

Great Expectations: India's Tryst with Climate Change

INTRODUCTION

While presenting the Union Budget this year, the Indian Finance Minister had announced the government's intention to issue 'green bonds'¹ with a sovereign rating, the proceeds of which would be used to finance a variety of public-sector green infrastructure projects. According to recent media reports,² it appears that the government is about to finalize the framework for such sovereign issuance, including for the purpose of identifying projects/sectors that will qualify for funding.

A source of worry, however, could be India's sovereign credit rating – which is just at 'investment grade'³ (according to some rating agencies). Any further downgrade might lead to global funds reducing their exposure to Indian sovereign securities pursuant to their internal rules. Further, since these bonds will be rupee-denominated, currency risk perceptions might become a critical factor, along with a depressed debt market – given the global effects of inflation and the Ukraine War. Besides, unlike in several countries where green bonds are tax-exempt, it appears that such exemptions will not be available here. This seems to be in line with India's stance where the Prime Minister has indicated that the country's transition to renewable energy ("**RE**") ought to be incentivized by the developed world.

¹ Green bonds are fixed-income financial instruments which are used to fund projects that have positive environmental and/or climate benefits. While similar to 'regular' bonds, the proceeds raised from investors are pledged by the issuer to be utilized exclusively to finance projects in sectors such as RE.

² See, e.g., Ronojoy Mazumdar *et al.*, "India is Counting on Debut Green Bond to Cut Financing Costs," Bloomberg, September 14, 2022

³ An investment grade is a rating which signifies that a sovereign, municipal, or corporate bond presents a relatively low risk of default. Bond rating firms like Standard & Poor's (S&P), Fitch Ratings, and Moody's, use different designations, consisting of letters of the English alphabet to identify a bond's credit quality rating. Thus, "AAA" and "AA" (high credit quality) and "A" and "BBB" (medium credit quality) are considered investment grade. Credit ratings for bonds below these designations (such as "BB," "B," "CCC", etc.) are considered low credit quality.

INDIA'S AMBITIOUS CLIMATE TARGETS

At the 26th session of the Conference of the Parties (COP 26) held in Glasgow last year, the Indian Prime Minister promised to achieve net-zero greenhouse gas (GHG) emissions for his country by 2070 (the “**COP Statement**”).⁴ Among other things, India also aims to: (i) reach 500 gigawatts (“**GW**”) of non-fossil energy capacity (which, when done, will be the world’s largest expansion in this regard);⁵ and (ii) meet 50% of its energy requirements exclusively from RE – both by 2030.⁶ A couple of month ago, the Union Cabinet approved these targets as part of the country’s updated Nationally Determined Contribution (“**NDC**”) under the auspices of the United Nations Framework Convention on Climate Change (“**UNFCCC**”).⁷

Significantly, both within the COP Statement as well as in India’s updated NDC, the topic of climate *finance* was unequivocally invoked. For instance, the Prime Minister spoke about how India expected developed countries to provide a trillion dollars in climate finance at the earliest. Similarly, the Press Release with respect to India’s revised NDC⁸ stated that the country’s climate-related initiatives have historically been funded through domestic capital; however, it would now require, in addition, both international finance as well as technological knowhow from developed countries, since such was the latter’s responsibility under the UNFCCC in respect of collectively combating climate change.

INDIA'S PAST PERFORMANCE AND FUTURE PROSPECTS

To be sure, India appears to be on the right track with regard to its pivot towards renewables. For example, in the draft National Electricity Plan for 2022-2027 (“**NEP**”)⁹ released by the Central Electricity Authority (CEA) last month,¹⁰ the Ministry of Power (MoP) estimates that solar energy will emerge dominant in coming years,¹¹ even though

⁴ “National Statement by Prime Minister Shri Narendra Modi at COP26 Summit in Glasgow” (Ministry of External Affairs, Government of India, November 2, 2021) (“**COP Statement**”)

⁵ See the government data provided in this regard; available at: <https://www.investindia.gov.in/sector/renewable-energy>

⁶ See COP Statement

⁷ See the Press Release issued by the Ministry of Environment, Forest and Climate Change in this regard, dated August 3, 2022; available at: <https://pib.gov.in/PressReleasePage.aspx?PRID=1847813>

⁸ Ibid.

