ECONOMIC TIMES, Delhi, 25.6.2024
Page No. 10, Size:(4.56)cms X (15.93)cms.

... Slaps Fresh Curbs on Russia Gas Shipments

Brussels: European Union countries adopted a 14th package of sanctions on Russia that aims to close some loopholes and hits Russia's gas exports for the first time, foreign ministers of the 27-nation bloc said on Monday.

Western powers imposed sweeping sanctions on Moscow after Russia launched a full-scale invasion of Ukraine in February 2022, which have been progressively ramped up since.

The new restrictions on gas aim to reduce Russia's revenues from liquefied natural gas (LNG) exports by banning trans-shipments off EU ports and a clause allowing Sweden and Finland to cancel some LNG contracts. The measures stop short of an EU ban on LNG imports, which have risen since the start of the war.

The sanctions will take effect after a nine-month transition period. The package also prohibits new investments and services to complete LNG projects under construction in Russia. Gas market experts say the measure will likely have little impact as Europe still buys Russian gas itself and trans-shipments via EU ports to Asia represent only around 10% of total Russian LNG exports.

An EU official said the estimated hit on Russia would be in the millions of euros rather than billions.

Some central European countries still receive pipeline gas from Russia via Ukraine. The EU banned Russian oil imports in 2022 with some limited exemptions. —**Agencies**

FINANCIAL EXPRESS, Delhi, 25.6.2024
Page No. 11, Size:(14.92)cms X (7.69)cms.

RATING: BUY

CNG motorcycle may fuel Mahanagar Gas growth

Expects 6% growth by 2030, 20% penetration in CNG motorcycles

THE WORLD'S FIRST CNG motorcycle (MC) is set to launch on July 5. We believe the economic benefits are compelling and could increase Mahanagar Gas's CNG volumes by 3–10% by 2030, fueling its growth. Key insights include: (i) CNG motorcycles are estimated to be 56% more cost-effective than petrol, with a payback period of 1.2 years despite a 20% higher vehicle cost. (ii) Bajaj's initial production capacity of 20,000 units per month in Maharashtra positions Mahanagar Gas as an early beneficiary, potentially boosting CNG volumes by over 2% by FY26E. (iii) Our base case projects a 6% volume growth by 2030E, assuming a modest 20% penetration of CNG in the motorcycle segment. (iv) Even without the influence of enhanced CNG motorcycle prospects, management anticipates a 6–7% volume growth by FY25. We reiterate our 'BUY' recommendation.

Bajaj Auto is set to launch the world's first CNG motorcycle on July 5, with an initial production capacity of 20,000 units per month. The current market for CNG-covered motorcycles is estimated at 0.36 million units, representing 45% of the overall motorcycle market. We believe that CNG-powered motorcycles could emerge as a compelling alternative in India's mobility sector due to their significant price competitiveness compared to petrol. Moreover, CNG two-wheelers could present a promising alternative to electric vehicles (EVs), especially since electric-powered two-wheeled motorcycles face structural limitations, technological gaps, and higher costs that hinder their viability at present.

We project the addressable CNG motorcycle market to expand from 45% to 70%, with the overall motorcycle market growing at a 4% CAGR. We outline four scenarios impacting Mahanagar Gas volumes. Assuming approximately half of Bajaj's initial 20,000 CNG motorcycles are sold in Mahanagar Gas's regions due to proximity, we anticipate its CNG volumes could increase by over 2% by FY26E. Our base case forecasts a modest 20% penetration of CNG in the motorcycle segment, translating to a 6% rise in Mahanagar Gas's CNG volumes by 2030. However, given the strong value proposition, we believe a bullish scenario could lead to a volume increase of over 10%.

NUVAMA

PRICE PERFORMANCE

Source: Company and Nuvama estimates

FINANCIAL EXPRESS, Delhi, 25.6.2024
Page No. 2, Size:(3.00)cms X (4.09)cms.

PILOT PROJECT ON UNDERGROUND COAL GASIFICATION

THE GOVERNMENT ON Monday said Eastern Coalfields, a Coal India subsidiary, has begun a pilot project for underground coal gasification in Jamtara district, Jharkhand. Underground coal gasification is a method of converting coal still in the ground to a combustible gas that can be used for various purposes.

FINANCIAL EXPRESS
READ TO LEAD

BUSINESS STANDARD, Delhi, 25.6.2024
Page No. 7, Size:(18.20)cms X (31.87)cms.

Mutual benefits

Sheikh Hasina's visit reflected geopolitical convergence

Bangladesh Prime Minister Sheikh Hasina's visit to India just a fortnight after she attended the third inauguration of Narendra Modi's prime ministership underlined the mutuality of geopolitical interests between the two neighbours that enjoy deep historical links and cordial relations despite blips over a Teesta river water-sharing agreement and the issue of illegal immigration. Ms Hasina is the first foreign leader to visit India after the formation of the new government in New Delhi. Recently sworn in for a historic fifth term as Prime Minister, Ms Hasina is seeking to rebalance Bangladesh's asymmetric relations with China, and the latest two-day visit to New Delhi served to emphasise that recalibration. On India's part, Mr Modi has been seeking to mobilise South Asian allies with a "neighbourhood-first" approach to position itself as a regional power and credible counter-balance to China.

