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

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En bref

Infrastructures

- Le programme de développement portuaire Sagarmala a permis de réduire le temps d'escale des navires de 40% en sept ans.

Ferroviaire

- Les Indian Railways vont lancer un appel d'offres pour l'acquisition de 90 000 wagons de fret sur trois ans, pour un coût estimé à plus de 4,5 Mds EUR.
- Les Indian Railways passent commande de 58 nouveaux trains Vande Bharat auprès de sept entreprises, dont Alstom-Bombardier.

Energies fossiles et biocarburants

- Le gouvernement central double le prix du gaz domestique, en alignement avec la hausse des prix mondiaux.
- SpiceJet, Boeing et l'Institut Indien du Pétrole (CSIR-IIP) s'associent pour travailler sur les carburants pour l'aviation durables.
- Les prévisions officielles estiment à 350 MT la production de charbon dans les mines détenus par des acteurs privés en 2030, contre 80 MT aujourd'hui.

Electricité et énergies renouvelables

- L'Inde envisage d'exempter les projets solaires remportés avant mars 2021 des taxes sur l'importation de panneaux photovoltaïques.
- La SECI nomme un nouveau directeur pour le développement photovoltaïque, M. Sanjay Sharma.

- L'Inde va développer trois fermes éoliennes au Sri Lanka après avoir réussi à écarter l'entreprise chinoise initialement sélectionnée.
- Les Pays-Bas se disent intéressés pour importer de l'hydrogène vert produit en Inde.

Mobilités électriques

- L'IREDA accorde un prêt de 2,7 Mds INR (31 M EUR) à l'entreprise BlueSmart Mobility pour financer l'achat de 3 000 véhicules électriques.
- Plusieurs départs de feu sur des deux-roues électriques nourrissent le débat sur les normes de sécurité des batteries produites en Inde.
- L'Inde a enregistré une augmentation de 162% des ventes de véhicules électriques pendant l'exercice fiscal 2021-22.

Environnement et qualité de l'air

- Le gouvernement de Delhi annonce plusieurs mesures touchant aux énergies renouvelables, à la mobilité électrique et à l'agro-écologie afin d'accélérer la transition écologique de la capitale.
- Selon une étude, la production des panneaux photovoltaïques en Inde est diminuée d'un tiers du fait de la pollution de l'air.
- L'Inde réautorise l'importation de bouteilles en PET pour l'industrie du recyclage des plastiques, trois ans après son interdiction.
- Le think tank Climate Risk Horizons avertit sur la non-préparation des banques indiennes aux conséquences des changements climatiques.

Revue de presse

1. Infrastructure

Sagarmala completes 7 years; helps reduce port turnaround time by 40pc

Mint, 25/03/2022

The government's flagship Sagarmala program has helped to make Indian ports more efficient reducing the turnaround time of containers and bringing more volumes to ports.

Commemorating the seven years of Sagarmala program on Friday, Minister, Ports, Shipping and Waterways (MoPSW) Sarbananda Sonowal said that the project has lived up to the objective to improve ports' efficiency and improved Quality service delivery has made Turnaround Time (containers) at Ports coming down to 26.58 hours from 44.70 hours in 2013-14.

During the event, Sonowal also launched a mobile application of Sagarmala that would provide report on the progress made on projects in real time basis.

The Minister said the report card of Ministry showcases 802 projects worth Rs. 5.48 lakh Crore under the Sagarmala program targeted to be executed by 2035 out of which 194 projects worth Rs. 99,000 Crore have been completed.

A total of 29 projects worth Rs. 45,000 Crore have been successfully implemented under PPP model, thus, reducing the financial burden on the exchequer, the minister said.

Further, there are 218 projects worth Rs. 2.12 lakh Crore under construction and expected to be completed in 2 years' time. This apart, 390 projects worth Rs. 2.37 Lakh Crore are under development pipeline.

Sonowal also mentioned about the skill centers developed under Sagarmala. Centre of Excellence in Maritime and Shipbuilding (CEMS) which has trained over 5000 candidates in 50+ courses since inception. National Technology Centre for Ports, Waterways and Coasts (NTCPWC) at IIT Madras has carried out more than 70 research and technical support projects related to ports and waterways.

Centre for Inland and Coastal Maritime Technology (CICMT) at IIT Kharagpur has been set up to provide research, testing and experimentation facility to IWAI, shipyards and ports. Multi Skill Development Centres (MSDC) for training are already operational at the premises of Jawaharlal Nehru Port and Chennai Port Authorities in which 1200 candidates have been trained. Also, more than 35,000 candidates have undergone training at Safety Training and Welfare Institution, Alang.

Additionally, Deen Dayal Upadhyay-Grameen Kaushalya Yojna Sagarmala Convergence Programme, under Ministry of Rural Development, to enable skilling of coastal population, trained more than 1,900 candidates, he added.

Port connectivity, another important element of the program, has 80 projects under its ambit. These include connectivity infrastructure projects, freight-friendly expressways to enable efficient movement of containers on key routes, and the development of strategic inland waterways.