⁹ Section 3(4) of the Electricity Act, 2003 stipulates that the CEA must prepare an NEP pursuant to the National Electricity Policy and notify such plan once every five years

¹⁰ Available at:

https://cea.nic.in/wp-content/uploads/irp/2022/09/DRAFT_NATIONAL_ELECTRICITY_PLAN_9_SEP_2022_2-1.pdf

¹¹ According to the government, even among the promising RE resources available in India, solar energy has the highest potential. In most parts of the country, 250 to 300 days every year are both clear and sunny. The annual radiation is comparable with that received in the tropical regions of the world. The equivalent energy potential is about 6,000 million GWh of energy per year. See <https://mnre.gov.in/solar/rpo/>

coal will continue to remain a staple in the country's energy mix.¹² Back in 2017 itself, India had started adding more renewables relative to coal within this mix, and such trend is likely to continue into the future. For context – while the country plans to add 35 GW of coal to its extant capacity by 2031-32, it is looking to add almost ten times that amount to solar and three times that amount to wind within the same period. As of May 2022, India's installed capacity in RE stood at 160 GW, already representing 40% of its aggregate.¹³ Moreover, it has continued to rank third in the world (including last year): (i) for total renewable capacity additions, as well as (ii) in respect of the Renewable Energy Country Attractiveness Index (RECAI) published biannually by EY (behind China and the US).¹⁴

However, despite this accelerated pivot, India's annual rate of RE capacity-addition (going by current record) is nowhere close to what is necessary for achieving its NDC target. The country needs to add 50 GW of RE capacity every year;¹⁵ yet, as recently as in 2021, notwithstanding its high global rank, India managed to add only about 15 GW, compared to three and nine times that amount added by the US and China, respectively.¹⁶ Therefore, according to the NEP, massive investments in RE¹⁷ will be required over the remainder of this decade, over and above the present surge in government allocation, private capital, and foreign investment levels.

CLIMATE FINANCE AND INVESTMENT OPPORTUNITIES

A report published last year by the International Energy Agency (the "IEA Report")¹⁸ suggests that in order to reach net-zero emissions on a global scale, annual RE investments into developing countries in general need to expand sevenfold in the next eight years – from less than USD 150 billion (as per 2020 levels) to over \$1 trillion by 2030. Consistent with India's call for increased financial collaboration, the IEA Report argues how countries of the Global South find themselves facing a structural disadvantage. Further, this disadvantage is exacerbated on account of skewed access to international capital. Yet, large investments are always necessary to address paradigmatic developmental changes, such as those related to combating global warming without

¹² The NEP estimates a 40% increase in domestic coal requirement in 2031-32. In 2021-22, India's domestic coal requirement was 678 million tons (MT). It will increase to 831.5 MT by 2026-27, and to 1018.2 MT by 2031-32. At present, a little above 50% of the total installed capacity in the Indian energy sector comes from coal.

¹³ About 400 GW of total installed capacity

¹⁴ See https://www.ey.com/en_in/recai

¹⁵ In 2021, despite ranking third globally for total RE capacity additions, India added only about 15 GW in 2021, following China (136 GW) and the US (43 GW)

¹⁶ In 2021, China added 136 GW and the US added 43 GW in total renewable power capacity. See <https://www.investindia.gov.in/sector/renewable-energy>

¹⁷ Amounting to about INR 13 trillion, according to the NDC Press Release

¹⁸ "Financing clean energy transitions in emerging and developing economies," IEA, Flagship Report, June 2021; available at: <https://www.iea.org/reports/financing-clean-energy-transitions-in-emerging-and-developing-economies>

compromising local industry. This is especially true when developing countries need to reconcile their unique security concerns in respect of energy with global ones related to the environment, intergenerational equity, and sustainable development. Despite financial resources being abundantly available worldwide, channeling such funds into appropriate economies, sectors, and projects remains a challenge.

Accordingly, governments from developed economies could give international (or sovereign) public finance institutions an express mandate to fund clean energy transitions in the developing world. For instance, Norfund, the Norwegian government's development finance institution ("**Norfund**"), recently entered into a strategic investment partnership with Italian firm Enel Green Power ("**Enel**") to explore the Indian RE market. In August, the new climate investment fund¹⁹ managed by Norfund on behalf of Norway's Ministry of Foreign Affairs, along with the country's largest pension company, agreed to pick up a 49% stake in a 420 MW solar power plant in Rajasthan²⁰ which Enel is currently building. Importantly, pursuant to the IEA Report and its own climate impact assessment, Norfund has chosen to prioritize India along with a few other emerging economies across South/Southeast Asia and Africa, having earmarked 10 billion NOK (approx. USD 1 billion) over the next five years.

