

Why 'sustainable growth' will elude India

Western reluctance to spend on climate action and India's inability to accelerate renewables to power faster economic growth are major hurdles to the net zero target

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India is increasingly leaning towards fossil fuels to power its ambitious growth targets, preferring the burning embers of coal and diesel, to the stark power of the sun. This belated realisation has occurred after a slowdown in the pace of renewable generation, the war in Ukraine, and the fact that the path towards a \$5-\$10 trillion economy, envisaged at warp speed, is only possible with dirty fuels rather than clean energy. This reality is reflected in India's oil demand forecast, released by the oil ministry this week. It shows demand for oil products growing at 5 per cent in fiscal 2023-24 to 234 million tonnes, perhaps one of the highest growth rates for oil use among large economies.

Of course, the focus on green growth remains for the long term, and can be accelerated, if the Global North supplies funds and technology to the developing South, as discussions highlighted at the just concluded World Sustainable Development Summit (WSDS) in Delhi.

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- VRE tenders issued annually in India have fallen from 40Gw in 2019 to about 28Gw in 2022
- A high basic Customs duty and mandating purchase of solar cells and modules from an approved list of local manufacturers has unnerved industry
- The country needs to add 30-35Gw of new VRE capacity annually to reach its climate targets by 2030 and that requires more than 35Gw of annual tendering
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gross domestic product (GDP), on their own economies in response to Covid-19, but refuse to cough up \$100 billion per year for climate action, said Columbia University professor Jeffrey Sachs, who attended the event, in an opinion piece.

Climate financing for developing countries is not a macroeconomic problem, said Manish Chourasia, managing director, Tata

CleanTech Capital, an NBFC, at WSDS. The world is awash with \$20 trillion in savings, but you just need \$4-\$5 trillion to fix the climate problem. So the money is available, but in the rich North, whereas the need for those funds is in the global south, Chourasia pointed out.

Competitive economies are built on the foundations of affordable energy — entrepreneurs, policies

and capital come later. And as New Delhi has realised that, after the first flush of success with plain vanilla renewables like solar and wind, the honeymoon period has ended. Variable renewable energy (VRE), such as solar and wind, represented a very low share of just 11.5 per cent of India's 2022-22 fiscal electricity generation nationally, according to US think tank Institute

for Energy Economics and Financial Analysis — whereas they account for over 35 per cent share in Europe.

Solar and wind generation is spotty and intermittent, and not seen as reliable enough to power a \$3-trillion economy.

India needs 800 gigawatts (Gw) of installed renewables capacity if it has to achieve 50 per cent of continuous generation from non-fossil fuel sources by 2030, said R R Rashmi, distinguished fellow, Teri.

Even the state-set 500Gw target now looks formidable. The government trumps up high renewable numbers after adding old nuclear generators and equally old large hydro projects. But nuclear and hydro the world over have been controversial from an environmental point of view.

If renewables were touted as the cheapest source of clean energy, why do conventional sources account for over 80 per cent of power generation? Why has the government, for the past two years, been mandating imports of expensive Indonesian coal to run domestic power plants? And why has it succumbed to lobbying from the thermal generators and repeatedly postponed deadlines, from 2017 to 2027, to install flue-gas desulphurisation units to control sulphur emissions?

Then, this week, the government ordered generators running on imported coal, led by Adani and Tata's power projects, to mandatorily run their units on imported coal. Coal India's output is surging on the back of liberal mining and green approvals.

It shows New Delhi's increasing nervousness over relying on renewables. After the first flush of success with solar and wind projects in mid-

2015, the government has hit a wall. First, it imposed steep import duties on solar panel and module imports from China last April, especially when prices of solar equipment had soared on supply disruptions from the pandemic. Making matters worse were the mandated purchase of such cells and modules from an approved list of local manufacturers.

"The imposition of tariffs & other barriers like high customs duty on solar modules, high GST and ALMM [Approved List of Models and Manufacturers] restrictions have negatively impacted the growth of solar installations," said Sharad Pungalia, MD and CEO, Amplus Solar, a solar project developer.

The country needs to add 30-35Gw of new variable renewable energy (VRE) capacity annually to reach its climate targets by 2030 and that requires more than 35Gw of annual tendering, said a February report by the Institute for Energy Economics and Financial Analysis (IEEFA). For India to meet Rashmi's 800Gw recommendation, it must install 80-100Gw a year of clean capacity every year.

VRE tenders issued annually in India have fallen to about 28Gw in 2022 from 40Gw in 2019, said Vibhuti Garg, energy economist and IEEFA director, South Asia. The total tenders issued for solar, wind and hybrid from 2010 to 2022 amounted to 161Gw, with an allotted capacity of 114Gw.

"The government should defer ALMM for a few years until we reach international quality bankable solar

capacity of 30Gw of domestic module and cell manufacturing," said Pinaki Bhattacharya, chief executive, Amp Energy India, a renewables developer.

Complicating matters are issues over storage and the reluctance of state utilities to embrace vanilla solar and wind projects. Instead, they seek clean energy solutions that offer more stable and firm power, such as wind-solar hybrid and renewable energy coupled with energy storage, Garg said. Battery energy storage solutions (BESS) are still expensive, and the economics currently do not make financial sense, without support from New Delhi, she added.

Now, India's target of a \$5 trillion economy by 2024 has been pushed back to 2027. There are talks of a \$10 trillion economy target for early 2030. Such growth needs immediate supplies of energy, which only coal and oil can per-

haps deliver. "We have to depend on coal for the next 10 years," Rashmi, a leading energy expert and a former top bureaucrat, said.

At India Energy Week, the government declared India's intent to add 200 million tonnes of refining capacity to the existing 250 million tonnes, and build around 12,000 kilometres of gas pipelines, and add infrastructure. State refiners emit over 40 million tonnes of CO2e (Carbon dioxide equivalent) from existing facilities, and are hard pressed to reduce them. It is unclear how they will meet their 2040-46 net zero targets after adding 80 per cent more capacity.

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