The broad thrust of the 10 agreements between the two countries reflected these overlapping objectives. They included a raft of agreements on defence, maritime security, the blue (or ocean) economy, space, telecommunications, green technologies, medicines, and bolstered ties in railway connectivity. These agreements represent a continuum with key initiatives between the two governments in 2023. Chief among them was the India-Bangladesh Friendship pipeline, to transport high-speed diesel from the Numaligarh Refinery, Assam, to northern Bangladesh. Under a proposed trilateral hydropower agreement, India also agreed to facilitate electricity exports through Bhutan to Bangladesh. The latter initially plans to import around 1,500 Mw from Bhutan, and there has been progress on this project in recent months. At the same time, India has sought to manage the problems over Teesta water-sharing, after an agreement has long been stalled by objections from Sikkim and West Bengal, by sending a technical team to advise Dhaka on a mega project to conserve and manage the Teesta river. This offer comes on the heels of discussions last month between China and Bangladesh to construct a $1 billion development project in the Teesta basin. Besides, technical-level negotiations on renewing the Ganges Water Treaty of 1996 will start. Ms Hasina also addressed the Confederation of Indian Industry (CII), inviting Indian businesses to invest in Bangladesh and promising investment in better infrastructure to improve logistics between the two countries.

But for all the declarations of friendship and ceremonial protocols in New Delhi, China remains the looming challenge for both countries. China dwarfs India in terms of trade with Bangladesh. It is Bangladesh's single-largest partner with bilateral trade worth $24 billion. It is also the major source of raw materials for the engine of Bangladesh's economic growth — textiles and leather exports. Though Bangladesh is India's largest trade partner in South Asia, bilateral trade between the two is just $14 billion. The point of friction between Beijing and Dhaka lies in projects under China's signature Belt and Road Initiative (BRI) in Bangladesh. Although China has completed some 35 major infrastructure projects in Bangladesh under the BRI, financing has emerged as a key point of concern. Dhaka now owes Beijing $4 billion or 6 per cent of its foreign debt for BRI projects, a predicament that has delayed the creation of a 5G network and some key highways. In contrast, India has extended three lines of credit as well as grant assistance to Bangladesh for infrastructure development in addition to community development and capacity-building projects. Handled well, this relatively benign approach could prove another solid building block for India-Bangladesh relations.

BUSINESS LINE, Delhi, 25.6.2024
Page No. 12, Size:(2.99)cms X (4.27)cms.

Crude oil eases as $ weighs on commodities markets

Singapore: Crude oil prices inched down on Monday as concerns of higher-for-longer interest rates resurfaced and lifted the dollar, offsetting support for oil markets from geopolitical tensions and OPEC+ supply cuts. Brent crude futures slipped 5 cents to $85.19 a barrel by 0417 GMT, after settling down 0.6 per cent on Friday. REUTERS

BUSINESS LINE, Delhi, 25.6.2024
Page No. 11, Size:(9.47)cms X (11.96)cms.

Off the disinvestment track, BPCL can now focus on long-term goals

Richa Mishra
Hyderabad

The latest statement by the Minister of Petroleum and Natural Gas Hardeep Singh Puri has for the time being put to rest any concerns over disinvestment of Bharat Petroleum Corporation Ltd (BPCL).

BPCL can now focus on its long-term goals without the immediate pressure of privatisation, ensuring stability for its employees and stakeholders, according to those closely associated with the company.

Soon after taking charge as the Minister for Petroleum & Natural Gas for the second term, Hardeep Singh Puri was quoted as saying the Centre is not in favour of divesting the government's stake in oil marketing companies. Thus, sending a signal of reassurance to the public sector oil companies.

The Centre had planned to sell its entire stake of 52.98 per cent in BPCL, which was expected to fetch ₹45,000 crore in FY22, according to reports. The government had invited expression of interest (EoI), or initial bids, for these in March 2020. The plan was to complete the process by March 2021. But the process came to a standstill as there was just one bidder left in the fray after the other two dropped out due to their inability to tie up funds for the acquisition. The government may have paused the privatisation of BPCL due to several potential reasons including 'Strategic reassessment: Re-evaluating the strategic importance of BPCL in national energy security and profitability' and 'Stakeholder concerns: Addressing concerns from employees and other stakeholders about job security and operation', those in the know said.

According to a source, "The structural changes already made in anticipation of privatisation was not major and it won't affect much to companies' operations / growth."

An official told *businessline* that "the government's halt on disinvestment clearly means BPCL will continue to operate under public ownership, retaining its existing structure and operational policies."

However, there is a constant uncertainty that the government may just change its plan, another stakeholder said.

