Volume 1, Issue 1
January-June 2015

Newsletter on the JICA-IREDA initiative to promote renewable energy development in India

Message from Chairman, IREDA

Dear readers,

Renewable Energy in India is on its way to witness unprecedented growth. I hope that all of you are a part of this success story and together we make India's Scale-Up Plan a tremendous success.

As we close the first quarter of this financial year, we mark the release of our first six-monthly newsletter to serve as a source for disseminating news and information to important sector stakeholders and the community at large. This and subsequent newsletters released as part of the Japan International Cooperation Agency's (JICA's) assistance, aim to spotlight Indian Renewable Energy Development Agency's (IREDA's) role in supporting India's renewable energy deployment growth as a Non-Banking Financial Company and the role IREDA can play to progress your plans.

JICA is globally the largest provider of Official Development Assistance and has been providing IREDA financial assistance through concessional loans to promote the development of RE in India. Post the tremendous success of JICA's assistance for New and Renewable Energy Development to India, it gives me immense pleasure to see JICA continuing its support through Phase 2 of the same project.

India's Scale-Up Plan targets 100 GW of solar and 60 GW of wind generation capacity by the year 2022. This will place India amongst Global leaders in the Renewable Energy sector and mark a tremendous increase in India's current generation capacity. In response to these targets, India has already received commitments from sector players to the tune of 270 GW! The Global Investor's Meet RE-Invest organized in this context in February 2015 proved to be of tremendous success indeed in this regard.

Attainment of the planned renewable energy targets of over 175 GW requires substantial investments in this sector to the tune of USD 200 billion in the years leading up to 2022. IREDA in its role as a financing institution for the Renewable Energy sector will play a major role to play in this segment.

Let's contribute to India's renewable energy revolution.

K. S. Popli,
Chairman, IREDA

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IREDA

Eligible Sectors

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Solar Project by Lanco Solar, Lathi village, Jaisalmer

Indian Renewable Energy Development Agency Ltd. is a Public Limited Government Company established in 1987, under the administrative control of the Ministry of New and Renewable Energy (MNRE). IREDA has been conferred Mini-Ratna status by the Government of India and is registered as a Non Banking Financial Company.

IREDA's mission is 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."

The organisation has been active in promoting, developing and extending financial assistance for renewable energy through innovative financial mechanisms. With its headquarters situated in Delhi, IREDA has branch and camp offices in Chennai, Hyderabad, Kolkata and Ahmedabad. It caters to the wind, hydro, solar, biomass, waste to energy, energy efficiency, bio-fuel, new and emerging energy and hybrid sectors.
IREDA is amongst the foremost stakeholders of the Renewable Energy sector and assists MNRE in a multitude of their initiatives such as organization of investor's meets, implementing investor schemes, etc.

New fund and non-fund based financing schemes

- Line of Credit to Non-Banking Financial Companies (NBFCs) for on- lending to RE/ EEC Projects
- Short term loan assistance to RE Developers/Suppliers/ Contractors
- Bridge loan assistance to RE Developers against Capital Subsidies/VGF/GBI available under various State/Central Govt. Schemes
- Policy on Underwriting of Debt/Loan Syndication
- Guarantee Assistance Scheme to RE Suppliers/Promoters

IREDA's financing schemes

- Project Financing
- Equipment Financing
- Loans for Manufacturing
- Financial Intermediaries
- Financing of commissioned projects including takeover of Loans from other Banks / FIs.
- Additional / Bridge Loan against SDF Loan
- Loan against Securitization

- ***The minimum loan amount is INR 5 million.***
- ***The quantum of loan from IREDA shall be normally upto 70% of the total project cost.***
- ***The maximum debt-equity ratio is limited to 3:1***
- ***Repayment periods go up to 10-15 years***
- ***Interest rates generally vary between 11.50% to 13.75%***
- ***The interest rate for line of credit to NBFC's for on-lending typically varies between 11% - 11.50%***

**Data provided is for general cases. There are other exceptional cases apart from these as well.*

Wind Farm by Bindu Vayu Urja Private Limited, Kaladonger village, Jaisalmer

The Japan International Cooperation Agency (JICA) is the World's largest bilateral development organization, operating in some 150 countries to help some of the Globe's most vulnerable people. It coordinates Official Development Assistance (ODA) for the Government of Japan, and is globally the largest provider of ODA. JICA aims to contribute to the promotion of international cooperation as well as the sound development of Japanese and global economy by supporting the socioeconomic development, recovery or economic stability of developing regions. JICA's work spans across a broad spectrum of issues encompassing education, ICT, healthcare, climate change, agriculture, energy, etc.

