residents have a reason to cheer as the Delhi Electricity Regulatory Commission has approved a compensation for them in case of unscheduled power cuts lasting more than one hour. According to Delhi government, the consumer will be compensated by ₹ 50 an hour for the first two hours and ₹ 100 for every subsequent hour. If an interruption recurs, the compensation will be paid from the initial default. With this, Delhi has become the first State in the country where consumers will be compensated by power discoms in case of unscheduled power cuts. The Delhi government had approved the compensation plan in June this year. In case of unscheduled power cuts, the compensation shall be payable automatically by the discom to all the affected consumers, without requiring a claim to be filed by the consumer. After restoration of power supply, a confirmation message will be sent by discom to the consumer with restoration date and time, Delhi government said. In case the discom determines that no compensation is payable to affected consumer, he or she can approach the CGRF and, if not satisfied from CGRF, to the Electricity Ombudsman. The revised (electricity) Supply Code 2017 also says that if the compensation claim of the consumer is upheld by the CGRF or Ombudsman, the amount payable will be ₹ 5,000 or five times the original compensation, whichever is higher.

Tamil Nadu's power demand has increased by more than 3,000 MW this December, compared to the same period last year. The demand has been 14,500 MW in recent days, mostly owing to higher consumption in the industrial sector. On the other hand, domestic consumption has come down in the last two months due to cool weather. Agriculture demand is also low, Tamil Nadu Generation and Distribution Corp said. The state has received projects worth ₹ 100 bn through single window clearance alone in the last one year. On the power generation side, the distribution company is using imported as well as local coal to generate power from its own thermal units. Power demand is high during morning and evening hours.

In a major relief to city residents, the UT electricity department has not proposed any hike in power tariff for the next FY2019-20. The department in its power tariff petition submitted before the JERC stated that there will be total surplus of ₹ 186.5 mn with the department for the period between FY2017-18 to 2019-20, therefore the department did not propose any power tariff hike. The JERC had marginally increased rates in domestic and commercial categories while it had reduced the tariff in the industrial category for FY2018-19. In the domestic category, the rates were increased from ₹ 2.55 to ₹

2.75/kWh in the slab of 0-150 units, while there was no change in the rate of ₹ 4.80 in the slab of 151-400 unit. In the slab of above 400 units, the rate was increased from ₹ 5 to ₹ 5.20/kWh. Along similar lines, a small increase in tariff in the commercial consumer category was made last time. In the commercial category, there was no change in the rate of ₹ 5/kWh in the slab between 0-150, while in the slab of 151-400, rates were increased from ₹ 5.20 to ₹ 5.30/kWh. In above 400 slab, rates were increased from ₹ 5.45 to ₹ 5.60/kWh.

The engineers of state owned distribution company Paschim Gujarat Vij Company Ltd had to face the ire of people of Tativela village in Veraval taluka of Gir Somnath over allegedly poor electricity service. Farmers of Tativela village of Veraval had lodged a complaint of fault in the feed line a few days back. They claimed that when they called the customer care number they got a rude reply.

The government has constituted a Group of Ministers headed by Finance Minister to vet the recommendations of a high-level panel on stressed power projects, as per an official order. The panel, headed by Cabinet Secretary has submitted its report. According to a report by the Department of Financial Services, as many as 34 coal-based thermal power projects, mostly private with a total capacity of 40,130 MW, were considered 'stressed' by the Ministry of Power as on 22 March 2017.

Rest of the World

Growth of China's power generation and consumption, important indicators of economic performance, are expected to hit seven-year highs in 2018, the Economic Information Daily reported. The paper said the country's daily power generation last year averaged at 18.47 bn kWh, jumping 8.52 percent year on year, while the growth of power consumption is predicted to exceed 8 percent, according to preliminary statistics. Data showed that the growth of China's power generation and consumption indicated a downward trend over the past 10 years but rebounded gradually in recent years. The growth of power consumption year on year stood at 5.23 percent in 2008, slumping 9 percentage points from 2017. The growth dived to only 0.5 percent in 2015 but rebounded to 8.47 percent in the first 11 months of 2018. Power generation grew faster in 2018, climbing 6.9 percent year-on-year for the first 11 months, compared with a 5.9-percent gain in 2017. Analysts said the faster growth was driven by industrial reconstruction, the upgrade of power usage structure and the switch from coal to electricity for winter heating. Affected by economic downward trend and a warm winter, China's power consumption is estimated to rise 5 percent year on year in the first quarter of 2019, analysts said.

Rio Tinto and Mongolia have signed a deal for the supply of power to the miner’s giant copper mine extension at Oyu Tolgoi by mid-2023, with both sides saying the framework agreement marked a step forward after a protracted dispute. The construction of a 300 MW plant, close to the Tavan Tolgoi coalfields, to supply electricity to the mine will start in 2020 under the new agreement. The plant is expected to be operational by mid-2023, slightly later than the 2022 date mooted after the government canceled an earlier power agreement in February. Oyu Tolgoi would be the majority owner of the power plant, with funding possibly including third party debt.

The US has granted Iraq a 90-day Iran sanctions waiver to allow it to continue to import electricity from Tehran. Iraq's power sector is in disrepair and does not generate enough electricity to meet domestic demand. US sanctions that went into effect in November have threatened to cut the country off from its chief supplier, Iran. The US initially granted Iraq a 45-day waiver to allow it carry on buying electricity and gas from its neighbour while arranging for new suppliers. Iraq will now have another 90 days where it can continue to pay for electricity imports, the State Department's public affairs office said. The US is encouraging Iraq to break its dependence on Iran and develop its own gas and power generation sectors. Most experts, however, agree that Iraq will need at least a year to wean itself off Iranian energy imports, or risk worsening power outages. Electricity demand peaked at 24 GW this year while domestic production was fixed at 16 GW, leading to lengthy and unpredictable blackouts in the hottest months of summer. Iraq has a contract to import 1.2 GW of electricity from Iran, according to the Texas-based intelligence company Stratfor.

Polish and Lithuanian power grid operators said they had agreed to build a high voltage direct current underwater cable by 2025 as part of a plan to connect the electricity grids of the Baltic states with those of the European Union. Poland's PSE and Lithuania's Litgrid said they signed an initial cooperation agreement regarding what they called a "Harmony Link", with an investment decision expected in 2020. In June, the leaders of the Baltic states and Poland signed a long-awaited deal to connect their power grids to the European Union by 2025 and break their dependence on Russia, a Soviet legacy. Under the deal, states would use the existing overland LitPol Link between Lithuania and Poland, as well as the planned cable under the Baltic Sea, looping around the territorial waters of Russia's Kaliningrad exclave.

The Polish government plans a cut in excise tax and cost savings at power companies as part of measures designed to prevent surging electricity prices next year. The steps planned by the government and expected to be adopted by the lower house of parliament will help keep 2019 power prices at the level seen in the first half of 2018, Poland's Prime Minister Mateusz Morawiecki said. Wholesale power prices in Poland surged, mostly driven by rising coal prices and carbon emission costs, as Poland generates most of its electricity in polluting coal-fueled power plants.

Commodities exchange group EEX said it was aiming to expand its power market exchange services in Asia, in particular for the Japanese wholesale electricity market. Providing power derivative solutions in Japan, starting with a clearing service offering, would be an important step in the continued global expansion of our products and services, EEX said. In a bid to quell growing frustration over the rising cost of living in Israel electricity prices will rise less than the planned 8 percent. The price of electricity was set to rise as much as 8 percent on 1 January, while a host of other prices — from food to water to municipal taxes — are also supposed to go up in 2019. Israeli Prime Minister Benjamin Netanyahu said electricity costs have dropped 15 percent since 2013, after the Tamar natural gas field opened off Israel's Mediterranean coast. Netanyahu said the larger Leviathan gas field, slated to start production in a year, would lower electricity rates further.

Ivory Coast plans to add 643 MW of power to its network by 2021, the government said, in a bid to meet domestic demand and boost electricity exports to the surrounding region. West Africa's largest economy, which produces most of its 2,200 MW of power from oil and gas, aims to generate 4,000 MW by 2020. The government said the 643 MW will be generated by expanding Azito Energie's power station in Ivory Coast, and by increasing the capacity of Ivorian electricity producer CIPREL. A 253 MW expansion of the Azito Energie plant worth 225.8 bn CFA francs ($392.9 mn) is due to begin over the first quarter of 2019, it said. Ivory Coast's power exports to neighbouring countries fell by 26 percent last year to 1,225 gigawatt hours due to a decline in demand and capacity constraints.

TransCanada Corp has signed a deal to sell its Coolidge Generating Station in Arizona to a subsidiary of Southwest Generation Operating Company LLC for $623 mn. The 575 MW natural gas-fired power in Coolidge, Ariz., is underpinned by a long-term PPA. Under the terms of the PPA, Salt River Project Agricultural Improvement and Power District has a right of first refusal on a sale to a third party. The ADB would provide $ 284 mn to Pakistan for improving its power transmission network, besides developing a stronger, smarter, greener and more climate resilient power transmission system. The project will help provide a more stable and secure electricity supply, so people and businesses can continue their productivity and contribution to the economy. ADB was working with the government and the private sector to further develop Pakistan's power supply chain, including expanding the power transmission network.

discoms: distribution companies, MSEDCL: Maharashtra State Electricity Distribution Company Ltd, UP: Uttar Pradesh, LED: light emitting diode, MW: megawatt, GW: gigawatt, US: United States, FY: Financial Year, GDP: Gross Domestic Product, kW: kilowatt, DHBVN: Dakshin Haryana Bijli Vitran Nigam, GST: Goods and Services Tax, MERC: Maharashtra Electricity Regulatory Commission, MSEDCL: Maharashtra State Electricity Distribution Company Ltd, CERC: Central Electricity Regulatory Commission, mn: million, bn: billion, SBI: State Bank of India, BEST: Brihanmumbai Electric Supply and Transport, PPA: power purchase agreement, UMPP: Ultra Mega Power Project, CIL: Coal India Ltd, NVVN: NTPC Vidyut Vyapar Nigam, BPDB: Bangladesh Power Development Board, TPC: Tata Power Company, SLDC: State Load Dispatch Centre, kWh: kilowatt hour, CGRF: Consumer Grievances Redressal Forum, UT: Union Territory, JERC: Joint Electricity Regulatory Commission, ADB: Asian Development Bank

Fuel prices continue upward march, petrol at ₹ 70.4 per litre in Delhi

15 January. Fuel prices were hiked for the seventh time in the New Year, adding to commuters' woes. In Delhi, petrol is being sold at ₹ 70.41 per litre, after a hike of 28 paise. Diesel, too, witnessed a hike of 29 paise to be sold at ₹ 64.47/litre. Petrol is retailing 28 paise higher at ₹ 76.05 per litre in Mumbai and diesel at ₹ 67.49 per litre after a 31 paise hike. The rise in prices come amidst revision of global crude oil prices owing to a possible stifling of supply in the near future. The last week of 2018 saw a dip in fuel prices, which spilled over to this year. However, prices have been on the rise since 7 January.

