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

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G En bref

Infrastructures

- La construction d'autoroutes a atteint le record de 13 300 km construits au cours de l'exercice 2020-21 malgré la crise de la Covid-19.
- Le ministère des Ports, de la Navigation et des Voies navigables, lance quatre nouveaux services de ferry et 12 de bateaux-taxis à Mumbai.

Ferroviaire

- Suite à la nomination du Ministre Vaishnaw, les Indians Railways présentent un nouveau projet de développement.
- Les Indians Railways ont mis à niveau les infrastructures du pont Godavari dans l'Andhra Pradesh pour permettre le passage des trains à 100 km/h.
- Les Indians Railways prévoient de déployer au moins 10 nouveaux trains à semi-grande vitesse fabriqués en Inde pour relier une quarantaine de villes d'ici août 2022.

Développement et transport urbain

- La ville de Puri dans l'Odisha devient la première ville indienne à être alimentée en eau potable 24h sur 24.

Pétrole, gaz et biocarburants

- L'Inde a réduit son soutien aux énergies fossiles de 4% entre 2015 et 2019 d'après Bloomberg NEF.
- Le ministère du Pétrole et du Gaz naturel a accordé sept nouvelles licences de vente de carburants automobiles.

Electricité et énergies renouvelables

- Indian Oil Corporation annonce la construction de la première usine d'hydrogène vert de l'Inde dans l'Uttar Pradesh.
- Le ministre de l'Électricité, R.K. Singh, annonce que la capacité de production d'électricité non fossiles représente 150 GW, soit 39% de la capacité installée.

- Les producteurs solaires indiens s'inquiètent de la fin des taxes à l'importation sur les modules chinois à partir du 30 juillet 2021.
- Le gouvernement étend au 31 décembre 2021 le délai de soumission des dossiers des *discoms* souhaitant bénéficier du programme d'investissement de 33 Md€.

Mobilités électriques

- Après Delhi, le Maharastra et le Gujarat, le Rajasthan annonce des subventions à l'achat de véhicules électriques.
- 350 stations de recharge et 361 000 véhicules électriques ont été mis en services dans le cadre des programmes FAME I et II.
- Le projet du Karnataka de créer une zone économique dédiée à la production de véhicules électriques près de Bangalore est ralenti par les acquisitions foncières.
- La start-up Cell Populsion annonce la mise en service d'une ligne de production de batteries Li-ion destinés aux véhicule utilitaires légers à Bangalore.

Environnement et qualité de l'air

- L'Inde demande à ce que les pays du G20 s'engagent à diminuer leurs émissions de CO_2 par habitant au niveau de la moyenne mondiale à l'horizon 2030.
- Lors du G20, le gouvernement indien pourrait s'opposer à la taxe carbone aux frontières annoncée par l'Union Européenne.

Revue de presse

1. Infrastructure

Despite Covid crisis, India records highest-ever construction speed of National Highways; details

Financial Express, 21/07/2021

Highway Construction in India: Despite the Covid crisis, there has been a massive development in the infra sector. During the Covid-19 restriction period, National Highways' construction has seen a sharp rise, said Union Minister for Road Transport and Highways, Nitin Gadkari. In a recent tweet, the Union Minister said that in the financial year 2020-21, the construction of highways has paced to 36.5 km per day, which is the highest ever construction speed of National Highways in the country. According to the minister, a world record has also been created by India by constructing 2.5 kilometres 4 lane concrete road in just a duration of 24 hours and 26 kilometres single lane Bitumen road in just 21 hours time.

Special efforts have been made to sustain this construction speed, Gadkari claimed. These efforts include support to contractors, direct payment to subcontractors, relaxation in contract provisions and food and medical facilities to on-site workers. In a bid to ensure quality control in these projects, the construction of highways is being carried out as per the highest IRC standards as well as MoRTH Specifications, he said. Besides, to update policy guidelines as well as review and issue directions for system improvement on quality, a quality control zone has been set up, the Union Minister added.

Speaking to FE, an official of the state government said the loan amount would be made available in lieu of securitisation. With the additional availability of financial resources, the purchase of land and other work will be accelerated. In the event of partial collection of free where the daily collection is less than 90% of the average daily fee, the authority shall extend the concession period in proportion to the loss of fee on a daily basis.Fall in toll receipts: NHAI may pay Rs 500 crore to BOT developers as compensation

Meanwhile, Gujarat is all set to boast a new elevated corridor. Recently, the Union Minister for Road Transport and Highways also said that his ministry is dedicating 3.75 kilometre long Deesa Elevated corridor to the people of Banaskantha, in the state of Gujarat. The road, a part of the East-West corridor, will divide the city and highway traffic, thereby ending frequent traffic jams, Gadkari further stated. Soon, the Ministry of Road Transport and Highways will be dedicating many more such National Highway projects in the state of Gujarat, he said.

