

IREDA Grading of Rooftop Solar Photo Voltaic (PV) Renewable Energy Companies/Projects proposing to avail of IREDA assistance

Background:

Indian Renewable Energy Development Agency Ltd (IREDA) has come out with a loan scheme for Grid connected/interactive Solar PV power projects located on Rooftops, under which it would provide debt funding to eligible projects under commercial, industrial and institutional sectors. The minimum aggregate size of the projects would be 1000 kWp. Under this scheme IREDA has introduced the requirement of credit rating for seeking / availing credit facilities from IREDA, from independent external credit rating agencies (CRAs) such as CARE Ratings. Accordingly, “IREDA Grading Methodology for Rooftop Solar projects” has been developed specifically for this purpose, based on meetings and discussions held with IREDA, which involves an assessment of the various risk parameters typically associated with these projects and grading them on an eight point grading scale with respect to overall project risk evaluation. The assessments of the entities being graded on each of these parameters are designed to evaluate the ability of these entities for repaying the debt availed from IREDA in a timely manner. Further there is also sponsor risk evaluation on a three point grading scale viz. strong, moderate and average.

The project grading is communicated to IREDA vide a detailed grading report. The sponsor grading is also communicated to IREDA vide a detailed sponsor grading report, which has a more detailed analysis of the sponsor risk along with a grading on sponsor risk parameter alone. CARE Ratings also delivers a grading report to the entity being graded, however the same only contains the overall project grading without any scoring breakups.

Overall Project/Entity Grading Scale for Solar Rooftop Projects

The overall project/entity grading scale and definitions are as follows:

Rating	Definition
Grade 1	Excellent ability to repay IREDA debt as per terms
Grade 2	Very good ability to repay IREDA debt as per terms
Grade 3	Good ability to repay IREDA debt as per terms
Grade 4	Satisfactory ability to repay IREDA debt as per terms
Grade 5	Adequate ability to repay IREDA debt as per terms
Grade 6	Moderate ability to repay IREDA debt as per terms
Grade 7	Weak ability to repay IREDA debt as per terms
Grade 8	Very weak ability to repay IREDA debt as per terms

IREDA Grading (Solar Rooftop Projects)

Methodology:

Rooftop Solar PV projects have been divided into three broad categories for scoring purpose:

- **Captive** - Roof owner and project owner are same, power to be primarily used for self-consumption
- **RESCO** - Roof owner and project owner are different, power to be primarily sold to roof owner
- **RESCO with 3rd party roof owner** - Roof owner and project owner are different, power to be primarily sold to third party

Various parameters which are assessed include Promoter Risk, Financing/funding risks, Ownership risk, Execution risk, Permitting risk, Operating risks and Off-take/counter party credit risks.

For carrying out the evaluation of the entities being graded on these parameters, CARE Ratings obtains data pertaining to these from the companies (as well as IREDA). CARE team also holds meetings with key officials in the technical, marketing and financial functions of these companies. Also, feedback is also sought from auditors, bankers (in case of any existing relationship) and owners' engineers and lenders' engineers, if applicable. Also, CARE Ratings conduct the site-visits to evaluate the various critical issues related to construction and operation of Rooftop Solar Power Project. Based on these data and interactions, CARE scores and grades these entities.

Various sub-parameters for each of the risks mentioned above are as below:

Promoter assessment

- Business and financial strength of the promoter company/group, Industry analysis, competitive positioning and financial analysis
- Ability of the promoter company/group to infuse equity and arrange for debt funds, including funding of cost and time overrun, if any.
- Track record of the promoter group in power generation/RE generation. Past track record in installing and maintaining renewable energy projects including Rooftop projects
- Contractual Exposure at Solar rooftop level, Experience in promoting Solar Rooftop
- Management evaluation and quality of organizational structure, internal control and systems, quality of management team.
- Constitution, ownership structure, Shareholding Pattern and parentage.
- Nature of equity (convertible instruments, hybrid etc.)
- Financial track record of promoter with other lenders/financial institutions.
- Empanelment by MNRE-RESCO/Contractors (MNRE Grading / Not Empanelled)
- Corporate Governance practices

IREDA Grading (Solar Rooftop Projects)

Project financial assessment

- Financial Decision parameters (DSCR & Project IRR)
- Assessment of the assumptions (Project cost, quality of equipment and equipment supplier, revenue streams, cash flows, tariff or savings on energy cost)
- Expected debt-equity mix
- Nature of equity (convertible instruments, hybrid etc.)
- Extent of Forex funding and hedging possibilities for management of forex risk
- Status of debt and equity tie-ups
- Assessment of cash flow/profits from other business, if available
- Financial support in form of corporate guarantees/sponsor undertakings/letter of comfort from other group entities.

Ownership risk

- Roof – Ownership (Lease covering loan tenure/Shorter than loan tenure/ No Agreement)

Execution risk

- Quality of the roof (inclination, Shadowing objects, Load Bearing capacity and Orientation)
- Access to the Roof (Physical access for man and equipment)
- Stage of procurement of various equipments, Past Experiences of (similar) procurement
- Nature and quality of contract (EPC or non EPC, fixed-time or not, adequate guarantees pertaining to delay in commissioning, non-performance etc.).
- Evaluation of risks associated with execution of project within stipulated costs and time.
- Performance Guarantee for equipment
- Capability for interconnection and commissioning (of contractor)

Permitting risk

- No Objection Certificate from Structural Engineer on the load bearing capacity of the roof
- Fire Safety arrangements
- Allotment from state utility to set up Solar Rooftop

Operating risk

- Grid Availability
- O&M plan (AMC/ Cleaning/ Spares)
- Insurance Coverage type (Partial/ Full)
- Performance Guarantee for RESCO for generation
- Shadow effect in future
- Deemed Generation Coverage (Grid Outage/ Low consumption/ Change of rooftop/ Damage by rooftop owner)

IREDA Grading (Solar Rooftop Projects)

Off-taker risk

- Status of Off take Agreements
- State Policy (Assessment of regulatory/policy framework such as RPO and RPO enforcement which may impact off take)
- Credit strength of off taker (State discom/industrial consumer)
- Past track record of payment of power supplies (if available)
- Quality of energy assessment (irradiation studies)
- Conditions to cover the event of default (Off taker)
- Payment Security (Bank Guarantee or LC or Escrow account/ Not defined)
- Conditions for Early termination of the agreement
- Economic rationale and cost competitiveness. (Utility tariff vis a vis Energy saving/ PPA tariff)

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