Source: ***Business Standard***

ONGC's latest tender puts cost before quality, attracts old jack-up rigs

13 January. Oil & Natural Gas Corp (ONGC)'s latest tender, drawn out on the Quality and Cost based selection (QCBS) scheme, has attracted old jack-up rigs averaging 41 years. The earlier tender from the country's largest oil and gas explorer did not have the QCBS scheme and the age of jack-up rigs averaged 36 years. Indicating ONGC's skew for lower-cost rigs over the better-quality and newer generation of jack-ups. ONGC introduced the QCBS criterion which gives 25 percent weightage to technical and 75 percent to commercial aspects. But, in effect, the technical weightage given is only 7.5 percent and this translates into a cost difference of just about $1,000-$1,500 a day between a new generation and a 39-year-old rig. ONGC is the largest client for most of the domestic oil drilling industry. Nearly 95 percent of the drilling industry revenue comes from it.

Source: ***Business Standard***

Vedanta cuts crude supply to IOC, restores after government intervention

11 January. Vedanta reduced crude oil supplies to Indian Oil Corp (IOC) for about three months until October even as the two negotiated oil rates for the year, and restored it to the officially-allocated level only after the government intervened. The government allocates all locally-produced crude to refineries based on their location, processing capability and transport logistics. All state-run and private oil producers and refiners must stick to these allocated quantities for the year. But producers and refiners are free to decide oil price formula between them, which is usually for 12 months and agreed to at the beginning of the financial year. But this year, the price negotiations between IOC and Vedanta stretched on for far too long, concluding only after the middle of the financial year. While price negotiations were underway, Vedanta cut supplies to IOC, in a bid to mount pressure for a higher price. Vedanta supplies to private refiners, which usually offer higher oil rates compared to state refiners, leaving the private producer with an incentive to serve private refiners better. IOC takes about 1.6 million tonnes of crude a year from Vedanta, which operates the prolific Barmer block that accounts for nearly a fourth of the country's oil output. Vedanta's oil is processed at three refineries of IOC, including the ones at Panipat and Koyali. After Vedanta cut supplies, IOC raised the matter with the government.

Source: ***The Economic Times***

Petrol prices up 19 paise per litre, diesel by 28 paise as global crude rates rise

11 January. Following a rise in global crude oil prices, transport fuel rates were hiked for the third time this month after a prolonged period of fall in petrol and diesel prices. As per data from Indian Oil Corp (IOC), petrol prices rose by 19 paise per litre and diesel by 28 paise across the four major metros. Petrol price in the Delhi was increased to ₹ 69.07 per litre, while in Kolkata, Mumbai and Chennai, the fuel cost ₹ 71.20, ₹ 74.72 and ₹ 71.67 per litre, respectively. Similarly, the price of diesel went up in the national capital to ₹ 62.81 per litre. In Kolkata, Mumbai and Chennai, diesel sold at ₹ 64.58, ₹ 65.73 and ₹ 66.31 a litre respectively. With petroleum products being outside the GST (Goods and Services Tax) regime, prices vary as a result of local taxes. As per the country's dynamic pricing mechanism, the domestic fuel prices depend upon international fuel prices on a 15-day average and the value of the rupee.

Source: ***Business Standard***

RIL to shut two units at Jamnagar refinery for maintenance

10 January. Reliance Industries (RIL) said it would shut two units of its Jamnagar refinery in Gujarat for four weeks due to routine maintenance. RIL operates two refineries at Jamnagar -- a 33 million tonne per annum DTA (domestic tarrif area) refinery that caters to fuel requirements within the country and an only-for-exports 35.2 million tonne unit.

Source: ***Business Standard***

Oil companies offer additional 23,946 petrol pump dealerships across 5 states

9 January. India's three Oil Marketing Companies (OMCs) have invited applications for setting up fuel retail outlets at 23,946 locations in Rajashtan, Madhya Pradesh, Telangana, Chhattisgarh and Mizoram. Invitation for applications in these states had missed an earlier expansion round due to state elections. The last date for submission of applications is 12 January. The companies have offered 9,647 retail outlet dealerships in Rajasthan, 7,318 dealerships in Madhya Pradesh, 3,507 in Telangana, 3,347 in Chhattisgarh and 127 in Mizoram. According to OMCs, HPCL (Hindustan Petroleum Corp Ltd) received applications for 95 percent of the locations offered in November, BPCL (Bharat Petroleum Corp Ltd) received applications for 97 percent of the locations and IOC (Indian Oil Corp) received applications for 92 percent of the locations. Cumulatively, under the current expansion drive, the three state-owned refiners have offered more than 78,500 retail outlet dealerships across 35 states and Union Territories. India currently has 63,674 petrol and diesel retail outlets. The three government-owned OMCs account for 90 percent of these. Among private players, Nayara Energy tops the list with 4,895 pumps followed by Reliance Industries Ltd (1,400) and Royal Dutch Shell with 116 retail outlets. Most of the existing petrol and diesel retail outlets are in Uttar Pradesh (7,473), Maharashtra (5,970), Tamil Nadu (5,388), Rajasthan (4,476), Karnataka (4,214), Gujarat (4,025), Madhya Pradesh (3,711), Punjab (3,427), Haryana (2,862), Telangana (2,626), Bihar (2,695), West Bengal (2,333) and Kerala (2,100). India has added about 17,481 petrol and diesel outlets in the past six years across the country, growing at an average annual rate of 5.61 percent. Overall, the three OMCs have offered setting up maximum number of fuel retail outlets in Rajasthan (9,647), Uttar Pradesh (9,027) and Madhya Pradesh (7,318) followed by Maharashtra (6,647), Karnataka (4,974), Gujarat (4,413), and Chhattisgarh (3,347), according to information provided by the OMCs on the Petrol Pump Dealer Chayan website.

Source: ***The Economic Times***

NATIONAL: GAS

Karnataka's public transport can use natural gas: PNGRB

10 January. In Karnataka, the ratio of clean fuel to non-clean fuel usage is 55:45 and there is good scope for increasing usage of natural gas, the PNGRB (Petroleum and Natural Gas Regulatory Board) said. In Bengaluru, the PNGRB held its 10th round of City Gas Distribution (CGD) bidding road show, to help interactions between interested stakeholders from the industry with senior State government officials. About 15 Karnataka districts are to be covered under the CGD in the 10th round of bidding which is currently under way. In the 10th round of CGD bidding, which is currently on, in Karnataka there are six geographical areas (GAs) covering 15 districts – Kolar, Bagalkot, Koppal, Raichur, Hassan, Chikkamagaluru, Kodagu, Kalaburgi, Vijayapura, Mysuru, Mandya, Chamarajanagar, Uttar Kannada, Haveri and Shivamogga are being offered by the PNGRB.

Source: ***The Hindu Business Line***

West Bengal holds ₹ 500 bn shale gas hope but with riders

9 January. Shale gas may turn as a boon to West Bengal's investment map with a potential of ₹ 500 bn over the next several years but proper regulatory framework, environmental or social factors needs to be handled properly. Great Eastern Energy Corp Ltd (GEECL) and Essar Oil who are producing CBM (coal-bed methane) in the Ranigunj belt had expressed interest in exploring and extracting shale gas and under the new licensing regime government has allowed shale exploration from CBM blocks. GEECL's CBM block may hold as much as 6.63 trillion cubic feet (tcf) of shale resources, of which about 1.7 tcf can be recovered. The Raniganj block has a shale gas potential of 7.7 tcf, Essar had said. But, several experts have flagged environmental and social concerns in shale gas exploration.

Source: ***Business Standard***

NATIONAL: COAL

Talcher coalfields shutdown affecting Odisha investment climate: Goyal

15 January. Coal Minister Piyush Goyal has written to Odisha Chief Minister Naveen Patnaik requesting speedy resolution of the issues that have caused an indefinite strike in the Talcher coalfields of Mahanadi Coalfields Ltd (MCL) that has disrupted production. The Talcher coalfields have been completely shut for the last three days owing to the indefinite strike called by the Talcher Surakshya Manch.