CHALLENGES

Talking about the challenges that still exist for the company, an official said, "BPCL still faces several challenges, including: Market competition: competing with private and international players in the oil and gas sector, Operational efficiency: Improving efficiency and reducing costs amid fluctuating global oil prices."

Investment in new businesses/technology: Entering into new business opportunities and investing in new technologies for sustainable growth, another area of focus now, the official added.

HINDUSTAN TIMES, Delhi, 25.6.2024
Page No. 15, Size:(29.74)cms X (16.43)cms.

Govt plans to shift focus from disinvestment policy

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NEW DELHI: The government may review the existing disinvestment policy and shift its focus from selling state-owned companies to prudent public wealth management, supporting not-for-profit enterprises, and ensuring strong presence of state-run firms in strategic sectors, two people aware of the development said.

The Indian economy has become stronger and global economic realities have changed considerably since February 2021 when the government unveiled its Public Sector Enterprise (PSE) Policy for Atmanirbhar Bharat. Hence, a review of the existing policy of 2021 is expected, they added requesting anonymity.

The February 2021 policy was prepared at a time when Covid-19 pandemic had wrecked the global economy. India proposed the policy on February 1, 2021 in the budget with a specific target of mopping up ₹1.75 crore as disinvestment receipts in the budget estimates (BE) of 2021-22. The target was finally reduced to ₹78,000 crore.

Nirmala Sitharaman, Union finance minister. MINT

"India's financial position is much better now with robust revenue flows; hence disinvestment proceeds are no longer critical for meeting fiscal deficit targets," one person said.

The 2021 policy that provided a roadmap for disinvestment in all non-strategic and strategic sectors sought to keep the g presence of central public sector enterprises (CPSEs) to four strategic areas : atomic energy, space and defence; transport and telecommunications; power, petroleum, coal and other minerals; and banking, insurance and financial services.

"In the changed national and global situations, when new challenges are emerging due to rapid technological advancements, a review of the policy is also needed," the first person added.

"The focus of the government is also on maximisation of overall value of PSEs in the nation building rather than giving a specific disinvestment target in the budget to please market analysts," a second person said. A beginning was already made in the revised estimates of 2023-24, which do not show any specific number for disinvestment in 2023-24, he added.

The interim budget for current financial year also has no specific mention of any disinvestment target, and this trend may continue, he said.

Existing CPSEs and new ones would continue to participate in India's economic development along with increased private participation, the second person said, adding that strategic sale of important companies such as Bharat Petroleum Corporation Ltd (BPCL) will also be reviewed. The sale of BPCL has been on hold since May 2022 after an unsuccessful attempt.

The budget, which is expected in the third week of July, may speak about public asset management along with disinvestment of non-core businesses and closure of loss-making units, the people mentioned above said. Union finance minister Nirmala Sitharaman, who presented the interim budget on February 1 before the general elections, did not mention disinvestment estimates under the head of non-debt capital receipts. While budget estimates for 2023-24 (presented in Parliament on February 1, 2023) had a specific number of ₹51,000 crore as disinvestment receipts, the same was missing in the revised estimate for the same fiscal year.

Industry is, however, keen on government disinvesting CPSEs. In the post budget consultation with revenue secretary Sanjay Malhotra on June 18, the Confederation of Indian Industry (CII) proposed a disinvestment push for "revenue augmentation" suggesting the government "adopt a demand-based approach to select PSEs for disinvestment and announce a time bound three-year schedule" for the same.

MINT, Delhi, 25.6.2024
Page No. 12, Size:(13.96)cms X (29.49)cms.

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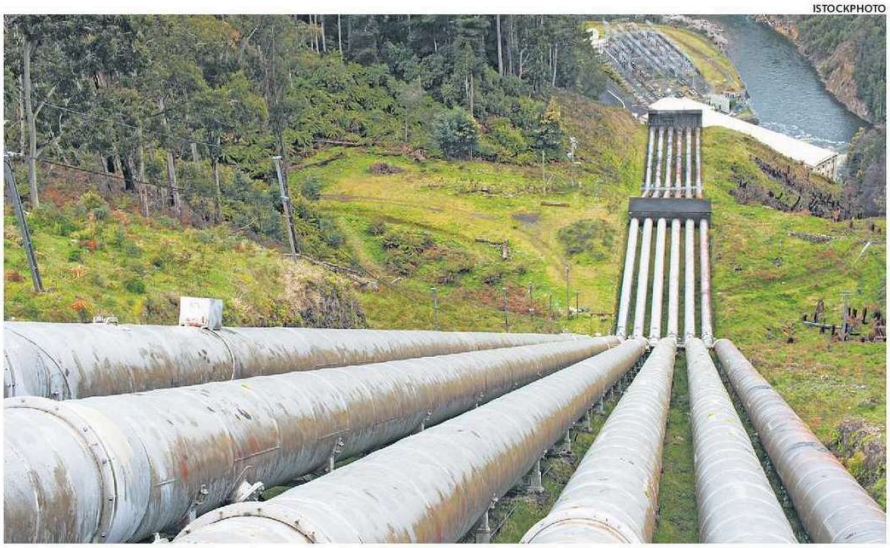