Port-led industrialization is being taken up with the aim to boost industrial and export growth along the coastline. This will be realized through 14 Coastal Economic Zones (CEZs) along the coastline. Another noteworthy initiative, development of a new deep draught port at Vadhavan, on the north coast of Maharashtra is taking shape. The port will cater to Ultra Large Container Vessels (UCLVs). Steps are also being taken towards transitioning major ports to smart ports focusing on Port Community System; Logistics Data Bank Service; RFID Solutions; Enterprise Business Systems; Direct Port Delivery (DPD); Direct Port Entry (DPE); scanners/ container scanners and simplifying the procedures.

During this event an exhibition was also organized by major ports showcasing their Sagarmala projects.

Sagarmala program was launched in March 2015 with the objectives to achieve port modernization & new port development, port connectivity enhancement, port-led industrialization and coastal community development. The program has followed a stepped approach of implementation with first attempt on implementing the maritime projects through Public Private Partnership (PPP) wherever feasible. Projects which have high social and economic quotient but low IRR are being implemented through funding support under the Sagarmala program.

The financial assistance is provided to State Governments and other MoPSW agencies for port infrastructure projects, coastal berth projects, Road & Rail projects, fishing harbours, skill development projects, Coastal community development, cruise terminal and unique projects such as Ro-Pax ferry services etc.

2. Ferroviaire

Railways to float INR35,000 cr global wagon tender in Q1

Mint, 09/03/2022

Indian Railways is set to float a mega tender in the June quarter to procure 30,000 freight wagons every year over the next three years at an estimated cost of over ₹35,000 crore, said two people familiar with the matter.

Details of the tender are being finalized, the people said requesting anonymity. The tender will set a record for the railways, which has never procured more than 15,000 wagons in one year, offering a huge boost to domestic manufacturing of rail wagons.

Texmaco Rail and Engineering Ltd, Titagarh Wagons Ltd, Jindal Rail Infrastructure Ltd, and Jupiter Wagons are among the major wagon producers in the country. The government's plan is to revive manufacturing in a sector that has been grappling with low capacity utilization because of muted demand from the railways. The large order size is in sync with expectations of a future demand push from dedicated freight corridors and the need to make rakes available throughout the year for bulk freight consumers.

"The stakeholder's consultation for the wagon tender has been completed and it may be issued very soon, as early as late next month. The move will give a huge fillip to the domestic wagon manufacturing industry and allow the railways to meet the growing demand," said one of the people cited above.

Queries sent to the railway ministry on 2 March remained unanswered till press time. "The industry had never supplied more than 15,000 wagons. It's a challenge for the industry as well. While the installed capacity of the industry is about 30,000 wagons, it has never been tested. The industry is operating at much lower capacities and 2,500 wagons per month may not happen initially though numbers will gradually ramp up," said Texmaco Rail & Engineering managing director Ashish Kumar Gupta.

The two people cited above said the Railways would use the preferred reverse e-auction model for the freight wagon tender to allow the second-lowest bidder to get a portion of the tender if the lowest bidder isn't able to serve the entire order. Besides meeting future growth in demand, the order is also likely to reduce the cost of wagons by up to 20% as competition will drive down prices.

The carrying capacity of the national transporter is set to almost double to more than 2,400 million tonnes per year, with the construction of dedicated freight corridors. This will require the railways to augment wagon capacity to utilize the available infrastructure. Also, the railways has set an internal target of enhancing its freight loading from slightly less than 4 million tonnes per day currently to more than 5 million tonnes. This would need an additional 100,000 wagons, which the proposed tender aims to achieve over three years.

According to government officials, depending on the progress of tenders in the initial year, the size of wagon procurement may be enhanced in subsequent years. The ministry hopes that the size of the global tender would also encourage foreign investors to consider building wagon manufacturing facilities in India, which will be a boost to the government's Make in India initiative.

The railways has set a freight earnings target of ₹1.65 trillion in FY23, up from ₹1.37 trillion in FY22. The budgetary provisions for wagon procurement for FY23 at ₹7,978 crore, however, look muted in comparison with the latest push towards local manufacturing, but government officials said the budget may not be a constraint and, depending on the evolving situation, the figure could be enhanced during the year.

Railways places order for 58 new Vande Bharat trains with 7 firms

Times of India, 10/03/2022

The Indian Railways has placed an order for 58 new Vande Bharat trains with seven companies including Medha Servo, Bombardier and Siemens. It has also placed "developmental" orders with four other companies which will manufacture at least one train each, which is aimed at creating a bigger pool of manufacturers who can meet future demand for such trains. Sources said while Medha will manufacture 26 such trains, Bombardier and Siemens will manufacture 16 and nine respectively.

The government-owned BHEL has also got the order for another four trains. The companies that have got developmental orders include Titagarh Wagons and CGL. "First, we have high domestic demand and second we can become a big player in exporting these trains to other countries as our cost of production is almost one-third as compared to any other country.For that, we

need to go for capacity building and hence the companies that have got the developmental order will also emerge as potential players in the near future," an official said.

The government has a mega plan to introduce more Vande Bharat trains on major inter-city routes and also on capital connectivity corridors. The future Vande Bharat trains will have sleeper facility for overnight journeys. Currently, only two Vande Bharat trains are operational and 44 are being manufactured. Union finance minister Nirmala Sitharaman in her budget speech had announced the roll out of 400 more such trains in the next couple of years.

3. Energies fossiles et biocarburants

Gas price to more than double from tomorrow; APM gas price in H1FY23 seen at $6.6/unit

The Financial Express, 31/03/2022

Come April 1, administered price of natural gas in India will more than double. Effective October, it could be more than four times the current level. 'Market-determined' price of gas produced from 'difficult' fields such as the KG-D6 block in KG basin operated by Reliance-BP combine, will also see a similar hike.

