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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROGRAM PAPER

ON A

PROPOSED ADDITIONAL GRANT
FROM THE GLOBAL ENVIRONMENTAL FACILITY
IN THE AMOUNT OF US\$22.93 MILLION

TO THE

STATE BANK OF INDIA

FOR THE

PROGRAM FOR RESULTS GRID-CONNECTED ROOFTOP SOLAR PROGRAM

October 27, 2016

Energy and Extractives Global Practice
South Asia Region
India Country Management Unit

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CURRENCY EQUIVALENTS
(Exchange Rate Effective 29th September, 2016)

Currency Unit = Indian Rupees
Rs. 66.4 = US\$1

FISCAL YEAR
April 1 – March 31

ABBREVIATIONS AND ACRONYMS

| | | | |
|---------|---|------|---|
| CEO | Chief Executive Officer | MW | Megawatts |
| CPPD | Credit Policy and Procedures Department | NBFC | Non-Banking Financial Company |
| CPS | Country Partnership Strategy | PAD | Program Appraisal Document |
| CTF | Clean Technology Fund | PDO | Program Development Objective |
| Discoms | Electricity distribution company | PEO | Program Environment Objective |
| DLI | Disbursement-Linked Indicator | PMC | Program Management Consultant |
| FIs | Financial Institutions | POM | Program Operations Manual |
| GEF | Global Environment Facility | PV | Photovoltaic |
| GHG | Greenhouse Gas | RETF | Recipient Executed Trust Fund |
| GoI | Government of India | SERC | State Electricity Regulatory Commission |
| GRS | Grievance Redress Service | SME | Small and Medium Enterprise |
| GRPV | Grid-connected Rooftop Solar Photovoltaic | SNA | State Nodal Agency |
| IBRD | International Bank for Reconstruction and Development | TA | Technical Assistance |
| IT | Information Technology | TORs | Terms of Reference |
| MNRE | Ministry of New & Renewable Energy | WB | World Bank |

| | |
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Additional Financing: GEF Grant
India: Grid-Connected Rooftop Solar Program

ADDITIONAL FINANCING DATA SHEET

| Basic Information - Additional Financing (AF) | |
|--|---|
| Country Director: Junaid Kamal Ahmad Senior GP Director: Anna Bjerde Practice Manager: Demetrios Papathanasiou Team Leader: Simon Stolp/Mani Khurana Program ID: P160018 | Sectors: Renewable Energy (100%) Themes: Climate Change (P) Expected Effectiveness Date: January 31, 2017 Expected Closing Date: November 30, 2021 |
| Basic Information - Original Program | |
| Program ID: P155007 Program Name: Grid-connected Rooftop Solar Program Lending Instrument: Program for Results | Effectiveness Date: September 28, 2016 Expected Closing Date: November 30, 2021 |
| AF Project Financing Data | |
| <input type="checkbox"/> Loan <input type="checkbox"/> Credit <input checked="" type="checkbox"/> Grant <input type="checkbox"/> Other: Proposed terms: | |
| AF Financing Plan (US \$) | |
| Source | Total Amount (US \$) |
| Total Program Cost: | 915 million |
| Co-financing: GEF | 22.93 million |
| Co-Financing: CTF | 125 million |
| Public or Private Funding through Equity contribution: | 265 million |
| Borrower: | 2 million |
| Total Bank Financing: | |
| IBRD | 500 million |
| IDA | |
| New | |
| Recommitted | |
| Client Information | |
| Recipient: State Bank of India Contact Person: Mr. Krishan Singh Barguzar Telephone No.: +91-22-22740439 Email: dgm2.cppd@sbi.co.in Responsible Agency: Ministry of New & Renewable Energy Contact Person: Mr. Santosh Vaidya Telephone No.: +91-11-24362288 Email: santosh.vaidya@gov.in | |

