MINISTÈRE
DE L'ÉCONOMIE,
DES FINANCES
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Liberté
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REVUE DE PRESSE SECTORIELLE
ENERGIE ET DEVELOPPEMENT DURABLE

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G En bref

Infrastructures

- Le ministre des ports et des voies naviguables inaugure un corridor de fret cotier au Kerala.
- La dette de la National Highway Autority atteint un plus haut à 36 Md€, en hausse de 27% sur un an.

Ferroviaire

- Les Indians Railways inaugurent la première gare entièrement recouverte de panneaux solaires dans l'Andhra Pradesh.
- Le nouveau ministre des chemins de Fer, M. Vaishnaw, a passé en revu l'avancée du projet de train à grande vitesse entre Mumbai et Ahmedabad.

Développement et transport urbain

- Malgré la crise sanitaire, les deux premiers tronçons du métro de Pune pourraient être en fonctionnement d'ici la fin de l'année 2021.
- La mission Smart Cities prend du retard et pourrait ne pas atteindre son objectif de 100 villes intelligentes d'ici 2022-23.

Pétrole, gaz et biocarburants

- Le fournisseur public de gaz naturel, GAIL, souhaite entrer sur le marché des énergies renouvelables par la mise en place d'usines de biogaz et bioéthanol.
- Afin de limiter la montée des prix des carburants, le nouveau ministre du pétrole, Hardeep Singh Puri, souhaite coopérer plus étroitement avec les pays du Golfe.
- Le ministre des énergies renouvelables, RK Singh, annonce le prochain lancement par la SECI d'appels d'offres pour la fournirture d'hydrogène vert.

Eléctricité et énergies renouvelables

- Le *Secretary* du ministère de l'environnement indique que l'Inde ne révisera pas ses NDCs sans financements supplémentaires de la part des pays riches.

- La croissance de la production d'électricité renouvelable en Inde a été moitié moins importante en 2020 que sur la décénnie 2009-2019 (8,3 % vs 17,4%).
- L'entreprise publique NTPC lance une demande d'expression d'intérêt pour la construction d'un système de stockage par batteries connecté au réseau de 1 GWh.
- Le conseil de ministre approuve un programme de plus de 34 milliards d'euros sur cinq ans afin d'améliorer l'efficacité et la soutenabilité financière des discoms.
- Le ministre R. K. Singh annonce la facilitation de l'achat d'électricité verte directement par les entreprises.

Mobilités électriques

- L'Inde pourrait publier à l'automne de nouvelles règles incitant les constructeurs automobiles à produire des véhicules fonctionnant avec plusieurs carburants.
- Ola Electric signe un accord pour lever 100 millions de dollars de dette à 10 ans pour la construction de la plus grande usine de deux roues électriques au monde.

Environnement et qualité de l'air

- En 2020, le National Board for Wildlife a validé le reclassement en zones non protégées de près de 1 800 hectares de terres pour la réalisation de 48 projets d'infrastructures.

Revue de presse

1. Infrastructure

Green Freight Corridor-2 service inaugurated in Kerala; Will reduce logistic cost & transit time of containers

Financial Express, 30/06/2021

Green Freight Corridor 2: Various steps are being taken to promote coastal trade and to provide sustainable, efficient and cost-effective Intermodal as well as Multimodal customer solutions. The Ministry of Ports, Shipping and Waterways aims to provide seaborne connectivity to the trade and industries in the hinterland, minimize congestion on the rail and road other than bringing down logistics costs. Recently, Mansukh Mandaviya- the Union Minister of State for Ministry of Ports, Shipping and Waterways, inaugurated the loading operation on the first voyage of Coastal Shipping Service- Green Freight Corridor 2 from Cochin Port to the ports of Beypore and Azhikkhal.

According to the ministry, Green Freight Corridor Service is operated by Round The Coast Private Limited, Mumbai, which is a JM Baxi Group company. This service will link Kochi-Beypore-Azhikkal, and Kollam port will be added later to this service. The JM Baxi company is the general agent for the service. Twice a week, the vessel will call at Cochin Port and will feeder exim and coastal boxes to Beypore and Azhikkal ports. The items that would be shipped would include Rice, Salt, Wheat, Cement, Construction Material, etc. unloaded at Cochin from Gujarat. The Operators, on the return leg, are targetting to move exim cargo like Footwear, Coffee, Plywood, Textiles, etc. Similarly, at a later stage, the imported Cashew containers would be moved as well from Cochin to Kollam.

To promote coastal shipping of containers, a 50% rebate is being offered by Cochin Port in vessel-related charges for the River Sea vessels. Similarly, the Kerala government has offered an operational incentive @10% above the road transportation cost as per the study report of NATPC for coastal shipping in the state's minor ports for one year period from 23 January 2021. During the initial period, these hand-holding measures would help the sustenance of the service. Also, it would encourage the introduction of more services of this type on regular basis.

According to the ministry, it is expected that the service will bring about a marked modal shift of containers transportation as well as ease the congestion on the road and minimize carbon footprint. The service also augurs well to link the hinterlands of north Kerala, particularly the exim trade in the regions of Calicut and Kannur which will gain direct access to Vallarpadam ICTT by the mode of the sea, saving cost and transit time.

Green Freight CNHAI debt reaches new high of Rs 3.2 trillion; toll revenue dips 4%

Business Standard, 06/07/2021

The National Highways Authority of India (NHAI) continues to accumulate debt at a fast clip.

The highway agency's debt reached a new high of Rs 3.17 trillion at the end of FY21, up

27 per cent from Rs 2.49 trillion at the end of March 2020.

In comparison, the highway toll revenues are estimated to have declined by 4 per cent last financial year to around Rs 26,000 crore, according to an analysis by ICRA Ratings.

As a result, the gap between the NHAI's financial liabilities and its internal accruals or toll revenues from highways grew to an all-time high of 12.3X in FY21. The ratio was 2.5X five years ago in 2016 and 2.1X in FY14 (see the adjoining charts).