Boost to water transportation in Mumbai! Govt to introduce water taxis on 12 routes & ROPAX ferry on 4 routes

Financial Express, 20/07/2021

In a bid to revolutionize urban water transportation with faster connectivity and decongest traffic in the city of Mumbai, the Ministry of Ports, Shipping and Waterways will soon introduce water taxis as well as RO-PAX ferry services on new routes. The Ministry of Ports, Shipping and Waterways has said that it has finalized four new routes for RO-PAX ferry services and as many as 12 routes for water taxis. According to the ministry, it will promote traffic decongestion on Mumbai roads, eco-friendly waterways transportation and also give a boost to the ecosystem of such services in all coastal states. Following are the four identified routes for RO-PAX ferry services along with distance and travel time on waterways:

- 24 km long distance from ROPAX Terminal (Ferry wharf) to Nerul (CIDCO) will be completed in 1 hour
- 60 km distance from ROPAX Terminal (Ferry wharf) to Kashid (MMB) will be completed in 2 hours
- 10 km distance from ROPAX Terminal (Ferry wharf) to Mora (MMB) will be completed in 30 minutes
- 3 km distance from Karanja to Rewas (MMB) will be completed in 15 minutes

Here are the details of 12 waterway routes for Water Taxi operations:

- 19 km distance from Domestic Cruise Terminal (DCT) to Nerul wll be completed in 40 minutes
- 20 km distance from DCT to Belapur will be completed in 45 minutes
- 23 km distance from DCT to Vashi will be completed in 40 minutes
- 34 km distance from DCT to Airoli will be completed in 1 hour 15 minutes
- 18 km distance from DCT to Rewas (Ready) will be completed in 1 hour 15 minutes
- 18 km distance from DCT to Karanja (Ready) will be covered in 1 hour 15 minutes
- 40 km distance from DCT to Dharamtar (Ready) will be covered in 1 hour 30 minutes
- 19 km distance from DCT to Kanhoji Angre Island will be covered in 40 minutes
- 25 km distance from Belapur to Thane will be covered in 20 minutes
- 23 km distance from Belapur to Gateway of India will be covered in 20 minutes
- 12 km distance from Vashi to Thane will be covered in 15 minutes
- 25 km distance from Vashi to Gateway of India will be covered in 20 minutes

2. Ferroviaire

Indian Railways' big plans for future: Upgraded Vande Bharat trains, new station redevelopment model and more

Financial Express, 02/08/2021

Under the leadership of new Railways Minister Ashwini Vaishnaw, Indian Railways eyes to roll out new 'Make in India' Vande Bharat trains, introduce a new model for redevelopment of railway stations with private players, plans economy of scale in freight business as well as foray into global market with indigenous technology. According to officials quoted in an IE report, under Vaishnaw, the national transporter has overhauled the Vande Bharat project, wherein the upcoming trainsets will have technical specifications that are an upgrade on the current Vande Bharat set, in terms of passenger comfort as well as ride quality. Also, there are plans to export globally. India is the world's ninth country to manufacture 180 km per hour trainsets and the Vande Bharat trains, at current prices, are comparatively cheaper than their global counterparts.

Under the new Railway Minister, the station redevelopment project is being recast in partnership with private players. According to the sources quoted in the report, the Model Concession Agreement for it might be done again to make them more attractive for Indian Railways as well as private players. To run private passenger trains, only two players have come forward in the first-ever tender, and it has been decided to overhaul the model completely for better success. Internally, it is being said that Indian Railways is treating the tender result for the 12 clusters as a "good beginning".

For freight business, Indian Railways is now exploring a model in order to bring down the costs of logistics, as well as play with its own freight tariffs to make them more competitive. A senior official has said by the year 2024, Indian Railways aims to overshoot the target and go for maybe 3,000 MT of goods carried in

a year, which is approximately three times the volume carried now.

Besides, the national transporter also plans to develop its own Train Collision Avoidance System and to start with, roll it out through Indian manufacturing partners across 10,000 kilometres. The technology renamed "Kavach" will be an effective alternative for conventional in-cab signalling as well as enhance the throughput of the network, according to officials. The Railway Minister has also instructed the Mumbai-Ahmedabad high-speed rail corridor project's speedy execution, especially in the portion in Gujarat where the process of land acquisition is more or less complete.

Big step for faster Indian Railways services! Maximum permissible speed on Godavari bridge doubled to 100 kmph

Financial Express, 28/07/2021

Indian Railways has been continuously modernizing its infrastructure to enhance train speeds. In this direction, the South Central Railways zone has taken a major step by doubling the maximum permissible speed to 100 km per hour on the crucial Godavari Bridge situated between the Manchiryal-Peddampet section. Interestingly, this is the first time on the South Central Railway network that a ballasted deck bridge of more than 1 Km length has been permitted to operate at 100 km per hour. The 9 km long Manchiryal-Peddampet stretch is located in the Golden Diagonal route of the Kazipet-Balharshah section, which is a gateway of the Southern region of the country, particularly from north India.

According to South Central Railways, within this critical stretch, as many as seven minor bridges are located along with one 1.2 km long crucial bridge across the Godavari river. Several cement, coal and thermal plants are surrounding this stretch with a separate line for their sidings/industries leading to the section's heavy congestion. To ease the congestion, third line had been completed in 2018. Since then, the maximum permissible speed was 80 km per hour between Manchiryal-Peddampet, while over the Godavari Bridge, the maximum speed has been 50 km per hour.

To double the speed on this bridge, major work was undertaken by the zonal railway, which involved welding all the long weld rails along the bridge, providing Switch Expansion Joint on bridge approaches' both sides, track formation strengthening by unloading of another 120 number of wagons of Ballast as well as tamping among others. To ensure no defects, TRC and OMS tests were conducted over the bridge accordingly.

Simultaneously, according to South Central Railways, the temporary speed restrictions along the third line between Manchiryal-Peddampet were attended as well and speed over this section has been enhanced to 100 km per hour. The zone further stated that this will help in better train operations in the Kazipet-Balharshah railway section, which is a busy and saturated section with both, freight and passenger trains being operated at full capacity.