Let pump dams fill gaps in clean power supplies

Adani's investment in pumped storage hydropower projects should be viewed in the context of India's need to tackle wind and solar power intermittency for a smooth green transition

As India pushes forth with its transition to clean energy, storage is a challenge that confronts us. Windmills and solar panels serve well so long as the wind blows and sun shines. To fill in the gaps when they don't and assure users a steady flow of electricity, we need to either store generated energy in chargeable batteries, which costs a lot, or create clean capacity with a control knob to raise or reduce output at will. In this backdrop, the Adani Group's latest investment plan is notable. According to a *Mint* report, Adani Green Energy Ltd plans to invest approximately ₹25,000-27,500 crore in pumped-storage hydropower (PSH) dams over the next five odd years, with PSH capacity of 5 gigawatts as its initial goal. Having already invested heavily in wind and solar projects, Adani expects to move fast on this, aiming to scale up its PSH capacity to 25GW eventually. Players like Tata Power, JSW and the state-run NTPC also plan pump dams. Earlier this year, the Union environment ministry had cleared PSH projects worth over ₹80,000 crore, but Adani's outlay is now the largest. Its entry will boost the country's drive for sustainable power generation.

What sets PSH units apart is that the power they generate can go by the sum of our needs rather than the vagaries of nature. This means they can be linked to grids to solve the problem of supply intermittency faced by other sources that do not use fossil fuels. Regular old dams hold water in vast lakes; by opening sluice gates to let it cascade onto watermills that rotate under its force to create electricity, they can vary their output, going full pep to maximum capacity if need be. The same applies to PSH units, which are typically smaller but differ in a significant way. Their reservoirs, built as usual at some height, are self-fed with water that's routinely pumped back up after use (using less power of course). Pumps relieve such dams of the need for natural water inflows. A steep hillside, for example, is all they need. So, while PSH generators are capital intensive, they face fewer limitations of geography than classic river dams built in hilly regions. Spotting the appropriate topography to create a little lake is not short of its own challenges, but water recycling expands the country's scope for hydropower manifold. Although the basic idea has been around for long, technical advances in recent years are said to have given it better energy efficiency in terms of its input-output ratio.

To fully appreciate the value of a control knob to plug gaps in clean supply, consider India's current scenario. Peak electricity demand this summer overshot our fossil-fuel capacity of around 237GW, and even though we have over 179GW of other capacity, large parts of India suffered outages. While patchy grid link-ups explain much of this discrepancy between what we can produce and what users get to use, overall, what's needed for us to rely on clean sources in the future—as we must—is a mission to back up renewable power with generators whose output is easy to vary. A robust network of PSH plants would fit the bill. Water-driven turbines only need large volumes of this fluid kept in reserve, with wind and sunlight conditions in no position to play spoilsport. Granted, pump dams are expensive—which is why their ideal role is as gap fillers. Of the 500GW that India is aiming for from non-fossil-fuel sources by 2030, more than just a sliver ought to be from pump dams. Seen from the sky, little lakes atop hills are the missing piece in our power puzzle.

MINT, Delhi, 25.6.2024
Page No. 6, Size:(14.99)cms X (21.27)cms.

India's green discount draws funds: Leapfrog

LeapFrog's $500-million climate fund focuses on emerging markets

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As a large and fast-growing emerging market, India is becoming a hotspot for global climate investors, even as tough conditions in private markets worldwide have slowed down investments in climate-related businesses in other regions.

Unlike the western markets where green technologies often come at a premium, India offers a green discount, creating an economic incentive that is hard to ignore, a top executive at LeapFrog Investments, a private equity firm looking to deploy $500 million in green solutions in Asia and Africa, told *Mint*.

This green discount, as opposed to the green premium seen in developed countries, is drawing substantial climate investments into the country, reshaping the landscape of green finance here, Nakul Zaveri, partner and co-head of the firm's climate investment strategy said.

LeapFrog's $500-million climate fund is primarily focused on high-growth companies in emerging markets, particularly in Asia and Africa, with some of the firm's largest exposures being in India.

The fund's strategy revolves around investing $30-50 million in segment leaders across energy, mobility, the environment, and food and agriculture sectors. These investments are not only aimed at achieving financial returns but also at creating a significant positive impact, a concept LeapFrog terms "double materiality", Zaveri said.

Zaveri says the green discount in India is getting "accelerated" by not asking customers to make choices based on moral grounds but on economic ones; economic rationalization makes the transition to greener solutions more appealing.

India's urban transportation dynamics where two-wheelers and three-wheelers lead personal and commercial use enhance its attractiveness for climate investments. REUTERS

"Electrification, especially in the mobility sector, is a secular trend we are very convinced about. The green discount in India means the cost of adopting electric vehicles (EVs) is significantly lower than traditional combustion engines, making it an economically viable choice for consumers," Zaveri said.