This also makes the NHAI the most indebted non-financial public sector enterprise in the country, ahead of biggies such as NTPC and Oil & Natural Gas Corporation.

According to India Ratings, the NHAI is on track to borrow an additional Rs 65,000 crore in FY22 to fund its highway projects, taking its debt closer to Rs 3.8 trillion at the end of March next year.

Just like toll revenues, the NHAI's net worth or shareholder's equity has failed to keep pace with its growing debt level, resulting in higher balance sheet leverage.

"The NHAI's external borrowings increased from Rs 75,385 crore outstanding as on Mar-17 to Rs 3,16,894 crore at the end of FY21, thereby resulting in an increase in overall gearing from 0.49x in Mar-17 to 1.52x at the end of Mar21," says CARE Ratings in its latest report.

The NHAI's net worth declined for the first time in FY21 to Rs 2.08 trillion from Rs 2.18 trillion a year earlier.

According to ICRA, the authority reported a net loss of Rs 49,231 crore in FY20. The NHAI is yet to publish its Annual Report for FY20 and FY21.

The NHAI's borrowing has gone up seven times in the last five years, growing at a compound annual growth rate (CAGR) of 47.6 per cent from Rs 45,300 crore at the end of March 2016. In the same period, its toll revenues have grown at a CAGR of 7.3 per cent from around Rs 18,150 crore in FY16.

The growing gap between toll revenues and NHAI borrowing is however a recent development. For a decade between FY05 and FY16, NHAI toll revenues grew faster than its debt, allowing it to maintain a healthy balance sheet.

In 10 years between FY06 and FY16, NHAI annual revenues jumped nearly 23 times growing at an annualised rate of 36.7 per cent. The revenues jumped from Rs 798 crore in FY06 to around Rs 18,150 crore in FY16. In comparison, its borrowing was up 11X during the period, from around Rs 4,000 crore in FY06 to around Rs 45,300 crore in FY16.

Rating agencies have also flagged concern about the agency's high level of contingent liabilities due to legal cases in various courts.

"Apart from an increase in debt over the years, the contingent liabilities have also increased significantly. As on 31st March 2019, NHAI has contingent liabilities of approximately Rs 70,000 crore in Arbitration and court cases," write analysts at CARE Ratings in their latest rating commentary on the NHAI.

A shortfall in toll revenues has increased the NHAI's dependence on market borrowing and budgetary support from the Central government to fund its highway construction projects.

"Given increasing debt levels and debt obligations, timely infusion of funds by the government of India for meeting debt servicing will remain a key rating sensitivity factor," wrote analysts at rating agency CRISIL at their latest rating report on the NHAI.

The NHAI receives funds from the Central government in the form of cess allocation, additional budgetary support and ploughing back tolls, monetising assets, etc and also raises funds from the market.

Rating agencies, however, say that the allocation of cess towards the NHAI has not increased commensurately with the NHAI's rising expenditure.

"It has therefore resulted in higher dependence on Internal and extra-budgetary resources (IEBR), primarily borrowings undertaken by NHAI," says ICRA in its latest rating action on NHAI.

2. Ferroviaire

Vijayawada station becomes Indian Railways' first station to be covered with 130 kWp solar panels; details

Financial Express, 07/07/2021

Big eco-friendly achievement! Indian Railways' Vijayawada station in the state of Andhra Pradesh became the first railway station in the country to be covered with 130 kWp solar panels. According to Railway Minister Piyush Goyal, now 18 per cent of the total power consumption of the railway station will be from this solar energy. The environment-friendly move will result in annual savings of over Rs 8 lakh, and it will also reduce carbon emissions, the minister further said. Vijayawada Divisional Railway Manager P. Srinivas had virtually commissioned the 65 kWp building-integrated photovoltaics solar cover. The new addition takes the solar photovoltaic cover-over platform capacity of the Vijayawada railway station to 130 kWp. The solar roof cost an amount of Rs 62 lakh to set up, according to reports.

The national transporter plans to be a Net Zero Carbon Emitter by the year 2030. Earlier, Indian Railways had said that for meeting its traction power requirement, it plans to set up solar plants on unused vacant railway land. Indian Railways plans to install 20 GW land based solar plants. In order to further proliferate these pilot projects, the national transporter has initially planned to set up 3 GWp of land based solar plants in three phases.

Further, Indian Railways also eyes to take up a storage based solar project. According to railways, this project is taken up to manage peak demand management and solar peak generation management. Besides, a pilot project to procure renewable power in the round the clock mode to the tune of 150 MW is being planned by the national transporter as well.

Meanwhile, Indian Railways has also completed 100 per cent LED replacement in all railway stations, railway installations and buildings across the country. Also, all residential quarters of Indian Railways have been converted to LED lighting.

Mumbai-Ahmedabad Bullet Train: Ashwini Vaishnaw reviews status of India's 1st high-speed railway project

Financial Express, 12/07/2021

On Sunday, newly appointed Union Railway Minister Ashwini Vaishnaw reviewed the country's first bullet train project between Ahmedabad and Mumbai. During a review meeting, Vaishnaw was apprised on the status of the high-speed rail project by the MD of the National High Speed Rail Corporation Limited (NHSRCL), its implementing agency. According to officials quoted in a PTI report, so far, 1,035 hectare has been acquired out of the total of 1,396 hectare of land required for the bullet train project. Out of the 74% land acquisition till now, the majority of 96% falls in Gujarat, while only 25% falls in the state of Maharashtra. Besides, 96% of the land needed for the project in Dadra Nagar Haveli has been already been acquired, they said.

According to them, the contracts of civil work for the construction of 92% of the high-speed rail corridor alignment- 325 kilometres out of 351 kilometres as well as five stations- have been awarded in Gujarat and the Union Territory of Dadra Nagar Haveli, and in the region, construction work has already started, employing nearly 2,200 people and 300 major machineries. Around 90% of land has already been handed over to contractors for construction work. Also, over 5,300 drawings related to various structures have been submitted to the NHSRCL by contractors. Moreover, geo-technical investigation has been completed at as many as 785 locations as well as test pile casting has been completed at six locations, the officials said. Currently, work of construction is ongoing at 10 sites.