JICA has been supporting the development of India's renewable energy sector since 2011at a time when India had an unbalanced energy supply with coal generated electric power accounting for 53% of the power generated and India's dependence on imported energy sources was increasing. India's renewable energy portfolio at that time was a mere 9% of the total and the sector was facing a lack of private sector funding for investment and development, making public funding from domestic and international sources indispensable.

JICA as its support has been providing concessional loans through IREDA and expertise to help India develop its renewable energy sector. Since its entry into this space, JICA has been the biggest supplier of ODA to IREDA and instrumental in IREDA's growth. It has provided concessional loans to multiple renewable energy projects developed such as ReNew Wind Energy's project in Khanapur, Maharashtra; Vish Wind Infrastructure's projects in Gujarat and Bhilwara Energy's projects in Maharashtra.

Provide Concessional Loans

Provide Expertise

About JICA's Project with IREDA

The New and Renewable Energy Development Project initiated with JICA signing an ODA agreement with IREDA to provide mid and long-term financing for new and renewable energy development projects to ensure a stable power supply and to diversify the sources of electrical power.

Phase 1

JICA provided IREDA financial assistance through concessional loans to promote the development of RE in India. Along with its line of credit, JICA also provided technical assistance to IREDA, which included support to wind, solar small hydro, biomass, energy efficiency and conservation measures leveraging Japan's expertise. This assistance was planned to strengthen the capacity of IREDA to evaluate loan applications.

Phase 1 of this project proved to be a tremendous success and contributed to large off-take of concessional loans by developers from IREDA. This was a major contributor in increasing India's share of renewable energy from 9% of the total in 2011 to more than 13% at the beginning of 2014. Further, the success demonstrated by projects financed under JICA's line of credit has instilled confidence towards this sector in the minds of developers and as a result this sector is undergoing rapid growth.

Phase 2

IREDA had estimated a financial demand of Rs. 25,709 crores as financial demands from FY 2014-15 to FY 2019-20. IREDA

was facing a gap of Rs. 4,750 crores out of this. Further, towards the completion of phase 1 of this project, a need was also felt to strengthen capacity of IREDA's technical units with respect to new and proven technologies in the renewable energy sector, improve IREDA's visibility as a financing institution and enhance its outreach.

JICA after the success of Phase 1 of this project has financedINR 1,910 crores out of the expected financing gap that IREDA will face as part of the second project phase. IREDA will finance renewable energy projects through this with a minimum of 30% of the amount being disbursed to the solar sector.

Developing and Strengthening information data base for project monitoring and evaluating performance:

This activity encompasses the implementation of a Centralised Project Data Management System (CPDMS) to serve as a database for generation and interruption data for all IREDA funded wind projects. This will be integrated with IREDA's existing IT system and reduce the effort of manually having to log in to individual SCADA systems and sourcing data. Further the data points acquired by this system will be as uniform as possible throughout the spectrum of projects.

This activity also involves organization of 6 workshops for IREDA's IT staff in order to ensure the CPDMS is built exactly in line with their requirements and further to develop and ensure their comfort ability with the system.

Progress: Two workshops have already been organized to discuss the structure, modules and framework of the CPDMS to be implemented. In order to study the data gathering mechanisms and systems of developers and to develop an understanding of their architecture, the project team has visited ReGenPowertech's data center in Chennai along with an IREDA IT staff representative and is in talks to visit two other manufacturer data centers in July, 2015. Currently, the data acquisition process from data centers of manufacturers is being streamlined.

Capacity Building of IREDA staff/concerned stakeholders on new and proven technologies as well as financial mechanisms for commercialization

A need to enhance the capacity of IREDA employees with respect to new and proven technologies in the renewable energy sector was identified after the completion of Phase 1 of this project. In lieu of this, ten capacity building workshops will be organized for IREDA staff after consultation with both JICA and IREDA over the entire project duration.