Indian Railways' big plan for 75th Independence Day! At least 10 Vande Bharat trains to link 40 cities

Financial Express, 19/07/2021

To commemorate 75 years of Independence, Indian Railways plans to roll out at least 10 new indigenous semi-high speed Vande Bharat Express trains, connecting around 40 cities, by August 2022. The engineering company Medha, which was awarded the contract to supply the electrical systems for a total of 44 Vande Bharat train sets in the month of February, has now been told by the railway

authorities to advance its production plan so that by March next year at least two prototype trains can be rolled out following all trial runs. According to an IE report, there is a contract condition that besides all testing and trials that are required to pass a Vande Bharat trainset, the prototype train should also complete commercial operation of 1 lakh km with passengers, before the following lot can be placed for manufacturing.

With this condition, it could take months for the indigenous semi-high speed trains to hit the railway tracks commercially. The initial plan, without the thrust, was to roll out the Vande Bharat trains' first set on the rail tracks by December 2022 or early 2023. The Railway Board held a meeting on Saturday, headed by chairman Suneet Sharma. According to the sources quoted in the report, the meeting was attended by concerned Railway Board members, General Managers of production units, the RDSO as well as other engineers.

As per the estimation of officials, if all three production units are put to use, the national transporter can manufacture approximately 67 Vande Bharat train sets. A self-propelled Vande Bharat train set has 16 coaches and it does not require an engine to haul them. This is known as distributed traction power, which is increasingly becoming the norm across the world, as opposed to trains hauled by locomotives. Being run with the distributed power mechanism, the train, which is India's own semi-high speed train set, has faster acceleration and deceleration. This helps to maintain a higher average speed despite halts. Also, this ensures that unlike ordinary loco-hauled trains such as Shatabdi and Rajdhani, wherein time and speed are lost when it has to halt and gather speed again, the Vande Bharat takes less travel time in completing its journeys.

At present, only two Vande Bharat trains are operational between Delhi-Varanasi and Delhi-Katra. The plan is to get as many as 100 such train sets eventually. To produce 100 Vande Bharat trains each with 16 coaches, the cost would be around Rs 11,000 crore (around Rs 110 crore per train). Under the new plan, the Railway Ministry's idea is to get maximum Vande Bharat Express trains rolled out by the year 2024 by utilizing the three production units of Indian Railways- Modern Coach Factory in Raebareli, Integral Coach Factory in Chennai and Rail Coach Factory in Kapurthala.

3. Développement et transports urbains

Puri first Indian city to get 24x7 piped drinking water supply

The Times of India, 27/07/2021

BHUBANESWAR: Puri, which attracts two crore tourists every year, has earned the distinction of becoming the first Indian city to get round-the-clock piped pure drinking water.

Launching "Sujal — Drink from Tap Mission" via a virtual platform, Odisha chief minister Naveen Patnaik said on Monday that Puri has joined international cities like London, New York and Singapore in supplying quality piped drinking water from taps 24x7.

"The launch... in Puri is a new chapter in Odisha's development. It makes the heritage city the first in India to achieve this milestone, matching the standards of supply of drinking water in many foreign cities. Around 2.5 lakh people of Puri town and two crore tourists visiting the city every year can now get quality drinking water from taps, doing away with the need to store and filter water," Patnaik said in his address.

Drinking water fountains have been set up at 400 locations in the pilgrim town to ensure that visitors do not carry plastic bottles. The government hopes that the Sujal piped water scheme will eliminate the use of three crore plastic bottles, thereby preventing the

formation of 400 metric tonnes of plastic waste in Puri every year.

"Sujal, which is a transformative project under the government's 5T charter (Transparency, teamwork, technology, time frame and transformation), has been commissioned in only nine months. The project will subsequently be extended to 16 other urban localities with a 40-lakh population," he said.

Quality drinking water is closely linked with good health, the human development index and the economy, the CM said. To ensure that the state gets safe and hygienic drinking water, the Odisha government has increased its budget from Rs 200 crore to Rs 4,000 crore in the last five years.

The initiative has been launched under the "Jalsathi" programme and involves joining hands with women's self-help groups (SHGs) under Mission Shakti, a state initiative to empower women, according to the government. Quality check of the drinking water will be conducted by "Jalsathis" picked from the women's SHGs.

Union ministry of housing and urban affair's secretary Durga Shanker Mishra, who attended the launch, said it would work as a role model for other states.

Chief secretary Suresh Mohapatra, 5T secretary V K Pandian, state housing and urban development secretary G Mathi Vathanan and minister Pratap Jena were among others who attended the launch.

4. Pétrole, gaz et biocarburants

India reduced support to the fossil fuel industry by 4%

Hindustan Times, 20/07/2021

Although most G20 governments have announced ambitious climate targets to reach Paris Agreement goal of limiting global temperature rise to 1.5 degree Celsius, they have continued providing support for coal, oil, gas, and fossil-fuel power to the tune of $3.3 trillion between 2015 and 2019.

India reduced support to the fossil fuel industry by 4% from 2015 to 2019 even as the countries in the G20 forum of the world's major economies are not walking the talk in addressing the climate crisis, a new report by BloombergNEF, a global research organisation, and Bloomberg Philanthropies released on Tuesday said. The G20 countries provided $636 billion in direct support for fossil fuels in 2019, which is just 10% less than that in 2015, it added.

The report noted India has reduced the support, but it has 66 coal power plants in the pipeline. India is second only to China, which has 247 coal power plants in the making among G20 countries while Indonesia has 33.

Most G20 countries have announced ambitious climate targets to reach the Paris Agreement goal of limiting global temperature rise to 1.5-degree Celsius compared to pre-industrial levels. But the report said they provided $3.3 trillion support for coal, oil, gas, and fossil-fuel power between 2015 and 2019. It added the sum could have funded 4,232GW new solar power plants or over 3.5 times the size of the current US electricity grid.