The officials said the contract for the remaining 8% of the alignment as well as three remaining stations in Gujarat is expected to be awarded by this year-end and for the rolling stock depot in Sabarmati, it will be awarded early next year. By the last quarter of this year, track construction work for 237 kilometres is also expected to be awarded and the rest of the track works in Gujarat by early next year. Work in the state of Maharashtra is limited to land acquisition and utility shifting, the officials said. According to them, the major hindrance for contract award in the Maharashtra part of the bullet train alignment is the availability of land as at least 80% of the land has to be made available before any of the work can be awarded.

3. Développement et transports urbains

Pune Metro: Project gathers pace for a 2021 launch

Financial Express, 12/07/2021

With the Commissioner of Metro Rail Safety (CMRS) completing the first inspection recently, hope has arisen that the Pune Metro project would be able to operationalise its first two stretches before the end of this year. This is significant as the project has lost nearly eight months of activity since the onset of the pandemic last year, with Pune reporting a high number of Covid-19 cases and witnessing the migration of labour on account of lockdowns.

Says Hemant Sonawane, GM, MahaMetro Rail Corporation, the nodal agency for the project, "The inspection by CMRS is an important milestone, as it is the CMRS that

authorises the opening of a Metro corridor, though there will be multiple inspections before final certification is granted." There was only 40-50% of labour on the sites for three-four months because of the surge in Covid-19 cases and this affected the pace of work, he adds. The end of the second Covid wave has allowed 70-80% of labour to return to the sites, ensuring a pick-up in work on the project.

The first phase of the Pune Metro project entails construction of two corridors – Corridor-1 from Pimpri-Chinchwad Municipal Corporation (PCMC) to Swargate (17.4 km) and Corridor-2 from Vanaz to Ramvadi (15.7 km) – with a total length of 33.2 km. The two priority stretches MahaMetro is looking to operationalise this year extend from PCMC to Dapodi on Corridor-1 (7.5 km) and from Vanaz to Garware College (5.1 km) on Corridor-2 – technical trial runs on the Vanaz to Garware College stretch commenced last Thursday.

Apart from these two corridors, a third line is to be built in public private partnership mode, with the Pune Metropolitan Regional Development Authority having signed an agreement with TRIL Urban Transport, a subsidiary of Tata Realty, and Siemens Project Ventures, a subsidiary of Siemens Financial Services, for the 23.3-km line from Hinjewadi to Shivajinagar. Land acquisition challenges had delayed start of work on the Rs 8,100-crore project. With the state government approving in May '21 leasing of 4.75 ha at Balewadi to the Tata-Siemens venture for commercial use, decks have been cleared for work to start on Line 3.

While the government had earlier announced that all the three lines would be operational by 2022, the delays caused by the pandemic and land acquisition issues mean this timeline is not likely to be met.

Half of the Rs 11,420-crore expenditure on the Phase 1 project is being borne by the Centre and state government (20% each) and the Pune Municipal Corporation and PCMC (5% each). The remaining money is being raised through loans from EIB and Agence Francaise de Development (AFD). EIB has approved a loan of Euro 600 mn (Rs 5,400 crore) for the project while AFD is providing Euro 245 mn (Rs 2,000 crore).

With the city having grown significantly since the first phase of the project was conceived, need is already being felt to extend the approved corridors and build new ones. Thus, detailed project reports (DPRs) are in the works for 123.5 km of lines. The state government has already approved lines with a total length of 82.5 km. Work on a 4.4-km extension of Corridor-1, from PCMC to Nigdi, is likely to start first, with the government forwarding its DPR to the Centre in April '21. The DPR for an extension of Corridor-1 from Swargate to Katraj is in the process of being approved by the civic body in Pune. An extension of Line 3 from Shivajinagar to Hadapsar has also been mooted.

Where are India's smart cities? The fate of the mission hangs in balance

Business Standard, 06/07/2021

To give an impetus to 'Digital India', Prime Minister Narendra Modi had in 2015 announced the smart city mission. The primary objective of the government was to develop 100 smart cities within five years. While the first crop of smart cities was to have been ready by later this year, others were to be developed by 2022-23. But India seems to be falling behind on the timeline.

The government had in January 2016 shortlisted 20 cities for development as smart ones in the first round. These were followed by 13 in May 2016 and 27 in September 2016. In 2017, 30 more cities had been commissioned for the smart city programme, and 10 were given the tag in 2018.

A *Business Standard* analysis shows that project have not been completed in any of the 100 'smart' cities. The work has picked up only in the last two years, and the average completion rate for projects is 46 per cent. Nearly 29 of the 89 cities for which data are available have been able to finish less than 30 per cent of their tendered projects — 14 of these have completed less than 20 per cent.

Besides, looking at project completion alone might be erroneous. A further examination of the Smart Cities dashboard reveals that these cities are first finishing low-value projects — these are usually easier to complete — and the large-value one may still be on hold.

Data indicate that while the government has finished 2,739 of the 5,966 tendered projects under the system, the value of completed projects is just Rs 46,803 crore. In contrast, the tendered projects had a value of Rs 1.79 lakh crore. So, while the average value for a tendered project was Rs 30.2 crore, the average value of completed projects is just a little more than half, at Rs 17.1 crore.

Hence, only a fourth of the money has been utilised by smart cities.

Data reflect that the 30 cities commissioned in 2017 have a higher average project spending than the cities commissioned in 2016. While the average value per tendered project in 2016 was Rs 32.2 crore, only Rs 16.9 crore worth of work per project has been completed. In contrast, while the average value per project in 2017 was Rs 29.5 crore, the average value of projects completed from this lot has been Rs 20.3 crore.

Besides, only nine of 89 cities have spent over 50 per cent of their total tendered project value, and just 31 have spent more than a quarter of their funds.

Even though cities have been able to utilise over 90 per cent of the funds available from the central government, utilisation from state government funds remains a paltry 50 per cent. The states also lag the central government in terms of fund transfers. Although both entities had promised Rs 500 crore worth of transfer each to the special-purpose vehicle, the central government has transferred 25 per cent more than the state governments.