While these are good tidings for India's gas producers, Reliance Industries and ONGC, as they seek to ramp up production from both the existing and new fields — Reliance-BP, for instance, will start production at MJ fields in KG-D6 block in the last quarter of 2022, which will nearly double the block's output — households and other non-industrial users will bear the brunt.

City-gas distribution (CGD) companies like Mahanagar Gas, Indraprastha Gas and Gujarat Gas, being the main buyers of domestic gas, will find their costs going up. But analysts feel since they have been passing on cost increases to the consumers in a calibrated manner over the last few weeks, the impact of costlier gas on their margins would be moderate in the short term.

A source from CGD firm confirmed this to FE on condition of anonymity. These companies enjoy considerable pricing power as demand for piped gas for cooking and CNG is largely agnostic to prices.

For gas-based power, a fuel cost above $4.5/mmBtu (net calorific value basis) could be prohibitive. So any delay in a corresponding tariff revision could result in a further drop in their capacity utilisation. The prospect of a further reduction in gas-fired power unit's plant load factor come at a time when elevated prices and short supply of coal are threatening to cause power outages as demand peaks during the upcoming summer.

As for fertiliser companies, feedstock cost is a pass-through, but the government's subsidy burden on the soil nutrients in FY23 could increase from the budgeted level of Rs 1.05 trillion to Rs 1.5-1.6 trillion owing to the rise in prices of imported LNG sourced via spot purchases and long-term contracts by the LNG-terminal companies.

Jefferies predicted that domestic APM gas cost could rise sharply from $2.9 per million British thermal units (mmBtu) on a gross

calorific value (GCV) basis for the second half of FY22 to $6.6/mmBtu in the first half of FY23 and potentially increase further to $ 9.2/mmBtu in the second half of FY23 (see chart for price estimates by ICICI Securities on net calorific value basis).

The government sets the administered price of gas for normal fields every six months — on April 1 and October 1 — based on rates prevalent in select global gas markets but with a lag of one quarter. It remains to be seen if the government will intervene in the price-setting mechanism now given the big spike in prices and its potential to stoke inflation.

Probal Sen, analyst at ICICI Securities, said: "Price hikes of Rs 13-14/kg will be needed for city-gas and Rs 12-13/scm for domestic segment in April, assuming no change happens in spot LNG blending from current levels of 15-18%. If this (blending) reduces to levels of 3-5%, net price increase will be limited to S 4-5/kg."

"Higher domestic gas prices will lead to higher input prices for all consuming industries like city gas players etc. But all the companies have pricing power and will pass the prices to end consumers, thereby maintaining margins," said Avishek Datta, research analyst at Prabhudas Lilladher. He expects APM gas price (GCV) to be around $6/mmBtu for H1FY22.

Deepak Mahurkar, partner at PwC, said: "The demand for gas from some global hubs has gone to record highs. A softening of prices is not in sight. Almost all sectors are looking at passing on the price rise to customers. It will be interesting to watch how the global suppliers of gas and crude will fund renewables using the unusual earnings. Since India is significantly import-dependent for gas, the benefits aren't for India, except to the domestic producers (who have a relatively small share in the market), if their prices are indexed."

Swarnendu Bhushan, oil & gas analyst at Motilal Oswal Financial Services, said: "CNG prices could go up by 4 per kg with every dollar increase in price of APM gas. It would roughly translate to Rs 12-16 per kg increase due to a $4 hike in APM gas price from April. Piped natural gas prices could also see an increase by3/scm with every dollar increase in APM price, which would mean an increase of Rs 12/scm".

Currently, spot LNG prices are ruling at $35/mmBtu compared to $15/mmBtu a year ago. "If the price of crude drops to $80/bbl then long term crude linked contracts will fall to $11-12/mmBtu from $15 at present, while spot will come below $12/mmBtu," Bhushan added.

Quoting two unidentified sources, PTI reported that the government-dictated price for gas produced from fields given to state-owned explorer ONGC on nomination basis (APM gas) is likely to rise to $5.93/mmBtu from current $2.9/mmBtu. Simultaneously, difficult fields like the ones in Reliance-BP operated D6 block in KG basin, are likely to get $9.9-10.1 price compared to the current rate of $6.13, the agency added.

Sharing his expectation that APM gas price would be $6-6.5/mmbtu for H1FY23, Prashant Vashisht, VP & co-head-corporate ratings at Icra said: "For every $1/mmBtu increase in domestic gas prices, assuming that the CGD players maintain their current absolute contribution margins in /kg

and/scm terms, they could increase CNG and PNG (domestic) prices by Rs 4.5-4.7/kg and Rs 2.5-2.7/scm, respectively in Delhi. Generally, we have seen costs being passed on by CGD entities. However, there may be a lag in the pass-through due to graded increase in prices which would impact margins."

As regards the fertiliser sector, which relies on domestic gas for nearly 32% of its gas requirement while meeting the balance requirement through R-LNG imports, Icra estimates that for every $1/mmBtu rise in the 'pooled gas price,' the subsidy requirement for the urea sector could rise by around Rs 4,500-5,000 crore.

