Clean Energy Finance and Investment Roadmap

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Draft agenda Workshop II: offshore wind & green hydrogen – 11 May 2022 (hybrid)

11h (IST) Welcome address & remarks *Ms. Cecilia Tam, OECD*

Shri Dinesh Jagdale, MNRE

11h15 CEFI Roadmap *Mr. John Dulac, OECD & Ms. Poonam Sandhu, NRDC*

Overview & recap of Roadmap process & Workshop I on challenges and opportunities

11h30 Offshore wind: updates on policy ambitions *MNRE/NIWE*

Green hydrogen: progress on the national mission & policy ambitions *MNRE*

12h00 Group discussion: assessing investment needs and the impacts from the cost of finance

Moderator: Joseph Cordonnier, OECD

i) How much finance is needed and what is the cost breakdown?

- *What are the (rough) CAPEX needs (e.g. from project development to manufacturing/supply chains of equipment and any related infrastructure/logistics)?*
- *How much financing is needed for these elements, and how are developers/industry planning to finance them (e.g. on balance sheet, equity/debt, etc.)?*
- *What is the anticipated cost of financing and what would be the impact of lowering this for project development (and on LCOE/LCOH)?*

ii) What levers can impact the cost of offshore wind & green hydrogen development?

- *How do proposed/potential solutions (e.g. the PLI scheme and offtake guarantee) impact projected project costs and/or the cost of financing?*
- *What other key investment concerns (e.g. country/project/credit/Forex risks) influence project costs, and how much (e.g. in basis points) impact do they have on the cost of finance?*
- *How are developers/industry/investors planning to treat these?*
- *Any other key factors influencing cost of finance?*

13h30 Lunch

14h30 Group discussion: lowering the cost of finance for early clean energy development

Moderator: Poonam Sandhu, NRDC

i) What solutions can support domestic lending for offshore wind & green hydrogen?

- *How prepared are domestic lenders (e.g. NBFCs) to start financing offshore wind and green hydrogen development?*
- *What do they need to start financing these sectors, and what do they perceive as risks (and the subsequent cost of finance)?*
- *Are there lessons to be learned from on-shore wind & solar development?*

ii) What can increase international finance for offshore wind & green hydrogen in India?

- *How are offshore wind and green hydrogen being financed internationally (e.g. what instruments/structures, public/private funds, etc.)?*
- *How do international lenders/investors perceive financing & related risks for these sectors (broadly & in India), and what can help to increase willingness to lend/invest?*
- *What mechanisms/solutions (e.g. for Forex hedging) can help to lower the cost of finance?*
- *Where/how can international climate/development finance support lower cost of finance for offshore wind and green hydrogen development?*

15h45 Coffee break

16h00 Group discussion: unlocking required capital to realise 2030 renewable energy ambitions

Moderator: John Dulac, OECD

i) What can unlock access to capital markets for offshore wind & green hydrogen?

- *What are the roles of domestic and international capital markets (e.g. through green/sustainability-linked and Masala bonds, InvITs, etc.) in financing clean energy development?*
- *What are institutional investors (e.g. pension and insurance funds) and financial institutions looking for (e.g. in terms of structuring, risk profiles, etc.) and what do they perceive as risks for offshore wind & green hydrogen development?*
- *Are there lessons to be learned from other markets and/or solutions that can help to tap into capital markets (e.g. to lower the cost of finance and/or recycle capital)?*

17h30 Concluding remarks & next steps *Ms. Cecilia Tam, OECD*

Offshore wind in India: background and context

Offshore wind (OSW) can play a critical role in meeting India's renewable energy targets, particularly given the country's 7 600 kilometres of coastline, while also helping to alleviate growing pressure from land competition for on-shore wind developments.

A number of initiatives have looked to support OSW development in India, such as the 2013-18 Facilitating Offshore Wind (FOWIND) project led by a Global Wind Energy Council (GWEC) consortium that produced several assessments, including feasibility studies for Gujarat and Tamil Nadu with the National Institute of Wind Energy (NIWE). These reports identified eight zones in each state representing 36 gigawatts (GW) and 35 GW of potential capacity, respectively. GWEC also released a report in 2016 on challenges to OSW development, considering for instance manufacturing and supply chain needs, port infrastructure and other logistical issues (e.g. to transport longer blades).