The G20, as a whole, has cut fossil fuel funding by 10% during 2015–19. But there are significant variations across countries. Eight countries of the forum--Australia, Canada, the US, Brazil, France, Indonesia, Mexico and China--increased their support to the fossil fuel industry."This support encourages the (potentially wasteful) use and production of fossil fuels. It can also distort prices and risks carbon 'lock-in'— whereby assets funded today will be around for decades, locking in

high levels of future emissions. All of these factors hinder the climate transition," the report said.

In a statement, Günther Thallinger, a member of the Board of Management of Allianz SE and chair of the UN convened Net-Zero Asset Owner Alliance, said as of today policy frameworks across most G20 countries are not sufficient to drive a real economy to net zero transition to achieve the 1.5 degree Celsius goal with reasonable likelihood. "The new NDCs (nationally determined contributions) and 2050 net zero targets from some G20 countries are warmly welcome, however pledges and targets alone will not be sufficient to change course. The development and publication of credible 2030 emission reduction plans, which create a rising price on carbon and have clear regulatory standards, including on climate-related financial disclosures are urgently needed."

India is under pressure to clarify its short- and long-term climate ambitions after other major economies announced carbon-neutrality goals, the report said. It added India has set up a task force to consider potential timelines and pathways for reaching net zero emissions.

India is likely to request financial support from other countries in return for a net zero pledge. It could also opt for a near-zero emission target to balance the need to tackle climate change and to enable economic development.

Over half of electricity generation capacity is owned by the Centre and state governments and it is mostly dependent on fossil fuels. The Centre aims to divest state-owned companies and raise ₹1.75 trillion, Union finance minister Nirmala Sitharaman said in her budget speech in February, the report noted. India does not yet have any national carbon pricing mechanism or a policy on climate risk reporting.

The Climate Policy Factbook of BloombergNEF has pointed to three areas for which immediate government action is needed to limit global warming to 1.5 degrees Celsius. They include phasing out support for fossil fuels, putting a price on emissions, and encouraging climate risk disclosure. In each of these areas, the report found the policies of G20 countries were off course.

The report said France and Germany have made the most progress in terms of implementing carbon pricing. Russia, Saudi Arabia, Brazil, Indonesia and India have no pricing policies.

Climate-risk policies can also assess the effects of environmental changes and climate policies on the current performance of companies and financial products, the report said. Financial institutions do not have the data needed to assess climate-related risks associated with their investments. This puts the onus on regulators to enforce disclosure regulations focusing on physical assets and environmental data, the report added. A few countries have made policies on such disclosure. They include France, Germany, Italy and the UK.

"G20 is a very diverse group of countries. The wealthy countries in this group are yet to meet the Paris Agreement's climate finance goal of $100 billion, though they spent an estimated $189 billion last year on fossil fuels. For developing countries in the G20, such as India, the imminent drying up of coal finance and the EU's new carbon tax on imports are serious signs that our industry needs to prepare to shift to low carbon technologies. This new report gives importance to carbon pricing as a way to incentivise shifts to cleaner fuels and technologies. The government of India's Apex Committee for Implementation of Paris Agreement, set up in December 2020, is authorised to issue guidelines on carbon pricing," said Ulka Kelkar, director of the climate programme at the World Resources Institute, India.

Oil Ministry authorises new companies to sell auto fuels in the country

Business Standard, 19/07/2021

The Ministry of Petroleum and Natural Gas has granted seven authorisations to companies for selling auto fuels in the country. These new approvals are under the relaxed guidelines for authorization to market transportation fuels that were revised in 2019. This is expected to make the competition more intense in India's petroleum retail business.

According to a top ministry official, a fresh marketing authorisation has been granted to Reliance Industries (RIL) under these norms. This is being done as RIL's existing Retail Marketing Authorisation has been transferred to its subsidiary Reliance BP Mobility (RBML). This was required since the Mukesh Ambani group has reorganised its petroleum to chemicals business. Another authorisation has been granted to RBML Solutions India under these new rules.

Chennai-based IMC (once called Indian Molasses Company), which specialises in oil terminals, also got the approval to sell auto fuels in the country. It had competed for a discovered small field project during the second bid round to explore and produce oil and gas from India. But IMC could not bag a project. It currently offers liquid storage for multiple ports in the country. IMC is known for storing petroleum products, liquefied gases, petrochemicals, acids and vegetable oils.

Assam Gas Company, a government of Assam undertaking, that is primarily engaged in the gas transportation business has got an approval for fuel retailing. According to the company website, it has a network of underground natural gas trunk and distribution pipelines that serves about 400 tea factories, 1,000 commercial establishments, about 31,000 domestic consumers and several big industrial consumers in the districts of Tinsukia, Dibrugarh, Sivasagar, Charaideo, Jorhat, Golaghat and Cachar in Assam.

Newly-incorporated Onsite Energy has also got an approval for petroleum retailing in India. According to regulatory filings, it was incorporated in May 2020 and has two directors, Shilpa Shekhar Borhade and Anish Ajit Kunkulol. Regulatory filings say the company is involved in service activities incidental to oil and gas extraction excluding surveying. It is said to offer oil and gas field service activities on a fee or contract basis.

M K Agrotech and Manas Agro Industries and Infrastructure have also got fuel retailing authorisations under the new rules. M K Agrotech is part of a diversified conglomerate with interests across agricultural products such as sunflower oil, real estate, and crude oil and gas extraction. Manas Agro Industries and Infrastructure has its own brand of Liquefied Petroleum Gas (LPG or cooking gas) and has also collaborated with Essar Petroleum (now Nayara Energy) for supply of ethanol blended petrol.