Source: ***Business Standard***

Citizens' report urges halt on coal mining in Meghalaya

14 January. A group of social activists released two volumes of a citizens' report urging the Supreme Court that coal mining in Meghalaya be stopped completely and other forms of energy, which are climate-friendly but need investment, be promoted. The submission of the reports is significant in the wake of 15 miners being trapped in an illegal flooded coal mine in East Jaintia Hills districts for a month now, besides the murderous attacks on social activists. The first volume of the citizens' report examines the claims about livelihood and tribal autonomy vis-a-vis coal mining. It looks at how and why unregulated and illegal coal mining in Meghalaya continues even after the orders of the National Green Tribunal (NGT) and the Supreme Court of India. The second volume puts together these reports in the backdrop of the murderous attack on Kharshiing and Sangma by the "coal mafia (coal mine owners that include five public representatives, bureaucrats, administration and police officials) and leaders of self-styled non-state social groups and 'NGOs' and the total state apathy towards these attacks". The report urged the apex court to act against the coal mafias who are undermining and misleading the democratic institutions such as the NGT and the courts. Noting that despite an interim NGT ban on coal mining since April 2014, the report said that fresh mining of coal has continued and illegal transportation of coal also continued as usual.

Source: ***Business Standard***

States restart imports of coal after domestic supply fails to meet demand

13 January. The central government's plan to completely rely on Coal India Ltd (CIL) for domestic needs and have zero imports has faltered with states putting out tenders for importing coal. Tamil Nadu, Karnataka, Maharashtra, Gujarat along with NTPC Ltd and private units in Punjab and Madhya Pradesh have issued tenders totalling 12.5 million tonnes (mt). In 2017, Coal Minister Piyush Goyal announced that India does not need any imported coal and instructed states and NTPC to stop imports. Subsequent to that, several power access schemes and a weaning effect of demonetisation and implementation of Goods and Services Tax (GST) saw power demand shooting up. Domestic coal supply couldn't match the rise in demand. In the summer of 2018, Power Minister R K Singh allowed states to import coal as a "coal deficit would continue for 2-3 years". States restart imports of coal after domestic supply fails to meet demand NTPC was the first to issue a tender of 5 mt of imported coal last year. Following suit were Maharashtra and Gujarat

> *QUICK COMMENT*
> *Domestic coal supply must be increased to reduce coal imports!*
> **Bad!**

with 2 mt each, and now it's Karnataka and Tamil Nadu. Vedanta Energy-run Talwandi Sabo power unit in Punjab and Hindustan Power's MB Power in Madhya Pradesh have also issued tenders for imported coal. MB Power has been awaiting coal linkage for two years now.

Source: ***Business Standard***

NTPC urges NCL to extend coal supply under flexi scheme

13 January. Coal India Ltd subsidiary Northern Coalfields Ltd (NCL) said the state-run power producer NTPC Ltd has urged the miner to further extend its support to the up-country power stations of it, under flexi utilisation of domestic coal scheme after "sufficient" fuel being supplied to its pithead thermal power plants by the miner. The company is supplying 2.5 lakh tonnes of coal per month to NTPC's Mauda plant under the scheme. NCL has at present Fuel Supply Agreement with three of its pit-head thermal power stations namely Vindhyachal, Singrauli STPS and Rihand STPS and supplies more that 50 percent of its produced coal to NTPC's power plants. NCL has been entrusted with the responsibility to produce 100 million tonnes (mt) of coal in this fiscal while its off-take target was at 100.5 mt. The company produced 77.89 mt of coal so far, up 11 percent from the last year while its coal off-take was at79.02 mt till date, up by 7 percent from corresponding period last fiscal.

Source: ***Business Standard***

CIL likely to auction 30 mt of coal in January-March quarter

11 January. Coal India (CIL) is expected to put another 25-30 million tonnes (mt) of coal under the hammer in the ongoing quarter. This comes after e-auction volumes dipped following the decision to pump more coal into the coal-starved power sector through Fuel Supply Agreements (FSAs). The coal behemoth has been able to book 54 mt of coal through e-auction till December (first three quarters) as against 79 mt in the similar period of the last fiscal year, registering a 31.65 percent dip. On the other hand, its offtake via the FSA route to power plants increased by over 12 percent. Coal consumers in the non-power sector have long been complaining about scarcity because most of this fossil fuel is being routed to feed coal-starved thermal power plants. CIL's production, as well as offtake, was hit in December owing to industrial unrest in its key production zones in Jharkhand and Odisha and cyclones, which disrupted production and supply lines. Besides, the availability of rakes from the Railways also constrained the company from supplying coal. South Eastern Coalfields Ltd (SECL), its most important subsidiary, registered a 13.1 percent fall in production in December at 12.52 mt while Mahanadi Coalfields Ltd, the second-largest subsidiary, registered a 3.2 percent dip at 13.05 mt. These two subsidiaries account for more than 45 percent of CIL's production. Sales were low at 52.77 mt, which is a 1.2 percent fall compared to December 2017-18. However, in the next fiscal year, the e-auction volumes are expected to dip further. According to a coal consumer, coal demand in China was affected in the recent past because it focused on LPG (liquefied petroleum gas) — an alternative to coal. Restrictions on coal import were imposed, leading to prices declining globally. E-auctions directly add to CIL's bottom line because the prices are often higher by at least 60 percent over the notified price. Thus, effectively while the miner spends the same amount of money to mine the coal which is either sold as linkage or put under the hammer, it earns 20 percent higher in auctions. Prices in the e-auction, however, are expected to remain stagnant in the ₹ 2,400 a tonne level backed by muted global coal prices.

Source: ***Business Standard***

NATIONAL: POWER

Smart trading helps PSPCL save money, hedge electricity

15 January. Selling power during peak hours and then purchasing it during the lean period has helped Punjab State Power Corp Ltd (PSPCL) save millions, according to its CMD (Chairman and Managing Director) Baldev Singh Sran. In November and December last year, PSPCL purchased 358 MUs (million units) for ₹ 1.11 bn from the Power Grid at an average rate of ₹ 3.09 per unit, resulting in savings of up to ₹ 190 mn. At the same time, PSPCL sold 165 MUs worth ₹ 700 mn at an average cost of ₹ 4.25 a unit during peak hours. Sran said the PSPCL paid energy charges ranging from ₹ 3.10 to ₹ 3.85 per unit, but it reduced power drawn from private thermal plants this year to as little as possible and instead bought low-cost power available in the exchange at night for ₹ 2.50-₹ 2.85 a unit. He said this helped the power distribution company bring down the basket price of power. Power drawn from the state's thermal plants which cost ₹ 3.85 a unit was also replaced with power from the exchange at ₹ 3.30 to ₹ 3.70 a unit, the powercom said. In September and October last year, power rates in the exchange were at ₹ 5 to ₹ 8 per unit due to demand outside Punjab, and PSPCL saved ₹ 2.42 to ₹ 2.49 per unit by selling 1,430 MUs during the two months at average rate of ₹ 5.74 a unit, resulting in savings of ₹ 3.5 bn in the two months alone. Sran said the corporation was banking on surplus power to avoid purchasing high-cost energy during peak summer season. Till December, the PSPCL had banked 1,500 MW and similar arrangements will be carried till May 2019 with approximate banked energy of around 6000 MUs with Madhya Pradesh, Jammu and Kashmir, Andhra Pradesh, Chhattisgarh and Himachal Pradesh, he said. The banked power will be returned by these states to Punjab during the next paddy season, he said. Meanwhile, PSPCL has sought a four-hour increase in the special night tariff which is offered to the industry for consuming power between 10pm to 6am.

Source: ***The Economic Times***

Maharashtra hikes tax on electricity by 10 paise per unit

15 January. Mumbaikars can expect higher electricity bills from this month as the state government has raised the tax on power sale to consumers by 10 paise per unit. The tax will be applicable to all except residential consumers of Maharashtra State Electricity Distribution Company Ltd (MSEDCL). But its industrial and commercial consumers will have to pay more. The tax is levied under the Maharashtra Tax on Sale of Electricity Act, 1963, which empowers the government to hike rates periodically, and as and when the need arises. Energy department said the state will earn an additional revenue of ₹ 900 mn a month after this tax hike. The city has 30 lakh consumers of Adani Electricity, 10.5 lakh of BEST and seven lakh of Tata Power; they will be impacted by the hike. MSEDCL, which caters to other parts of the state, supplies power to 25 mn consumers, of whom more than one crore are commercial and industry users.

Source: ***The Economic Times***

Discoms' outstanding dues to power generators rise 24 percent to ₹ 394.9 bn

13 January. Amid stress in the power sector, woes of electricity generating firms have increased further as their outstanding dues on state distribution companies (discoms) rose to ₹ 394.98 bn in October 2018, up 24.7 percent from a year-ago levels. In October 2017, the discoms' dues to power-producing companies stood at ₹ 316.76 bn, the data available on the PRAAPTI (Payment Ratification And Analysis in Power Procurement for Bringing Transparency in Invoicing of Generators) website showed. The website was launched by the government in May last year to bring transparency in payments. Discoms of Uttar Pradesh (UP), Maharashtra, Telangana, Andhra Pradesh, Karnataka, Delhi and Tamil Nadu owe the major portion of dues to the power generating companies and take over 514 days or about 1 year and 4 months to make payments, the portal showed. While UP tops the list with 537 days in making payments, Delhi takes 519 days and is followed by Maharashtra (518 days), Karnataka (517 days), Rajasthan (516 days), Tamil Nadu (515 days), Telangana (514 days) and Andhra Pradesh (514 days). Outstandings of public sector thermal power companies amount to over 55 percent of the total dues of ₹ 394.98 bn on discoms. This includes outstanding of NTPC at ₹ 156.61 bn, NHPC at ₹ 30.11 bn and Damodar Valley Corp at ₹ 19.9 bn.

> *QUICK COMMENT*
> *Mounting discom dues to power generators holds up reforms!*
> **Ugly!**

Source: ***Business Standard***

Uttar Pradesh, Maharashtra warm up for summer power demand

12 January. Cautioned by spot power prices rising to record levels due to coal shortage at power plants in the last summer, states have started making arrangements to tie up power supply agreements on a short-term basis right from the beginning of the new year. Four such auctions have already been conducted this year, through which Uttar Pradesh and Maharashtra seek to tie up a cumulative 2,850 MW capacity for May and June 2019. Stressed power projects, vying for new avenues of electricity sale, were among the lowest bidders. The tariffs quoted by power producers against such bids range between ₹ 5.09/unit-₹ 7.49/unit. To be sure, prices of short-term power depends on a number of seasonal and durational factors. Rates are usually higher if the requirements are for few hours in the day. The states would procure electricity on such short-term basis through various power traders.