| AF Estimated Disbursements (Bank FY/US Million \$) | | | | | | |
|---|---|------|------|-------|------------------|------------------------------|
| FY | 16 | 17 | 18 | 19 | 20 | 21 |
| Annual | 0 | 2.93 | 5 | 5 | 0 | 10 |
| Cumulative | 0 | 2.93 | 7.93 | 12.93 | 12.93 | 22.93 |
| Project Development Objective and Description | | | | | | |
| <p>Original Program development objective: The Program Development Objective (PDO) is to increase installed capacity of Grid-connected Rooftop Solar Photovoltaic (GRPV) and to strengthen the capacity of relevant institutions for GRPV.</p> <p>The GRPV Program Environmental Objective (PEO) is to achieve reductions in Green House Gases (GHG) emissions through the displacement of thermal energy with solar energy.</p> <p>Revised Program development objective: No change.</p> <p>Program description: On 13th May, 2016, the World Bank Board approved a Grid-Connected Rooftop Solar Program (GRPV Program or the Program) with the commitment of US\$625 million (US\$500 million IBRD Loan, US\$120 million Clean Technology Fund (CTF) Loan and CTF Grant of US\$5 million) to support the Government of India's program to generate electricity from widespread installation of GRPV.</p> <p>The Global Environment Facility (GEF) Grant, raised under this Additional Financing, and already described in the original GRPV Program, will support the overall Program by: (i) providing incentives to State Bank of India (SBI), to lend to riskier categories of GRPV customers, such as non-banking financial institutions (NBFCs) and small and medium enterprises (SMEs) which wish to finance and install GRPV; and (ii) strengthening the investment climate for GRPV by building capacity of the main stakeholders involved in the expansion of GRPV.</p> | | | | | | |
| Exception to Policies | | | | | | |
| Is approval of any policy waiver sought from the Board (or MD if RETF operation is RVP approved)? | | | | | [] Yes [x] No | |
| Has this been endorsed by Bank Management? (Only applies to Board approved operations) | | | | | [] Yes [] No | |
| Does the Program require any exception to Bank policy? | | | | | [] Yes [x] No | |
| Has this been approved by Bank Management? | | | | | [] Yes [] No | |
| Conditions and Legal Covenants: | | | | | | |
| Grant Agreement Reference | Description of Condition/Covenant | | | | | Date Due |
| Section I.A.2 of Schedule 2 | SBI to establish, maintain and operate a grievance redressal mechanism for the processing of any complaint arising out of the implementation of the Program | | | | | 6 months after effectiveness |

| | | |
|--------------------------------|--|--|
| Section I.B.2 of Schedule 2 | SBI to prepare reports detailing any complaints received from internal sources, supervisory bodies, the industry and/or general clients, regarding incidents of fraud and corruption, collusion, coercion, obstruction to investigation and/or any other reprehensible actions/conducts contemplated in the Anti-Corruption Guidelines. | Quarterly |
| Section I.C.1(a) of Schedule 2 | For each individual Sub Loan equivalent to, or greater than USD 7.4 million, or overall GRPV investment costs equivalent to, or greater than, USD 14.8 million, SBI to engage and maintain (at least up to three months after commercial operation of the assets built) a lender independent engineer (or a panel of engineers) to assist SBI in ensuring sub-borrowers' compliance with all applicable regulations, government permits, and SBI's enabling policy framework, including the Program Operations Manual. | N/A (throughout Program implementation) |
| Section I.C.1(b) of Schedule 2 | SBI to engage and maintain, throughout the implementation of activities under Results Area 1(d) of the Program, the services of a program management consultant to assist SBI with the management implementation and monitoring of such activities. | Within 6 months of effectiveness |
| Section I.D of Schedule 2 | SBI to carry out the Program in accordance with the Program Operations Manual | N/A (throughout Program implementation) |
| Section I.E of Schedule 2 | Each year SBI to furnish to the Bank an annual work plan and associated budget covering the activities proposed for the following SBI's Fiscal Year; and eventually carry out the Program in accordance with such work plan and budget agreed with the Bank | Jan. 31 st of each year (commencing on Jan. 31 st , 2017) |
| Section I.F.1 of Schedule 2 | SBI to appraise, review and approve individual application for GRPV financing in accordance with the criteria, conditions and procedures set out in the Program Operations Manual | N/A (throughout Program implementation) |
| Section I.F.2 of Schedule 2 | SBI to make the proceeds of the IBRD Loan/CTF Loan and/or CTF Grant available to its clients in accordance with eligibility criteria and procedures set out in Program Operations Manual. SBI will enter into Sub-Loan Agreements with each approved applicant client on terms and conditions acceptable to the Bank | N/A (throughout Program implementation) |
| Section I.G of Schedule 2 | SBI to implement the Program Action Plan agreed with the Bank | N/A (throughout Program implementation) |

| | | |
|------------------------------------|--|---|
| Section III.A.2 of Schedule 2 | SBI to prepare and furnish to the Bank a mid-term review report, consolidating the results of the monitoring and evaluation of activities up to the date of such report, and setting out any measures recommended to ensure efficiency in the carrying of the Program and the achievement of the Program objectives. | Nov. 30 th , 2018 |
| Section III.C of Schedule 2 | SBI to: (i) furnish MNRE and the Bank all information and documentation required for MNRE's verification of the achievement/fulfillment of DLI #2 and (ii) engage within 6 months of effectiveness one or more verification agents which may be external program auditor agents to verify the achievement/fulfillment of DLI #4. | Within 6 months of effectiveness (for verification agent) and throughout Program implementation |
| Article IV, Section 4.01 | GoI and SBI not to: (i) amend, suspend, abrogate, repeal or waive the SBI Act and/or SBI General Regulations in a way that would materially and adversely affect the ability of SBI to perform its obligations under the Program; and (ii) take an action nor adopt any policy or regulation which would render materially and substantially impossible for SBI to carry out the Program as per the Program Operations Manual, or that might reverse the measures taken by SBI under the Program Action Plan | Additional Event of Suspension (Remedy) |
| Section IV.B.1(b)(i) of Schedule 2 | SBI to prepare and adopt a Program Operations Manual acceptable to the Bank, including a pro-forma Sub-Loan Agreement detailing the environmental, social and safety standards applicable to all GRPV investments. | Disbursement Condition |