APPEAL TO ECONOMICS

THE green discount is pushing adoption by offering benefits on economic rather than moral grounds

IT means the cost of adoption of EVs is significantly lower than that needed for combustion engines

BATTERY swapping can cut upfront costs and address the lack of charging infrastructure

LeapFrog's recent investment in New-Delhi-based Battery Smart's $65-million Series B round was the first in its newly formed climate fund. Despite the lack of a comprehensive policy for battery swapping in India, the company's ability to achieve positive unit economics and scale has made it an attractive investment, Zaveri argued, adding that the battery swapping model addresses two critical barriers to EV adoption: high upfront costs and the lack of adequate charging infrastructure. By enabling rapid battery swaps, the model offers a cost-effective and convenient solution, fitting in with the needs of emerging markets.

India's urban transportation dynamics further enhance its attractiveness for climate investments. The country has a unique transportation ecosystem where two-wheelers and three-wheelers dominate, not only for personal use but also for commercial applications such as delivery services.

Zaveri points out that the electrification of these vehicles can have a disproportionate positive impact on emerging consumers.

For a longer version of this story, go to livemint.com.

MINT, Delhi, 25.6.2024
Page No. 1, Size:(11.22)cms X (12.42)cms.

Masdar, Marubeni among cos eyeing Hygenco stake

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Several companies have evinced interest in acquiring 49% stake in Gurugram-based green hydrogen manufacturer Hygenco Green Energies Pvt. Ltd for an estimated equity value of around $400 million, two people aware of the development said, with some potential buyers aiming for an even higher stake.

Among the interested parties are UAE's Masdar (Abu Dhabi Future Energy Company), Beijing-headquartered Asian Infrastructure Investment Bank (AIIB) and Australia's Macquarie Group, which have signed non-disclosure agreements (NDAs).

Others which have signed NDAs include Japan's Sojitz Corp., Mitsubishi Heavy Industries Ltd (MHI) and Marubeni Corp., World Bank's International Finance Corp. (IFC), private equity firm Actis Llp, and Gentari, a unit of Malaysia's state-run oil and gas company Petroliam Nasional Bhd or Petronas.

The estimated equity value of Hygenco's 49% stake is $400 million. BLOOMBERG

Mumbai-based investment management firm Avendus Capital is running the primary equity raise process.

"It's not that everyone who has signed the NDA will submit an NBO (non-binding offer), but there is a significant interest in the transaction," one of the two people cited above said on the condition of anonymity. "While the process involves a 49% stake sale, there are interested companies who want to acquire as much as 74% in Hygenco Green Energies."

"The next stage of sale process will involve submitting NBOs, after which the shortlisted bidders will be taken to the next stage for submitting a binding offer," said the person cited above.

The fundraise will help Hygenco, which plans to develop 10 gigawatt (GW) of production and distribution assets by 2030, complete its portfolio.

"As a matter of policy, Masdar is unable to comment on market speculation," a Masdar spokesperson said in an emailed response.

Spokespersons for Avendus, Marubeni, Actis and IFC declined to comment.

Queries emailed to the

TURN TO PAGE 6

MILLENNIUM POST, Delhi, 25.6.2024
Page No. 8, Size:(8.59)cms X (14.05)cms.

EU targets Russia's LNG ghost fleet

In a new round of Ukraine war sanctions

BRUSSELS: The European Union on Monday slapped new sanctions on Russia over its war on Ukraine, targeting Moscow's shadow fleet of tankers moving liquefied natural gas through Europe as well as several companies.

In a statement issued at a meeting of EU foreign ministers, the bloc said that it will "forbid reloading services of Russian LNG in EU territory for the purpose of transshipment operations to third countries."

The EU estimates that about 4-to-6 billion cubic metres of Russian LNG was shipped to third countries via EU ports last year. Russia is suspected of running a "ghost fleet" to evade sanctions and keep up the flow of energy earnings so that it can finance the war.

The measures will target ship-to-ship and ship-to-shore transfers as well as reloading operations. It also involves a crackdown on the re-export of LNG to third countries via the EU, plus a ban on new investments to help Russia complete LNG projects it is working on.

The EU estimates that about 4-to-6 billion cubic metres of Russian LNG was shipped to third countries via EU ports last year

A total of 61 new "entities" – often companies, banks, agencies and other organisations – were added to the EU's list, including a number of them in China, Turkiye and the United Arab Emirates. Many are accused of circumventing the bloc's sanctions or providing sensitive equipment to Russia.

Around 50 more officials are also being targeted with asset freezes, as well as travel bans. AGENCIES

OPEN, Delhi, 25.6.2024
Page No. 35, Size:(17.55)cms X (21.33)cms.