Source: ***The Financial Express***

Adani to win 3 out of 7 power projects under Samadhan scheme

10 January. Lenders to seven troubled power projects are close to resolving loans totalling over ₹ 740 bn outside the bankruptcy framework, including by selling three of the companies to Adani Group. Coastal Energen Pvt. Ltd (debt of ₹ 6,132 crore), KSK Mahanadi Power Ltd (₹ 17,194 crore) and GMR Chhattisgarh Energy Ltd (₹ 8,174 crore) will be sold to Adani Group. The lenders, led by State Bank of India (SBI), plan to frame resolution plans under the Scheme of Asset Management and Debt Change Structure, or Samadhan. Under the Samadhan scheme, a stressed power company's debt will be divided into sustainable and unsustainable portions. While the liability of the sustainable debt will be assumed by the new owner, the unsustainable part will be converted into equity. The seven companies have stable power purchase and fuel supply agreements and also meet the lenders' target of getting ₹ 30 mn per megawatt and at least 40% of the debt as sustainable.

Source: ***Livemint***

Uttar Pradesh power employees threaten indefinite stir

10 January. Uttar Pradesh power employees threatened to intensify their strike if their demands are not fulfilled soon. The employees are demanding withdrawal of the Electricity (Amendment) bill, restoration of old age pension and regularization of contract workers. The employees under the banner of National Coordination Committee of Electricity Employees and Engineers' (NCCOEEE), an umbrella organisation comprising 1.5 million power employees working in energy sector, continued their boycott for the second consecutive day and held protest meetings outside their offices. The central and state government would be responsible for the strike by power sector employees, NCCOEEE co-convener Shailendra Dubey said. He said electricity tariff will go above ₹ 10 per unit after the enactment of the Electricity (Amendment) Bill 2018.The biggest sufferer will be farmers and public, he said. The supply to common consumers and agriculture sector is subsidized at the cost of industrial and commercial consumers.

Source: ***The Economic Times***

Tata Power Delhi, Norway's PIXII ink deal on grid

10 January. Tata Power Delhi Distribution Ltd (TPDDL) has signed an agreement with Norwegian power technology company PIXII to explore the use of distributed pole-mounted storage to boost the strength of the distribution grid in the capital. The Delhi distribution company (discom) said the agreement, signed during Norwegian Prime Minister Erna Solberg's official visit, was designed to explore the use of distributed pole-mounted storage for a resilient and sustainable distribution grid. The project aimed to improve the health of the distribution network by significantly reducing technical losses and would augment the overall network integrity for addition of renewables and other energy resources.

Source: ***Business Standard***

NATIONAL: NON-FOSSIL FUELS/ CLIMATE CHANGE TRENDS

Vallur thermal plant likely to reopen as SC stays Madras HC order

15 January. Vallur thermal plant, which was shut following a Madras High Court (HC) order, is set to reopen after Pongal as the Supreme Court stayed the HC order. The HC, in an interim order, had ordered closure of the thermal plant for dumping soil mixed with fly ash in the Ennore Creek. Following the HC order, the NTPC Tamil Nadu Energy Company Ltd, a joint venture of NTPC and Tamil Nadu Electricity Board, shut three units, each with a capacity of 500 MW. Tamil Nadu was getting 1,000 MW power from the units, while 500 MW was being supplied to Kerala and Puducherry.

Source: ***The Economic Times***

KSEB to explore potential of floating solar technology in a big way

14 January. Kerala State Electricity Board Ltd (KSEB), in association with the Union government, is planning to deploy floating solar power generation units in a big way. The Solar Energy Corp of India Ltd (SECI) has promised the board cutting-edge technology and support, using which the board hopes to generate power at half the cost it currently incurs for generating power from floating solar panels in Banasurasagar reservoir. Power Minister M M Mani said the government was committed to explore more sources for power generation and cited the newly simplified procedure for power connection as a token of customer-friendly initiatives in the pipeline.

Source: ***The Economic Times***

Court gives go ahead for Kashang hydropower project in Himachal

14 January. With the dismissal of petition filed by the members of Paryawaran Sanrakshan Sangharsh Samiti Lippa (Kinnaur district), Himachal Pradesh High Court has paved way for the construction of 130 MW Kashang hydro electric project. Sangharsh Samiti had filed an appeal for stay on the lease of forest land to the state government-owned Himachal Pradesh Power Corp Ltd (HPPCL) for the 130 MW Integrated Kashang Stage II and III hydropower project. Court said that after those objections were considered and rejected and lease deed has been executed in favour of HPPCL in November last year, the same gentleman, now claiming himself to be an authorized representative of the gram sabha, has filed this writ petition. Court disposed off the application with the direction that the petitioner should file the affidavit by the next date of hearing on 2 April.

Source: ***The Economic Times***

NavAlt bags Kerala government order for solar ferry boats

14 January. Kochi-based NavAlt Solar and Electric Boats (NavAlt) has received orders for more solar boats from the Kerala government after completing a successful two-year run in the state of the country's first sun-powered ferry, the company said. The 75-passenger ongoing solar-powered transport ferry in Vaikom plying in Kerala's backwaters has helped the state government save ₹ 40 lakh on diesel costs, or the equivalent of 58,000 litres in this period, NavAlt said. The private sector firm said it has received orders for supplying two solar ferries of 75-passenger capacity each and one that can carry 100 passengers. It has won a Goa government tender for supplying a similar boat which is currently under construction. Regarding the Kerala ferry, the company said the main cost that the state has incurred over the 2 years of running it is the power charge at an aggregate of ₹ 1.31 lakh.

Source: ***Business Standard***

BHEL bags ₹ 5.6 bn order for setting up solar power plants in Telangana

14 January. BHEL (Bharat Heavy Electricals Ltd) said it has won an order worth ₹ 5.65 bn from Singareni Collieries Company for setting up solar photovoltaic (SPV) power plants in Telangana. BHEL said the order valued at ₹ 5.65 bn is the largest SPV power plant order won by BHEL till date. BHEL said with the order its solar portfolio has risen to more than 710 MW.

Source: ***Business Standard***

Gujarat unhappy with high tariffs at recent solar auction

14 January. Winning tariffs by Softbank backed SB Eenergy, Finland's Fortum and French utility Engie in the latest solar auction in Gujarat are much higher than expected, prompting the state to consider whether the auction should be cancelled. The 700 MW auction held in December was won entirely by foreign developers. SB Energy got 250 MW at a price of ₹ 2.84 per unit, while Fortum and Engie got 250 MW and 200 MW, respectively, both at ₹ 2.89 per unit. In the previous auction held by the Gujarat Urja Vikas Nigam Ltd (GUVNL) in September 2018, the lowest tariff had been ₹ 2.44 per unit, and the Gujarat government is unhappy over the substantial rise within three months. GUVNL had earlier cancelled a 500 MW solar auction it held in March in which the lowest tariff was ₹ 2.98 per unit.

Source: ***The Economic Times***

12 companies show interest in 1 GW floating solar plant in Solapur

13 January. MSEDCL (Maharashtra State Electricity Distribution Company Ltd)'s 1,000 MW solar floating plant at Ujani dam in Solapur district has evoked tremendous response with 12 top companies participating in the pre-bid meeting held in Mumbai. Interestingly, MAHAGENCO (Maharashtra State Power Generation Company) had planned to set up a floating solar plant in its Irai dam (district Chandrapur). However, the consultant appointed by it found the proposal to be costly and the company dropped the project. The plant will be developed through a private partner. The distribution company has finalized ten locations in the dam where panels having total capacity of 100 MW would be installed. The power would be supplied to farmers of Solapur and adjoining districts. MSEDCL said that all the companies were enthusiastic in participating in the project. The tender was floated on 24 December and will be opened on 29 January. Floating solar plants in the country are a rarity. At present the largest such plant is in Kerala having a capacity of 500 KW. Maharashtra Energy Development Agency (MEDA) is developing a 270 kW (kilowatt) floating plant in Wadgaon dam (district Nagpur).

Source: ***The Economic Times***

Ladakh will soon be home to world's largest solar plant

13 January. Ladakh, known for its pristine natural beauty and colourful mountains towering over vast swathes of desolate land, is set to add another feature to its fame - the world's largest single-location solar photovoltaic plant. Some 200 kilometre (km) to the south in Kargil, another mega project will join forces to light up the plains, keep glaciers cool by saving 12,750 tonne of carbon emission a year, remove dependence on diesel gensets and create livelihood for the local population that remains cut off for 6-8 months. SECI (Solar Energy Corp of India) is promoting the projects in Jammu and Kashmir on a scale matching the grandeur of their locations - 5,000 MW for the Ladakh unit and 2,500 MW for Kargil - to be completed by 2023 at an estimated investment of ₹ 450 bn. The projects are expected to spur development in the remote border regions and empower the local population through skilling for jobs such as cleaning of solar panels and maintenance of transformers etc. Power Minister R K Singh had in August last year said Ladakh has potential of hosting 25,000 MW of solar power projects.

Source: ***The Economic Times***

Commissioning time brought down for solar power projects

11 January. The government has reduced the time allowed for commissioning and financial closure of solar power projects, a move that could accelerate the pace of renewable energy capacity addition in the country. This, however, could be a concern for project developers as pressure of acquisition of land and availability of transmission infrastructure continues to mount. In amendments to the tariff-based competitive bidding guidelines for solar projects, the Ministry of New and Renewable Energy (MNRE) said the timeline for commissioning of solar projects in a solar park and outside of it will be 15 and 18 months, respectively, against the previous timeline of 21 and 24 months. The initial timeline for commissioning of solar projects was up to 13 months, which was relaxed post industry's demand. Following the latest amendments, project developers complained that such frequent changes to the bidding guidelines create uncertainty in the market. MNRE's guidelines would not help project developers at a time when the issue of acquisition and conversion of land is more pressing than ever, experts said.

