FRAMEWORK FINANCING AGREEMENT
(IND: CLEAN ENERGY FINANCE INVESTMENT PROGRAM)

Parties	This Framework Financing Agreement ("FFA") dated 02 September 2014 is between Indian Renewable Energy Development Agency Limited ("IREDA"), and India acting by its President (the "Guarantor"), on the one part, and Asian Development Bank ("ADB"), on the other part.
MFF Investment Program	IREDA is committed to and will implement their business plan which is an integral part of the Clean Energy Finance Investment Program ("Investment Program"), and in line with India's renewable energy roadmap ("Roadmap"). Both the Roadmap and Investment Program are described in Schedule 1 hereto. The total cost of IREDA's financing plan over the period 2014 to 2024 is expected to be around $6.6 billion equivalent. The total cost of the Investment Program, over the period 2014 to 2024 is expected to be $1 billion equivalent.
Multitranche Financing Facility	The Multitranche Financing Facility (the Facility) is intended to finance subprojects, under the Investment Program, provided that such subprojects comply with the criteria set out in Schedule 4 hereto and that understandings set out in this FFA are complied with. These may include: Subprojects within the renewable energy subsectors which generate electricity and/or energy through new and renewable sources (such as wind, solar, hydro, biomass, or cogeneration projects). Subprojects in energy efficiency subsector are also permitted under the Investment Program. This FFA does not constitute a legal obligation on the part of ADB to commit any financing. At its sole discretion, exercised reasonably, ADB has the right to deny any financing request made by IREDA, cancel the uncommitted portion of the Facility, and withdraw IREDA's right to request any financing tranche under the Facility. Financing tranches may be made available by ADB provided matters continue to be in accordance with the general understandings and expectations on which the Facility is based and which are laid out in this FFA. This FFA does not constitute a legal obligation on the part of IREDA to request any financing. IREDA has the right not to request any financing under the Facility. IREDA also has the right at any time to cancel any uncommitted portion of the Facility. IREDA, India, and ADB may exercise their respective rights to cancel the Facility or any uncommitted portion thereof, and ADB

may exercise its right to refuse a financing request, by giving written notice to such effect to the other parties. The written notice will provide an explanation for the cancellation or refusal and, in the case of a cancellation, specify the date on which the cancellation takes effect. ADB may cancel the facility or reject a financing request when there is material noncompliance with ADB policies or FFA undertakings; or there are undue delays in the submission of the financing requests or the implementation of the Investment Program.

Financing Plan

IREDA's financing plan is summarized below.

IREDA's Tentative Financing Plan (FY2014 - FY2024)

Financing Source	**Amount** ($ million)	**Share of Total (%)**
Asian Development Bank	500	7.6
Other foreign borrowing [a]	1,581	24.1
local borrowing [b]	1,600	24.4
IREDA net repayments	1,855	28.3
IREDA internal accruals & government equity contributions [c]	1,021	15.6
Total	**6,557**	**100.0**

IREDA = Indian Renewable Energy Development Agency Limited.
[a] Includes bilateral and multilateral sources in the forms of credit lines.
[b] IREDA raises domestic bonds and term loans.
[c] This includes an estimated $411 million in government equity contributions if required.
Sources: Asian Development Bank and Indian Renewable Energy Development Agency Limited estimates.

Financing Terms

ADB will provide loans to finance subprojects under the Investment Program, as and when the latter are ready for financing, provided, IREDA is in compliance with the understandings hereunder, and the subprojects are in line with those same understandings. Each loan will constitute a tranche.

Each tranche may be financed under terms different from the financing terms of previous or subsequent tranches. The choice of financing terms will depend on the project, capital market conditions, and ADB's financing policies, all prevailing on the date of signing the legal agreement for such tranche.

Tranches may be provided in sequence or simultaneously, and some may overlap in time with each other.

Commitment charges or guarantee fees are not payable on the Facility. They are payable only on financing actually committed by ADB as a loan or guarantee. ADB rules on commitment charges and guarantee fees, which are in effect when the legal agreements are signed for a tranche, will apply with respect to such tranche.

Amount

The maximum ADB financing amount available under the Facility is $500 million. It will be provided in individual tranches from ADB's ordinary capital resources in amounts not less than $100 million.

Availability Period

The last date on which any disbursement under any tranche may be made will be 15 October 2024. The last financing tranche is expected to be executed no later than 15 October 2022.