In 2015, the Government of India released its National Offshore Wind Energy Policy, formulating the legal framework for OSW development, and the First Offshore Wind Power in India (FOWPI) initiative, led by a COWI consortium, produced several technical reports in 2016-19 to support implementation of early OSW additions. This led to commercial discussions on OSW economics, followed by an Expression of Interest (EOI) issued by NIWE in 2018 for a 1 GW project in Gujarat. Interest from developers counted 35 Indian and international firms, but the EOI did not proceed for a number of reasons, including high capital costs, infrastructure constraints and lack of a financial support scheme.

Still, the Ministry of New and Renewable Energy (MNRE) signalled ambitions in 2018 to achieve 5 GW of OSW capacity by 2022 and 30 GW by 2030. The government also published Guidelines on Offshore Wind Power Assessment Studies and Surveys in 2018, and NIWE released a Wind Data Sharing Policy in 2019. Additional initiatives have included a partnership between MNRE, NIWE and the Danish Energy Agency for the Financial Modelling of Offshore Wind Farms in India (FIMOI). Since 2019, FIMOI has developed technology reports and levelised cost of energy (LCOE) estimates. The joint Indo-Danish Centre of Excellence for Offshore Wind (COE-OSW) also has organised workshops on: planning and permitting; financial framework and auction design; grid and supply chain infrastructure; and technical standards and rules for innovation.

LCOE estimates from the FIMOI assessment include several important infrastructural needs that will influence the competitiveness of OSW and that equally are a concern for potential project developers. Ambiguity regarding various modalities such as sea bed leasing, transmission and evacuation infrastructure could potentially double the presumed costs from 2018 FOWIND estimates, thereby requiring financial support and/or a clearer investor environment (e.g. through long-term power purchase agreements backed by a payment security mechanism).

Additional risks highlighted for OSW development include licencing and permits, whose approval processes and timing under the 2018 EOI were noted as an issue for some developers, as well as concerns about grid capacity and flexibility, potentially requiring upgrades to address balancing costs and potential curtailment (IFR100, 2019). Data and more precise mapping can also be a concern, although efforts like the LiDAR remote sensing off the coast of Gujarat being carried out by NIWE should help to address this.

These data and mapping improvements are supporting continued interest in OSW, such as the September 2021 proposal by Copenhagen Infrastructure Partners to develop a 1 GW OSW farm in the Gulf of Mannar off Tamil Nadu. RWE and Tata Power also recently announced a partnership in February 2022 to explore joint development of OSW in India. Additional efforts, such as those by the working group under GEWC India, equally aim to open the pipeline for OSW development. These will help bring together the various pieces needed to enable the first OSW projects in India, whilst support for other measures (e.g. port infrastructure development and domestic manufacturing capacity) will help enable scale and cost-competitive OSW in line with 2030 targets.

Reaching those targets will also require enabling the quantum of capital needed to deploy OSW at scale. Estimates suggest that OSW costs could require investment of USD 2.5-3 billion per GW (not counting other related infrastructure costs), where as much as 30-40% of those costs could be related to risks in building a clear supply chain with scalable growth. Further estimates on financing needs are being prepared by COE-OSW.

Offshore Wind Workshop I (4 March 2022): Summary Notes

India has made impressive progress on clean energy developments over the last decade. The government's most recent commitment to achieving 500 gigawatts (GW) of non-fossil fuel electricity generation capacity is very ambitious, but this goal reflects the scale of opportunities to achieve India's energy transition whilst delivering on other sustainable development goals.

Meeting India's clean energy targets to 2030 and beyond will require out-of-the-box thinking with collaboration across stakeholders, from developers, financiers and investors to state and central governments as well as with international partners. There are a number of challenges and barriers to address, including de-risking investments to unlock the capital needed for solutions like offshore wind. Yet, working together can bring forward solutions to address bottlenecks and to enable the finance needed to accelerate the deployment of renewable energy additions.