Source: ***The Economic Times***

Government approves India-France pact on technical cooperation in renewable energy

10 January. The government approved a pact between India and France to enhance technical bilateral cooperation in new and renewable energy. The decision was taken by the Union Cabinet chaired by Prime Minister Narendra Modi. India and France aim to establish the basis for a cooperative institutional relationship to encourage and promote technical bilateral cooperation on new and renewable energy issues on the basis of mutual benefit, equality and reciprocity.

Source: ***Business Standard***

Government launches NCAP to cut pollutants by 2024

10 January. Union Minister of Environment, Forest and Climate Change Dr Harsh Vardhan launched the National Clean Air Programme (NCAP) aiming to reduce toxic particulate matter by 2024, taking 2017 as the base year. With 2019 as its first year, the NCAP is a mid-term, five-year action plan that includes collaborative, multi-scale and cross-sectoral coordination between relevant Central ministries, state governments and local bodies. The environment ministry has announced a budget of ₹ 3 bn for two years to tackle air pollution across 102 cities, which have been identified by the Central Pollution Control Board (CPCB) for not meeting the pollution standards set by the Ministry of Environment, Forests and Climate Change. City-specific action plans are being formulated for 102 non-attainment cities identified for implementing mitigation actions under NCAP. The Smart Cities program will be used to launch the NCAP in the 43 smart cities falling in the list of the 102 non-attainment cities. NITI Aayog CEO (Chief Executive Officer) Amitabh Kant said NCAP is a path-breaking initiative as it addresses an alarming challenge of urbanization i.e. air pollution.

QUICK COMMENT

National clean air policy to reduce pollution is a step in the right direction!

Good!

Source: ***Business Standard***

Government panel proposes 2-way strategy to push EVs in India

9 January. A government appointed panel led by cabinet secretary Pradeep Kumar Sinha has proposed a bouquet of incentives for makers as well as buyers of electric vehicles (EVs) in an effort to push emobility in the country. The panel has recommended a lower basic customs duty on components besides a lower GST (Goods and Services Tax) rate to encourage manufacturers to take up large-scale production of e-vehicles. For the buyers, it has called for differential registration rates and exemption from road tax and parking charges. Once a decision is taken, the department of revenue, the department of heavy industries and the ministry of road transport and highways will be asked to take necessary action. The NITI Aayog is acting as a nodal agency to coordinate the roll-out of the mega plan. The government is seized of the fact that India needs to adopt effective strategies to place itself as a key driver in the global mobility revolution, and this can be done only by large-scale domestic manufacturing of electric vehicles with all its components including batteries. Prime Minister Narendra Modi had in September last year assured the country of a stable policy regime for e-vehicles. India wants to create a robust and affordable electric mobility ecosystem comprising production facilities and a large network of charging points to achieve three key strategic goals— cutting down carbon emissions, creating new job opportunities and reducing the use of crude oil, about 80% of the requirement of which is met through imports.

Source: ***The Economic Times***

US oil output to rise to 12.9 mn bpd in 2020: EIA

15 January. Crude oil output from the United States (US) is expected to rise to a new record of more than 12 million barrels per day (bpd) this year and to climb to nearly 13 million bpd next year, the US Energy Information Administration (EIA) said in its first 2020 forecast. US crude production is forecast to climb 1.14 million bpd to 12.07 million bpd in 2019 and an additional 790,000 bpd in 2020 to 12.86 million bpd. The US has become the world's largest crude producer, boosted by output from shale formations, with production of nearly 11 million barrels in 2018, which broke the country's annual record set in 1970. The forecast indicates that the US will become a net crude exporter in late 2020. US demand for diesel and other distillate fuels is expected to rise 20,000 bpd to 4.15 million bpd in 2019 and to rise to 4.19 million in 2020, the EIA said. U.S. gasoline demand in 2018 was seen at 9.29 million bpd, down from 9.31 million bpd previously. Gasoline demand is expected to rise to 9.35 million bpd in 2019 and to hold that level in 2020, the EIA said.

Source: *Reuters*

Mexican oil theft even reached drilling rigs: President

15 January. Mexican President Andres Manuel Lopez Obrador said that widespread fuel theft extended to oil drilling platforms and he pledged to take actions to alleviate shortages sparked by his crackdown on gasoline thieves. In a bid to halt rampant fuel theft, Lopez Obrador has ordered the closure of important fuel pipelines, which has caused shortages at gas stations and concerns of an impact to the economy if the shortfalls are prolonged. Lopez Obrador said that the government was looking at purchasing an additional 500 tanker trucks to distribute gasoline and that officials were asking private companies to increase fuel imports. Fuel inventories have been accumulating at major oil terminals and Mexico's freight transport association expects a contingency plan aimed at speeding up gasoline distribution that began over the weekend will help ease bottlenecks.

Source: *Reuters*

CME plans to launch e-auction for US crude oil exports

15 January. CME Group said it plans to launch an electronic auction platform with US (United States) energy firm Enterprise Products Partners LP in March to sell US spot crude oil export cargoes. The US became the world's largest oil producer last year as shale production hit new highs, encouraging exchanges and pricing agencies to launch new mechanisms to allow companies to price and hedge US oil exports. Enterprise transports crude oil from the Permian Basin to Houston via the Midland-to-ECHO pipeline system, which has a capacity of 575,000 barrels per day. The ECHO terminal in Houston can store 7.4 million barrels of crude oil.

Source: *Reuters*

Oil market on 'right track': Saudi Energy Minister

13 January. Saudi Arabia's Energy Minister Khalid al-Falih said the oil market is "on the right track" and will quickly return to balance, but oil producers are willing to do more if needed. The Organization of the Petroleum Exporting Countries (OPEC), and other leading global oil producers led by Russia, agreed in December to cut their combined oil output by 1.2 million barrels per day (bpd) starting from January to prevent a supply glut and boost sagging prices. Falih said that secondary sources suggest OPEC production in December was already more than 600,000 bpd lower than in November.

Source: *Reuters*

Saudi Arabia to set up $10 bn oil refinery in Pakistan

13 January. Saudi Arabia plans to set up a $10 billion oil refinery in Pakistan's deepwater port of Gwadar, the Saudi Energy Minister Khalid al-Falih said. Pakistan wants to attract investment and other financial support to tackle a soaring current account deficit caused partly by rising oil prices. Last year, Saudi Arabia offered Pakistan a $6 billion package that included help to finance crude imports. He said Crown Prince Mohammad bin Salman would visit Pakistan in February to sign the agreement.

Source: *Reuters*

Average oil price in 2018 was $70 a barrel: UAE Energy Minister

12 January. United Arab Emirates (UAE) Energy Minister Suhail al-Mazrouei said the average oil price in 2018 was $70 a barrel. The Organization of the Petroleum Exporting Countries (OPEC) and other leading global oil producers led by Russia agreed in December to cut their combined oil output by 1.2 million barrels per day to balance the oil market starting from January.

Source: *Reuters*

Canada regulator issues draft conditions in oil pipeline review

11 January. Canada's energy regulator released draft revisions of conditions and new recommendations as part of the Trans Mountain oil pipeline expansion re-review, ordered last year after a Canadian court overturned the approval of the project. The National Energy Board proposed amendments to existing conditions related to marine safety and mammal protection, and introduced 13 new draft recommendations for comment. A final report is due by 22 February. Canada's Federal Court of Appeal last year overturned the 2016 approval of the Trans Mountain expansion, which would nearly triple capacity on the line from Alberta's oil heartland to the British Columbia coast, ruling the original review was wrongly excluded the impact of additional marine traffic.

Source: *Reuters*

Mexico hedges 2019 oil at $55 per barrel, spends $1.2 bn on options

11 January. Mexico completed its 2019 oil hedge, the world's largest sovereign derivatives trade, at an average of $55 per barrel, placing the equivalent of $1.23 billion in put options, the finance ministry said. Mexico hedges its crude every year and deals are closely watched by the market since the trades are big enough to affect prices. The program is a longstanding part of Mexico's strategy for safeguarding oil revenues from market volatility. For more than a decade, Mexico's government has paid for a hedge in a bid to guarantee its revenues from oil exports by state company Pemex.

Source: *Reuters*

Iraq to upgrade southern oil output capacity in 2019: Basra Oil Company

11 January. Iraq plans to raise output from its southern Majnoon oilfield to 290,000 barrels per day (bpd) by the end of 2019 and to 450,000 bpd by the end of 2021 from a current 240,000 bpd, the Basra Oil Company said. The Basra Oil Company said Iraq's southern oil exports were a little below 3.6 million bpd so far in January after hitting a record high of 3.63 million bpd in December. Iraq, OPEC (Organization of the Petroleum Exporting Countries)'s second-largest producer, is producing below its maximum capacity of nearly 5 million bpd in line with an agreement among members of the OPEC and other exporters, such as Russia, to curtail global supply in order to support prices. Baghdad is still aiming to increase that capacity, however, especially from its southern fields, where exports account for around 95 percent of state revenue. Iraq's oil exports averaged 3.726 million barrels per day (bpd) in December, an increase from the previous month. Iraq is planning to operate a new offshore oil export pipeline with a capacity to transport 700,000 bpd by the end of 2019, the Basra Oil Company said.