Terms and Conditions

IREDA will cause the proceeds of each tranche to be applied to the financing of expenditures of the Investment Program, in accordance with conditions set forth in this FFA and the legal agreements for each tranche.

Execution

The Executing Agency will be IREDA. IREDA will implement the Investment Program in accordance with the principles set forth in Schedule 1 to this FFA, and as supplemented in the legal agreements for each tranche.

Periodic Financing Requests

IREDA may request, and ADB may agree, to provide loans or administer cofinancing under the Facility to finance the Investment Program and related range of subprojects upon the submission of a Periodic Financing Request (PFR). Each PFR should be submitted by IREDA and confirmed by India. IREDA will make available to subborrowers the proceeds of the tranche in accordance with the related PFR, and the legal agreements for the tranche.

Each individual tranche will be for an amount of no less than $100 million, or its equivalent. ADB will review the PFRs and, if found satisfactory, prepare the related legal agreements.

The subprojects for which financing is requested under the PFR will be subject to the selection criteria set out in Schedule 4 hereto, satisfactory due diligence, and preparation of relevant safeguard and fiduciary frameworks and other documents. The Facility will be implemented in accordance with the general framework set out in Schedule 3 to this FFA, and the Facility Administration Manual agreed between IREDA and ADB.

Until notice is otherwise given by IREDA, the Chairman and Managing Director will be IREDA's authorized representative for purposes of executing PFRs. Likewise, until notice is otherwise given by the Guarantor, the Secretary, Additional Secretary, Joint Secretary, Director or Deputy Secretary in the Department of Economic Affairs, Ministry of Finance will be Guarantor's authorized representative for purposes of executing PFRs.

General Implementation Framework	The Facility will be implemented in accordance with the general framework set out in Schedule 3 hereto.
Procedures	Tranches to be provided under the Facility will be subject to following procedures and undertakings: (a) IREDA will have notified ADB of a forthcoming PFR in advance of the submission of the PFR. (b) IREDA will have submitted a PFR in the format agreed with ADB. (c) ADB may, in its sole discretion, for reasons provided, decline to authorize the negotiation and execution of any legal agreement for a tranche. (d) If ADB confirms acceptance of the PFR, the legal agreements will be negotiated and executed by the parties.
PFR information	The PFR will substantially be in the form attached hereto, and will contain the following details: (i) Loan amount; (ii) Description of the subprojects to be financed; (iii) Cost estimates and financing plan; (iv) Implementation arrangements specific to the subprojects; (v) Confirmation of the continuing validity of and adherence to the understanding in this Agreement; (vi) Confirmation of compliance with the provisions under previous Guarantee Agreement(s) and Loan Agreement(s) , as appropriate; and (vii) Other information as may be required under the Facility Administration Manual, or reasonably requested by ADB.
Safeguards	Attached as Schedule 5 are references to the Safeguard Frameworks that will be complied with during the implementation of the Facility. ADB's Safeguard Policies in effect as of the date of signing of legal agreements for a tranche will be applied with respect to the subprojects financed under such financing tranche.
Procurement	All goods and services to be financed under the Facility will be procured in accordance with ADB's *Procurement Guidelines* (2013, as amended from time to time).

Consulting Services	Any consulting services to be financed under the Facility will procured in accordance with ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time).
Retroactive Financing	Under each tranche, ADB may, subject to its policies and procedures, allow on request retroactive financing of eligible expenditures up to 20% of each tranche, incurred not earlier than 12 months before the date of signing of the related legal agreement. IREDA acknowledges that any approval of retroactive financing will not constitute a commitment by ADB to finance the related project.
Maximum ADB Financing	ADB funds can be used to finance up to 50% of the total subproject cost.
Free Limit	Under tranche 1, no free limit will be provided. Under tranches 2 and 3, ADB may, subject to its policies and procedures, permit on request a free limit up to a specified threshold, based on ADB's assessment of IREDA's operating performance, appraisal standards, portfolio quality, and average loan size during the facility implementation.
Takeout Finance	In addition to direct subloans, IREDA may also use up to 20% of the ADB funds to buy out renewable energy loans from other financial institutions. Takeout finance may include subprojects that are financially closed, under construction, or fully commissioned. Any take-out financing should also follow IREDA's guideline *to Take Over Loans by IREDA from Other Financial Institutions/Banks*, Reserve Bank of India (RBI) norms, and comply with the same ADB requirements as any other subprojects funded under the ADB facility.
Disbursements	Disbursements will be made in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time).
Monitoring, Evaluation, and Reporting Arrangements	A set of indicators for monitoring (which includes satisfactory implementation of environment and social safeguard requirements), and evaluating the performance of the Investment Program and each subproject in relation to the goals, purposes, and outputs of each, will be agreed upon with ADB within no more than 3 months from the signing of this FFA (in the case of the Investment Program) and each loan agreement (in the case of an individual tranche). Results of the analyses, comments, and conclusions on the performance of the Investment Program, and its subprojects will be incorporated in every semi-annual report to ADB. Schedule 2 hereto sets as the design and monitoring framework for the Facility against which the implementation effectiveness will be evaluated.