Progress: A workshop on tax issues was organized for IREDA employees in May, 2015 that covered important topics such as the recently declared taxation of subsidies, depreciation of assets and income tax holidays, etc.

Enhancing Market Outreach of IREDA

A total of 14 workshops are to be held for external stakeholders that will promote the off take of IREDA's financial scheme under JICA ODA loan. The workshops organized will cover all regions of India in order to reach out to the maximum possible number of loan off takers. Also included will be assistance in issuance of advertisements, development of six-monthly newsletters and four documentaries. Further summaries of the workshops and lessons learnt will be mentioned in the quarterly project reports.

Progress: A workshop to promote renewable energy investments in Andhra Pradesh has been organised in Hyderabad. The workshop sensitised stakeholders with the current status and policies related to solar energy in Andhra Pradesh. It highlighted upcoming opportunities, experiences of developers in the state and served as an effective discussion forum amongst sectorial players and state agencies. This workshop, organised in association with the New and Renewable Energy Development Corporation of Andhra Pradesh was inaugurated by Sh. Ajay Jain, Secretary Energy, Infrastructure and Investments, Government of Andhra Pradesh. Further, this six-monthly newsletter will be followed by a documentary to be released by the end of this year.

Wind Farm by Bindu Vayu Urja Private Limited, Kaladonger village, Jaisalmer

Recent Developments

IREDA launches loan scheme for financing rooftop solar

IREDA has launched a new loan scheme that aims to promote rooftop solar projects by providing loans at the rate of 9.9% to 10.75% to aggregators and developers of Grid-connected solar PV. The scheme was launched on the 7th of July, 2015 at VigyanBhawan by Sh. PiyushGoyal, the Honourable Minister of State for New and Renewable Energy.

This scheme invites applications under two separate categories, one of which is of aggregators and the other is the direct category. The minimum project capacity to be submitted is of 1,000 kWp for both categories. Under the aggregator category, the minimum project size financed by the aggregator should be 20 kWp. All projects financed are required to comply with minimum technical standards as per MNRE /CEA guidelines for rooftop solar/distributed generation "CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013."

Renewables in Priority sector lending

Aligning itself with the policy priorities of the India Government, The Reserve Bank of India on the 23rd of April, 2015 revised its priority sector norms and accorded priority sector lending status to Renewable Energy. Other categories included in its gambit of priority sector lending are agriculture; micro, small, and medium enterprises; export credit; education; social infrastructure and housing loans. Under the priority sector norms, Banks are mandated to disburse 40% of their adjusted net bank credit to priority segments, and those foreign banks with less than 20 branches will reach the target by 2020. These norms, however do not lay down any preferential rate of interest for these priority sector loans.

"The priority sector non-achievement will be assessed on a quarterly average basis at the end of the respective year from 2016-17 onwards, instead of an annual basis as at present. Banks, including foreign ones, which are unable to reach these sectors because of their concentration in cities, will be able to purchase securitised assets from financial companies, trade in Priority Sector Lending Certificates. Outright purchase of assets would also be counted as meeting the mandate", RBI said in a statement on its website.

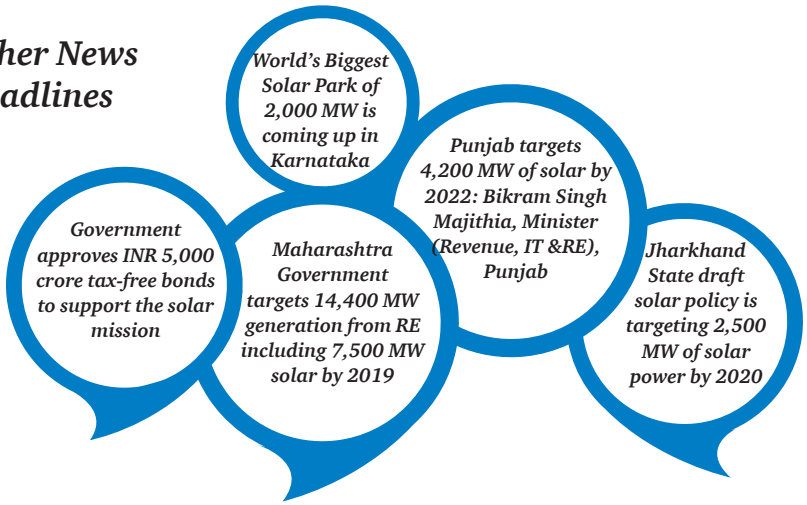
Banks in India face structural challenges in financing solar projects due to their sectoral exposure limits for the power sector which also includes large thermal coal or gas based power plants. The large amount of credit extended to the fossil fuel based power sector has caused banks to reach their respective exposure limits thus limiting their appetite for solar and renewable energy projects.