These new authorisations were granted to companies having a minimum net worth of Rs 250 crore at the time of making application. In case authorization is required for both retail and bulk sales, the minimum net worth requirement was Rs 500 crore. According to the 2019 rules, for retail authorisation, an entity has to set up at least 100 retail outlets, out of which 5 per cent should be in the notified remote areas within 5 years of the grant of authorisation.

"Essentially, it is difficult for these new entities to work on a standalone basis, they will need back-end support from some company already having infrastructure. Since they are not into crude oil refining, they will have to depend on imports, and it will be hard for them to get the entire value chain in place from fuel import to dispensation point. So,

they will have to tie up with some large company that has such an existing infrastructure in place. They will have to ride on bigger players," B S Kanth, former Director Marketing at IndianOil told Business Standard.

"Having got the license, even bigger players may be keen on tying up with them to leverage their experience. It is likely that collaborative entities will come about. These may come up in pockets and not on a pan India basis," he added.

India's fuel demand has rebounded from COVID-19 pandemic lows and it expected to report positive growth over last year. Around 90 per cent of the country's fuel retailing outlets are currently owned by public sector undertaking companies. The remaining market is largely dominated by RIL and Nayara Energy.

5. Electricité et énergies renouvelables

IOC to build India's first green hydrogen plant

The Times of India, 20/07/2021

NEW DELHI: India's largest oil firm IOC will build the nation's first 'green hydrogen' plant at its Mathura refinery, as it aims to prepare for a future catering to the growing demand for both oil and cleaner forms of energy.

Indian Oil Corporation (IOC) has drawn a strategic growth path that aims to maintain focus on its core refining and fuel marketing businesses while making bigger inroads into petrochemicals, hydrogen and electric mobility over the next 10 years, its chairman Shrikant Madhav Vaidya said.

The company will not set captive power plants at all its future refinery and petrochemical expansion projects and instead use the 250 MW of electricity it produces from renewable sources like solar power, he told PTI in an interview.

"We have a wind power project in Rajasthan. We intend to wheel that power to our Mathura refinery and use that electricity to produce absolutely green hydrogen through electrolysis," he said.

This will be the nation's first green hydrogen unit. Previously, projects have been announced to produce 'grey hydrogen' using fossil fuels such as natural gas.

Hydrogen is the latest buzz for meeting the world's energy needs. Hydrogen, in itself, is a clean fuel but manufacturing it is energy-intensive and has carbon byproducts.

Brown hydrogen is created through coal gasification while the process of producing grey hydrogen throws off carbon waste. Blue hydrogen uses carbon capture and storage for the greenhouse gases produced in the creation of grey hydrogen.

Green hydrogen production - the ultimate clean hydrogen resource - uses renewable energy to create hydrogen fuel.

"Mathura has been selected by virtue of its proximity to TTZ (Taj Trapezium Zone)," Vaidya said adding the green hydrogen will replace carbon-emitting fuels that are used in the refinery to process crude oil into value-added products such as petrol and diesel.

He said all of the expansion projects will use grid electricity, preferably green power to meet the energy requirements.

"We have got a number of expansions down the line which are already approved. We will not have a captive power plant and will utilise power from the grid, preferably green power. This will help decarbonise some part of the manufacturing," he said.

IOC's refinery expansion plans include raising the capacity of units at Panipat in Haryana and

Barauni in Bihar and setting up a new unit near Chennai.

"We are going to add 25 million tonnes of our refining capacity by the year 2023-24. We are 80.5 million tonnes now including CPCL, we are going to be 105 million tonnes," he said.

Vaidya said IOC was pushing ahead with research on carbon capture, utilisation and storage technologies -- space where it is seeking global collaboration to meet its Paris climate goals.

Hydrogen, he said, would be a fuel of the future. IOC is planning to set up several hydrogen production units on a pilot basis.

This includes a project at Gujarat refinery to produce finite purity hydrogen of 99.9999 per cent for hydrogen fuel cell buses. "Today, 50 buses in Delhi are being fueled by hydrogen-spiked compressed natural gas, or H-CNG, which has 18 per cent hydrogen content," he said adding hydrogen fuel cell buses will be put to service on iconic routes of Vadodara-Sabarmati and Vadodara-Statue of Unity, Kevedia.

"About 15 fuel-cell-powered buses, with the fuel cells entirely India-made, are expected to ply in the second half of 2021. Since running these buses would require hydrogen, IOC is setting up a plant, whose capacity could be anywhere between 200 tonnes and 400 tonnes per day," he added.

Petroleum refining and marketing will continue to be IOC's core businesses with much higher petrochemicals integration. Also, gas will play a larger role and the firm will have a presence in electric mobility space through charging stations at petrol pumps and a planned battery manufacturing unit.

Forecasts by various agencies see Indian fuel demand climbing to 400-450 million tonnes by 2040 as against 250 million tonnes now. This gives enough legroom for all forms of energy to co-exist, he said adding the demand growth makes it imperative to pursue refining expansion as well as expand footprint in compressed natural gas, LNG, biodiesel and ethanol.

Vaidya said IOC had already commissioned battery swapping stations across many cities. The firm already has installed 286 charging stations, including swapping stations, across the country, which will be raised to 3,000 EV charging stations in the next few years.

Share of non-fossil fuel based generation capacity rises to 39 per cent

Energy World, 28/07/2021

NEW DELHI: Non-fossil fuel sources now account for 39% of India's power generation capacity, a fact that will help the country surpass its NDC (nationally determined contribution), or carbon reduction commitment under the Paris climate agreement, thanks to the Narendra Modi government's aggressive renewable energy programme.