Source: ***Reuters***

Norway cuts oil output forecast for 2019 to 30-year low

10 January. Norway's oil output in 2019 will be smaller than previously forecast and its lowest level in three decades, although it should rebound in the following years, the country's oil industry regulator said. Investment in Western Europe's largest oil producer and Europe's second-largest gas producer, behind Russia, is surging after a decline due to the slump in oil prices in 2014 to 2016. Despite that, oil output in 2018 of 86.2 million cubic meters (mcm), or 542 million barrels, missed a 90.2 mcm forecast made a year ago, the Norwegian Petroleum Directorate (NPD) said. The regulator said output in 2019 was expected to be 82.2 mcm, against a previous forecast of 87.2 mcm, but will rise to over 100 million cubic meters next year after Equinor starts its giant North Sea Johan Sverdrup field. Norway's combined oil and gas production is expected to come close to its 2004 record level by 2023, when production peaks at Sverdrup, which is expected to account for about 40 percent of Norwegian oil output after 2022. Still, while output in the early years of this century was dominated by oil, the majority of production is now made up of gas, NPD data shows. NPD expects oil firms to drill about the same number of exploration wells in 2019 as in 2018 as cost-cutting and higher oil prices raise profitability of new developments. Costs of development wells fell by more than 40 percent from 2014 to 2018, but operating costs are flattening and exploration costs, which included both drilling and seismic surveys, were expected to rise by about 10 percent in 2019 from 2018, NPD said.

Source: ***Reuters***

INTERNATIONAL: GAS

Bangladesh's second LNG terminal to start in March

15 January. Bangladesh's second liquefied natural gas (LNG) terminal is expected to start operations in mid-March though domestic pipeline constraints means it will be unable to fully supply gas demand to the country's capital Dhaka. Summit Corp, a subsidiary of Bangladesh's Summit Holdings, and partner Mitsubishi Corp are expected to start operations at their floating storage and regasification unit (FSRU) off the country's coast by the middle of March and ahead of schedule. However, construction delays on a pipeline that will carry regasifed gas from the coastal city of Chattogram, near where the FSRU will be anchored, to Dhaka means that the vessel will not be fully utilised. Until the pipeline is fully connected, the FSRU will handle about 300 million cubic feet per day (mmcfd) of gas which will be supplied to the Chattogram area. The ship can regasify up to 500 mmcfd of LNG, according to Summit. Once the pipeline is completed, state-owned energy company Petrobangla will be able to send up to 1,000 mmcfd from both the Summit FSRU and a vessel operated by US (United States) company Excelerate that started up in August. Bangladesh has scrapped plans to build additional floating LNG terminals in favour of land-based stations after the start-up of Excelerate's vessel was delayed by several months due to technical problems and bad weather.

Source: ***Reuters***

Venture Global urges FERC to OK Louisiana Calcasieu LNG export plant

15 January. Venture Global LNG Inc urged US (United States) Federal Energy Regulatory Commission (FERC) to approve construction of its planned Calcasieu Pass liquefied natural gas (LNG) export terminal in Louisiana by 22 January. The Calcasieu Pass facility is designed to produce about 10 million tonnes per annum (mtpa) of LNG, or about 1.3 billion cubic feet per day (bcfd) of natural gas. One billion cubic feet is enough gas to fuel about 5 million US homes for a day. Calcasieu Pass, which is expected to cost an estimated $4.5 billion to build, is one of dozens of LNG export terminals that companies are seeking to build in the US, Canada and Mexico over the next decade to meet growing global demand for the fuel. The US, which was a net importer of LNG before shipping its first cargo from the lower 48 states in February 2016, is expected to become the third biggest exporter of the super-cooled fuel by capacity by the end of 2019, behind Australia and Qatar. Looking at only the plants currently under construction, US LNG export capacity is expected to rise to 8.9 bcfd by the end of 2019 and 10.3 bcfd in 2020 from 5.1 bcfd. World LNG trade totaled about 42 bcfd in 2018. Venture Global, which is also developing the 10 mtpa Plaquemines LNG export facility in Louisiana, said it expects Calcasieu Pass to enter service in 2022 and Plaquemines in 2023.

Source: ***Reuters***

CNPC to build 23 more gas storage facilities by 2030

15 January. CNPC (China National Petroleum Corp) said that it will build 23 more gas storage facilities and expand 10 existing ones by 2030. The state energy group will build six regional gas storage centres across China, where the facilities will be located, in the next 12 years, according to the company. The plan was part of China's efforts to secure supplies of natural gas during peak demand season over winter. Gas producers and local authorities have been boosting investment and adding new storage following a harsh winter that saw a severe supply squeeze, partly due to storage shortfalls.

Source: ***Reuters***

Pakistan to seek gas payment deal with Qatar

15 January. Pakistan will seek a credit facility for liquefied natural gas (LNG) payments from Qatar as part of efforts to ease its severe balance of payments crisis, Petroleum Minister Ghulam Sarwar Khan said. Pakistan faces a severe strain on its balance of payments, with a current account deficit of around 5.9 percent of gross domestic product and foreign exchange reserves sufficient only to cover around two months' of import payments. The government has been talking to the International Monetary Fund about a possible bailout and has stepped up efforts to raise funds from friendly Arab nations as well as China. At the same time, Pakistan is facing a serious energy crisis with repeated blackouts and gas supply outages that led to the sacking of the heads of two of the country's main gas distribution utilities. If agreed, an LNG credit facility with Qatar would follow similar agreements enabling deferred payments on oil supplies from Saudi Arabia and the United Arab Emirates, which have both agreed $3 billion facilities with Pakistan.

Source: ***Reuters***

Equinor restarts operations at Norway's Melkoeya LNG plant

14 January. Norwegian oil and gas firm Equinor has restarted operations at its Melkoeya LNG plant after an outage ten days ago, the company said. The plant, which liquefies natural gas from the Arctic Snoehvit gas field for transportation by tankers, has been shut since 4 January due to a compressor failure.

Source: ***Reuters***

China's December natural gas imports at monthly record high

14 January. China's natural gas imports in December hit a monthly record at around 9.2 million tonnes, calculations based on Chinese customs data showed. For all of 2018, China's natural gas imports surged 31.9 percent over 2017 to 90.39 million tonnes, according to calculations. The December gas imports came in at 9.15 million tonnes, according to calculations, a record high. China's crude oil imports in 2018 rose 10.1 percent on a year earlier to a record 462 million tonnes, according to calculations. December crude oil imports were 43.89 million tonnes, according to calculations.

Source: ***Reuters***

Eastern Mediterranean countries to form regional gas market

14 January. Eastern Mediterranean countries meeting in Cairo agreed to set up a forum to create a regional gas market, cut infrastructure costs and offer competitive prices, Egypt's petroleum ministry said. The Eastern Mediterranean Gas Forum will be based in Cairo and will be open to monitoring by international and regional organizations. In September, Israel and Egypt bought a 39 percent stake in the EMG pipeline, paving the way for a landmark $15 billion natural gas export deal to begin this year. Cyprus is in talks with Egypt to construct a pipeline connecting Cyprus' Aphrodite gas field to Egypt's liquefied natural gas (LNG) facilities. Egypt has rapidly increased its production of natural gas and hopes to become a hub for exporting to Europe after making a series of big discoveries in recent years, including the largest gas field in the Mediterranean, Zohr.

Source: *Reuters*

Zimbabwe's President doubles price of gas as fuel crisis bites

13 January. Zimbabwe's President Emmerson Mnangagwa has more than doubled the price of gasoline, hoping the increase will end severe shortages that are fueling public anger even as he departs on a foreign trip to Russia and other countries in search of investment. Mnangagwa said the increase in the state-controlled price of fuel should ease the shortages that have gripped the country in recent weeks. The gas shortages highlight that this southern African country is battling its worst economic crisis in a decade due to a severe shortage of foreign currency.

Source: *The Economic Times*

Peru discusses importing natural gas through pipeline from Bolivia

11 January. Energy Ministers from Peru and Bolivia agreed to discuss building a pipeline that would transport natural gas and liquefied natural gas (LNG) from Bolivia to its neighbour. The pipeline would provide crucial access to the Pacific Ocean for land-locked Bolivia, running to Peru's southern port of Ilo. Bolivia had wanted to build a pipeline through Chile to reach the ocean and expand its gas exports, but the International Court of Justice ruled against Bolivia's demand that Chile negotiate granting it sovereign access to the sea in October. Bolivia is South America's top natural gas exporter, but it is a net importer of oil, as is neighbouring Peru. Bolivia told Peru it would also like to build an oil pipeline to Peru and import gasoline, diesel and crude through Ilo. Talks between Peru and Bolivia also include the creation of a joint venture between Bolivian state energy company YPFB and its Peruvian counterpart, Petroperu, to commercialize LNG in border regions, Bolivia said.

Source: *Reuters*

TAP gas pipeline completes $4.5 bn project financing

11 January. The Trans-Adriatic Pipeline (TAP) has completed its €3.9 billion ($4.5 billion) project financing, paving the way for construction to be completed for start-up in 2020, its managing director Luca Schieppati said. TAP, the final leg of a $40 billion project called the Southern Gas Corridor to transport gas from Central Asia to Western Europe, is a cornerstone of the European Union's energy security policy to wean the bloc off Russian gas supplies. With the first delivery of gas to Europe expected in 2020, TAP will be the first non-Russian gas pipeline to supply Europe since the Medgaz link, which started deliveries from Algeria to Spain in 2011. TAP will transport up to 10 billion cubic meters (bcm) of natural gas per year from the Shah Deniz II field in Azerbaijan to Italy.

Source: *Reuters*

INTERNATIONAL: COAL

EU allows Greece to postpone deadline for coal plant bids

15 January. The European Commission has allowed Greece's Public Power Corp (PPC) to postpone to late January a deadline for binding bids for three coal-fired plants, the energy ministry said. PPC is selling the plants in northern Greece and on the southern Peloponnese under the terms of Athens' latest international bailout after an EU (European Union) court ruled that PPC had abused its dominant position in the coal market. The bid deadline has been repeatedly pushed back since the tender was launched last year for different reasons. The Commission has approved a 23 January deadline, the energy ministry said. The new deadline gives PPC time to conclude a voluntary redundancy scheme, including about 1,400 people employed at the plants.

