

# IREDA Pioneering a Catalytic Green Window in India

India has committed to achieve **450 GW of renewable energy capacity installed by 2030**. This is a very ambitious goal and is equivalent to converting the entire current power capacity in Russia, Brazil, and South Africa combined to 100% renewable energy. For India to achieve this goal, a robust and self-sustaining clean energy finance ecosystem is critical. A whopping **annual investment of \$30 billion** – three times the current rate of about \$10 billion per year – is required.<sup>1</sup> Without policy initiatives and institutional mechanisms that address risk perceptions of investors, financing may not keep pace with government targets and consumer demand (Figure 1).

## IREDA GREEN WINDOW

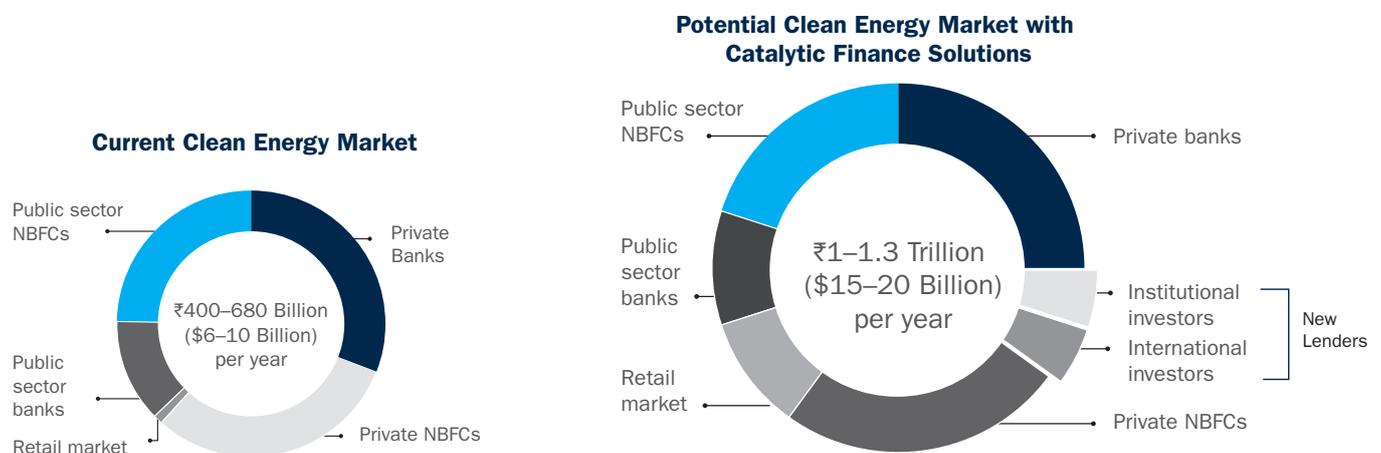
To address the need to expand the clean energy finance market in an inclusive manner, the Ministry of New and Renewable Energy (MNRE) is setting up a dedicated, catalytic “green window” within the Indian Renewable Energy Development Agency (IREDA). The green window is envisaged as an institutional mechanism with access to a ring-fenced pool of capital managed by a dedicated clean energy investment team and with the aim to catalyze private investment in India’s clean energy market, especially the underserved segments that are critical to sustainable and inclusive market growth.

The green window will enable IREDA to diversify its portfolio by going beyond project financing utility-scale technologies, to include greater distributed energy resources and emerging clean technologies that currently

struggle to access commercial finance. As the first vehicle of its kind, the IREDA Green Window will also serve as a model to scale-up catalytic financing solutions to other public institutions, and state-level efforts across India. **Over time, catalytic green windows could mobilize two to seven times the capital invested by the Indian government**, thereby increasing the capacity of private banks, institutional and retail investors, and other domestic and international lending sources to invest in targeted sectors.

The green window framework was developed in 2018 starting with market assessment and stakeholder consultations. Currently, IREDA is developing an operational plan which includes the mission, the mandate, target market segments, performance metrics, and a roadmap for implementation for the green window. Table 1 demonstrates how the green window adds value to IREDA’s current focus.

**Figure 1: Catalytic Finance Effects on the Indian Clean Energy Market**



Source: NRDC, CEEW, and IREDA, *Clean Energy for All: Framework for Catalytic Finance for Underserved Clean Energy Markets in India*, October 2018.

<sup>1</sup> Economic Survey 2019 Government of India <https://energy.economicstimes.indiatimes.com/news/renewable/economic-survey-pitches-for-330-billion-investment-in-renewable-energy/70069670> ; NRDC-CEEW Analysis <https://www.nrdc.org/experts/sameer-kwatra/framework-catalytic-finance-india>