India's support to roof top solar plants

Indian Government is promoting roof top solar panels to bring down the power deficit and provide electricity to all. Secretary, Union Ministry for New and Renewable Energy, UpendraTripathi, announced in a press conference on 29th May that citizens can now set up roof-top solar power plants on their houses to take care of their power requirements through bank loans which would be part of home loan or home improvement loan. Individuals can borrow a maximum of INR 1 million under this scheme.
He also stated that the Centre was set to launch Surya Mithra scheme under which 50,000 rural unemployed youth with a qualification of Class 7 would be given free training in handling solar power plants in order to take care of the service and repair requirements of such plants. A GPS enabled mobile application will also be launched that will connect consumers with the nearest trained Surya Mitra.

Piyush Goyal, the Minister of State for New and Renewable Energy in India further indicated changes inconstruction rules to promote clean power and energy conservation in the big commercial, industrial and residential projects. "Urban Development Ministry will give some concession for making green buildings and ensure additional incentives for them. They may get concession in terms of making extra floors or get tax rebate," the minister said.

Other News Headlines



3 MoUs for manufacturing solar cells and modules signed with China

During Prime Minister Modi's recent visit to China at the "India-China Business Forum", 26 business agreements were signed potentially worth USD 22 billion. These agreements serve as a reflection of the interest of Chinese companies to invest in India and contribute towards the "Make in India" initiative.

Out of these, 3 Memorandums of Understanding (MoU's) were signed for solar cell and module manufacturing units. These MoU's are potentially worth USD 260 million.

- Welspun Energy entered into a memorandum of understanding with Trina Solar of China to jointly set up a PV industry park for production of 500 MW of Photovoltaic (PV) cell and 500 MW of PV solar module in India.
- JA Solar signed a MoU with Essel Solar respectively to set up manufacturing facilities in Andhra Pradesh.
- Canadian Solar signed an MoU with Gurgaon based Sun Group to develop solar projects and explore manufacturing in India.

India exploring solar bids in dollar terms to bring down tariffs

The Indian Ministry of New and Renewable Energy is considering the idea of dollar denominated tariff bidding to make energy from solar projects affordable. This type of bidding will allow developers to raise dollar backed loans without bearing the hedging costs and will thus enable them to supply electricity at a cheaper rate. The Ministry was recently considering that PTC India Limited can buy solar power denominated in dollar tariffs.

In a recent interview Goyal said, "We are looking at developers coming up and investing in India for power, for which we will pay in dollars. So, we are looking at dollar tariffs very actively which could be a game changer for the renewable energy industry."

"By all indications, we see a tariff in the region of 6 cents, or Rs 3.60 at an average exchange rate of Rs 60 to a dollar, with a normal rate of depreciation. Under accelerated depreciation, this would come down to 5 cents, or Rs 3," a key official stated in a press conference.

A 'hedging cost' of 1.5 cents, or 90 paise will be then added to the tariff. This money would be put into an escrow account used to cover depreciation in value of rupee. The final tariff thus would work out to be 7.5 cents — Rs 4.50 a unit, thus making it easy for discoms to sell directly or bundle with supplies from traditional sources.

The ministry is estimating to generate a 'hedge fund' of Rs 6,000 crore. Sources say this 'hedge fund' would be enough to cover 3% depreciation in value of rupee over the 25-year contract. But, if the rupee devalues by 5% against the dollar, then the money would be good for 15 years.