While spot LNG prices are high and volatile at present, the price of long-term LNG that Petronet procures would increase by $1.3/mmBtu for every $10/bbl increase in dated Brent prices (3 month average) at terminals (after payment of excise duty), Vashisht noted.

Jefferies wrote: While passing through $9.2 APM gas price will not be easy, we think there is enough headroom for city gas distribution companies to raise prices, with economics aided by higher crude likely reflecting in higher petrol and diesel prices. A possible govt intervention could provide additional relief. Even if (the price-setting formula suggests $6.6 (GCV) APM price in April, one-off govt intervention (without providing a ceiling) could limit APM gas to possibly $5.5 (GCV)/ $ 6.1 (NCV), which could reduce the ask-rate for CGD companies significantly."

Of the total gas consumed in the country, almost 50% is imported LNG. India's annual domestic consumption of urea is 32-35 million tonne (MT) and 30% of this is imported (although imports are expected to moderate in FY23 with commissioning of 3 new plants).

DAP requirement varies from 8-10 MT with nearly 50% of the quantity being imported. However, the indirect import dependence in case of DAP/NPK would be to the tune of 95-98% given that the inputs used are imported. The country's MOP requirement is around 3.5 mt and it is entirely imported.

SpiceJet, Boeing and CSIR-Indian Institute of Petroleum join hands for sustainable aviation fuel

The Times of India, 25/03/2022

SpiceJet, Boeing and CSIR-Indian Institute of Petroleum (IIP) on Friday announced that they are working together to explore opportunities for the use of Sustainable Aviation Fuel (SAF) in the Indian aviation industry, as part of the organisations' commitment to help reduce carbon emissions, contributing to the Indian Government's environmental goals.

The companies will work together to leverage SAF supply from CSIR-IIP and its production partners and licensees to help SpiceJet decarbonize its fleet. SAF can reduce CO2 emissions by as much as 65% over the fuel's life cycle with the potential to reach 100% in the future. It is recognized as offering the most immediate and greatest potential to decarbonize aviation over the next 20 to 30 years.

Ajay Singh, Chairman and Managing Director, SpiceJet said, "We are at the forefront in leading initiatives that contribute to the reduction in carbon

footprint, enabling the Indian aviation sector to be smarter, cleaner, and sustainable. This expanded work with Boeing, with whom we already share a strong partnership through the highly efficient 737 MAX, along with the Indian Institute of Petroleum, who are the frontrunners for developing SAF in India, is a step in the journey to ensure air travel is sustainable for future generations."

"At Boeing, environmental sustainability is at the core of how we work and develop our products and solutions for our customers. We have been pioneers in making sustainable aviation fuels a reality. We believe that strategic partnerships within the Indian aerospace ecosystem are critical to decarbonize our industry, aligned with the Indian Government's environmental goals.

We are honored to work with SpiceJet to advance sustainable aviation, with whom we already have an enduring partnership, and extend gratitude to IIP for being the catalysts for enabling SAF in India, for India," said Salil Gupte, President, Boeing India. "Our Institute is the first and currently the only organization in India that is developing a fully indigenous SAF in the country, for the country. We are delighted to partner with SpiceJet and Boeing to contribute to making the Indian skies cleaner and greener," said Dr. Anjan Ray, Director, CSIR-Indian Institute of Petroleum.

India expects private coal mines to produce at least 350 mln tonnes by 2030

The Economic Times, 31/03/2022

India expects coal mines owned by private companies to produce 350-400 million tonnes of coal by 2030, a senior coal ministry official told an industry conference on Tuesday, potentially reducing the country's dependence on imports.

India, the world's second largest coal consumer behind China, opened up coal mining to the private sector companies, such as Adani Enterprises and Vedanta, for the first time in 2020, after years of lobbying by coal users to privatise coal mining.

The increased domestic production could mean lower imports. Indonesia, Australia and South Africa are the country's largest suppliers, and together account for over 90% of coal imports.

India's imports have fallen in the recent months due to high global prices, increasing dependence on Coal India. The state-run miner accounts for over 80% of India's domestic output, and is targeting an output of 670 million tonnes in 2021-22.

M Nagaraju, the additional secretary at the federal coal ministry, said he also expected mines recently allocated to state-owned firms along with those auctioned to the private sector to produce 80-85 million tonnes of coal in 2021-22.

The output from these mines is expected to increase by about 60% to 130-135 million tonnes during the year ended March 2023, Nagaraju told the Indian Coal Markets Conference.

India has since awarded licences to the private sector to operate 42 coal mines with a combined capacity of 86 million tonnes per annum.

But nearly 75% of the 145 mines auctioned in the first three rounds have so far attracted no interest from private sector participants. Only 11 of the 99 mines auctioned in the fourth round have received any interest from bidders. The fourth round auction process is still ongoing. (Reporting by Sudarshan Varadhan. Editing by Jane Merriman).

4. Electricité et énergies renouvelables

India considers exempting some projects from solar import taxes

Mint, 23/03/2022

India's renewable energy ministry has backed a demand to shield some projects from impending taxes on solar equipment imports, after generators said the added costs will slow the nation's shift to clean energy.

"We have requested Ministry of Finance to consider grandfathering of basic customs duty for projects bid out before March 9, 2021," the renewable energy ministry said in response to emailed queries, indicating support for exempting these projects.