INDIA'S RESPONSE

As far as the Indian government is concerned, it now appears to be thoroughly alive to the country's steep capital requirements. Pursuant to a report on the prevailing financial constraints in the RE sector submitted to Parliament in February this year,²¹ a standing committee (the "**Committee**") was able to zoom in on many of the key issues discussed elsewhere. More importantly, the Committee provided some useful recommendations, some of which appear to have gained traction (along with welcome regulatory interventions related to the national energy market).²² For instance, the Committee rightly identified the 'huge gap' between the required and actual investment with respect to RE capacity-addition in the country. Accordingly, it suggested that the Ministry of New and Renewable Energy (MNRE)²³ should: (i) seek alternative financing mechanisms such as

¹⁹ See "The Climate Investment Fund is operative," Norfund, Norwegian Investment Fund for Developing Countries, May 23, 2022; available at: <https://www.norfund.no/the-climate-investment-fund-is-operative/>

²⁰ Solar energy project Thar Surya 1

²¹ "Twenty-First Report of Standing Committee on Energy (17th Lok Sabha) on 'Financial Constraints in Renewable Energy Sector' pertaining to the Ministry of New and Renewable Energy," presented to Lok Sabha on February 3, 2022; available at: https://eparlib.nic.in/bitstream/123456789/835464/1/17_Energy_21.pdf

²² For example, the government has introduced, or seeks to introduce, various new legal and regulatory changes related to tariffs, open access, renewable purchase obligations, renewable energy certificates, Market-Based Economic Dispatch, production-linked incentive schemes, etc.

²³ The growth of RE in India is administered by the MNRE, which functions as the nodal agency of the government for all matters relating to RE development

green bonds and infrastructure investment trusts (InvITs); and (ii) prescribe ‘Renewable Finance Obligations’ (like ‘Renewable Purchase Obligations’)²⁴ for lenders, such that banks and non-banking financial companies (NBFCs) may be required to invest a certain percentage of their capital in RE.

Further, the Committee also suggested that the Indian Renewable Energy Development Agency (IREDA)²⁵ ought to be allowed to borrow from the Reserve Bank of India (“RBI”) in a manner that ensures the availability of low-cost finance for RE projects. In addition, stringent RBI norms related to non-performing assets (NPAs) create obstacles for funding such projects. This is on account of, *inter alia*, certain seasonality-related concerns in the RE sector. Accordingly, the government could look into these matters.

CONCLUSION

A few months before the COP Statement was issued last year, during an Independence Day address, the Prime Minister had pledged that India would achieve energy independence (*i.e.*, the country would end its coal and oil imports) by 2047.²⁶ While solar could become India’s biggest source of energy in the future – a country with almost 300 days of sun a year – coal-fired power plants still account for more than half its total installed capacity. As far as becoming ‘net-zero’ by 2070 is concerned, several techno-economic challenges will need to be addressed in order to achieve 100% RE status.

*This insight has been authored by **Rajat Sethi** (Partner) and **Deborshi Barat** (Counsel). They can be reached at rsethi@snrlaw.in and dbarat@snrlaw.in, respectively, for any questions. This insight is intended only as a general discussion of issues and is not intended for any solicitation of work. It should not be regarded as legal advice and no legal or business decision should be based on its content.*

© 2022 S&R Associates

S&R ASSOCIATES ADVOCATES	NEW DELHI 64 Okhla Industrial Estate Phase III New Delhi 110 020 Tel: +91 11 4069 8000	MUMBAI One World Center, 1403 Tower 2 B 841 Senapati Bapat Marg, Lower Parel Mumbai 400 013 Tel: +91 22 4302 8000
---	---	--

²⁴ The Electricity Act, 2003, as amended from time to time, requires certain categories of obligated entities (such as state-owned electricity distribution companies) to purchase a minimum percentage of electricity from RE sources.

²⁵ The IREDA offers a credit enhancement guarantee scheme to support bond issuances by project developers in wind and solar energy. By providing unconditional and irrevocable partial credit guarantees, the IREDA aims to enhance the credit rating of Green Bonds – thus improving their marketability – and ultimately, seek to bolster the ability of project developers to attract long-term funding at lower costs.

²⁶ “Modi sets 2047 target for becoming ‘energy independent,’” (Economic Times, August 15, 2021); available at: <https://economictimes.indiatimes.com/industry/renewables/modi-sets-2047-target-for-becoming-energy-independent/articleshow/85342916.cms?from=mdr>