The time has come for offshore wind. The Ministry of New and Renewable Energy (MNRE) sees offshore wind as an important element in reaching the country's renewable energy targets to 2030 and beyond. India has a considerable coastline (7 600 kilometres with an exclusive economic zone of over 2.3 million square kilometres) and high energy demand growth. Offshore wind can provide more consistent (i.e. less variable) energy supply, complementing on-shore renewables and addressing issues like limited land availability. Estimates in Gujarat and Tamil Nadu alone already highlight more than 65 GW of potential offshore wind power in feasible zones.

Developers and investors alike are keen to enter India's offshore market, but enabling momentum for project development and investments requires efforts to ensure that inspiration has the right conditions and clarity to become reality. The government notified its National Offshore Wind Energy Policy in 2015, and further measures such as the National Institute of Wind Energy (NIWE) guidelines for offshore wind power assessment studies and surveys have been informed to facilitate project scoping.

MNRE presented its plans to achieve 30 GW of offshore wind by 2030. 8 preliminary zones have been identified off Gujarat, with a further 8 zones identified off Tamil Nadu. 5 and 7 zones each, respectively, are expected to be available for exploitation in coming years, and NIWE has carried out

detailed wind and marine studies for one zone already in Gujarat, as well as a rapid environmental impact assessment for that zone. Detailed studies and assessments are still needed in Tamil Nadu. Offshore potential in other areas (e.g. in Tamil Nadu and/or other states) is also uncharted, and the government is open to exploration by private investors to carry out required studies and surveys.

MNRE proposes an offshore roadmap with a first tender of 1 GW of offshore wind capacity additions in Gujarat in 2022. A second tender of 2 GW in 2023 would seek to develop capacity within a zone identified and assessed by developments. Considering the high wind resources off the coast of Tamil Nadu, where NIWE is installing floating LIDAR to validate wind measurements, projects under the second tender are highly likely to be developed in Tamil Nadu. Private investors will also be invited to carry out studies, survey and assessment work within the exclusive economic zone for offshore wind project development.

To facilitate the proposed 2022 and 2023 developments, the first two rounds of tenders would certainly require financial support. Accordingly, a suitable finance support proposal in the form of viability gap funding in under preparation for the Ministry of Finance. The tenders are proposed to be floated by the Solar Energy Corporation of India (SECI), and grid connectivity would be carried out through Powergrid and the Central Transmission Utility (CTU). The offshore transmission and evacuation infrastructure through CTU is proposed to be socialised. Future project support (beyond 2023) is proposed to be made available through transmission infrastructure (up to the developer offshore substation) and through fiscal incentives (e.g. waiver of transmission charges and potential multipliers for renewable energy certificates). MNRE is also formulating offshore seabed lease rules (30 years) that will be notified shortly.

Group Discussion: solutions to enable market development

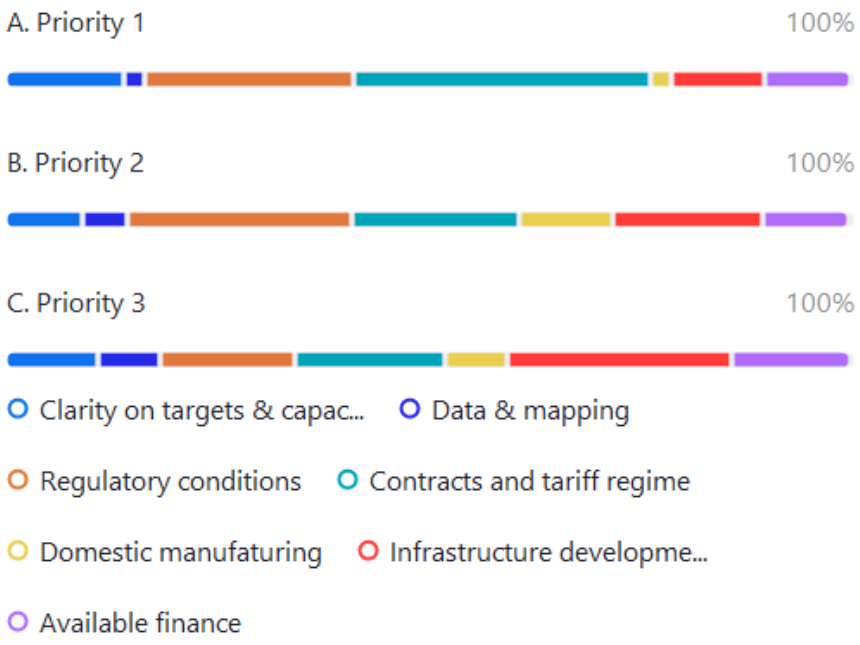
It is clear that initial capital needs for offshore wind will be high, and a number of additional elements will need to be addressed to lower the long-term cost of offshore wind: for instance, supply chain, transport and logistic infrastructure as well as domestic capacity building. Early stakeholder consultations by the OECD and NRDC in preparation of this first CEFI Roadmap workshop on offshore wind heard a number of key issues, including:

- Challenges and barriers to early market development such as:
    - Need for clarity on policy (e.g. on tendering and seabed rights) with a roadmap to scale, a clear regulatory framework and the expected incentives/support (e.g. on points like tax, local content requirements and import duties);
    - Data and mapping, including whether this will be the responsibility of developers, and availability of information to participants;
    - Revenue stability, addressing concerns on tariffs, sanctity of power purchase agreements (PPAs) and eventual risk mitigants (e.g. generation-based incentives or viability gap funding). Addressing issues like distribution company (DISCOM) payments and the role of tools such as payment security mechanism or renewable purchase obligations;
    - Co-ordination between actors, not only government agencies but equally where support such as development assistance is injected to avoid distortions in the market
- Needs to scale up additions (including whilst the first projects are being finalised) with:

- Infrastructure development such as ports, yards and transmission capacity, ensuring there are no critical delays that hinder growth, and considering how this can be co-ordinated through existing mechanisms/funds such as the National Monetisation Pipeline , the 'gati shakti' scheme, sovereign green bonds and the Green Growth Equity Fund;
- Developing a domestic supply chain with required industry expansion/investment and skill development/capacity building as well as a clear pipeline to volume (e.g. 100+ turbines per year) and clarity on support (e.g. under production-linked incentives [PLI]);
- Overall cost and capital needs, including issues with access to finance and cost of debt, especially for smaller players in local supply chains, where ad-hoc financing will not suffice to solve this problem;
- New financing solutions and investment vehicles, including possible support such as credit enhancement mechanisms, to achieve capital scales commensurate with offshore targets (e.g. at USD 2-3 billion per GW)

Group poll results during the workshop highlighted a number of these points as priorities for short-term and longer-term offshore wind market development. The top three priorities for short-term development highlighted by the group poll (both by individual order of priority and collective ranking across the three priorities) were: 1) clarity on contracts (e.g. PPA conditions/sanctity), tariff regime and revenue support; 2) regulatory conditions (e.g. technical standards, import duties, local content requirement and GST, etc.); and 3) need for infrastructure development (e.g. ports, yards and transmission).

Poll 1: What are the top 3 issues you see as critical priorities for 1st GW?



Participants also indicated (beyond the above-listed seven categories) other barriers/challenges for early market deployment, including: available skill and market capacity to deploy solutions; material cost and availability; the speed and capacity of stakeholders to meet/handle the proposed timeline and scale of additions; and potential environmental and/or social conflicts. Respondents also reaffirmed multiple elements needed within the overall policy framework, including: clarity on

contracts and tariffs; clarity on site selections; visibility on annual tendering to avoid "boom and bust" cycles; clarity on seabed rights and lease awarding criteria (where a letter of consent is not the same thing as an option agreement); and well defined/co-ordinated regulatory approval processes.

Further data and mapping resources were also noted, not only for future sites but also to reflect trends in plant load factor (PLF) over time, which is challenging with only one or two years of data. This information may also need to be integrated into support mechanisms (e.g. viability gap funding) if average wind speeds are in a decreasing trend.