The levies, effective from April 1, could jeopardize solar projects with a combined capacity of 28 gigawatts, according to the National Solar Energy Federation of India. The industry group has asked the government to shield projects awarded before March 9 last year, when the plan was officially announced, from the higher costs to keep them viable.

The import taxes -- 40% for modules and 25% for cells -- are aimed at encouraging greater domestic manufacturing of solar equipment. The federation, however, estimates they will add to power bills and slow the country's efforts to move away from coal, which accounts for more than two-thirds of electricity generation.

"Such incremental costs will have an adverse impact on the perception of the renewable energy industry, which is seen as a cost-effective alternative to conventional sources of energy," the group said in a letter to Renewable Energy Minister Raj Kumar Singh. Without any tax relief, some projects might not get commissioned, it said.

India plans to expand its solar capacity to 280 gigawatts by the end of this decade from about 51 gigawatts now, but its manufacturing capacity can only currently meet around half of that requirement. The government has also approved a list of companies that are allowed to supply cells and modules, with all of the firms either having manufacturing facilities in the country or planning to build them. However, it's not clear when this will be implemented. Local capacity to make higher-wattage modules is low, meaning power companies may need to keep importing them, even after the taxes take effect, said Rohit Gadre, an analyst at BloombergNEF in New Delhi. Some power producers have stockpiled modules, with imports in the five months through January doubling from the year-earlier period, he said.

India's solar sector has grown rapidly over the past few years, with most cells and

modules coming from China. Sensing the opportunity, domestic players are jumping into the market.

Adani Group, Tata Power Co., Vikram Solar Ltd. and Waaree Energies Ltd. are among the top local manufacturers. Mukesh Ambani's Reliance Industries Ltd. has also pledged to build solar equipment plants.

Sanjay Sharma appointed director for solar on SECI board

Mint, 28/03/2022

Solar Energy Corporation of India (SECI) has appointed Sanjay Sharma as the Director (Solar) on its board. Sharma was so far, the Executive Director of the state-run company.

"The President is pleased to appoint Sanjay Sharma, Executive Director (ED), SEBI as Director (Solar) in the board of SECI with effect from the date of his assumption of charge of the post till 28.02.2027 i.e. date of his superannuation, or until further orders," said an order from the Ministry of New & Renewable Energy on Monday.

The order further said that the terms and conditions regulating the appointment will be issued separately after receipt of his charge assumption.

SECI is a public sector undertaking under the Ministry of New and Renewable Energy set up on September 20, 2011 to facilitate the implementation of National Solar Mission and to achieve its. It is the only central PSU dedicated to the solar energy sector. It is a major player amid the government's massive push for renewable energy, in several aspects including solar and green hydrogen.

Last month, HPCL and SECI inked a pact for cooperation and collaboration in the field of renewable energy, electric mobility, and alternative fuels including the development of ESG Projects.

In December 2021, Adani Green Energy Ltd (AGEL) signed a power purchase agreement (PPA) with SECI to supply 4.66 gigawatts (GW) of renewable power.

India to build Sri Lanka wind farms after China pushed aside

Economic Times, 29/03/2022

India has agreed to develop three Sri Lankan wind farms on islets between the countries, officials said Tuesday, in a victory for New Delhi after the project was taken away from a Chinese firm. New Delhi has long been alarmed about growing Chinese influence in the region. In 2020, 20 Indian soldiers and four Chinese troops died in a brawl on the border.

A $12 million project to build wind turbines on three small islands in the Palk Strait between southern India and Sri Lanka was awarded to a Chinese firm in 2019, with funding lined up from the Asian Development Bank (ADB).

But after Indian protests about Chinese activity so close to its coast, work never began and the project on the islets of Nainativu, Analaitivu and Delft was later scrapped.

A joint statement issued Tuesday after a visit to Colombo by India's foreign minister said a memorandum of understanding had been signed to build the installations. Sri Lankan

officials said India had agreed to provide funding in place of the ADB.

Last week, the Chinese ambassador in Sri Lanka, Qi Zhenhong, expressed Beijing's displeasure over the scuttling of the project and warned it would send a negative signal to potential foreign investors.

India is known to be suspicious of China's growing political and economic influence in the South Asian nation, which is strategically located at the southern tip of the vast Indian sub-continent.

China and India have been competing for major infrastructure projects in Sri Lanka, which is currently facing its worst economic crisis since independence from Britain in 1948.

Colombo has asked for more loans from both nations to shore up its foreign reserves and import essentials including food, fuel and pharmaceuticals.

Netherlands offers facilitation of green hydrogen export from India to Europe

BusinessLine, 29/03/2022

Netherlands has offered to facilitate export of green hydrogen from India to Europe. It has also indicated to take the green fuel in significant quantities for its domestic use.

Talking to visiting Indian journalists, Prince Jaime de Bourbon de Parme, Climate Envoy of Netherlands, said that the war in Ukraine has put dialogue around energy dependence on a faster mode. There is a need for alternatives to Russian gas. "One of the alternatives is green hydrogen. As it happens, it is one of the goals for India to become a net exporter of green hydrogen; we could become a net importer, because the Netherlands doesn't have enough space to produce all the green hydrogen ourselves," he said.

Green hydrogen is derived from water electrolysis using renewable energy like solar or wind. Biomass-based hydrogen production technologies also qualify under the green category. On the other hand, brown and grey hydrogen are produced through coal gasification and natural gas reforming, respectively. These production pathways generate a significant amount of carbon dioxide. Integration with appropriate carbon capture and utilisation technologies results in blue hydrogen.