Solar panels being installed on the roof of an apartment building in Kochi, Kerala

AP

MAKING INDIA CLIMATE SMART

The economy can sustain high growth even as new technology is adopted against extreme weather conditions

By SIDDHARTH SINGH

ON TUESDAY, JUNE 18, Delhi clocked a dubious landmark. At 3:22 PM, the national capital's peak power demand touched 8,647 Megawatts (MW), a figure higher than those of many Indian states. A day before, on Monday, June 17, the northern region of the country clocked a peak demand of 89 Gigawatts (GW). One GW equals 1,000 MW. These exceptionally high power loads are giving headaches to the managers of the national power grid. The regional load dispatchers—the managers on the spot, so to speak—always have a tough time during summers when power demand shoots up. But this summer is particularly daunting: with such heavy demand, a single 'tripping' can lead to a system-wide failure.

It would be a mistake to consider this an unusual summer and the rising demand for electricity a result of this one-off event. The reality is that India has seen a steady rise in the number of heat waves experienced in its different parts in recent years. Data released by the Central Statistical Office this year shows that in the five years from 2019 to 2023 the number of heat-wave days has fluctuated considerably but has remained high. In 2019, 174 days of heat

wave were reported across different states and Union territories (UTs). This number fell to 42 in 2020 and even further to 29 in 2021. There was a sudden jump the next year when the figure rose to 190. In 2023, 111 days of heat wave were reported across states and UTs. There is no point searching for a statistical regularity here and there certainly is no 'mean reversion' to some defined average. The reality is that India has already entered a heat zone. The Centre for Science and Environment (CSE) reports that this year, April 1 to May 31, nearly 70 per cent of India's 741 districts reported at least one day when the temperature was above 40 degrees. There is, of course, considerable variation: Maharashtra was badly affected with 27 of its 36 districts reporting at least one day when the maximum temperature was above 40 degrees. There are other states where temperatures have not crossed dangerous thresholds.

These figures should be seen alongside another set of measures, ones that reflect the risks to India and its economy from rising temperatures. One measure that serves as a proxy for damage from climate change is the Social Cost of Carbon (SCC). SCC is an estimate of the value of damage from one additional tonne of carbon dioxide (CO_2) equivalent emitted at a certain point in time. A 2018 study published in the journal *Nature Climate Change* estimated values for SCC across different countries. It showed that India had the highest SCC for any country at that time: $86 per tonne of CO_2 equivalent.

The contrast between India, one of the lowest carbon emitters on a per capita basis—1.8 tonnes in 2018—with industrial countries could not be more glaring. The US, with the world's largest per capita emissions, had an SCC of $50 while India had a much higher figure. India's problems don't end here—over time, SCC goes up as later emissions lead to more damage as they only add to the existing stock of greenhouse gases (GHGs) present in the atmosphere. While the exact values of SCCs ought to be taken with a pinch of salt as they are subject to considerable uncertainties from various assumptions built into the estimates, the trend and the direction are clear—India stands to lose much more compared to other countries from climate change.

India is not only aware of the dangers ahead but has also put in place comprehensive plans to meet the challenge from climate change. At the Glasgow climate summit in 2021, Prime Minister Narendra Modi outlined a five-point plan to tackle climate change. The Indian plan is quite extensive. Among its key points are meeting 50 per cent of the country's energy requirements from renewable sources by 2030, increasing non-fossil fuel-based energy capacity to 500GW by 2030, and reducing the carbon intensity of the Indian economy to less than 45 per cent by 2030. The action on these plans has been visible and aggressive: in the last five years, from FY20 to FY24, India's capacity addition from renewable energy sources has always outpaced the addition of capacity in thermal energy. In FY24, renewables accounted for 18,485 MW of capacity addition compared to 6,168 for thermal energy, a ratio of nearly 3:1. Other targets, too, are likely to be achieved by 2030.

India's problem, however, is not that it won't achieve long-term targets to mitigate climate change. These goals are 'global' in nature—they help everyone and not just India. India's problem is that in the interregnum between stabilisation of the climate system—a goal that lies much ahead in the future, if it can be attained at all—and the present time, it faces a daunting challenge in mitigating the effects of climate change. The heat-wave statistics point to this very clearly. In peninsular India, a number of districts, many in Maharashtra, are now in the grip of a pincer of heat waves and water shortages. In the north, as the number of days with heat waves goes up, so does the use of power for cooling purposes, something that adds heat to the climate system to the point that there are multiple 'heat islands' that emerge during the summer across the northern plains. Heat stroke and death due to complications arising from it are common now. For states like Punjab, with their addiction to growing water-guzzling crops like rice, the future is bleak. Punjab's overexploitation of water and its more than 100 "dark blocks" with acute water stress is a well-known story of poor environmental choices and non-existent planning. These mitigation risk stories can be found in virtually every Indian state and UT.