Green hydrogen in India: background and context

Green hydrogen production can play a key role in India's clean energy transition and in meeting the country's ambitions to achieve net-zero emissions by 2070. India produces around 6.7 million tonnes (Mt) of hydrogen annually, which could reach 23 Mt by 2050. Industry is the main consumer of hydrogen in India, driven by the fertilisers industry (3 Mt per year) and refineries (2.6 Mt per year). Using India's vast renewable energy resources, green hydrogen production has been highlighted for its role to increase national energy security (Bhaskar, 2021). Enabling early investment in green hydrogen applications can likewise help to open longer-term opportunities for decarbonisation of hard-to-abate segments, such as heavy industry, through substitution of natural gas, coking coal or oil products (IEA, 2021).

India has previously explored the role of hydrogen as an energy vector, highlighting its potential in a roadmap produced by the Ministry of New and Renewable Energy (MNRE) in 2006. The government has since continued to support research and innovation for hydrogen technologies and is a member of the Mission Innovation Green Hydrogen Mission. Globally, hydrogen has (re)emerged in mainstream energy conversations in recent years (IEA, 2019), and in India, hydrogen has resurfaced in policy dialogues, with Prime Minister Shri Narendra Modi announcing plans for a National Hydrogen Mission at the third RE-Invest in November 2020. The Mission was launched at India's 75th Independence Day in August 2021.

A subsequent draft policy prepared by MNRE set forth plans to mandate gradual use of green hydrogen in refineries and fertiliser plants through Green Hydrogen Consumption Obligations (GHCOs), similar to renewable purchase obligations already used with distribution companies (Reuters, 2021). GHCO plans could require green hydrogen use for 10% of refinery and 5% of fertilizer hydrogen needs by 2023-24, rising respectively to 25% and 20% by 2026-27.

India unveiled the first part of its Green Hydrogen Policy in February 2022, noting various measures to facilitate the transition from fossil fuel to green hydrogen and green ammonia. The Policy proposes advantageous conditions for the purchase, storage and transmission of renewable sources of energy for green hydrogen manufacturers. For example, green hydrogen plants commissioned before 30th June 2025 will receive an inter-state transmission charge waiver for a period of 25 years, which could lower the delivered cost of renewable electricity by 25%. Other measures should ease and speed up administrative processes, for instance by giving connectivity to the grid in priority to Green Hydrogen and renewable energy plants, or by setting up a single portal for carrying out all the activities including statutory clearances.

Still, enabling a green hydrogen economy will require producing green hydrogen at competitive costs. India already stands out for its potential, due to the country's relatively high gas prices and low-cost renewable energy prices (IEA, 2021), but large-scale green hydrogen production is still a nascent industrial process and progress is required (TERI, 2021). Indeed, the costs of hydrogen from electrolysis today are relatively high, at around INR 400/kg versus INR 140-180/kg from steam methane reforming (SMR) (TERI, 2020). Getting this below INR 160/kg will therefore be central in enabling green hydrogen to compete with the roughly 7 Mt of current annual grey hydrogen production (Express, 2021).

Costs of green hydrogen production are likely to fall sharply with learning and scaling-up of needed infrastructure (IRENA, 2022). A comprehensive assessment by TERI of possible hydrogen production routes emphasised the need to enable dramatic cost declines in green hydrogen production technologies such as alkaline electrolysers. Part of this can be driven by scale in deployment, as well as through cost reductions from domestic manufacturing of these technologies. Efforts to improve electrolyser efficiencies and to increase the load factors of renewable electricity inputs will also help to drive costs down. Declining renewable power costs (e.g. from recent auctions) also are promising.

Several announcements have targeted these types of technical developments for green hydrogen production in India. For example, Reliance Industries (RIL) signed an agreement in October 2021 with the Danish company Stiesdal Fuel Technologies to set up a green hydrogen electrolyser plant. This builds upon RIL's announcement in June 2021 to invest as much as INR 75 000 crore (USD 10 billion) in solar, battery, fuel-cell and electrolyser manufacturing, including plans to use 3 gigawatts of solar power to produce green hydrogen (Koundal, 2021).

In August 2021, Ayana Renewable Power and the Norwegian company Greetstat also signed a memorandum of understanding for hydrogen technology development in India, and the US-based renewable energy start-up, Ohmium International, launched its own green hydrogen electrolyser giga-factory at Bengaluru (Shetty, 2021). Larsen & Toubro also signed a MoU with the Norwegian company HydrogenPro to set up a joint venture in India for gigawatt-scale manufacturing of alkaline water electrolysers.