**Table 1 Green Window Value Addition**

Activity	IREDA's Current Focus	IREDA Green Window
<b>Attract private finance for clean energy</b>	Renewable energy financing, often as co-investment with other public sector banks, at slightly lower or near commercial rates	<ul style="list-style-type: none"> <li>Catalyze private financing for underserved markets such as rooftop solar, off-grid, bio-energy and energy storage, by offering financial instruments such as credit guarantees, payment security mechanism to cover discom risk, subordinate debt, and revolving loan funds that reduce risk perception of private investors</li> <li>Facilitate warehousing and securitization to aggregate small projects such as rooftop installations into larger deal size preferred by investors</li> </ul>
<b>Attract international capital</b>	IREDA has several sources of international capital. However, most of this capital has come as interest bearing loans (with hedging costs borne by IREDA)	<ul style="list-style-type: none"> <li>Attract more grant and concessional funding, such as from the Green Climate Fund and philanthropies</li> <li>Open up the Indian clean energy market to new classes of international investors</li> </ul>
<b>Market development</b>	<ul style="list-style-type: none"> <li>Provide short-term bridge loans as a part of MNRE's viability gap funding program</li> <li>Maintain an online monitoring system of "wind power performance"</li> <li>Provide refinancing for small hydro and biomass</li> </ul>	<ul style="list-style-type: none"> <li>Develop underserved clean energy markets through disseminating information, convening training workshops and launching renewable energy aggregation programs</li> <li>Work with utilities, distribution companies, states, and municipalities to develop and implement clean energy programs based on innovative financing mechanisms like on bill charges</li> <li>Work with private banks and local lenders, helping them understand the value proposition and mechanics of clean energy lending</li> <li>Enter into dialogue and exchange knowledge with other green investment banks</li> <li>Recycle public funds and reduce the need for subsidies</li> </ul>

## CAPITALIZING IREDA'S GREEN WINDOW

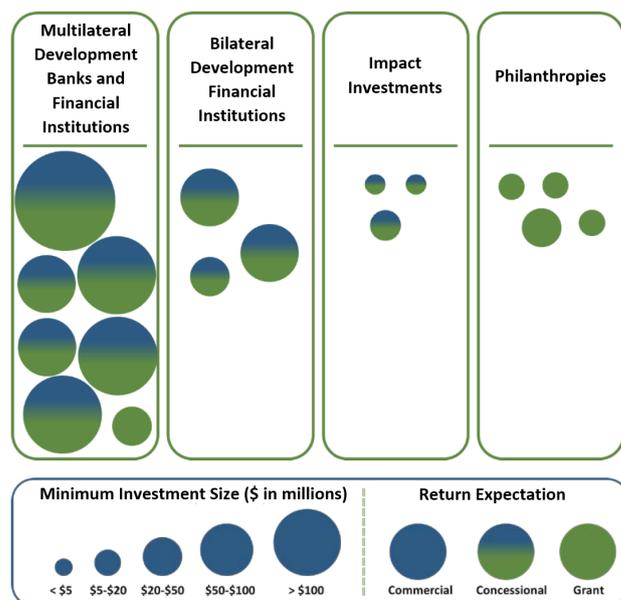
Many mission-driven lenders aim to accelerate the growth of the clean energy sector to mitigate climate change, adapt to the unavoidable consequences of climate change, and support clean energy-based economic development. These investors (Figure 2) have reason to support the establishment of catalytic strategies that increase investment in underserved sectors and mobilize commercial sources of capital.

Based on the capitalization of existing green investment banks across the world, IREDA's Green Window needs \$50 million in seed funding. **IREDA will allocate initial seed funding of ₹140 crores (approximately \$20 million) for the green window.** The seed capital will be used to leverage additional sources of capital from both private domestic banks and international sources such as development banks, bilateral institutions, climate funds, impact funds, and/or philanthropic sources.

## A NEW ERA FOR IREDA

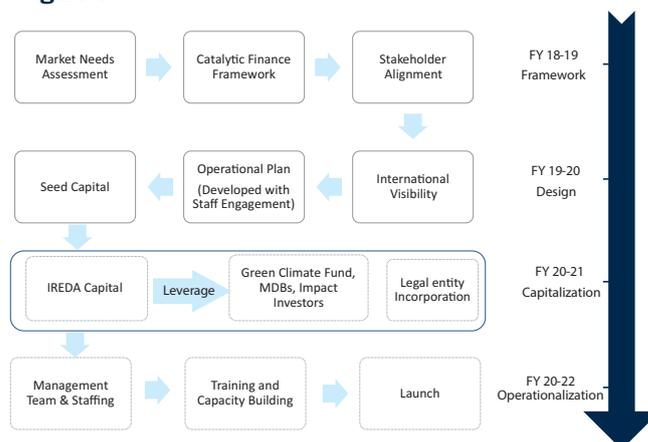
Established in 1987, IREDA has played a significant role in mainstreaming renewable energy lending in India. As IREDA continues the journey to be a transformative clean energy institution, it is useful to revisit its organizational mission, written three decades ago and still very relevant: *"to be a pioneering, participant friendly and competitive institution for financing and promoting self-sustaining investment in energy generation from renewable sources, energy efficiency and environmental technologies for sustainable development."* Establishing India's first green window will help IREDA more fully achieve this mission (Figure 3).

**Figure 2 Investor Profile**



Source: NRDC, CEEW, and IREDA, *Clean Energy for All: Framework for Catalytic Finance for Underserved Clean Energy Markets in India*, October 2018.

**Figure 3 Green Window Timeline and Milestones**



Source: NRDC