Focus area
Indian Oil has already announced setting up the nation's first 'Green Hydrogen' plant at its Mathura refinery. Hydrogen being the cleanest form of energy is the latest focus area across the globe to satiate the rising energy needs.

According to Parme, the requirement for green hydrogen is not just for the energy-intensive industry, but also for transport and household usages. Potentially, gas could be replaced by green hydrogen. "The Netherlands is well-positioned to be your gateway to the rest of Europe, with the Port of Rotterdam as Europe's biggest port, linking Northern European countries, including Germany and Belgium," he said, adding that there's a potential to explore for two countries.

According to calculations by the International Renewable Energy Agency (IRENA), India needs about $42 billion over the period till 2030 per year for the annual renewal energy investments.

Netherlands is the fifth biggest Foreign Direct Investor in India. So, "you can expect to see these investments shifting from fossil fuels to renewals, going forward", he said.

Talking about potential in industry for use of green hydrogen, he said he is in dialogue with the industry because they should be placing orders. "So, the question is how do we structure it and what infrastructure do we need. Are you going to ship hydrogen as ammonia or in frozen form? All that needs to be agreed to see which way is the best. Right now, Singapore and Japan are the furthest developed in importing green hydrogen, so we are looking at them also to set the standard and to see what is the standard going forward," he said.

Netherlands is working with India on an MoU on Renewable Energy. It has MoU's with quite a few countries as an open agreement to see and explore how we can work together. "There are several areas of collaboration, such as research, knowledge, building plants and infrastructure such as ports and solar and wind generation. All these areas need to be mapped out and severely reduce emissions if we are to preserve a futureproof planet," he said.

The MoU is expected to be taken up during the visit of President Ram Nath Kovind to Netherlands next month.

5. Mobilités électriques

IREDA sanctions Rs 267 cr loan to BluSmart Mobility

Economic Times, 31/03/2022

State-run Indian Renewable Energy Development Agency (IREDA) has sanctioned a Rs 267.67-crore loan to BluSmart Mobility for the purchase of 3,000 all-electric cars. "In a bid to promote electric vehicles in Delhi-NCR region, Indian Renewable Energy Development Agency Ltd (IREDA), the largest lender of the Renewable Energy sector in India, sanctioned a loan of Rs 267.67 crores to BluSmart Mobility for the purchase of 3,000 all-electric cars," a company statement said.

According to the statement, the BluSmart Mobility will use the fresh capital to purchase 3,000 all-electric cars to expand its EV fleet. From the sanctioned loan of Rs 267.67 crores, the first tranche of Rs 35.70 has been disbursed by IREDA to the company.

IREDA CMD Pradip Kumar Das said, "This is our first major investment in this space and towards making India a cleaner and greener country. IREDA is looking forward to financing more EV projects to speed-up the progress of moving transportation to clean sources in the country. This is part of the company's endeavour to help reduce emissions in the National Capital Region".

Anmol Jaggi, Co-Founder, and CEO, BluSmart Mobility said in the statement, "We are excited with this fundraise and heartily thank the Government of India for taking sturdy steps in the EV sector and IREDA for putting trust in us." The IREDA under the administrative control of Ministry of New and Renewable Energy is India's leading financial institution dedicated to clean energy expansion.

Fire incidents highlight 'burning' issues in India's EV ecosystem

PV Magazine, 31/03/2022

Over the last few years, India has witnessed a substantial growth in EV adoption especially in the two-wheelers and three-wheeler segment. While the country's rapid growth is promising, there are certain challenges the sector is facing which can backfire in the long run.

We have already witnessed two accidents of EV bikes catching fire, one recently being in Pune. The Electric S1 Pro Scooter was seen to emit thick smoke supposedly from its floorboard and under seat storage eventually burning up in flames.

Such incidents bring to light the substandard battery quality or the lack of knowledge about batteries or usage of extremely high energy density batteries. It is mandatory to ensure premium quality batteries are used to avoid such instances. Also ensuring the vehicle stays cool is extremely important as the incident could have possibly been a case of battery cell rupture due to excessive rise in temperature. Thermal Runway is of paramount importance in battery design.

To avoid such accidents, certain measures must be kept in mind. One being the Government's intervention in ensuring premium quality batteries are manufactured and supplied, effective implementation of battery swapping policy, educating the masses about the hazards of opting for cheap batteries and awareness pertaining to safety and operating guidelines.

Batteries account for almost 50% of the EV cost and with the recent tension between Russia and Ukraine, pricing of batteries have exponentially shot up. India is heavily dependent on import of raw materials like nickel, cobalt and lithium which are needed for battery cells.

Over the period of last few months, nickel prices have increased 25.30 percent monthly while surge in cobalt has been 11.88 percent in a month as Russia is the second largest exporter of Cobalt. This has increased the overall EV pricing to almost 25-30 percent in a month.

In addition to the geopolitical crisis, surge in covid cases in China have also had a major hit on imports as most components are imported from there. The Government must put in place favourable policies to support the indigenous manufacturers and suppliers to increase EV battery availability at competitive prices.

And although we may have just about commenced our run in the EV race, it is critical that we jump-start the pace of adoption by enhancing the overall perception of EVs from a safety and longevity standpoint.