Under the NDC, 40% of India's generation capacity was to be non-fossil fuel based by 2030. NDCs embody efforts by each country to reduce national emissions and adapt to the impacts of climate change.

India's renewable energy capacity, including installed, under installation and being tied up, stood at almost 97 GW (gigawatts) as of June 30, power minister Raj Kumar Singh informed the Rajya Sabha on Tuesday. This does not include large hydel projects, which are also categorised as renewable.

As on June 30, the total non-fossil fuel based generation capacity stood at 150 GW, which is 39% of the total installed installed capacity.

The government has set a target of 175,000 MW renewable capacity by 2022, which includes 100,000 MW from solar, 60,000 MW

from wind, 10,000 MW from biomass and 5,000 MW from small hydro.

The Centre has taken several steps to promote renewable capacity. These include waiver of inter-state transmission charges on electricity generated from solar and wind projects that are commissioned up to June 2025.

Green energy corridors have been developed to evacuate power from renewable energy sources. Renewable purchase obligation trajectory has been notified with the objective of creating a renewable power capacity of 175 GW by 2022.

Indian solar companies jittery as curbs on Chinese modules end this week

The Economic Times, 28/07/2021

Domestic solar manufacturers are jittery as the import duty protections to prevent dumping of Chinese modules are expiring by the end of the week, with no replacements in sight yet.

The current safeguard duty (SGD) of 14.5% on imports is set to expire on July 30. Due to World Trade Organisation (WTO) rules, an SGD cannot be applied for more than four years; India is currently in its third year.

Even if the SGD is extended for the fourth and final year, WTO rules also dictate a progressively lower rate of duties, which would result in an SGD of approximately 14% for the coming months.

Meanwhile, the government plans to levy a basic customs duty of 25% on solar cells and 40% on modules from April 2022. This provides for an 8-month duty holiday window that Indian power developers hope to exploit by stockpiling solar modules for future projects.

"This period will have a crippling effect on domestic manufacturers, which may also lead to the shutdown of units in India, putting 200,000 jobs at stake in the sector," said a spokesperson from the All India Solar Industries Association (AISIA), an industry body representing domestic solar manufacturers.

AISIA counts Adani Solar, Tata Power Renewables, Waaree, Goldi, and Websol as members. They combine to form 11,000 megawatts of production in India and will reach 20,000 megawatts by the end of the year.

Currently, over 80% of Indian solar equipment used in power projects is imported from China. This figure will rise to 100% between August to March, AISIA's spokesperson added.

"Until BCD comes into effect from April 1, 2022, and safeguard duty expiring in July 2021, the government needs to implement import protection measures against foreign dumping during this gap period," said Gyanesh Chaudhary, managing director of Vikram Solar, India's largest solar manufacturing company.

Favourable global conditions, but Indian manufacturers lagging Despite a host of entry barriers such as the SGD, incoming BCD, and the productivity-linked incentive (PLI) scheme for solar manufacturing, the Indian solar manufacturing industry falls behind in production capacity, technology and prices. Indian modules cost approximately 25% more than their Chinese counterparts.

The 25% difference has narrowed since the start of the year, as the global commodity supercycle and Covid-19 linked production delays in China hiked module prices by 35% since June last year.

"The difference between the price of modules manufactured in India versus imported has narrowed after the recent upsurge in global module prices. If similar gaps persist, the BCD is likely to bridge it, helping domestic module manufactures," said Debasish Mishra, partner,

leader - energy, resources and industrial products, Deloitte India.

"The international module markets are volatile and prices have seen fluctuations. China itself is struggling to ramp up production after pandemic driven uncertainties," added Deepto Roy, partner, Shardul Amarchand Mangaldas & Co.

Solar modules make up 60% of any renewable project's capital expenditure. With the competitive bidding process coming down to single paise, the lack of competitive pricing by Indian companies makes it an easy choice for developers to go the foreign made ones.

Some domestic manufacturing companies moved to the Directorate General of Trade Remedies (DGTR) under the Department of Commerce to impose an anti-dumping duty to cover the duty-free period. However, as of press time Tuesday, DGTR had still not concluded its investigation in the matter.

"The government is quite committed to the Make in India initiative and thus the solar equipment manufacturers would anticipate that the safeguard duty would be extended to cover this bridge period," said Hitesh Sachdeva, partner, deal advisory, KPMG India.

Discoms to submit proposals for Rs 3.03 lakh cr scheme by Dec 31: Power Min

Energy World, 30/07/2021

New Delhi: The government has extended the deadline to states for enrolling into the Rs 3.03 lakh crore revamped electricity distribution scheme by two additional months to December 31, power minister R K Singh said on Friday. The scheme guidelines issued last week asked state power distribution companies to apply for participating in the scheme by October 31.

The deadline for detailed project reports (DPRs) submission would be December 31 2021 and no submission beyond that deadline would be accepted, Singh said at a review meeting with state power ministers.

The action plans and DPRs need to be formulated by the discoms in consultation with ministry of power REC and Power Finance Corp (PFC). The distribution utilities will indicate specific activities and reforms required to improve their performance as part of the action plans.

Singh said that the target of the scheme is to bring down the Aggregate Technical and Commercial Losses (AT&C Losses) to 12-15% at the All India level and bringing down the gap between Average Cost of Supply (ACS) and Average Revenue Realised (ARR) to zero by 2024-25.

He said the scheme envisages use of Artificial Intelligence and Information Technology for system generated energy accounting to enable energy audit and modernsation of distribution infrastructure for loss reduction and improvement in quality and reliability of power supply

Under the scheme, 3,875 SCADA systems would be set up in smaller towns and 100 distribution management system would be set up in the bigger towns and cities. Discoms would be able to take up works related to underground cabling, aerial bunch cabling and also install high voltage distribution systems. The scheme also provides for separation of agricultural feeders and separation and solarisation of agricultural feeders.