With larger projects yet to be completed, India may not meet its 2022-23 target for developing 100 smart cities.

4. Pétrole, gaz et biocarburants

Green to Greener: GAIL eyes 1 GW renewable energy capacity, to set up biogas, ethanol plants

Energy World, 01/07/2021

GAIL (India) Ltd will invest about Rs 5,000 crore to build a portfolio of at least 1 gigawatts of renewable energy and set up compressed biogas as well as ethanol plants as it steps up efforts to expand the business beyond natural gas. As part of a push to embrace cleaner forms of energy,

GAIL will be laying pipeline infrastructure to connect consumption centers to gas sources and spend as much as Rs 4,000 crore on renewable energy, GAIL Chairman and Managing Director Manoj Jain said.

"We are a business that is already eco-friendly - gas. And now we want to leverage our position to go greener in line with the vision of the government and the Prime Minister to cut carbon emissions and pollution," he said.

While electricity generated from solar energy or through wind power is the cleanest form of energy, converting municipal waste into compressed biogas will supplement the availability of cleaner fuel to automobiles and households.

Also, it plans to set up ethanol units that can convert agriculture waste or sugarcane into less polluting fuel that can be doped in petrol, helping cut India's import dependence, he said.

While the renewable energy push would cost Rs 4,000 crore, setting up at least two compressed biogas plants and an ethanol factory would entail an investment of about Rs 800-1,000 crore, he said.

India, which imports 85 per cent of its crude oil needs, is stepping up efforts to explore new forms of energy to clean up the skies and reduce dependence on imported fuels.

"We have 120 MW of renewable energy capacity which we want to scale up to 1GW in next 3-4 years," he said.

GAIL will bid for a 400 MW solar power capacity being auctioned by SECI (formerly Solar Energy Corporation of India) in Rewa, Madhya Pradesh.

The company had in 2019, won a bid for 874 MW operational wind power projects of IL&FS for Rs 4,800 crore. But IL&FS' other partners used the first right of refusal to block GAIL's bid, he said.

"We are open to acquisitions and will look at any asset that makes commercial sense. We had almost got the IL&FS project," he said.

GAIL has signed up with state-run power gear maker BHEL for renewable energy foray. The tie-up looks to leverage the competitive strengths of both companies. GAIL will be the project developer and BHEL will be a project manager and EPC (engineering, procurement and construction) contractor.

Jain said GAIL is setting up its first compressed biogas (CBG) plant in Ranchi at a cost of Rs 200-300 crore.

The facility will produce five tonnes of CBG per day and approximately 25 tonnes of bio-manure using municipal waste.

"The gas produced will be fed into the city gas network supplying CNG to automobiles and piped natural gas to households. This will help reduce pollution," he said.

GAIL has floated an expression of interest (EoI) seeking partners for the setting up of CBG plants.

It also plans to set up an ethanol manufacturing unit, he said.

The move by GAIL, which commands a 75 per cent market share in gas transmission and more than 50 per cent share in gas trading in India, is seen as part of the government's vision to prepare for the energy transition process, under which the

share of gas in the energy mix is sought to be raised to 15 per cent by 2030, from the current 6.2 per cent.

GAIL recently signed an agreement with Carbon Clean Solutions Ltd. Under this, CCSL will initially build four CBG plants using its own funding, technology, and expertise. These plants will be based on 10-year CBG offtake agreements with GAIL or its associated companies.

Depending on the success, the partnership will be scaled up to many more such plants.

GAIL owns and operates a network of 13,340 km of high-pressure trunk pipelines. In addition, it is working on multiple pipeline projects, aggregating over 7,500 km. It owns a petrochemical plant at Pata in Uttar Pradesh and is setting up a new one in Maharashtra .

Oil minister Hardeep Puri dials UAE for affordable oil prices

The Times of India, 14/07/2021

NEW DELHI: As fuel prices climbed to a record high, India's new petroleum minister Hardeep Singh Puri has started dialling oil-producing nations to impress upon them for a need to make prices affordable for consumers.

Puri, who last week called energy minister of Qatar, on Wednesday dialled his counterpart in the UAE, Sultan Ahmed Al Jaber.

"Conveyed my desire to work closely with UAE and other friendly countries to bring a sense of calm, predictability and realism among other suppliers in the energy market to make it more affordable for consumers," Puri tweeted

The rebound in international oil price from lows hit in May on the back of demand recovery has sent petrol and diesel rates to a record high in India.

Petrol has crossed the Rs-100-a-litre mark in more than one and a half dozen states and union territories, while diesel is being sold at over Rs 100 a litre in Rajasthan and Odisha.

"Had a warm courtesy call with HE Dr Sultan Ahmed Al Jaber, UAE Minister of Industry and Advanced Technology and MD & Group CEO of @AdnocGroup. Discussed ways and means to invigorate the vibrant bilateral strategic energy partnership between India and UAE," Puri said.

India, which imports 85 per cent of its oil needs, has long pressed producers' cartel Opec and its allies, called Opec+, to phase out its production cuts and allow oil prices to come to reasonable levels.

The world's third-largest importer has many times called on Opec to price oil at reasonable levels that support growth and stop propping up prices with its output cuts. The UAE is a member of Opec but has had a falling out with the grouping over production quotas at the meeting of the alliance earlier this month.

"We agreed to take the bilateral energy engagement to greater heights and also to diversify into new areas in the context of the fast-evolving global energy transition," Puri said in the talks with his UAE counterpart.

Opec, Russia and several other allies in a production accord could not reach an agreement earlier this month on output quotas for August and possibly beyond.

Expectations were that the alliance may agree to raise production by 500,000 to 700,000 barrels per day but the decision was postponed as the UAE differed on the baseline for such output increase.

Puri, who took over the reins of the petroleum ministry on July 8, on last Saturday called Qatar's minister of state for energy affairs Saad Sherida Al Kaabi to discuss further ways of strengthening mutual cooperation in the hydrocarbon sector.