Additional Financing: GEF Grant
India: Grid-Connected Rooftop Solar Program

PROGRAM PAPER

I. INTRODUCTION

1. This Program Paper seeks the approval of the Executive Directors to provide Additional Financing, through a Global Environment Facility (GEF) grant in the amount of US\$22.93¹ million to India's Grid-connected Rooftop Solar Program (P155007).
2. On 13th May, 2016, the World Bank Board approved a Grid-connected Rooftop Solar PV (GRPV) Program of US\$625 million (US\$500 million IBRD Loan No. 8611-IN, US\$120 million Clean Technology Fund (CTF) Loan No. TF0A2401-IN, and a CTF Grant No TF0A2023-IN in the amount of US\$5 million), to support the Government of India's program to generate electricity from widespread installation of rooftop solar photovoltaic (PV). This Program will provide concessional financing to grid-connected rooftop solar developers through the State Bank of India (SBI). The GRPV Program has been effective from September 28, 2016 and the advance has been disbursed in October 2016.
3. The proposed additional GEF grant will support the overall GRPV Program, by (i) providing incentives to State Bank of India (SBI), to lend to riskier categories of GRPV customers, such as non-banking financial institutions (NBFCs) and small and medium enterprises (SMEs) which wish to finance and install GRPV; and (ii) strengthening the investment climate for GRPV by building capacity of the main stakeholders involved in the expansion of GRPV.
4. The GRPV Program description is presented in the Program Appraisal Document (Report Number: 104345-IN). There have been no changes to the original GRPV Program's objectives, design, or results/ Disbursement Linked Indicators (DLIs). The objectives of the GEF grant have been part of the objectives, design, and results/DLIs of the original GRPV Program since inception.
5. The GEF grant will provide:
 - a. **Technical Assistance (TA) - Training and Capacity Building (US\$12.93 million)** to Distribution Companies (Discoms), State Nodal Agencies (SNAs), State Renewable Energy Departments, and State Electricity Regulatory Commissions (SERCs). Activities will include support to streamline applications for financing grid-connection of rooftop PV systems, to implement net-metering/gross-metering policies in the country and to increase consumer awareness about GRPV, as well as to assist with the creation of large numbers of trained and accredited rooftop PV certification agents.

¹ The exact amount is US\$22,935,780

- b. **Financing to SMEs and NBFCs (US\$10 million)** incentivizing SBI to lend to riskier categories of GRPV customers (i.e. NBFCs and SMEs), as they will be important for the rapid growth of the GRPV market in India.

II. BACKGROUND AND RATIONALE FOR ADDITIONAL FINANCING

6. The GRPV Program will directly help achieve one of the intended transformational outcomes of the India Country Partnership Strategy (CPS), which is to reduce GHG emissions by using renewable energy. The Program will also help achieve one of the goals under the *inclusion pillar* of the CPS, by increasing access to electricity. In addition, the operation conforms with the CPS focus on a “Finance-Plus” approach, whereby the Bank’s value-proposition goes beyond financing and contributes to the transfer of knowledge and international best practice, reform of processes and systems, and strengthening of institutional capacity.

7. In June 2015, in accordance with its 21st Conference of Parties Nationally Determined Contributions, GoI approved a revision of cumulative targets for solar PV installation (by 2022) from 20,000MW to 100,000MW. This includes an official target of 40,000MW of GRPV. The GRPV Program will finance the installation of at least 400 MW of GRPV across India. The GRPV Program will be implemented by SBI. Under the Program, SBI will on-lend funds to solar PV developers/aggregators and end-users, who wish to invest in mainly commercial and industrial rooftop PV systems.

8. As of August 2016, only about 800MW of GRPV projects had been completed.² Investments in GRPV projects are constrained by a number of commercial, policy and regulatory, technical and financing challenges, some of which will be addressed as part of the proposed GEF grant. Some of the challenges affecting the development of the sector have been highlighted below:

- Availability of Financing and Capacity of Financial Institutions (FIs) to Evaluate Rooftop Solar Projects: Banks and FIs are still in the process of putting in place consumer financing products (loans) and guidelines which allow access to debt for rooftop owners.
- Role of Utilities - Facilitation Required: One of the biggest challenges faced by the rooftop solar sector is the limited capacity of the utilities to implement GRPV projects. Interconnection processes are slowly being specified, and in some cases are long and cumbersome, often allowing only a few contractors/developers to participate.
- Support from SNAs: Subsidies for GRPV for residential sector (not financed by this Program) are routed through SNAs. Also, several state rooftop programs have been launched, for which SNAs are responsible. SNAs are the nodal agencies for renewable energy activities in state, however, because of shortage of staff and limited exposure to rooftop solar sector, they are unable to contribute in the development of the rooftop PV sector.
- Project Developers and Aggregators: There is a small number of entrepreneurs with the skills and knowledge necessary to aggregate smaller solar rooftop projects into larger projects of a size which are financeable. Support is required for the project developers

²Source: Bridge to India

to build capacity in business development, financing, project design, development and operation.