"The aim is to establish an operationally efficient and financially sustainable power sector which is equipped with modern technologies like Smart Grids, capable of providing state-of-art consumer services and is future ready for integration with Renewable energy sources and facilitate E-Mobility, Time of Day Tariff etc," an official statement said.

6. Mobilités électriques

Rajasthan announces EV subsidies, following Delhi, Maharashtra & Gujarat

Energy World, 17/07/2021

New Delhi: The Rajasthan Government on Friday announced a policy to subsidise the sale of electric vehicles (EV) making it the latest state to have such a policy after Maharashtra, Gujarat and Delhi.

As per the policy document, the state component of the goods and services tax (SGST) would be refunded to buyers of all EVs in Rajasthan between April this year and March 2022.

Moreover, buyers of electric two- and three-wheelers would be given additional cash subsidies between Rs 5,000 and Rs 20,000 depending on the size of the battery equipped.

However, unlike other states with buyer-side subsidies for EVs, the Rajasthan government will not extend any cash subsidies for electric cars or buses. The quantum of the subsidy for two- and three-wheelers also is lower than the other three states mentioned.

These incentives will be on top of the subsidy extended by the centre under the phase-2 of the Faster Adoption and Manufacturing of Electric and hybrid vehicles (FAME-2) scheme. Last month, the subsidy on two- and three-wheelers under FAME-2 was also doubled by the centre to improve offtake after muted response from consumers.

The EV industry is counting on these subsidies to speed up the adoption of these vehicles in the country after years of low penetration despite ambitious projections given by them.

These measures could help bridge the gap between consumers being aware about EVs and them willing to buy these vehicles, according to Sohinder Gill, Director General, Society of Manufacturers of Electric Vehicles (SMEV) which is an EV industry lobby.

350 EV charging stations installed under FAME India Scheme

Energy World, 20/07/2021

New Delhi: As many as 350 charging stations were functional as of July 6 in different cities for electric vehicles under the Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) India Scheme, Parliament was informed on Tuesday. These charging stations are in cities including Chandigarh (48), Delhi (94), Jaipur (49), Ranchi (29), and Agra (10).

Minister of State for Heavy Industries Krishan Pal Gurjar said that under FAME India Scheme (Phase-I and II), since its implementation from April 2015, a total of 3.61 lakh electric vehicles were incentivised to the tune of about Rs 600 crore till July 9, 2021.

"Phase-II of FAME India Scheme is being implemented for a period of 5 years w.e.f. April 1, 2019, with a total budgetary support of Rs 10,000 crore," he said in a written reply to the Lok Sabha.

This phase focuses on supporting electrification of public and shared transportation and aims to support, through subsidies, he said.

Karnataka plan for an EV cluster near Bengaluru yet to take off due to land acquisition issues

The Economic Times, 21/07/2021

Karnataka's plans to develop an electric vehicle and batteries manufacturing estate on the outskirts of Bengaluru have been bogged down by delays in land acquisition.

The government-owned Karnataka Industrial Area Development Board (KIADB) has notified

900 acres of land for the proposed cluster at Harohalli near Bidadi industrial area, but has not been able to move ahead as landowners are quoting prices that the government finds steep. According to KIADB officials, the process was progressing well until some land owners approached the Karnataka High Court questioning the compensation amount based on technical grounds. The court has directed the board to hold talks with landowners and arrive at a consensus.

About two years ago, the industries department came up with the idea of developing an EV cluster in about 650 acres of land to help EV and component makers to take advantage of the ecosystem at a single site. The cluster will provide logistics and support for entrepreneurs in the EV sector, the industry department officials had then said.

The Karnataka government, the first state to introduce the EV policy, was also simultaneously in talks with some top EV manufacturers including Tesla to have their production facilities here. While the industries department is tight-lipped about any major EV makers showing interest to set up units around Bengaluru, the delay in the land acquisition for the cluster may also be hampering the talks.

Industries minister Jagadish Shettar told ET that the government was making efforts to complete the land acquisition soon, and was simultaneously tapping investors to set up their units here. The government has been in talks with some EV firms to get them to the proposed cluster, he added.

"We had notified the land near Bidadi for an industrial area, which the government later felt could be suitable for EV manufacturing," N Shivashankara, chief executive officer, Karnataka Industrial Areas Development Board said.

The issues related to compensation, he said, will be sorted out soon. "Landowners have agreed to part with the land. But we have to agree on a price," he said.

Industry officials are cautiously approaching the project as the government cannot afford a manufacturing estate where plot prices are uncompetitive for EV investors. The land around Bengaluru is expensive compared to the bordering Hosur and Krishnagiri in Tamil Nadu where TVS, Ola and Ather have opened their EV production facilities, tapping on Hosur's proximity to Bengaluru which has a talent pool and ecosystem conducive for electric vehicle industry.

To make the EV cluster work, the government will have to beat down costs and offer plots at prices investors find competitive compared to those in the neighbouring states. The government's efforts to develop EV clusters in tier cities like Dharwad has not received positive response from EV investors as they prefer land close to Bengaluru over far away places in Karnataka.