"Discussed ways of further strengthening mutual cooperation between our two countries in the hydrocarbon sector during a warm courtesy call with Qatar's minister of state for energy affairs who is also the president & CEO of @qatarpetroleum HE Saad Sherida Al-Kaabi," Puri had tweeted on July 10.

Puri, a former diplomat, is widely expected to smoothen flared tensions with oil-producing nations in general and Saudi Arabia in particular.

In March, Puri's predecessor Dharmendra Pradhan and Saudi Arabia's energy minister Prince Abdulaziz bin Salman had an unpleasant exchange over oil prices.

The Saudi Arabia minister responded to Pradhan's repeated pleas for a reasonable price, by saying India should tap into its reserves of crude that it bought cheaply in 2020 during the market crash.

Days later, Pradhan termed the statement an "undiplomatic response from a friendly nation".

Since then, the petroleum ministry has asked refiners to look at sources outside of the Middle East for buying oil.

India is the world's third-largest consumer of crude and OPEC nations such as Saudi Arabia have traditionally been its principal oil source. But Opec and Opec+ ignoring its call for easing of supply curbs, had led India to tap newer sources to diversify its crude oil imports.

As a result, Opec's share in India's oil imports has dropped to about 60 per cent in May from 74 per cent in the previous month. The two sides have somewhat patched up relations, with Saudi Arabia and the UAE supplying critical medicine, oxygen and equipment to help India battle its second wave of coronavirus infections.

Centre to issue tenders based on aggregated demand for green hydrogen soon

Business Standard, 05/07/2021

The Centre will issue tenders based on the 'demand aggregator' model for green hydrogen. The Ministry of New and Renewable Energy (MNRE) in its latest Cabinet note has proposed that demand for green hydrogen from key sectors such as fertilisers, steel, and refineries would be aggregated and offered as a mega tender.

The Cabinet note has been sent to ministries of petroleum and natural gas, law, department of fertilisers, among others for their comments. The demand aggregation will help in creating substantial volume to facilitate commercial supply of green hydrogen.

MNRE has proposed that SECI can host the bidding process, unless any other agency is not suggested by other ministries. SECI is the nodal agency under MNRE for tendering solar and wind power projects.

Senior officials said the new National Hydrogen Mission which is in works would outline the purchase obligation of green hydrogen for several industries. "This would in turn help in designing the tender as the demand calculations would be available," said an official.

Union Minister for Power, New and Renewable Energy R K Singh last month said, green hydrogen would be included in the 'Renewable Purchase Obligation' (RPO) regime. RPO entails states/power discoms to purchase a certain portion of their energy demand from green energy sources.

MNRE is hoping that with mega tender, the cost of green hydrogen would also come down.

A similar model of bidding was followed for LED disbursement where the cost came down to Rs 60 per bulb from over Rs 300 in two years.

"Several players are interested in green hydrogen now, including oil companies. This would give them an incentive to produce more," said the official.

State-owned thermal power giant NTPC Ltd, Adani Enterprises, new entrant Reliance Industries, ACME Solar, state-owned oil marketing company Indian Oil Ltd have announced their foray into green hydrogen production.

Green hydrogen is produced using renewable energy and electrolysis to split water. This is from grey hydrogen, which is produced from methane and releases greenhouse gases into the atmosphere, and blue hydrogen, which captures those emissions and stores them underground to prevent them causing climate change.

5. Electricité et énergies renouvelables

India wants rich countries to pay more for green energy shift

Energy World, 12/07/2021

NEW DELHI: India can't prioritise eliminating greenhouse gas emissions without sufficient financing from richer nations to help offset the high cost of transitioning to clean energy, according to a senior government official.

In laying out its position ahead of key global climate talks later this year, the top bureaucrat in India's environment ministry also said the country doesn't plan to tighten its emissions goals unless more money is promised from developed economies under the United Nations-sponsored climate change agreement.

"Every policy decision has a cost to the economy. Going net-zero or using less carbon also has a cost," Environment Secretary Rameshwar Prasad Gupta said in an interview at his New Delhi office. "We are not anti-net-zero. But without adequate climate finance being definitively available, we can't commit on that part."

The stance by India, the world's third-biggest emitter, highlights a top challenge global leaders will face when they meet at the UN Climate Change Conference, which starts in late October in Glasgow. While cutting net global carbon emissions to zero by 2050 is key to meet the goals of the Paris Agreement, aimed at avoiding catastrophic damage from climate change, figuring out how to pay for the transition toward clean energy has been a sticking point.

Gupta also said the current $100 billion-a-year pledge by richer nations to help developing nations -- a target they haven't even met yet -- is insufficient to make the shift.

"We have our own developmental imperatives," Gupta said. "If you want that I don't emit carbon, then provide finance. It will be much more than $100 billion per year for developing nations."

"This is not the final decision, but most probably we won't file a revised NDC," he said. "Let there be a decision on climate finance first." As well, until negotiations are finalized around funding help, India likely won't upgrade the emissions targets it committed to in 2015, known as a Nationally Determined Contribution, which under the Paris Agreement were expected to be revised by 2020.

While the government of Prime Minister Narendra Modi discussed setting a 2050 net-zero emissions goal earlier this year, policy makers have resisted, citing the outsized role fossil fuels play in powering its growing population out of poverty, and the progress it's made on earlier climate commitments.

But India risks looking like an outlier among other developing economies. While still seeking more funds from richer states, more than 100 countries including large emerging economies like Mexico, as well as neighboring Pakistan and Bangladesh, have publicly committed to zero carbon by mid-century. Even China, previously one of the strongest voices calling on developed nations to do more, has changed its tune, aiming to decarbonize the world's top polluter by 2060.

Meanwhile, Brazil has also made its commitment contingent on richer nations, saying net-zero is only possible if it can guarantee $10 billion-per-year in contributions from other countries.

As India recovers from the pandemic-induced economic contraction, it sees international finance as key to industry overhaul needed to lower emissions. This includes banishing coal, a dirty but cheap source of energy, currently being used for about 70% of its power generation. Solutions also include replacing coal with more-expensive and untested alternatives, such as green hydrogen, in heavy industries like steel and oil refining.