Supreme Court upholds RPO obligations for captive power generators resulting in 5-fold REC sales.

The Supreme Court of India recently upheld the validity of the Rajasthan Electricity Regulatory Commission (Renewable Energy Obligation) Regulations, 2007 and the Rajasthan Electricity Regulatory Commission (Renewable Energy Certificate and Renewable Purchase Obligation Compliance Framework) Regulations, 2010 with regard to the renewable energy purchase obligation (RPO) and the obligation to pay surcharge in the event of a shortfall in meeting the RPO imposed on captive generation power plants and other obligated entities.

As a result of the Supreme Court's judgement, the sale of renewable energy certificates (RECs) witnessed a jump of over five times to 3.4 lakhs in May as compared to 64,134 in April this year on the two power exchanges - PXIL and IEX. "This month's (May 2015) surge in volume is primarily due to recent judgment of the Supreme Court wherein the Court has directed captive generating companies to comply with Renewable Purchase Obligation (RPO) as mandated by the State Electricity Regulatory Commissions (SERCs)," India Energy Exchange (IEX) said in a statement.

India has two power exchanges approved by the Central Electricity Regulatory Commission - IEX and Power Exchange India Limited (PXIL). Auctions of RECs are held on these two exchanges on the last Wednesday of every month. The RECs sale on IEX jumped 550 per cent to 2.92 lakh on May 27 as compared to 45,202 in the previous month's trading session held on April 29. "Prior to Wednesday's (May 27) auction, more than 1.29 crore RECs were available in the market for trade, however, the traded volume is low as this the second monthly auction of the (fiscal) year. The traded volumes are expected to increase in the coming months," PXIL said in a statement.

Upcoming Opportunities

NVVN Tranche I Batch II Phase II - State Specific Bundling - 3,000 MW

State	Capacity	RfS Schedule
Andhra Pradesh – 1 (Solar Park)	500 MW	29th April, 2015
Rajasthan (Solar Park)	420 MW	29th May, 2015
Andhra Pradesh – 2 (Solar Park)	500 MW	2nd June, 2015
Telangana (Non – Solar Park)	400 MW	June, 2015*
Punjab (Non – Solar Park)	500 MW	June, 2015**
Haryana, J&K, Odisha & Rajasthan (Non – Solar Park)	350 MW	June, 2015**
Karnataka (Solar Park)	330 MW	July, 2015**
TOTAL	**3,000 MW**	

**Subject to Change; **Tentative*

SECI JNNSM Phase II Batch III Tranche I (2,000 MW)

- Power to be procured by respective states through SECI
- Full capacity will be developed in solar parks. SPIA will provide land and connectivity
- SECI will purchase the Solar Power generated from the selected Solar PV plants at the pre-determined tariff and sell the power to willing State Utilities under 25 years Power Sale Agreements (PSAs), at the applicable tariff determined after including a Trading Margin of Paisa Seven (7) per kWh
- VGF projects will be tendered on a state – by – state basis. MNRE has received confirmation from states for 2,670 MW –
- 500 MW (each): Karnataka, Uttar Pradesh, Maharashtra and Tamil Nadu
- 250 MW (each): Gujarat and Rajasthan
- 100 MW: Kerala
- Smaller scale projects in Uttarakhand, Delhi, Meghalaya and Lakshadeep

(No dates for RfS have been issued so far)

NTPC's Own Solar Projects

Name	Capacity	RfS Schedule
Andhra Pradesh – II	500 MW	May, 2015
Andhra Pradesh – III	250 MW	August, 2015
Madhya Pradesh – I	250 MW	May, 2015
Madhya Pradesh – II	500 MW	August, 2015
Rajasthan – I	250 MW	May, 2015
Rajasthan – II	750 MW	August, 2015
Telangana – I	250 MW	June, 2015
Telangana – II	250 MW	August, 2015
TOTAL	**3,000 MW**	