Cell Propulsion starts Li-ion battery factory in India for its electric commercial vehicles

Express Drives, 29/07/2021

Cell Propulsion, a start-up founded by former ISRO engineers, has now started its pilot production line for Li-ion batteries. The facility, based out of Bengaluru, has a maximum output of 500kWh/month. The cells will be used in the company's in-house light commercial electric vehicles. Cell Propulsion currently is engaged in fleet management of electric vehicles. They deploy these vehicles as part of a fully managed solution to make the adoption of eCVs by logistics and transportation company completely seamless. The company says that batteries of LCVs have a very different design problem compared to the design of battery packs for passenger vehicles or light vehicles. Cell Propulsion claims that it has successfully engineered a reliable

system, for the purposes of both Light and Heavy Commercial Vehicles, which is modular, robust and has simple implementation.

Further, the company has employed novel design approaches to develop battery systems that will consider safety, thermal performance, structural loads, power delivery and modularity. The battery management system designed by Cell Propulsion implements proprietary algorithms for state estimation of battery packs – typically for charge and health. The commissioning of the pilot line for producing automotive-grade (AIS-48 certified) battery packs is a major milestone in the journey to deploying class-leading eLCVs for their customers. This launch comes after Cell Propulsion raised $2 million in June 2021 from a clutch of private equity investors, including Endiya Partners, GrowX Ventures, Huddle Accelerator and Micelio. Last September, the company had also raised $1 million in a pre-series A round of fundraising.

7. Environnement et qualité de l'air

Mid-century target for net zero emission inadequate, says India

The Hindu, 24/07/2021

New Delhi wants G20 nations to pledge for reductions by 2030

At the conclusion of the G20 climate meet, India on Saturday, said that pledges by some countries to achieve Net Zero GHG emissions or 'carbon neutrality' by mid-century were inadequate, when considering the rights of developing countries to economic growth.

"We have noted the pledges made by some countries to achieve Net Zero GHG emissions or carbon Neutrality by or around mid century. However, this may not be adequate in view of fast depleting available carbon space. Therefore and keeping in view, the legitimate need of developing countries to growth, we urge G20 countries to commit to bringing down per capita emissions to Global average by 2030," said the Indian statement .

The G20 climate summit, that concluded on Friday, comes roughly about 100 days before the Conference of Parties (COP 26) is set to begin in Glasgow, Scotland.

The Net Zero emissions refer to a situation where a country is able to remove at least as much carbon dioxide from the atmosphere as it is emitting. This can be done by increasing forest cover or through technologies such as carbon capture. India's position as the third largest greenhouse gas emitter but also with among the lowest per capita emissions means that it has always resisted a hard deadline — some countries have set their target years as 2050 or 2060 — to commit to a net-zero future. It is expected that the forthcoming COP 26 talks in Glasgow will see a commitment by the United States.

Countries periodically submit the National Determined Contributions (NDC) that outline their plans towards capping emission. As per the NDCs submitted to UNFCCC under Paris Agreement, the pledge of the United States falls short of their fair share by 12 tons of CO2/capita, of UK by 14.1 tones CO2/capita, of China by 0.2 tons CO2/capita, and of India by 0.4 tons CO2/capita, according to Council on Energy Environment and Water, a New Delhi based think-tank. The fair share represents the reductions countries must achieve to ensure that the greenhouse gas levels are below that to prevent a 1.5 average temperature rise over the globe by the turn of the century.

India's NDC requires it to achieve three main goals including increasing cumulative electricity generation installed capacity from non-fossil sources of energy to 40% by 2030, which currently stands at around 38%; lower emissions intensity of its GDP by 33-35% compared to 2005 levels by 2030 and create

additional carbon sink of 2.5 to 3 billion tons through additional forest and tree cover. Within this is included a commitment to install 175GW of renewable energy by 2022 comprising 100GW of solar, 60GW of wind, and 10GW of bioenergy, and 5GW of small hydropower projects.

PM Modi has claimed to increase the targeted 175GW by 2022 to 220GW and also claimed to install 450GW of renewable energy by 2030. If India were to achieve this, the share of installed capacity of non-fossils in India's electricity mix would reach 65%. In comparison, India's Paris agreement target is to reach 40% non-fossils by 2030.

India would focus on implementing its "ambitious plans" through concrete actions domestically as well as globally via collaborations such as the International Solar Alliance and the Coalition of Disaster Resilient Infrastructure, Union Environment Minister Bhupender Yadav said at the conclusion of the summit.

India may oppose carbon border tax at G20 meet

Energy World, 22/07/2021

New Delhi: Developing countries, including India, may during the two-day G20 ministerial meeting on environment and climate change in Naples, Italy, beginning Thursday, raise their concerns over the EU's recent proposal on the world's first carbon border tax.

Under this proposal, the 27 EU nations will impose a border tax on imports of carbon-intensive goods. The tax plan, yet to be legally formalised, will come into force from 2026.

India's new environment minister Bhupender Yadav will virtually participate in the meet that will focus on how to reach a positive outcome at the crucial 26th session of the UN climate change conference (COP26) in Glasgow, UK in November. Environment ministers of G20 nations will also make interventions during the sessions on natural capital to protect the planet and on making joint efforts for sustainable use of resources.

Besides raising usual points of concerns like finance and pre-2020 actions of rich nations, India and other countries are expected to raise the issue of the carbon border tax as any such unilateral move may impact their trade in due course of time.

"India has always held a view that any such unilateral carbon border adjustment will be discriminatory and against the principles of equity and CBDR-RC (common but differentiated responsibilities and respective capabilities)," said an official in the environment ministry. He said India would seek clarification on such a proposal, underlining that such a trade barrier won't help in bridging the trust deficit between developed and developing countries ahead of COP26.

Under the EU's proposal, importers of carbon-intensive products like steel, cement, fertilisers and aluminium will have to pay the carbon border tax. It will soon be legally adopted by 27 nations as part of the EU's programme to meet its new climate target of cutting greenhouse gas emission by 55% by 2030 from 1990 levels.

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