Economic impact

While the green transition does present infrastructure-driven economic growth opportunities, there would be trade-offs in the form of higher electricity prices and rail fares, job losses in the coal sector and fiscal challenges for states, according to an analysis by Vaibhav Chaturvedi, a fellow at the New Delhi-based Council on Energy, Environment and Water.

However, there are also longer-term costs for inaction. India's loss in per-capita gross domestic product by 2050 could range from 0.41%, under a low-global warming scenario if the Paris Agreement is met, to 5.08% in case of higher warming, the International Monetary Fund estimated in 2019.

The global climate talks in Scotland later this year, known as COP26, are seen as the last chance to set a plan to limit global warming to 1.5 degrees Celsius. The British government is hoping the summit will deliver an agreement by all countries to

abandon coal power, with the G-7 leading the way.

While India may not set new goals before the meeting, Gupta said it's on track to exceed 2030 targets it set in 2015, including that the country's share of non-fossil fuel power generation capacity rises to 40%. It's also on course to cut its emissions intensity by a third from 2005 levels by 2023, seven years ahead of schedule, he said.

India's renewable energy growth rate dipped to 8.3 per cent in 2020: BP Statistical Review

Energy World, 08/07/2021

New Delhi: The rate of growth of power generation from renewable energy sources in India dipped to 8.3 per cent in 2020 as against the average growth rate of 17.4 per cent between 2009 and 2019, according to the bp Statistical Review of World Energy released today.

The country produced 151.2 Terawatt Hours of renewable power last calendar year -- marked by the impact of the Covid pandemic on global energy demand -- as against 139.2 Terawatt Hour produced in the previous year (2019).

For comparison, China's renewable energy generation grew 16 per cent to 863 Terawatt Hour in 2020, as against the average growth rate of 31.3 per cent recorded in the 2009-2019 period.

The 70th annual edition of the review -- among the most sought after annual reports in the energy sector globally -- captures the dramatic impact the global pandemic had on energy markets and how the year may help shape future global energy trends.

"Both primary energy consumption and carbon emissions from energy use fell at their fastest rate seen since the Second World War, while renewable energy continued its trajectory of strong growth, with wind and solar power recording their largest ever annual increase," the report said.

In 2020, global primary energy consumption fell 4.5 per cent – the largest annual decline since 1945. This fall was driven mainly by oil, which accounted for almost three quarters of the net decline. Natural gas prices declined to multi-year lows but the share of gas in primary energy reached a record high of 24.7 per cent.

"Wind, solar and hydroelectricity generation all grew despite the fall in overall energy demand. Wind and solar capacity increased by a colossal 238 GW in 2020 – 50 per cent larger than at any time in history," the report said.

By country, the US, India and Russia saw the largest declines in energy consumption while China saw the largest increase (2.1 per cent), one of only a handful of countries where energy demand grew last year. Also, carbon emissions from energy use fell by over 6 per cent in 2020, the largest decline since 1945.

NTPC floats global tender for 1 GWh of grid-scale battery storage

Mint, 30/06/2021

New Delhi: In a push to India's green energy plans, state-run NTPC Ltd has floated a global tender for setting up a 1,000-

megawatt hour (MWh) grid-scale battery storage system.

The plan involves designing, building, and operating such a system and also offers a co-investment partnership. One GWh (1,000-MWh) of battery capacity is sufficient to power 1 million homes for an hour and around 30,000 electric cars.

Large battery storages can help India's electricity grids, given the country's ambitious clean energy targets and the intermittent nature of electricity from clean energy sources such as solar and wind. In such a scenario, storage holds the key for providing on-demand electricity from wind and solar projects.

According to the expression of interest (EoI) floated on Saturday, India's largest power generation utility "intends to set up 1000 MWh of Grid-scale Battery Energy Storage System (BESS) at single/split across multiple NTPC power plants in India. In this regard, NTPC Limited invites Expression of Interest (EoI) from any Indian/Global Company/their Consortium/Affiliates/Representatives."

As part of its energy transition efforts, India is working towards electrification of the economy by developing action plans for the greening of electricity. According to India's apex power sector planning body Central Electricity Authority (CEA), by 2030, the country's power requirement would be 817GW, more than half of which would be clean energy.

"CEA's Optimal Generation mix report outlines the need for 27 GW of grid-scale battery energy storage systems by 2030 with four hours storage," the EoI said.

The NTPC Group has an installed power generation capacity of 65.81 GW through 70 power projects and has 18 GW under construction. NTPC plans to invest ₹1 trillion between 2019 and 2024 to become a 130GW power producer by 2032. Of this, 60 GW will come from renewable energy sources. The PSU on Sunday announced its target of 10% reduction in net energy intensity as part of its energy compact goals.

"This EOI is to assess commercialization prospects of Setting up Grid- scale Battery Energy Storage System. The BESS shall be set up within NTPC power plant premises. After identifying the APPLICANTs through EoI who are interested in setting up 1000 MWh Grid-scale Battery Energy Storage System, Request for Proposals (RfP) for undertaking project(s) at single/split across multiple NTPC plants shall be invited separately for setting up the facilities and scalable model for further additional requirements," the EoI added.

There is growing traction for India's playbook for developing a battery storage ecosystem that involves setting up 50-gigawatt hour (GWh) manufacturing capacity for advanced chemistry cell batteries by attracting investments totaling ₹45,000 crore.

Mint reported on 3 June about Reliance Industries Ltd (RIL), Adani Group, Bharat Heavy Electricals Ltd, Tata Chemicals, Larsen and Toubro Ltd, Greeenko Group, Renew Power, and a joint venture (JV) led by Japan's Suzuki Motor Corp. among companies who have shown interest in building lithium-ion cell manufacturing plants in India.

"Grid-scale battery energy storage systems (BESS) have been the subject of intensive research in the recent times in India owing primarily to the emerging challenge of integrating large amounts of variable renewable energy (VRE) in the power grid," the EoI said.