- Policy Makers and Regulators: Adaptive policy and regulatory frameworks which create a solar rooftop market, and address the key challenges in this market, are still under development. Indian policy makers and regulators have chosen the net metering framework for promoting solar PV rooftop development in India but implementation hurdles are being faced by national and state policy makers and regulators. Twenty-four of India's 29 states have GRPV regulations, but it still needs to be implemented in majority of the states.
- Debt Scarcity for SME and NBFCs: SMEs and NBFCs are a key part of the commercial and industrial category being supported by the Program. These may not have sufficient balance sheets or credit records to allow access to debt for rooftop projects. Supporting investment at this level of the sector will be critical to meeting the GoI's overall solar PV targets.

9. The proposed GEF grant funding will address the above mentioned challenges, and thereby support the scale-up of GRPV, and the flow of finance to this sector from the overall Program. Through the financing of DLIs #2 and #4 in the table set forth in Annex 2, the proposed GEF grant will support:

- Discoms: The provision of TA to Discoms to streamline the GRPV interconnection process, making it time bound and transparent, with a focus on achieving the required performance standards and quality standards for GRPV systems. This support will be in the form of context specific institutional development, capacity development and training. This will help the Discoms to implement GRPV policies, including net metering and gross metering³, through institution-wide capacity-building support.
- SNAs: The Program will include a training module for SNAs, which will assist them to better implement their role of coordinating solar rooftop business in their state.
- Policy Makers and Regulators: The Program is intended to support policy makers and regulators in the development of policy and regulatory frameworks that promote innovative business models for propagation of net-metered solar rooftop investments. This will include knowledge exchange on international best practice.
- Bankers: Training modules will be developed on the fundamentals of the sector and on how to provide loans for solar home rooftop systems at the retail branch level. Training programs will be conducted covering broad understanding of the quality of the systems, the key suppliers, the key safety features and standards as well as the basic cost benefit analysis which indicates whether the loan makes economic and financial sense. Bank's credit team, project finance teams, corporate finance and risk teams will undertake this training. Training will also focus on basic technology, technical configurations, quality of equipment and suppliers, business models, generation data etc. to enable Bankers to fully understand and evaluate a project.
- Project Developers: Capacity building of project developers will focus on aggregation techniques. This training will also build an understanding of solar business models;

³ "Gross Metering" means the arrangement of measurement of energy in a system under which entire energy generated from rooftop solar PV system installed at eligible consumer premises is delivered to the distribution system of the Discom.

- commercial and contract documentation; technical knowledge of rooftop solar PV plants along with the components available in the local market; and skills in developing feasibility reports including basic energy generation forecasting using simulation, bank financing, costing, etc.
- SMEs and the NBFC sector have access to large roofs, pay high electricity tariff and constitute a significant proportion of India's commercial and industrial sector. The GRPV Program's success will depend upon scale up in investment in rooftop solar installations from these categories of consumers. However, due to their limited size, these consumers also represent greater lending risk to SBI. The proposed GEF funding will incentivize SBI's lending to these riskier categories of GRPV customers. To facilitate such lending the Program also contemplates the creation of a loss-offset fund (also called "guarantee facility for non-performing loans") for up to US\$10 million. It is expected that this loss-offset fund will help to reduce risk to SBI, and increase its willingness to lend to these categories of consumers. The detailed operation of this fund will be documented in the Program Operations Manual (POM), prepared by SBI and approved by the Bank.

III. PROPOSED CHANGES

10. There have been no changes to the original objectives, design, or results/DLIs detailed in the GRPV Program approved by the Board. The objectives of the proposed GEF grant were already incorporated in the objectives, design, or results/DLIs of the original GRPV Program. There are no changes or updates proposed to the information and/or technical, fiduciary, and social and environmental assessments contained in the Program Appraisal Document (PAD) presented to the Board on 13th May, 2016.

DLI and Results Framework

11. In the GRPV Program, six DLIs, based on the Program's Results Framework and results chain, have been developed in consultation with SBI. The World Bank will disburse against the achievement of these DLIs.

12. The DLIs have been defined over five disbursement periods, corresponding to the launch of the Program and the five and a half years of the Program implementation period. The details of the DLIs, including the disbursement arrangements and verification protocols, are provided in Annex 2.

13. The proposed DLIs funded by this GEF grant were already incorporated into the design of the original GRPV Program (i.e. DLIs #2, and #4). SBI has put in place procedures and systems to strengthen its in-house capabilities in results monitoring and evaluation, particularly verification of DLIs.