India registers 162% growth in EV sales this year, says Gadkari

Business Standard, 31/03/2022

Union Minister for Road Transport & Highways, Nitin Gadkari on Thursday in the Lok Sabha said that India has registered overall 162 per cent growth in the sales of electric vehicles this year.

Responding to a question during Question Hour, Gadkari informed the house that on a year-over-year basis, the sales has risen. He

said that the category-wise, two-wheeler sales have increased by more than five times at 423 per cent, three-wheelers by 75 per cent, four-wheelers by 238 per cent and buses by 1,250 per cent.

Union Minister informed the house that a total 10,95,746 electric vehicles were registered in India with 1,742 charging stations operable as on March 13 this year.

Talking about the battery swapping policy, Gadkari said out of total, around 85 per cent Lithium Iron battery is being manufactured in India. "We have fixed standard in battery. If any manufacturer is not doing as per the fixed standard, action will be taken against them", said Gadkari on the question of charging capacity of the battery.

Gadkari said that for charging electric vehicles, our priority is to use green energy. He said that the government's policy is to entertain all new research, giving opportunity to new startup, by which we can establish appropriate technology which is more convenient and economically viable for the consumers.

"The NHAI is developing charging and amenities at every 40 km and we are trying to use solar and wind power for that", said the Transport Minister.

6. Environnement et qualité de l'air

Delhi eyes 1 lakh 'green' jobs in 5 years through 'Smart Urban Farming', new solar policy, 25K e-autos

Financial Express, 01/04/2022

The Delhi government Saturday said it will create one lakh "green" jobs in the next five years by starting "Smart Urban Farming" campaign, adding 25,000 e-autos and installing rooftop solar plants of a cumulative 2,500-megawatt capacity.

Green jobs are jobs that have a direct, positive impact on the environment traditionally involving renewable energy, electric transport, energy efficiency or nature conservation.

"Providing clean air and water for future generations is an integral part of the Delhi government's vision of 2047. Keeping this in mind, in the next five years, the Delhi government is going to launch several initiatives, which will create more than one lakh green jobs," Deputy Chief Minister Manish Sisodia said while presenting Delhi's budget for the financial year 2022-23.

He said that within 18 months of the launch of Delhi EV Policy-2020, the capital has emerged as the "EV Capital of India".

The share of EVs in the sale of new vehicles has increased from 1.2 per cent in 2019-20 to 10 per cent in February 2022, Sisodia said, adding Delhi has become the first state in India to cross the 10 per cent mark in EV sales, which is more than the share of electric vehicles in many developed countries like the UK, France and Singapore.

"With the increasing share of EVs, 20,000 new jobs will be created in the next five years in EV sales, repair and maintenance, operation and maintenance of EV charging stations," said Sisodia, who also holds the finance portfolio.

Besides, the Delhi government will launch more than 4200 e-autos with 33 per cent reservation for women drivers in the coming year.

"In concurrence with the Hon'ble Supreme Court, we will issue 5,000 e-auto permits every year for the next five years and this will create 25,000 new jobs," the deputy CM said.

He said the government will launch a new solar policy to achieve the target of taking the installed capacity of rooftop solar plants to 2,500 MW in the next five years, which should account for 10 per cent of Delhi's annual energy demand.

"With this, 40,000 jobs will be created for sales, construction workers, electricians, technicians and engineers in this sector," he said.

The government will also launch 'Smart Urban Farming' in association with the Indian Agricultural Research Institute-PUSA to increase the supply of nutritious organic food and provide employment opportunities to women at home.

"This will be the biggest initiative of its kind for any state in India. The Delhi government will organize workshops across the city and will make 'Smart Urban Farming' a mass movement by providing subsidized materials and trained gardeners especially for the women of Delhi. This will create 25,000 new jobs in Delhi in the next five years," Sisodia said.

The ambitious plan with an estimated outlay of Rs 750 crore to revive over 600 lakes and water bodies of Delhi will generate more than 6,000 green jobs for the 33 ongoing repair work and maintenance of these reservoirs.

Air pollution cut India's solar energy output by a third

The Telegraph, 21/03/2022

India lost almost a third of its solar power potential between 2001 and 2018 due to air pollution, scientists have found, in a blow to the country's clean energy transition.

A study by the Indian Institute of Technology (IIT) Delhi said the country lost 29 per cent of its utilisable "global horizontal irradiance potential", or the radiation that generates solar power, over the 17-year period.

India dominates the list of cities that have particle pollution levels more than 20 times the World Health Organization guidelines. Nine of the world's 10 most polluted cities are in South Asian country.

Health experts regularly warn that air pollution is a leading cause of death – killing 1.25 million people in India every year and seven million globally – but the impact on renewable energy is less reported.

For the study, the IIT scientists considered the "soiling effect", which is the presence of solid dust, and "atmospheric attenuation", the scattering of light due to gaseous pollutants in the air.

According to the team, India could have relied less on fossil fuels for power if it had met its clean air targets by generating more renewable energy.

India aims to reach net zero emissions by 2070 and to meet fifty percent of its electricity requirements from renewable energy sources by 2030.

The researchers said that if the National Clean Air Programme is successfully implemented – reducing aerosol pollution by 20-30 per cent by 2024 compared to 2017 levels – and household emissions are mitigated through cleaner fuel, the additional solar energy generated would translate to an "economic benefit of $325-845 million annually".