A blade of a power-generating windmill turbine being assembled at a green energy plant in Mundra, Gujarat

REUTERS

WHERE INDIA FACES CHALLENGES IS IS NARROW. AND THIS WINDOW WILL COMPARED TO THE FAR MORE SEVERE

HOW DOES ONE 'climate-proof' an economy as diverse as India's? Two immediate areas of concern are obvious: one, energy generation and consumption; and two, the nature and spread of urbanisation. Both require immediate attention. On the energy front, the necessary changes are already afoot. The move away from thermal power is well-known even if the problems associated with renewables, especially the 'intermittency problem', don't have an immediate solution. Renewable energy generation, for example in the case of solar power, takes place at a time when the sun is at its peak while the demand for power may arise later. In the absence of power storage solutions, such as high-capacity power storage systems,

The Kudankulam nuclear power plant in Tamil Nadu

GETTY IMAGES

IN ADAPTING TO THESE CHANGES FASTER BECAUSE THE WINDOW SHRINK AS TIME PASSES. BUT INDIA'S APPROACH IS POSITIVE WHEN OPTIONS LIKE DE-GROWTH THAT ARE IN VOGUE IN THE WEST

the power generated has to be injected into the grid as soon as it is generated.

Other solutions, at the micro-level, such as roof-top solar power generation, appear to be impractical given the existing power generation and consumption pattern in India. This need not be the case when it comes to climate-friendly solutions—peninsular India has a large untapped potential for such power generation that is localised and is certainly climate-friendly. It can augment power for households where it is needed most.

The other area that requires careful attention quickly is the nature and spread of urbanisation. Construction, in economic terms constitutes around 9 per cent of the Indian economy in Gross Value Added (GVA) terms (2023-24). In the past two years (2022-23 and 2023-24), it has grown at 9.4 per cent and 9.9 per cent, respectively. This is significantly higher than the overall GVA at 6.7 per cent (2022-23) and 7.2 per cent (2023-24) for those years. A significant part of this activity takes place in large urban conglomerations like National Capital Region (NCR), the Mumbai Metropolitan Region, and other large cities. This is not conducive for climate change mitigation. These large additions to built-up areas lead to high energy consumption and, in turn, the creation of heat islands.

There is no reason why this construction activity cannot be reoriented and localised to create new urban centres. While this sounds quixotic as economic priorities and experience show that large urban agglomeration leads to higher economic activities, in this age this needs reorientation if India has to get a grip on climate change mitigation. It is no case going to be easy. India is no longer the command-and-control economy of the 1970s when the Centre could reorder economic priorities. The private sector today contributes more to the economic pie. This makes the task of coordinating any such action on climate-friendly economic change difficult. Unless, of course, India has the political will to do what is necessary.

Some things are a given even as India adapts to a much hotter world. For one, the country cannot sacrifice high economic growth at the altar of mitigating climate change. This zero-sum thinking is prevalent in many Western countries where 'de-growth' is championed as a solution not just for climate change but also for mitigating the vast inequalities prevalent in those countries. India cannot afford such thinking. Since 2000, India has made rapid strides in reducing the number of people who live in poverty. This change has been particularly marked from 2013-14 to 2022-23 when India witnessed a reduction in multidimensional poverty from 29.17 per cent of its population living under poverty to 11.28 per cent in 2022-23, a reduction of 17.89 percentage points. This large reduction in the number of poor people took place when India experienced robust economic growth. At this stage, when India confronts the most stubborn levels of poverty—especially 'poverty traps'—it cannot afford to slow down its rate of growth. Doing that will lead to lower availability of resources for poverty reduction but will also entail the danger of throwing people who have just exited poverty back into misery. This is politically unacceptable in India.

But India has shown that another path is possible, one where higher growth can continue even as climate change mitigation by aggressive adoption of climate-change technologies is a reality. Where India faces challenges is in adapting to these changes faster because the window for adopting them effectively, by limiting the damage from climate change, is narrow. And this window will progressively shrink as time passes. In this context, India's approach is positive when compared to the far more severe options such as de-growth that are in vogue in the West.

In doing all this, India has relied largely on its own resources as the promise of climate finance and sharing of climate change mitigation technology has proved illusory. The issue for India is not resources—it has found them by re-jigging its priorities—but one of coordinating a diverse economy in a continental-scale country. So far, it is working. ■

BUSINESS WORLD, Delhi, 25.6.2024
Page No. 64, Size:(17.24)cms X (19.30)cms.

MODI 3.0

The industry stresses on fostering public-private partnerships that can lead to the development of distributed energy infrastructure, supporting the decarbonisation efforts of clients and communities alike

By Himanshu Kumar Ojha

Photograph by Bianco Blue

Making India A Renewable Hub

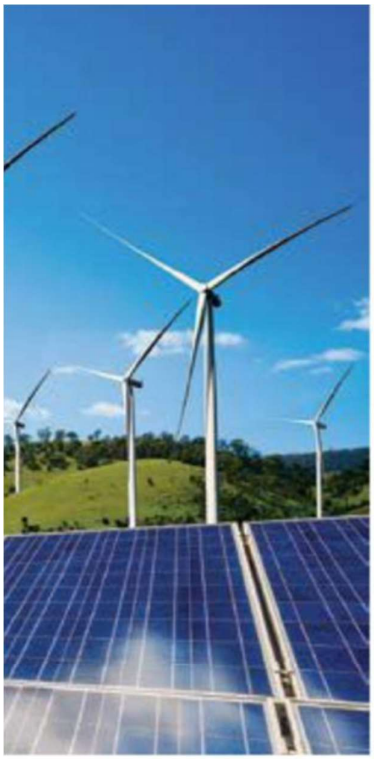
As Prime Minister Narendra Modi kicks off his third term in office after a clear majority for the National Democratic Alliance (NDA), industry leaders expect a barrage of reforms and policy continuity to make India a renewable hub and economic power. The Petroleum Planning & Analysis Cell (PPAC) of the Petroleum Ministry recently released data showing that the country's reliance on oil imports increased from 87.2 per cent in the corresponding period of FY23 to 87.7 per cent in the 11 months leading up to February.