- **DLI-2:** Technical assistance arrangements for GRPV defined and in place. It will be first triggered after SBI signs a contract with consulting firm to provide TA to key stakeholders under terms of reference (TOR) agreed by the Bank. These include Discoms, SNAs, and SERCs. Twenty four of India's twenty nine states have GRPV regulations, but many of the

relevant institutions are not able to implement them due to lack of experience or capacity. This indicator will track progress towards improving capacity in the states that will participate in this Program. Disbursement against this DLI will be against satisfactory completion of the TA and capacity-building. SBI will coordinate the administration of the TA with the help of the Program Management Consultant (PMC) and make payments to all TA providers. Upon verification of the deliverable by MNRE under the TA program, SBI will release the payment to the PMC. The responsibility for oversight and quality control of TA delivery will rest with MNRE.

- **DLI-4:** Piloting new business models. This DLI will be triggered when SBI reaches US\$15 million in signed loans to NBFCs and SMEs for GRPV. NBFCs and SMEs are a riskier category of consumers, but they will be important for the rapid growth of the GRPV market in India.

Institutional and implementation arrangements

14. Implementation of the capacity development activities under the GRPV Program will be undertaken by SBI, through a PMC, guided by a Steering Committee chaired by MNRE. SBI will be responsible for appointment of the PMC (based on TORs agreed with Bank).

15. This Steering Committee will constitute membership from other Program stakeholders including the World Bank, SBI, and MNRE's SNAs. It will also consult with the rooftop solar industry, including regulators, Discoms, rooftop solar developers, financiers, and other development partners in the design of specific training and capacity building programs to be undertaken by the Program. The Steering Committee will conduct regular ongoing consultations with industry to assess the impact of training and capacity development programs, and refine the TA being provided under the grant as necessary. Where necessary further capacity development programs will be defined and developed by MNRE, through the PMC.

16. The PMC will manage and administer the provision of the training and capacity development programs through state level training agencies and other organizations qualified to provide capacity development. The PMC will provide a detailed report to MNRE, the World Bank and the Steering Committee at regular intervals.

Program expenditure

17. The GRPV Program's expenditures remain the same as those indicated in the PAD considered by the Board on 13th May, 2016, and will be further detailed in the POM (including the rules and capitalization procedures for the loss-offset fund). For Program expenditures on or after December 1, 2015, withdrawals of up to an aggregate amount of US\$1,146,000 can be made from the GEF grant.

Verification protocol

18. There are no changes from the PAD considered by the Board on 13th May, 2016. The verification protocol of DLIs builds on existing SBI systems whenever possible. The verification will be conducted annually (see Annex 2 for details).

IV. APPRAISAL SUMMARY

19. There are no changes from the PAD submitted to the Board. Additional financing of GEF grant was appraised as part of the original GRPV Program.

V. WORLD BANK GRIEVANCE REDRESS

20. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Annex 1: Results Framework and Monitoring

Additional Financing: GEF Grant India: Grid-Connected Rooftop Solar Program

| Program Development Objective: The Program Development Objective (PDO) is to increase installed capacity of Grid-connected Rooftop Solar Photovoltaic (GRPV) and to strengthen the capacity of relevant institutions for GRPV. The GRPV Program Environmental Objective (PEO) is to achieve reductions in Green House Gases (GHG) emissions through the displacement of thermal energy with solar energy. | | | | | | | | | | | | |
|--|--------------------------|--------------------------|-----------------|----------|---------------|--------|--------|--------|--------|-----------|---|------------------------------------|
| PDO Level Results Indicators | Core | DLI | Unit of Measure | Baseline | Target Values | | | | | Frequency | Data Source/Methodology | Responsibility for Data Collection |
| | | | | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | | | |
| PDO Indicator 1: Capacity of GRPV connected to the grid | <input type="checkbox"/> | <input type="checkbox"/> | MW | 0 | 0 | 50 | 100 | 150 | 250 | Annual | Report commissioned by SBI which will measure on GRPV connections based on a representative sample | SBI |
| PDO Indicator 2: Reduction of carbon emissions | <input type="checkbox"/> | <input type="checkbox"/> | thousand tons | 0 | 0 | 100 | 300 | 700 | 1200 | Annual | Report commissioned by SBI which will use an internationally recognized methodology to estimate GHG emission reductions | SBI |
| Intermediate Results Area 1: Improved institutional capacity for GRPV | | | | | | | | | | | | |
| Intermediate Results Indicator 1: Launch of Rooftop Solar PV program at SBI and development of internal procedures for the identification, risk assessment, appraisal and approval of rooftop solar projects | <input type="checkbox"/> | X | | 0 | Done | | | | | One time | SBI | SBI |