The researchers said the impact of attenuation and soiling was "greatest" in the eastern power grid, "with 16 per cent less sunlight reaching horizontal solar panels" in the period.

Three years after plastic waste ban, Environment Ministry allows imported PET bottles for processing

The Hindu, 30/03/2022

After banning the import of plastic waste in 2019, the Environment Ministry has permitted PET Bottles, as plastic waste, to be imported for processing. The decision to rollback the ban was taken last year after representations by several industries in the business of processing waste said there was too little waste available for them in India and this was causing them financial losses.

An expert committee of the Environment Ministry, last December, had recommended that firms who had applied for permission could import PET Flakes/Bottles up to 50% of their production capacity. Polyethylene Terephthalate bottles are a category of plastic of which nearly 90% of the domestic supply is already recycled.

However, this reprieve has not gone down well with environmentalist groups.

On Wednesday however, the Directorate General of Foreign Trade, a Union Commerce Ministry held a consultative meeting of representatives from the Union Environment Ministry and environmentalist organisation Pandit Deendayal Upadhyay Smriti Manch (PDUSM), companies that had requested permission to import plastic waste and the Plastic Export Promotional Council.

In 2021, seven Indian companies have applied to import 93,000 tonnes of plastic bottles waste from countries such as America, Canada, Germany, citing a shortage of plastic waste in India. "More than 465 crore discarded PET bottles of mineral water, cold drink, juice consumed in these countries could be imported into our country (1 bottle – 20gms)," the PDUSM said in a statement.

A campaign by the PDUSM against the import of plastic waste had played a role in the Centre's decision to impose a ban in 2019.

"There is no shortage of PET waste in India. As per the industry data, more than 14 lakh tonnes of PET plastic are consumed annually in India, and even with a global highest 80% recycling rate, approx. 2.8lakh tonnes of plastic bottles waste never gets collected. While the whole world is banning such imports to strengthen local plastic waste management, India would have been the first country to re-allow the import of plastic waste," Vinod Shukla, President, PDUSM,

told The Hindu, "Our main aim is to increase the collection of local waste. Our country's waste must be recycled first, before importing waste from other countries to make textiles/recycled products."

He said that he had already made arrangements to link Indian companies who would supply PET bottles to recyclers.

A senior official in the Union Environment Ministry, who did not want to be identified, told The Hindu that there was no blanket lifting of the import ban. "The import was permitted only for the PET bottles to be used for Recycled Polyester Staple Fibre and yarn. Currently the domestic capacity is limited and without imports these companies will suffer. So we have made a balanced decision, taking all stakeholders on board."

The influx of PET bottles has reportedly quadrupled from 2017 to 2018 with Indian firms importing plastic scraps from China, Italy, Japan and Malawi for recycling. India consumes about 13 million tonnes of plastic and recycles only about 4 million tonnes. To incentivise domestic plastic recycling units, the government had banned the import of plastic waste, particularly PET bottles, in 2015. In 2016, an amendment allowed such imports as long as they were carried out by agencies situated in SEZs. This was disallowed in 2019.

India's banks unprepared for financial impacts of climate change: Report

Business Standard, 22/03/2022

An analysis of India's leading banks by think tank Climate Risk Horizons on Tuesday warned that the country's banking sector is unprepared for the financial impacts of climate change.

The report, "Unprepared: India's big banks score poorly on climate challenge", ranks the 34 biggest banks in the country (based on market capitalisation) against a range of criteria and finds that barring a few examples, most banks have not even begun to factor climate change into their business strategies.

The analysis comes on the heels of the Intergovernmental Panel on Climate Change's (IPCC) report on impacts, adaptation and vulnerability which warned that India faces serious economic threats from sea-level rise and riverine flooding, reduced labour capacity due to intolerable heat, drop in crop and fish production and water scarcity.

Numerous studies have projected the impact on Indian economic growth and GDP from climate change. The World Bank estimates a 2.8 per cent annual hit to India's GDP by 2050.

Deloitte Economics Institute estimates that an emissions pathway consistent with a three degrees Celsius temperature increase (which is what the planet is currently on course for) would lead to an annual loss of three per cent of GDP from now till 2050 and a lost economic potential of $35 trillion by 2070.

Ashish Fernandes, CEO of Climate Risk Horizons and one of the authors of the report, said: "Even in a best-case climate scenario, the impact of the climate crisis on the Indian economy will be far-reaching.

"Our analysis indicates that the banking sector is not prepared to adapt to an

economy whose foundations will undergo significant challenges, and it is, for the most part, not stepping up to finance adaptation and mitigation efforts on the scale needed.

"The good news is that some banks are starting to take steps in the right direction."

YES Bank, IndusInd Bank, HDFC Bank and Axis Bank are the top-ranking banks overall and have started to consider the climate issue.

Public sector giant SBI is in distant sixth place. In general, the ranking shows that public sector banks, despite their influence and dominance, are lagging private sector financial institutions.

"Globally, central banks are waking up to the climate issue. Over 106 banks globally representing $68 trillion in assets have committed to achieving net zero emissions by 2050. The UN convened Net-Zero Banking Alliance lists banks from 40 countries as members but not a single bank from India. The RBI has a key role to play in ensuring that Indian commercial banks treat climate change as the systemic economic threat that it is," added Fernandes.