Source: *Reuters*

China's 2018 coal imports at four-year high despite curbs

14 January. China's coal imports rose to 281.5 million tonnes (mt) in 2018, the highest annual figure in four years, data from the General Administration of Customs showed, despite a government push to cap shipments at last year's level. Coal imports were 3.4 percent above 2017, data showed, even as December's imports tumbled nearly 47 percent to 10.23 mt. Traders and utilities cut back sharply on purchases at the end of the year following government signals, with utilities sitting on record coal stocks, pushing down domestic prices. Traders expect imports of coal, used in China for power generation, heating and steelmaking, to remain low in January as the country continues to curb imports in order to boost domestic coal prices.

Source: *Reuters*

Coal mine collapse in China's Shaanxi kills 21

13 January. A coal mine roof collapse in northwest China's Shaanxi province killed 21 miners. The accident is the deadliest reported so far this year in China's coal industry, known for its poor safety record. It occurred at Baiji Mining Company Ltd's Lijiagou mine in the city of Shenmu, when 87 people were underground. Some mining firms in major coal hubs in Shandong and Henan provinces and parts of northeastern China have received notices from the National Coal Mine Safety Administration asking them to halt operations for inspections that will last until June. Shanxi province, which borders Shaanxi, would also carry out inspections at high-risk coal mines.

Source: *Reuters*

'Indonesia plans 2019 domestic coal allocation of 128 mt'

10 January. Indonesia's mining ministry plans a total domestic market allocation for coal of 128,038,745 tonnes, Coal and Minerals Director General Bambang Gatot Ariyono said. The planned figures could still change, Ariyono said. The total includes an allocation of around 96 million tonnes (mt) for power stations, up from around 90 mt in 2018 as a result of rising demand, Ariyono said The total includes approximately 16 mt of coal for cement plants and 6 mt for paper mills, ministry data showed. According to the ministry, Indonesia set a domestic market allocation for coal at 121 mt in 2018, while consumption reached around 115 mt.

Source: *The Economic Times*

INTERNATIONAL: POWER

German consumers paying record prices for power

15 January. Electricity prices charged to German households by local utilities have reached record highs, driven by high wholesale and carbon prices that are passed down to consumers, internet portal Check24 said. Check24 looked at 834 local utilities that included municipal companies in cities such as Frankfurt, Aachen and Bremen, finding 500 had hiked prices in January, or announced that they would do so shortly. The increases averaged 5.1 percent and applied to some 4.7 million households. Check24 did not take into account a total of

66 other private sector utilities, including integrated operators such as Innogy or asset-free supply firms that operate nationwide, but these show a similar trend. A typical household buying from a local supplier that consumes 5,000 kilowatt hours a year is now paying 1,437 euros per annum, 46 percent more than in 2007, Check24 said. Day-ahead wholesale power prices last year rose 28.9 percent to €44.5 ($50.89) a megawatt hour (MWh), according to data from think-tank Agora. Other big contributors to final power bills, renewable support fees and grid transport costs, were relatively stable. Power grid costs make up 24.4 percent, and procurement and distribution 22.8 percent, of final power bills. The latest increases averaged 8.6 percent and applied to three million households. A household using 20,000 kWh a year now pays €1,236.

Source: ***Reuters***

EBRD invests in modern power generation in Uzbekistan

15 January. Power supply in south Uzbekistan will be significantly improved thanks to the creation of additional generation capacity at the existing Talimarjan power plant (TPP) with the help of a sovereign loan of up to $ 240 million provided by the European Bank for Reconstruction and Development (EBRD) to JSC Uzbekenergo. The project will be the largest EBRD investment in Uzbekistan to date, the Bank said. The funding will allow the state-owned vertically integrated power utility responsible for the majority of the country's electricity generation, transmission and distribution to finance the installation of at least 900 MW combined cycle gas turbines (CCGT) and related infrastructure. The project will be co-financed with the Asian Development Bank (ADB) and the Uzbek Fund for Reconstruction and Development (UFRD). The investment will address a major issue for the region, namely the provision of uninterrupted and sustainable power supply, which will support economic growth and improve the wellbeing of the population. The new project will help improve the efficiency and reliability of the power supply in Uzbekistan and contribute to the government's objective to create new modern power generation capacities across the country.

Source: ***Times of Central Asia***

Kenya Power, regulator jostle for control of new electricity plants

15 January. Two key players in the country's power sector are embroiled in a tug of war over the control of the sector that could affect planned projects as well as have major repercussions on the industry. This is as the Energy Regulatory Commission (ERC) and Kenya Power fight over who should have the final say in deciding which new power plants will be developed and added to the country electricity generation mix. Kenya Power's bid to salvage its image after a yearlong battering following several missteps said it had frozen the signing new power purchase agreements (PPAs). The power distributor said among the key considerations in making the decision was the need to keep power costs down for consumers. It, however, did not take long before ERC replied to the power utility firm in a rejoinder. The regulator said it was its mandate carry out energy planning and would when necessary advice Kenya Power to take such drastic action. In a letter to ERC, Kenya Power expressed fears that the country was staring at electricity oversupply going by the number of planned power generation plants.

Source: ***The Standard***

Ghana could benefit from a third Power Compact

14 January. Millennium Development Authority (MiDA) Chief Executive Officer (CEO) Martin Eson-Benjamin recently announced that Ghana has been nominated for a third Power Compact under the Millennium Challenge Account (MCA) alongside Burkina Faso, Ivory Coast, Benin and Niger. Additional four primary sub-stations are planned to be built in Kotobabi, Korle-Gonno, Achimota and Kanda to enhance power distribution in Accra. Furthermore, Eson-Benjamin said another bulk supply point would be built in Kasoa to supply reliable power to surrounding communities. Eson-Benjamin disclosed that there would be refurbishment of power transmission lines to ensure efficiency in power distribution, while a data distribution centre would be built in Accra to coordinate power transmission and monitor faulty lines of the Ghana Electricity Company.

Source: *ESI Africa*

Government no longer supports power business divestment: Danish energy company Orsted

13 January. Danish energy company Orsted, 50.1 percent owned by the state, said that the finance ministry had told it there was no longer political support for continuing divestment of its power distribution and residential customer businesses. Italy's Enel and the Danish utility SEAS-NVE were among at least four bidders for the business, which was put up for sale in June as Orsted said it planned to focus on developing its international renewable energy operations.

Source: *Reuters*

SSE subsidiary completes construction of Caithness-Moray power link

11 January. Scottish and Southern Electricity Networks Transmission, a subsidiary of SSE has completed the construction and commissioning of the new Caithness-Moray transmission link. The Caithness-Moray link is a subsea cable which provides up to 1.2 GW of power capacity from renewable energy sources from the far north of Scotland. The project cost around 970 million pounds ($1.24 billion)

Source: *Reuters*

Uganda aims to impose penalties on distributor for power outages

11 January. Uganda aims to impose financial penalties from March on its sole power distributor Umeme Ltd for any frequent and prolonged supply outages, the regulator said. The public has long complained about high tariffs and long power cuts, while unreliable supplies add extra costs to businesses, which often run costly stand-by generators to keep operations going during outages. The Electricity Regulatory Authority (ERA) said that it intended to set targets for "reliability and quality" of power supplied by Umeme, which secured a 25-year licence in 2005 to be the sole distributor. ERA said the regulator planned to impose the new terms in March, after a public consultation. The East African country's grid reaches just 23 percent of the population of 40 million. Umeme has said it plans to spend $1.2 billion over seven years to expand and upgrade the grid to cope with additional supplies from new dams being built that will double the nation's generation capacity from about 800 MW now.

Source: *Reuters*

'UK expects to make retrospective power capacity payments'

10 January. Britain expects to make retrospective payments to companies under its power capacity market scheme, Minister of State for Energy and Clean Growth Claire Perry said. The EU (European Union) General Court ruled last November that Britain must halt payments under the scheme, worth billions of pounds, pending an investigation by European Union regulators. Perry said Britain expects the European Commission inquiry to rule in favour of reinstating the scheme, with an opening decision expected in early 2019 and final decision later in the year. Britain began power capacity auctions in 2014, offering to pay providers for making supplies available at short notice, thus avoiding shortages that might occur as coal plants close and low prices dissuade investors from building new power plants. However, British company Tempus Energy launched an appeal against the capacity market, saying it discriminated against technology designed to cut electricity demand during peak times. Last year's General Court ruling annulled an initial decision by the European Commission, which had said Britain's so-called power capacity market was compatible with EU state aid rules. Britain's National Grid said it does not expect the scheme's suspension would lead to any power shortages this winter. Several power companies such as SSE, Centrica, Drax and EDF have all been awarded capacity market contracts.

Source: *Reuters*

INTERNATIONAL: NON-FOSSIL FUELS/ CLIMATE CHANGE TRENDS

EU ready to accept deal to exempt duties on Argentine biodiesel

14 January. The European Commission is willing to accept a deal with producers of Argentine biodiesel to settle a long-running trade dispute over imports of the product into Europe. The Commission, which oversees trade policy in the 28-member European Union (EU), said it had communicated to interested parties last week that it was willing to accept undertakings from producers that they would sell at a minimum price. The scheme with a minimum price would mirror that used to allow Chinese solar panel producers to export to the bloc after a major dispute over alleged dumping that threatened to spiral into a trade war. For Argentine biodiesel, the Commission has proposed duties of between 25.0 and 33.4 percent depending on the companies.

Source: *Reuters*

Saudi Arabia plans $2 bn solar and carbon black complex

14 January. Saudi Arabia plans to develop a $2 billion solar and carbon black integrated complex in partnership with China's Longi and South Korea's OCI. A feasibility study for the solar and carbon project will be completed by mid-2019, Tariq Baksh, vice president, chemicals and renewables program, at Saudi Arabia's National Industrial Clusters Program, said. Carbon black is produced from heavy petroleum products.