The last date for submission for EoIs is 10 August. NTPC has around 4GW of renewable capacity, mostly solar, and plans to add at least 5GW solar capacity within two years.

"Amongst the most promising business models of BESS that's likely to emerge in the future is its integration with existing large power plants, which are required to be flexibly operated to provide either firm, schedulable power or reliable and balancing support to the grid," the EoI said.

Battery makers are seeking to take advantage of the government's ₹18,100 crore production linked incentive (PLI) scheme to make lithium-ion cells. A case in point being RIL that last week announced its plans to set up an Advanced Energy Storage Giga Factory.

"NTPC's conventional fleet will increasingly be required to operate flexibly to support the grid, as VRE penetration invariably increases in India's power system under its policy driven initiative to increase its share of installed capacity from non- fossil fuel power sources by 2030 and beyond," the EoI added.

India is working on a raft of measures including ethanol blending with fossil fuels, green mobility, battery storage and green hydrogen to help reduce pollution and facilitate commitments made at COP-21, the UN Climate Change Conference held in France in 2015.

NTPC recently floated a global EoI for setting up two pilot projects; standalone fuel-cell-based backup power system and a microgrid system, with hydrogen production using electrolyser.

Cabinet approves Rs 3.03-lakh-crore scheme for power distribution sector

Energy World, 30/06/2021

New Delhi: The Cabinet Committee on Economic Affairs on Wednesday approved a reforms-based and results-linked revamped power distribution sector scheme with an aim to improve the operational efficiencies and financial sustainability of discoms.

"Power distribution reforms need to be strengthened... Today, the Cabinet has approved the new scheme worth Rs 3.03 lakh crore, including Rs 97,000 crore Central outlay," said R K Singh, power and renewable energy minister after the Cabinet briefing.

The scheme will provide conditional financial assistance to strengthen the supply infrastructure of discoms. According to the official press release, the financial assistance will be based on meeting pre-qualifying criteria and upon achievement of basic minimum benchmarks.

It added that the implementation of the scheme would be based on the action plan worked out for each state rather than a 'one-size-fits-all' approach.

The scheme will be available till 2025-26. Rural Electrification Corporation and Power Finance Corporation have been nominated as nodal agencies for facilitating implementation of the scheme.

"The scheme has a major focus on improving electricity supply for the farmers and for providing daytime electricity to them through solarisation of agricultural feeders," said the release.

It added that under the scheme, works of separation of 10,000 agriculture feeders would be taken up through an outlay of almost Rs 20,000 crore.

With this scheme, Central schemes such as Integrated Power Development Scheme, Deen Dayal Upadhyaya Gram Jyoti Yojana, and Pradhan Mantri Sahaj Bijli Har Ghar Yojana will be merged.

Apart from this, the scheme aims to provide annual appraisal of the discom performance, implement 25 crore prepaid smart-metering in public-private-partnership mode, modernisation of distribution systems in urban areas, and has planned 4 lakh km of low-tension overhead lines under the ongoing Central schemes.

India to set rules to encourage companies shift to green energy

Energy World, 01/07/2021

India is making rules that will encourage companies to switch entirely to renewable power, a key step toward decarbonizing the nation's fossil fuel-dominated economy.

The new regulations will allow companies to purchase renewable electricity from state distributors at "green tariffs," Power Minister Raj Kumar Singh said at the virtual BloombergNEF summit on Tuesday. Hurdles for businesses seeking to buy clean power directly from generators will also be eased, he said.

Accelerating use of clean energy in offices and factories, the largest power consuming segment in the country, will be key to achieving targets to cut emissions per unit of the GDP. It will also help the companies improve their environment, social and governance -- or ESG -- scores by reducing their carbon footprint.

Those opting for green power will be allowed open access -- when they aren't tied down to the local distributor -- within 15 days, instead of having to wait for months, Singh said. That would force state utilities to either meet the demand or risk losing their high-value customers.

Providing time-bound open access, though a "welcome move," may be fraught with challenges, according to Debasish Mishra, a Mumbai-based partner at Deloitte Touche Tohmatsu.

Industrial buyers pay the highest prices for grid electricity and help utilities subsidize poorer consumers. Cash-strapped distributors, already facing precarious finances, often resist losing these customers to other suppliers.

"High open-access charges can often create barriers for consumers to directly access green power," Mishra said. "And as per law, that's under the jurisdiction of state electricity regulators who would want to balance the interest of the incumbent utility."

Offshore Wind

Separately, India will promote offshore wind projects to get to its 2030 goal of 450 gigawatts of renewables capacity, a near fivefold expansion from current levels. That would include 280 gigawatts of solar and

140 gigawatts of wind capacity, the minister said.

Singh cited scarcity of land as one of the challenges for ramping up wind power and said offshore projects will help deal with the issue. The cost of such projects will initially be high and the government is exploring capital subsidies to help developers, he said.

India will fall short of its renewable capacity goal of 175 gigawatts by the next year due to "some hiccups," Singh said, potentially linked to the pandemic. The country has had to extend deadlines for renewable projects due to difficulties in importing equipment and getting workers at construction sites.

6. Mobilités électriques

Govt may issue guidelines for 'flex-fuel' vehicles by October

04/07/2021

Auto companies may soon be asked to manufacture passenger and commercial vehicles that run on multiple fuel configuration aimed at reducing the use of polluting fossil fuels and cutting down harmful emissions.

New guidelines for use of flexible fuel vehicles (FFVs) using flex engines is expected to be issued by the third quarter of current year (FY22) that would specify engine configuration and other changes required in vehicles to conform to stipulated changes in fuel mix.

The government is also working on an incentive scheme to promote manufacture and use of flex engines in vehicles. The details would be specified when policy in this regard is unveiled.

The use of flexible fuel vehicles (FFVs) is being actively looked at by the government to ensure increased use of bio-fuels for running vehicles, Petroleum Secretary Tarun Kapoor had told IANS earlier.