| | | | | | | | | | | | | |
|--|--------------------------|--------------------------|----------------|---|---------------------------------|-------------------------|-------------------------|-----|---|--------------------------------------|-----|-----|
| Intermediate Results Indicator 2: Implementation of TA and capacity building program for Discoms, SNAs, SERCs etc. | <input type="checkbox"/> | X | | 0 | Contract signed with consultant | Phase 1 of TA completed | Phase 2 of TA completed | | | Annual | SBI | SBI |
| Intermediate Results Indicator 3: Phase 2 of SBI's Rooftop Solar PV program launched | <input type="checkbox"/> | X | | 0 | NA | NA | NA | NA | Phase 2 of SBI's program designed allocated and announced | Year 5 or upon completion of Program | SBI | SBI |
| Intermediate Results Area 2: Market development of rooftop solar PV | | | | | | | | | | | | |
| Intermediate Results Indicator 4 : Amount rooftop solar loans approved by SBI | <input type="checkbox"/> | X | (US\$ million) | 0 | 100 | 250 | 400 | 600 | 625 | Annual | SBI | SBI |
| Intermediate Results Indicator 5: Amount of additional equity financing from private sources mobilized by SBI | <input type="checkbox"/> | <input type="checkbox"/> | (US\$ million) | 0 | 40 | 105 | 171 | 257 | 265 | Annual | SBI | SBI |
| Intermediate Results Indicator 6: Capacity (MW) of GRPV orders | <input type="checkbox"/> | <input type="checkbox"/> | MW | 0 | 75 | 150 | 300 | 450 | 600 | Annual | SBI | SBI |

| Intermediate Results Area 3: Expanding GRPV generation | | | | | | | | | | | | |
|---|--|---|----|---|--|-----|-----|-----|-----|--------|--------------------------------|-----|
| Intermediate Results Indicator 7 : Capacity of rooftop solar installed and commissioned under the program (MW) ¹ | | X | MW | 0 | | 100 | 200 | 350 | 500 | Annual | Independent Verification Agent | SBI |

¹ The Results Framework target for GRPV installed and commissioned is not the same as DLI 5. This is because DLI5 does not reflect the full extent of capacity installations expected by Year 5.

Annex 2: Disbursement-Linked Indicators, and Verification Protocols

Additional Financing: GEF Grant India: Grid-Connected Rooftop Solar Program

Disbursement-Linked Indicator Matrix¹

| | Total Financing Allocated to DLI | As % of Total Financing Amount | DLI Baseline | Indicative timeline for DLI achievement | | | | |
|---|----------------------------------|--------------------------------|--------------|---|---|---|------------------|---------------------------------------|
| | | | | 2016/2017 Year 1 | 2017/2018 Year 2 | 2018/2019 Year 3 | 2019/2020 Year 4 | 2020/2021 (up to Closing date) Year 5 |
| DLI 1 Establishing a Rooftop Solar PV Program at the State Bank of India. | | | N/A | Rooftop Solar PV Program established at SBI | | | | |
| Allocated amount (US\$ Millions) | 5.0 | 0.8% | | 5.0 | | | | |
| DLI 2 Technical assistance to key stakeholders for the implementation of MNRE's GRPV program | | | N/A | Technical assistance arrangements for GRPV defined and in place | Phase 1 of the technical assistance for GRPV has been implemented | Phase 2 of the technical Assistance for GRPV has been implemented | | |
| Allocated amount ² (US\$) | 12.93 million | 2% | | 2.93 million | 5.0 millions | 5.0 millions | | |

¹ The DLI 2 and 4 in this Program Paper correspond with DLI 1 and DLI 2 in the GEF Grant Agreement

² Total proposed GEF grant – US\$22,935,780, Capacity Building program – US\$12,935,780, loss-offsetting fund - US\$10 million

| | Total Financing Allocated to DLI | As % of Total Financing Amount | DLI Baseline | Indicative timeline for DLI achievement | | | | |
|--|----------------------------------|--------------------------------|--------------|---|---|---|---|---|
| | | | | 2016/2017 Year 1 | 2017/2018 Year 2 | 2018/2019 Year 3 | 2019/2020 Year 4 | 2020/2021 (up to Closing date) Year 5 |
| DLI 3 Aggregate amounts of loans signed by SBI for the financing of solar (PV) rooftop power generation schemes. | | | 0 | Minimum US\$50 million in loans for PV rooftop installations signed | Minimum US\$10 million in loans for PV rooftop installations, over and above Year 1 loans, signed | Minimum US\$10 million in loans for PV rooftop installations, over and above Year 2 loans, signed | Minimum US\$10 million in loans for PV rooftop installations, over and above Year 3 loans, signed | |
| Allocated amount (US\$ Millions) ³ | 298.75 | 46.2% | | 100.0 | 75.0 | 75.0 | 48.75 | |
| DLI 4 Piloting new business models. | | | N/A | | | | | ⁴ Minimum US\$15 million in loans for PV rooftop installations to SMEs and/or NBFCs signed |
| Allocated amount (US\$ Millions) | 10.0 | 1.5% | | | | | | 10.0 |

³ Amounts reflected are forecast estimates. For the applicable disbursement formula, see “Bank Disbursement Table” below.