The Indian Oil Corporation (IOC) announced its plan to build a combined 55 MW electrolyser capacity at Mathura and Panipat refineries by 2024. IOC is targeting to produce 70,000 tonnes a year of green hydrogen by 2030, which would represent an installed electrolyser capacity of around 500MW and cover 10% of its hydrogen consumption.

Schemes that provide a 'push' for supply and a 'pull' for demand will help to enable the appropriate scales for investment in hydrogen solutions (i.e. avoiding a "chicken and egg" situation). Downstream demand will support commercialisation of hydrogen technologies whilst ensuring sufficient offtake for green hydrogen supply (Hydrogen Council, 2021). Green Hydrogen Consumption Obligations (GHCOs) in fertilizer production and petroleum refining have been announced and will help to create early market demand. Other opportunity sectors such as steel may still have concerns regarding the production-linked incentive (PLI) scheme (Mint, 2021).

The India Hydrogen Alliance (IH2A) recommends prioritising pre-feasibility in at least 10 large-scale demonstration projects with participation from industry consortia, alongside incentives and offtake agreements guaranteed by the government (IH2A, 2021). Several of India's existing industrial sites are

well located for the use of local solar and wind resources, especially in Gujarat, Maharashtra and West Bengal (IEA, 2021). These clusters could offer opportunities to develop pilot projects and shared infrastructure (TERI, 2020). Existing infrastructure that supports the supply, storage and transportation of methanol and ammonia could also potentially be leveraged by green hydrogen applications (WB, 2020).

These developments will help to enable early green hydrogen applications, although increasing opportunities for green hydrogen production capacity will require greater scales of investment. The India Hydrogen Alliance (IH2A) estimates that as much as USD 15 billion in public and private funding is needed to set up 15 gigawatts of green hydrogen electrolyser capacity by 2030. This would produce around 3 Mt of green hydrogen – around one-quarter of the expected 11.7 million tonnes of hydrogen use by 2030 – requiring around 30 gigawatts of renewable energy input. Achieving a total of 25 gigawatts of green hydrogen production by 2030 would require an addition USD 10 billion in investments.

Given the high capital intensity of hydrogen trade value chains, de-risking these investments will likely require large consortia, high levels of state involvement and international co-ordination. (IRENA, 2022).

A Roadmap to improve finance and investment in offshore wind & green hydrogen development in India

Enabling the prospects for OSW and a green hydrogen market requires targeted actions to channel capital to early projects whilst enabling a pipeline of future capacity additions. This includes co-ordination of public interventions, international climate and development finance, and related support mechanisms to unlock commercial capital for OSW and green hydrogen projects and to redouble investor opportunities.

Development of a ***Clean Energy Finance and Investment Roadmap*** can help India to meet this challenge, building upon existing initiatives and ongoing discussions to enable the necessary capital flows for vibrant OSW and green hydrogen markets. Bringing together government and stakeholders, the Roadmap will develop an action plan that identifies and addresses critical bottlenecks in order to develop tailored financing solutions and suitable investment vehicles that can help to scale up OSW deployment and enable a green hydrogen market in India.

As needed, the Roadmap will also consider policy and other factors influencing finance and investments in those projects. This includes elements such as infrastructure needs (e.g. port and transmission capacity), socioeconomic considerations such as training and capacity building for skilled labour, policy norms and standards (e.g. for hydrogen products), and financial support for expansion of domestic manufacturing capabilities.

Roadmap Background

The Covid-19 pandemic and consequent recession in India have brought forward the critical need to align clean energy ambitions with economic recovery, quickly putting people back to work while

enhancing India's capacity to achieve its sustainable development goals. Aligning recovery efforts with the clean energy transition is an enormous opportunity to spur green growth, not only realising positive impacts on climate but also enabling economic multiplier effects through clean energy infrastructure development and skilled labour creation.