An FFV is a modified version of vehicles that could run both on gasoline and doped petrol with different levels of ethanol blends. These are currently being used successfully in Brazil, giving people the option to switch fuel (gasoline and ethanol) depending on price and convenience. In fact, a majority of vehicles sold in Brazil are FFVs.

For India, FFVs will present a different advantage as they will allow vehicles to use different blends of ethanol mixed petrol available in different parts of the country.

The current regulations allow for mixing up to 10 per cent ethanol in petrol. However, due to short supplies and transportation challenges, 10 per cent blended petrol is available only in 15 states while bio-fuel in other states varies between 0 to 5 per cent.

FFVs will allow vehicles to use all the blends and also run on unblended fuel.

Introduction of FFVs will require adoption of vehicle standards, technologies and retrofitting configurations that will have to be looked at by the Ministry of Heavy Industries.

The country is moving quickly in the direction of E-20 or 20 per cent ethanol blended petrol fuel that could be introduced as early as 2023 with a nationwide roll out by 2025. The urgency

for policy of vehicle is keeping these goals in mind.

For auto companies, introduction of FFVs will pose another challenge that they are already facing with the fast adoption of electric vehicles. If standards on FFVs are made mandatory, it would require additional investment in production lines and technology transfers to change the character of the vehicles.

Already the use of 10 per cent ethanol blended petrol and introduction of BS VI fuel have added to the cost of making a vehicle. Taking blending to 20 per cent require few minor changes in vehicle configuration, but adoption of FFVs will future proof the design to adopt to any more changes in blending options and configuration.

Ola Electric signs pact to raise $100 mn in long-term debt

Energy World, 12/07/2021

New Delhi: Ola Electric on Monday said it has signed a USD 100 million (about Rs 744.5 crore) 10 year-term debt financing agreement with Bank of Baroda. The 10-year debt of USD 100 million is towards the funding and financial closure of phase I of Ola Futurefactory - its global manufacturing hub for electric two-wheelers, a statement said.

Ola had, in December last year, said it will invest Rs 2,400 crore for setting up phase I of the factory.

"Today's agreement for long term debt financing between Ola and Bank of Baroda signals the confidence of the institutional lenders in our plans to build the world's largest two-wheeler factory in record time.

"We are committed to accelerating the transition to sustainable mobility and manufacture made in India EVs for the world and we are happy that Bank of Baroda has joined us in our journey," Ola Chairman and Group CEO Bhavish Aggarwal said.

Ola Futurefactory is coming up on a 500-acre site in Tamil Nadu. At full capacity of 10 million vehicles annually, it will be the world's largest two-wheeler factory.

"The government has brought in several policies to incentivise Make-in-India and to enable India to become a global EV leader. Ola is leading from the front and we are delighted to partner with them for their EV business. The Ola Futurefactory will put India on the global EV map and we are proud to be associated with them," Sanjiv Chadha, Managing Director and CEO of Bank of Baroda, said.

Ola said the first phase of the Futurefactory is nearing completion shortly, following which production trials of the Ola Scooter will commence.

While the company is yet to disclose the pricing and specifications of its e-scooter, Ola has stated that it is working on setting up a 'Hypercharger Network' to include one lakh charging points across 400 cities.

Recently, Aggarwal had shared a video of him astride an Ola electric scooter for a ride in Bengaluru.

The top executive had earlier said that the e-scooter was likely to be launched in India in July this year and that Ola Electric would look at taking the vehicle to international

markets, including countries like France, Italy and Germany, this fiscal as well.

The launch of the electric scooter is in line with Ola's global vision of moving mobility into a more sustainable, accessible and connected future.

Last year, Ola Electric had also acquired Amsterdam-based Etergo BV for an undisclosed amount. The acquisition of Etergo was aimed at further bolstering its engineering and design capabilities in the electric mobility space.

When launched, the Ola electric scooter will go up against Hero MotoCorp-backed Ather Energy, Bajaj Auto and others.

7. Environnement et qualité de l'air

'In 2020, wildlife board cleared land diversion for 48 projects'

The Times of India, 05/07/2021

NEW DELHI: The National Board for Wildlife (NBWL), an apex body which takes a call on use of land from different conservation areas for development activities, had approved diversion of around 1,792 hectares — an area equal to the size of 3,349 football fields — of wildlife habitat for 48 projects in 2020, the year of the pandemic which severely restricted ground visits for taking crucial decisions.

A study, analysing all the clearances granted by the Standing Committee (SC) of the NBWL last year, has found that the SC-NBWL considered 82 proposals, out of which 25 were for diversion within wildlife sanctuaries and national parks.

Most of the projects cleared were for linear diversion within sanctuaries, national parks and tiger reserves, said the study, carried out by a New Delhi-based not-for-profit organisation, Legal Initiative for Forest and Environment (LIFE). Linear projects are land-disturbing activities that are linear in nature such as roads, railways, transmission lines, pipelines or any utility lines. It said, "Linear projects are known to be especially destructive because they fragment the entire landscape and interrupt movement range of animals."

Around 1,040 hectares was approved for diversion from eco-sensitive zones while nearly 594 hectares were approved from within tiger habitats for linear projects, defence and infrastructure development. Remaining around 158 hectares were diverted in wildlife sanctuaries, national parks and conservation reserves, it said.

The SC-NBWL is headed by Union environment minister Prakash Javadekar. It consists of a member secretary and different members, including a non-official, nominated by the minister.

The SC-NBWL had also approved deletion (de-notification) of 1,08,983 hectares (around 1,089 sq km) of protected areas (PA) from Hastinapur Wildlife Sanctuary (HWS) in UP and Great Indian Bustard Sanctuary in MP. Analysis by LIFE shows PA of over 38,303 hectares was de-notified in 2018 which involved de-notification of the entire Turtle Sanctuary in Varanasi, while 5,445 hectares of PA was de-notified in 2019.

Though the ministry did not respond to TOI's questions on findings of the study, an official who requested anonymity said the decision to de-notify area of the HWS was taken to simply rationalise the boundary of the

sanctuary as the portion was basically non-forest land and it's being used for agriculture and habitation for years. He said, "The forest area will continue to be part of the sanctuary."

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