Undertakings	Attached as Schedule 6 are the undertakings provided by IREDA.
Representations and Warranties	India and IREDA represent and warrant that (i) IREDA is a company duly incorporated and validly existing under the Indian Companies Act 1956; (ii) IREDA is authorized and empowered to implement its business plan and mandate as a non-banking financial institution. (iii) the entry into and performance by IREDA of the transactions contemplated herein is in accordance with its memorandum and articles of association and does not conflict with any applicable law or regulation or any agreement or instrument binding upon it or any of its assets; and (iv) necessary approvals of the Reserve Bank of India or any other regulatory authority for the entry into and performance by IREDA of the transactions contemplated herein shall have been obtained.
Guarantee	India will provide a guarantee, in form and substance acceptable to ADB, as a condition precedent to the effectiveness of any tranche requested by IREDA, and provided by ADB pursuant to the terms of this Agreement.

INDIAN RENEWABLE ENERGY DEVELOPMENT AGENCY LIMITED

____

By: S.K. Bhargava
Director (FInance)
Date: 02 September 2014

ASIAN DEVELOPMENT BANK

____

By: M. Teresa Kho
Country Director
Date: 02 September 2014

INDIA

____

By: Ajay S. Singh
Director (ADB-II)
Department of Economic Affairs
Date: 02 September 2014

SCHEDULE 1

MFF CONSTITUENTS

A. Road Map

1. **Background.** India has been undergoing rapid economic transformation with annual gross domestic product (GDP) growth rate averaging at 6.8% from 2008 to 2013. However, chronic electricity shortages perennially constrained commercial activity and inhibited an otherwise potentially faster economic growth rate. Around 300 million citizens (around 25% of India's population) have no access to electricity.[1] For many of those who do have access to electricity, the supply is intermittent. At the same time, the government's push to narrow the electricity supply gap has increased India's dependence on fossil fuels, particularly imported oil (for diesel-based captive generation) and coal. To balance the conflicting objectives among growth, climate change, and energy security, India is scaling up renewable energy investment.

2. **Demand Analysis**. The Government of India has ambitious programs to target renewable energy development as a key element in overall power generation capacity growth. As of 31 December 2013, India's total installed electricity generating capacity was around 234 gigawatts (GW), which included around 30GW of renewable energy.[2] Based on the strong policy incentives, India's Twelfth Five Year Plan targets an increase of renewable energy generation capacity from 30GW to 60GW by FY2017 and further to 105GW by FY2022.[3] Demand for renewable energy investments is thus expected to be robust during the 10-year life of this proposed MFF.

3. **Financing Challenges.** A major challenge to sustaining high levels of renewable energy deployment in India is the lack of sufficient debt financing with suitable terms and conditions, particularly the scarcity of long-term funds for project lending. Due to the relatively high upfront (per megawatt) cost of renewable energy projects, loan tenors of 12 or more years are usually required to make projects financially viable. However, such long-term funds are scarce in the Indian market. This is due to the prevalence of bank-based lending in India and the commercial banks' inability to lend long-term funds from their short-term deposits, given the implied asset and liability mismatch generated. This limited capacity is also constrained by banks' already high exposure to the power sector, such that additional lending for renewable energy is difficult due to their exposure limits imposed by the Reserve Bank of India.[4] Furthermore, adoption of Basel III Capital Regulations by Indian banks will likely lead to additional pressure on similar bank based infrastructure lending given stricter capital adequacy requirements on asset liability mismatches.[5] Other long-term debt instruments from the capital markets are costly due to the higher-than-actual risk perception of and unfamiliarity with the renewable energy technologies, and the intermittency of many renewable energy sources (such as wind and solar) that increases revenue volatility.