Over the course of FY23, 87.4 per cent of oil was imported. Moreover, the fluctuation in crude oil prices not only increases the import bill but also impacts the fiscal prudence of the country. Therefore, FM Nirmala Sitharaman in her 2023-24 budget allocated Rs 35,000 crore for priority investments in energy transition and net zero. Out of the total amount Rs 30,000 crore was for capital support to oil marketing companies in their energy transition.

Amit Jain, CEO and Country Manager, Engie India anticipates the government to lay down a strategic framework that accelerates the transition to a low-carbon economy. "The government's policy should encourage innovation in renewable technologies and provide support that attracts investments in solar power and other renewable sources. A regulatory landscape is needed that simplifies the integration of renewables into the national grid, ensuring energy security and stability," he said. Jain expects the government to foster public-private partnerships that can lead to the development of distributed energy infrastructure, thereby supporting the decarbonisation efforts of clients and communities alike.

PM Narendra Modi in his second term set an ambitious target to install

"A regulatory landscape is needed that simplifies the integration of renewables into the national grid, ensuring energy security and stability," AMIT JAIN, *CEO and Country Manager, Engie India*



500 GW of renewable energy capacity by 2030 to make India self-reliant in its energy needs. Further, the Union Cabinet approved PM-Surya Ghar: Muft Bijli Yojana for installing rooftop solar and providing free electricity up to 300 units every month for one crore households. Through this scheme, households can save electricity bills as well as earn additional income through the sale of surplus power to distribution companies (DISCOMs).

The government in its last term had taken several policy initiatives to advance green development in India, such as the production-linked incentives (PLI) scheme for high-efficiency solar PV modules, renewable purchase obligations and carbon credit trading scheme. In the past few years, the announcement of schemes such as ethanol blending, Pradhan Mantri Kisaan Urja Suraksha Evam Mahabhiyan (PM-KUSUM, a scheme for solarising agriculture), incentives for solar manufacturing, coal gasification, and battery storage has paved the way towards making India net zero by 2070.

"The government must focus on scaling up the generation capacity addition as well as enhancing the transmission infrastructure, especially for evacuating power from renewable energy projects" – VIKRAM V, *Vice President & Co-Group Head - Corporate Ratings, Icra*

Vikram V, Vice President & Co-Group Head - Corporate Ratings, Icra said that given the healthy growth in electricity demand, the government must focus on scaling up the generation capacity addition as well as enhancing the transmission infrastructure, especially for evacuating power from renewable energy projects. "This apart, the development of energy storage infrastructure remains another important area, to enable the integration of a growing share of renewables with the grid," he added.

Pratik Agarwal, MD of Sterlite Power and Chairman, Serentica Renewables also emphasised on the need for reforms in the power sector. "I hope this term focuses on achieving a comprehensive turnaround of DISCOMs. Many initiatives have been taken in the past to incrementally improve the situation, but we expect strong steps in this direction to ensure the sector's well-being. Pushing for full retail competition should be a focus. To maintain the momentum built in the last five years, it'll be paramount to extend the full inter-state transmission system (ISTS) waiver for another two years for sustaining renewable energy adoption by all categories of power consumers," he said.

Photograph by Indiapicturebudget

According to S&P Global Commodity Insights, India will continue to push harder on its implementation strategy on energy transition while balancing its issues related to energy security and energy affordability. The strategy will focus on a number of aspects like building local supply chains, expanding green hydrogen/ammonia production, securing domestic fuel resources, deepening power sector reforms to address structural issues, and continuing to adopt new and clean technologies by creating demand and infrastructure. Renewables are to stay at the centre of India's climate policy and are expected to see the highest renewable capacity addition (>20 GW).

"We anticipate that the newly formed government will continue its focus on renewable energy with the same vigour and expect it will continue with the pace of renewable energy development. During this term we expect more focus on the commercial and industrial segments through open access based renewable energy projects by encouraging states to adopt the green energy open access rules and interpret it harmoniously for smooth implementation," said Shriprakash Rai, Chief Revenue Officer - Commercial & Industrial Business, AMPIN Energy Transition.

The imperative for the Modi 3.0 government to prioritise renewable energy is undeniable. By investing in renewable energy sources such as solar, wind, and hydroelectric power, government can pave the way towards a sustainable future for generations to come.

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