Source: *Reuters*

Global solar sector sees corporate funding worth $9.7 bn in 2018

12 January. The global solar sector witnessed a total corporate funding activity worth $9.7 billion in 2018, a 24 percent drop compared to the year-ago period. Mercom Capital Group said the total global corporate funding, including venture capital (VC), debt financing and public market financing stood at $9.7 billion, a 24 percent drop compared with the $12.8 billion raised in 2017. Global VC funding for the solar sector in 2018 fell 18 percent to $1.3 billion in 65 deals, compared with $1.6 billion raised in 99 deals in 2017.

Source: *The Economic Times*

Hitachi, UK say no decision taken on British nuclear project

11 January. Japan's Hitachi has yet to decide whether to proceed with its trillion yen (£7.2 billion) nuclear project in Britain and talks with the government are continuing, the company and government said. Hitachi's Horizon Nuclear Power unit has struggled to find investors for its plans to build a plant in Anglesey, Wales, which could provide about 6 percent of Britain's electricity. Britain wants new nuclear plants to help replace its aging fleet of nuclear and coal plants coming offline in the 2020s, but high up-front costs have deterred construction. Britain's Nuclear Industry Association said it is vital new nuclear projects went ahead to maintain electricity supplies. Environmental group Greenpeace said Britain should rethink its energy strategy and place more focus on renewable energy.

Source: *Reuters*

China's fourth Westinghouse-designed nuclear reactor begins operations

11 January. China's fourth Westinghouse-designed AP1000 reactor went into full operation after a trial run, the operator said, marking the completion of the first phase of the project after years of delays. China signed a deal with the US (United States) firm in 2007 to build four reactors, hoping to create a platform for Beijing's ambitious nuclear power expansion plans, but the roll-out of the unproven "third-generation" technology has been beset by safety concerns and design problems. The second unit of the Haiyang nuclear power project on the eastern coast of China's Shandong province is ready to go into full commercial operation after 168 hours of full-load operations, China's State Power Investment Corp said. China put the world's first AP1000 into operation at

Sanmen in Zhejiang province last September, four years later than originally scheduled. Two more went into operation at Sanmen and Haiyang later in the year. The completion of the project brings China's total nuclear capacity up to 45 GW, with 46 reactor units in operation throughout the country.

Source: *Reuters*

EDF French nuclear power output rose 3.7 percent in 2018

10 January. Nuclear electricity generation by French utility EDF rose 3.7 percent on a year-on-year basis in 2018 to reach 393.2 terawatt hour (TWh), in line with the company's target of between 393 - 396 TWh, according to data from EDF. EDF's nuclear power generation increased by 4 percent in December to 38.9 TWh due to lower reactor outages compared with the previous year, EDF said. Electricity production at EDF's nuclear reactors in Britain fell 7.5 percent on a year-on-year basis to 59.1 TWh, it said. Output at its reactors in Britain slipped 2 percent in December to 4.8 TWh.

Source: *Reuters*

China's State Grid to invest $5.7 bn into pumped hydro storage plants

9 January. China's State Grid Corp will invest 38.7 billion yuan ($5.66 billion) to build five pumped hydro storage plants across the country, in an effort to ease the stranded power system amid Beijing's push to boost clean energy consumption. Pumped hydro storage plants could be used as reservoirs when demand is low and as hydro power stations to generate electricity when consumption picks up. The five plants, located in the provinces of Jilin, Hebei, Shandong and Zhejiang, and far west region of Xinjiang, will have a combined capacity of 6 GW and are expected to be launched by 2026, the State Grid Corp said. The state-backed company currently has 19.23 GW of pumped hydro storage capacity and 30.15 GW under construction. The investment came as China has vowed to boost large-scale energy storage capacity over the next decade and launch at least 40 GW of pumped hydro storage plants by 2020. Energy storage facilities, including pumped hydro storage plants, compressed air energy storage and bulk storage with batteries, could help prevent renewable power from being wasted when there is not enough transmission capacity to absorb the electricity. Wind waste rates stood at 8.7 percent in China in the first half of 2018, while solar waste reached 3.6 percent, according to data from the National Energy Administration. Regions in the western and northeastern part of China, including Xinjiang and Jilin, are identified

Source: *Reuters*

Nuclear power project slightly delayed: UAE Energy Minister

9 January. United Arab Emirates (UAE) Energy Minister Suhail al-Mazrouei said that the country's nuclear power plant project was slightly delayed. The country's nuclear regulator said last July the start-up of a reactor at the nuclear power plant, which was set to open in 2017, would depend on the outcome of further reviews of the project.

Source: *Reuters*

Chevron, Occidental invest in CO_2 removal technology

9 January. Canada-based Carbon Engineering said it had received investment from a subsidiary of Occidental Petroleum Corp and the venture capital arm of Chevron Corp for its technology that removes carbon dioxide (CO_2) directly from the air. Oxy Low Carbon Ventures, a subsidiary of Occidental Petroleum Corporation, and Chevron Technology Ventures, the venture capital division of Chevron Corporation, have invested an undisclosed sum in Carbon Engineering's so-called direct air capture (DAC) technology. Founded in 2009, Carbon Engineering developed technology that captures CO_2 directly from the atmosphere and converts it into low-carbon fuels for transport and for use in enhanced oil recovery. The firm has been removing CO_2 from the atmosphere since 2015 at a pilot plant in British Columbia and converting it into fuel since 2017. Carbon Engineering expects to reach its financing target of $60 million by the end of the first quarter, putting it on track to accelerate the commercialization of its technology, the firm said. Extracting vast amounts of carbon dioxide from the atmosphere could help to limit global warming, blamed for causing more heatwaves, wildfires, floods and rising sea levels. The costs of such technologies are high, however, and a huge number of plants would be needed to make a dent in manmade CO_2 emissions.

Source: ***Reuters***

China Three Gorges Corp rules out new domestic hydro projects

9 January. China Three Gorges Corp (CTGC), operator of the world's largest hydropower plant, is turning to projects offshore, as domestic costs soar and space runs out on the country's crowded rivers. The 22.5 GW Three Gorges Project on the Yangtze river was completed in 2012 after a dam-building boom throughout China. Its turbines generate 100 billion kilowatt-hours of electricity per year. CTGC, parent of listed China Yangtze Power Corp, has since completed other giant dams on the Yangtze upstream and its total hydropower generation capacity - including projects under construction - stands at nearly 70 GW, more than the total power capacity of Australia. China's total hydropower capacity hit 350 GW last year, accounting for a fifth of total generation, but its reliance on large and disruptive dam projects has been controversial. Advocacy groups claim capacity could safely be doubled, but the government has slowed down hydro approvals amid concerns about its devastating impact on communities and ecosystems.

Source: ***Reuters***

US carbon emissions spike in 2018 on industry, fuel demand

9 January. US (United States) emissions of carbon dioxide, the main greenhouse gas, spiked last year after falling for the previous three, as cold weather spurred natural gas demand for heating and as the economy pushed planes and trucks to guzzle fuel. The Rhodium Group, an independent research group, said emissions rose 3.4 percent in 2018, the biggest jump since 2010, when the economy bounced back from the Great Recession. Rhodium said the boost from the world's second-biggest carbon emitter after China could make it harder for the US to meet reductions targets it set under the Paris Agreement in 2015. To do so, the US would have to cut energy-related carbon emissions by 2.6 percent on average over the next seven years, a pace more than twice that achieved between 2005 and 2017. The spike occurred even though 2018 brought a record number of shutdowns of power plants fired by coal, the fuel richest in carbon output when burned.

Source: ***Reuters***

China launches subsidy-free solar, wind power after project costs fall

9 January. China will launch a series of subsidy-free wind and solar projects this year to take advantage of a rapid fall in construction costs since 2012 and tackle a gaping payment backlog, the National Development and Reform Commission (NDRC) said. Last year, the government was forced to suspend all new subsidized solar capacity approvals after a record 53 GW capacity increase in 2017 left it with a backlog of at least 120 billion yuan ($18 billion) in subsidy payments. The new subsidy-free projects will generate renewable power for sale at the same prices as non-subsidised coal-fired power plants, and will not have to comply with capacity quota restrictions, the NDRC announced. The NDRC said that solar construction costs in China had fallen 45 percent from 2012 to 2017, while wind project costs had dropped 20 percent over the same period. China has long aimed to bring renewable power costs down through economies of scale and technological advances. It promised last year to provide direct policy support to help developers achieve "grid price parity" with traditional electricity sources. Under the new policy, grid companies will be encouraged to guarantee electricity purchases from pilot projects, lower transmission fees and support cross-regional deliveries of subsidy-free power. The NDRC said it would further boost the income of solar projects by cutting land costs and promoting new market mechanisms like green certificate trading.

Source: ***Reuters***

DATA INSIGHT

State-wise Natural Gas Supply for 2017-18

MMSCMD

STATE/UT	GAS SUPPLY*
GUJARAT	21.52
MAHARASHTRA	16.64
MADHYA PRADESH	6.05
GOA & SILVASSA	1.07
RAJASTHAN	4.39
HARYANA	3.41
UTTAR PRADESH	14.52
DELHI	6.97
UTTRAKHAND	0.54
HIMACHAL PRADESH	0.01
PUNJAB	0.02
ANDHRA PRADESH & TELANGANA	3.54
TAMILNADU & PONDICHERRY	2.63
KARNATKA	0.12
KOCHI (KERALA)	0.23
TRIPURA	1.3
ASSAM	0.37
Total	83.34

*Gas Supply by GAIL (India) Ltd up to 2017

MMSCMD: million metric standard cubic meter per day

Source: Lok Sabha Un-starred Questions

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