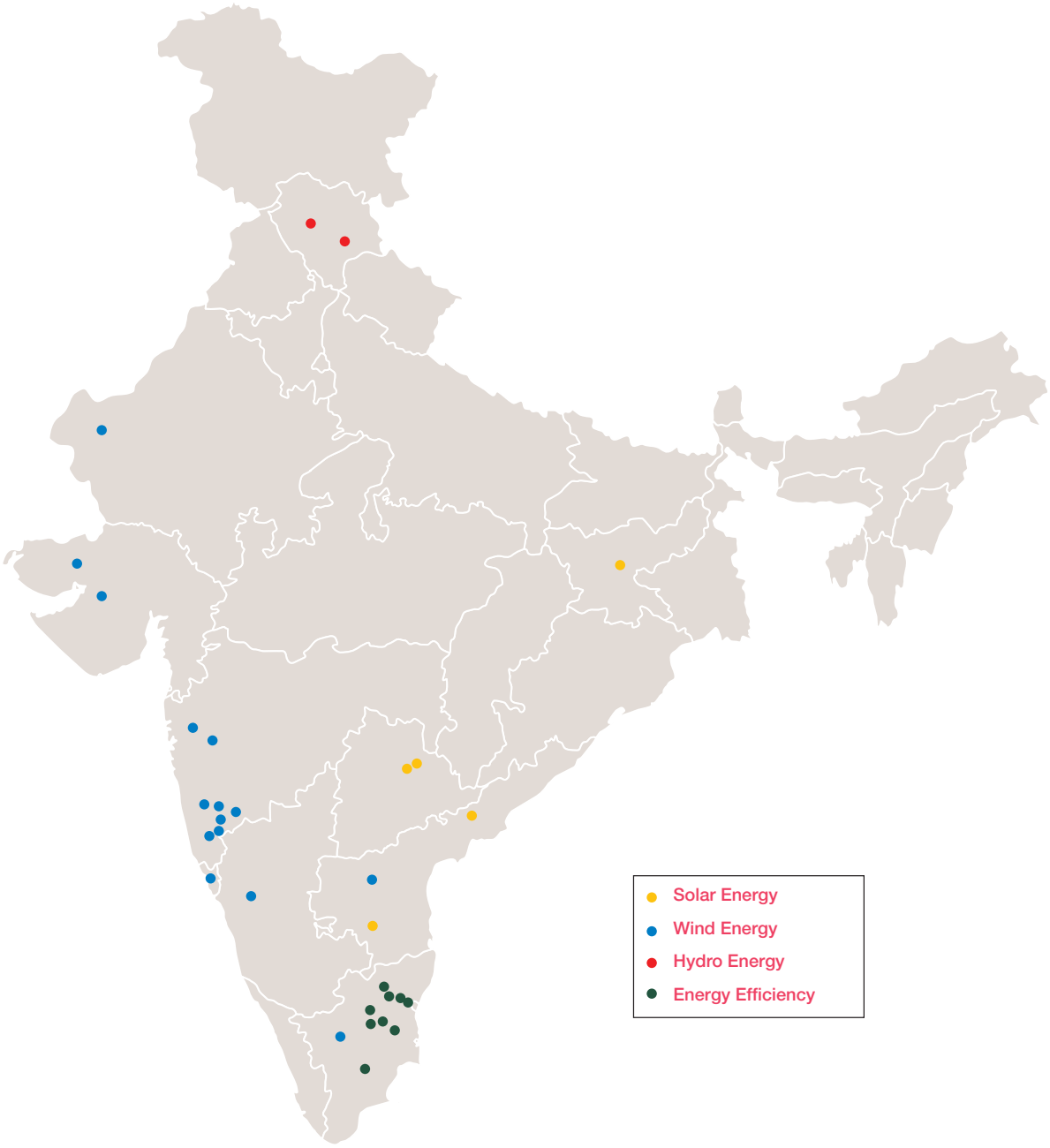
SECI (2,000 MW EoI)

2000 MW solar PV projects with projects sizes 500 MW / 250 MW on EPC basis, through prospective EPC contracting agencies. Project commissining is envisaged in a time bound manner with operation and maintenance of one year, prior to handover of the plant

Ongoing/Upcoming State Controlled Solar Tenders

- 300 MW tender for projects in Karnataka
- 300 MW tender for projects in Madhya Pradesh
- Tamil Nadu has an ongoing tender with a pre-decided tariff of INR 7.01 on a first come first serve basis.

IREDA-JICA funded projects



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