⁴ This DLI is not allocated to any particular Year of implementation.

| | Total Financing Allocated to DLI | As % of Total Financing Amount | DLI Baseline | Indicative timeline for DLI achievement | | | | |
|---|----------------------------------|--------------------------------|--------------|---|---|--|---|---|
| | | | | 2016/2017 Year 1 | 2017/2018 Year 2 | 2018/2019 Year 3 | 2019/2020 Year 4 | 2020/2021 (up to Closing date) Year 5 |
| DLI 5 Megawatts of solar (PV) rooftop power generation installed and commissioned under SBI financing. | | | 0 | | Minimum 25MW installed and commissioned | Minimum 25MW capacity installed and commissioned over and above installed/commissioned capacity up to Year 2 | Minimum 25MW capacity installed and commissioned over and above installed/commissioned capacity up to Year 3. | Minimum 25MW capacity installed and commissioned over and above installed/commissioned capacity up to Year 4. |
| Allocated amount (US\$ Millions) ⁵ | 300.0 | 46.4% | | | 75.0 | 75.0 | 75.0 | 75.0 |
| DLI 6 Sustainability of GRPV program | | | | | | | | SBI has launched the second phase of the program |
| Allocated amount (US\$ Millions) | 20.0 | 3.1% | | | | | | 20.0 |
| Total Financing Allocated: | 646.75⁶ | 100% | | 108.0 | 155.0 | 155.0 | 123.75 | 105 |

⁵Amounts reflected are forecast estimates. For the applicable disbursement formula, see “Bank Disbursement Table” below.

⁶ In addition to the Total Financing Allocated, front-end fee of US\$1.25 million for IBRD Loan will also be financed by IBRD.

DLI Verification Protocol Table

| # | DLI | Definition/ Description of achievement | Scalability of Disbursements. (Yes/ No) | Protocol to evaluate achievement of the DLI and data/result verification | | |
|---|--|--|---|---|------------------------|--|
| | | | | Data source/ agency | Verification Entity | Procedure |
| 1 | Prior Result and/or Year 1: <i>“Rooftop Solar PV Program established at SBI”</i> | <p>“Established” means:</p> <ul style="list-style-type: none"> (i) SBI approved and adopted its POM; (ii) SBI appointed (i.e. identified, seconded or hired) the key staff responsible for Program implementation as per the approved POM. Key staff: are: Chief General Manager – CPPD, Deputy General Manager – CPPD, Assistant General Manager - CPPD. (iii) upgraded its IT modules for Program monitoring and evaluation. “Upgraded” means that the IT modules have capabilities to gather information covering the Program indicators, and are up and running; and (iv) advertised/launched the rooftop solar PV financing | NO | SBI | MNRE | MNRE to provide written confirmation to Bank that it has reviewed documentation submitted by SBI. |
| 2 | Year 1: <i>“Technical assistance arrangements for GRPv defined and in place”</i> | <p>“Defined” and “in place” means that the contract between SBI and a consulting company providing for TA to key stakeholders under TORs agreed with the Bank (including clearly identified deliverables) has been duly signed.</p> | NO | SBI / Consult ancy Contract or | MNRE | MNRE to provide the World Bank with written confirmation of Consultancy Contract signed in accordance with acceptable TORs (vetted by MNRE). & contract review by Task Team. |
| | Years 2 & 3: <i>“Phase [X] of the technical assistance for GRPV has been implemented”</i> | <p><i>“Phase [X]..... implemented”</i> means that all deliverables for that particular <i>Phase [X]</i> of the technical assistance support, as the same were defined under the TORs for said consulting firm, have been dully achieved/performed/delivered to the satisfaction of the Bank and MNRE.</p> | NO | SBI /Consult ancy Contract or | MNRE | MNRE to provide the World Bank with written confirmation of satisfactory delivery of consultancy activities agreed for respective phase signed in accordance with acceptable TORs (vetted by MNRE). & contract review by Task Team |