Enabling the prospects for sustainable recovery will require a paradigm shift in current investments, channelling commercial capital to clean energy projects and attracting overseas investors. This will require more targeted application of public finance, international climate and development finance, and related support mechanisms to increase the pipeline of bankable clean energy projects in India, redouble investor opportunities and crowd-in private sector finance.

Development of a ***Clean Energy Finance and Investment Roadmap*** can help India to meet this challenge. The Roadmap will bring government and private sector stakeholders together to agree upon a clear action plan that identifies and addresses bottlenecks complicating or constraining finance and investment in India's clean energy sector. The Roadmap will outline opportunities to tailor market and policy interventions to unlock further private finance, taking into account current market conditions with COVID-19 as well as emerging trends and investor expectations as financial markets look for more climate-aligned investments. In this respect, the Roadmap will evaluate investment vehicles able to attract institutional capital at suitable scale and take advantage of opportunities with international investor networks like the Climate Investment Coalition and IIGCC/AIGCC.

The Roadmap will be developed by the OECD Clean Energy Finance and Investment Mobilisation (CEFIM) team in partnership with the Natural Resources Defense Council (NRDC), under the guidance of the Government of India Steering Committee (MNRE, IREDA, MOP, BEE, MEA, DEA, Niti Aayog). It will build upon and help support the implementation of India's economic recovery plans and Aatma Nirabhar Bharat (Self-reliant India) ambitions. It will also complement financial sector priorities to promote sustainable practices through corporate social responsibility reporting.

The Roadmap will identify innovative financing solutions and effective investment vehicles that can help deepen local capital markets, bring in new investors and attract international capital for energy efficiency and renewable electricity. As needed, it will highlight policy and other issues that may be hindering the flow of finance, providing recommendations on potential ways to overcome these barriers and agreement on action points to implement solutions. The roadmap will work with stakeholders to develop an investment lists comprised of investment vehicles and projects suitable for institutional investors. These projects covering both energy efficiency and renewable electricity

can include both primary and secondary clean energy finance transactions aimed at both domestic and foreign investors.

Roadmap Process and Stakeholder Engagement

The Roadmap will be a strategic plan that describes the steps needed to meet India's clean energy finance and investment objectives. The process for developing the Roadmap is as important as the plan itself, as it aligns diverse stakeholders in a common course of action. The Roadmap will be developed by OECD and NRDC, working closely with the Steering Committee and bringing together stakeholders through a series of three workshops:

1. To assess critical barriers and opportunities to prioritise action that improve clean energy finance and investment
2. To identify and assess innovative solutions and effective investment vehicles that can deepen capital markets and mobilise stakeholders/investors
3. To deliberate recommended actions and build consensus on the steps forward that implement and operationalise financing tools able to attract capital at suitable scale.

Through this process, the Roadmap will endeavour to set forth a clear action plan, built on consensus, to help unlock further finance and private capital for clean energy projects. Emphasis will be on the development of clean energy projects over the next 5 years. The Steering Committee, alongside Roadmap stakeholders, will ultimately be responsible for ensuring implementation of the Roadmap's recommended actions and in applying indicators to track progress in its implementation.

Stakeholder Consultations

To prepare the Roadmap and gather stakeholder inputs, OECD and NRDC will hold a number of consultations leading to the workshop discussions. These consultations seek to improve understanding of the needs and expectations (e.g. risk and return profiles) of key actors engaged in clean energy project development, finance and investment. This information will serve as input into the three workshops as well as to prepare pointed recommendations on Roadmap actions that can be taken to improve finance flows and attract investors for clean energy development in India.

Timeline (indicative)

- July-Aug 2021: Steering Committee and working group meetings; initial consultations to gather input
- Sept-Dec 2021: scoping of Roadmap focus and targeted consultations
- Jan-Feb 2022: finalisation of Roadmap scope and consultations on market barriers
- Feb 2022: first workshop (online event)
- Mar-Apr 2022: working group deliberations & consultations on financing vehicles

- May 2022: second workshop (hybrid event)
- Jun-Jul 2022: roadmap draft & review
- Aug/Sep 2022: final draft & workshop to deliberate recommended actions / steps forward
- Oct/Nov 2022: release in India (event tbd) and investor dialogue as part of OECD Forum on Green Finance and Investment (Paris)