| # | DLI | Definition/ Description of achievement | Scalability of Disbursements. (Yes/ No) | Protocol to evaluate achievement of the DLI and data/result verification | | |
|---|--|---|---|---|---------------------------------|---|
| | | | | Data source/ agency | Verification Entity | Procedure |
| 3 | Year 1: “ <i>Minimum US\$50 million in loans for PV rooftop installations signed.</i> ” | Minimum threshold are pass/fail thresholds. Thereafter the DLI becomes scalable. Amounts of loans signed in the previous years shall not be considered, nor carried forward for future computation of disbursements (except those signed before in Year 1 will shall be consider for Year 1 minimum threshold and disbursements). “ <i>above Year X</i> ” means that for any Year Y, the amount of loan signed before and during the prior Year X, shall not be computed in the calculation of the new aggregate of additional loans. | YES | SBI | SBI External Financial Auditors | External Financial Auditors to carry out certification as part of their TORs (to be agreed with the Bank) |
| | Years 2, 3 & 4: “ <i>Minimum US\$10 million in loans for PV rooftop installations, over and above Year [X] loans, signed</i> ” | “ <i>Year</i> ” means the fiscal year of India, starting on April 1 of each year and concluding on March 31 of the next following year, corresponding to the financial cycle indicated in the respective DLR column. | YES | SBI | SBI External Financial Auditors | External Financial Auditors to carry out certification as part of their TORs (to be agreed with the Bank) |
| 4 | Anytime During Implementation: “ <i>Minimum US\$15 million in loans for PV rooftop installations to SMEs and/or NBFCs signed</i> ” | “SMEs” means Small and Medium Enterprise as per the definitions provided by the Ministry of Micro, Small and Medium Enterprises of the Government of India. “NBFCs” means a Non-Banking Financial Companies which are registered under the Companies Act, 1956 and engage in the business of loans and advances, acquisition of shares/stocks/bonds/debentures/securities issued by GoI or local authorities or other marketable securities of a like nature, leasing, hire-purchase, insurance business, chit business, but does not include any institution whose principal business is that of agriculture activity, industrial activity, purchase or sale of any goods (other than securities) or providing any services and sale/purchase/construction of immovable property. | NO | SBI | SBI External Financial Auditors | External Financial Auditors to carry out certification as part of their TORs (to be agreed with the Bank) |

| # | DLI | Definition/ Description of achievement | Scalability of Disbursements. (Yes/ No) | Protocol to evaluate achievement of the DLI and data/result verification | | |
|---|---|--|---|---|---|---|
| | | | | Data source/ agency | Verification Entity | Procedure |
| 5 | Year 2: <i>“Minimum 25MW installed and commissioned”</i> | <i>“over and above the capacity installed and commissioned up to Year X”</i> means that for any Year Y, the rooftop solar (PV) power generation capacity installed and commissioned before and during the prior -- Year X shall not be computed in the calculation of the newly added generation capacity commissioned and installed during Year Y. | YES | SBI | Independent verification agent (IVA) to be hired by SBI under TORs agreed with the Bank | Audit will be carried out by the IVA on a representative sample basis as agreed on the TORs. |
| | Years 3, 4 & 5: <i>“Minimum 25MW capacity installed and commissioned over and above installed/commissioned capacity up to Years 2, 3 and 4 respectively.”</i> | | YES | SBI | IVA to be hired by SBI under TORs agreed with the Bank | Audit will be carried out by the IVA on a representative sample basis as agreed on the TORs |
| 6 | Year 5: <i>“SBI has launched the second phase of the program”</i> | <p><i>“launched”</i> means SBI has:</p> <ul style="list-style-type: none"> (i) announced the continuation of the program beyond the financial support by the CTF/GEF and IBRD funding to: (A) its branches (through internal communication); and (B) the general public (through roadshows, or general publications/advertising); (ii) made any necessary adjustments to the POM to be utilized in the subsequent phase of the Program (not financed by the Bank); (iii) committed approximately US\$400 million (whether of its own resources or in syndication with other banks and subject to success of phase one of the Program and availability of creditworthy pipeline) beyond the amounts facilitated by the IBRD Loan, the CTF Loan and/or the GEF Grant (to be proved as per authorization from competent authority or loans actually signed). | NO | SBI | MNRE | MNRE to provide written confirmation to Bank that it has reviewed documentation submitted by SBI. |

Bank Disbursement Table related to the GEF Grant

| # | DLI | IBRD financing allocated to the DLI | CTF Loan/Grant allocated to the DLI | GEF Grant allocated to the DLI ¹¹ | Of which Financing available for Prior results | Deadline for DLI Achievement | Minimum DLI value to be achieved to trigger disbursements of Bank Financing | Maximum DLI value(s) expected to be achieved for Bank disbursements purposes | Determination of Financing Amount to be disbursed against achieved and verified DLI value(s) |
|---|--|-------------------------------------|-------------------------------------|--|--|------------------------------|---|--|--|
| 2 | Technical assistance arrangements for GRPV defined and in place | | | US\$2.93 million | N/A | March 31, 2017 | N/A | N/A | All / Nothing |
| | Phase 1 of the technical assistance for GRPV has been implemented | | | US\$5 million | N/A | March 31, 2018 | N/A | N/A | All / Nothing |
| | Phase 2 of the technical Assistance for GRPV has been implemented | | | US\$5 million | N/A | March 31, 2019 | N/A | N/A | All / Nothing |
| 4 | Minimum US\$15 million in loans for PV rooftop installations to SMEs and/or NBFCs signed | | | US\$10 million | N/A | Closing Date | US\$15 million equivalent in sub-loans | US\$15 million equivalent in sub-loans | All / Nothing |