---

[1] Planning Commission, Government of India. 2013. *Twelfth Five Year Plan (2012-2017)*. New Delhi.
[2] Central Electricity Authority. 2013. *Installed Capacity (In MW) of Power Stations (as on 31.12.2013)*. New Delhi. (http://www.cea.nic.in/installed_capacity.html). This includes over 19.5GW of wind power, 3.5GW of small hydropower, 2.4GW of solar power, 1.2GW of biomass, 2.4GW of cogeneration, and 0.4GW of other.
[3] Footnote 1.
[4] Climate Policy Initiative. 2012. *Meeting India's Renewable Energy Targets: The Financing Challenge*. San Francisco, U.S.A.
[5] Reserve Bank of India required that all Indian bank adopt the Basel III from April 2013 on a phase manner with full adoption by 31 March 2019.

4. **IREDA.** Under the administrative oversight of the Ministry of New and Renewable Energy (MNRE), IREDA is a wholly government-owned nonbank financial institution established in 1987 to promote renewable energy investments. IREDA is well capitalized and has improved its profitability over the years. Taxable bonds issued by IREDA from 2008 are all rated AAA by local rating agencies of CARE and Brickwork. IREDA is a leading renewable energy financier in India, with 27 years of sector experience. IREDA's lending constitutes about 11% of total renewable energy lending in India, with the rest provided by other financial institutions.[6] What differentiates IREDA from other commercial lenders is its deep sector knowledge and experience to understand the technical and commercial risks and its advantageous, long term capital base. This enables IREDA to provide limited recourse, cash flow-based financing for up to 15 years that most commercial banks in India cannot.[7] In addition, commercial banks tend to favor lending that is based on the corporate balance sheets of their existing, large corporate customers irrespective of the quality of the underlying project, as compared to project cash flow-based lending. IREDA's ability to fund renewable energy projects on the merits of the projects' cash flows and risk profiles enables it to fund good projects from smaller, less capitalized sponsors. This widens the pool of project developers and investable projects, leverages additional private capital, and facilitates renewable project development.

5. **Road Map.** In 2008, India launched the National Action Plan for Climate Change to promote sustainable development through using clean technologies to limit greenhouse gas emissions, and to target 15% of power generation from renewable sources by FY2022. To help meet this target, the government leverages IREDA's position as a uniquely specialized renewable energy financier. IREDA's medium to long-term business plan from FY2014-2024 includes a total disbursement of about $6.6 billion, leading to renewable energy capacity additions estimated at around 13.4 GW. This is partly anchored on the IREDA corporate plan target set under the 12th Five Year Plan[8] and the estimated 13th Five Year Plan period. To accomplish this scale up, IREDA is building its capacity, streamlining its operations, and seeking additional capital from ADB and other sources to enable increased support for renewable energy investments.

B. Strategic Context

6. ADB support to IREDA is consistent with ADB's Energy Policy 2009 which includes promoting renewable energy to increase energy security and facilitate transitions to low carbon economies. It is also consistent with the India Country Partnership Strategy (CPS) 2013-2017. The CPS emphasizes clean and renewable energy expansion, with expected installed and/or upgraded generating capacity of about 1.3GW of solar, hydro and wind power. The ADB support also aligns with the CPS on both the energy sector roadmap and financial sector development to catalyze infrastructure investments through, among others, investment funds and credit lines.[9] This proposed program is thus directly in line with multiple facets of the CPS.

---

[6] Other major lenders include Power Finance Corporation, State Bank of India, and the ICICI Bank. Note that IREDA's subprojects are not strategically different from the subprojects funded by other commercial bank.

[7] Commercial banks or private nonbank financial institutions in India can usually provide similar loans only up to 8 or 9 years of tenor and generally have a higher level of recourse to project sponsors. Recourse includes loan repayment guarantees from the project owner, and thus a reliance on the owner's balance sheet, other business activities, or additional collateral such as property. Longer tenors are available but generally scarce.

[8] IREDA's corporate plan target set for the remainder of the 12th Five Year Plan period is Rs94 billion (about $1.57 billion), totaling an estimated 3.2 GW of additional renewable energy capacity.

[9] ADB. 2013. *Country Partnership Strategy: India, 2013-2017*. Manila.

C. Policy Framework

7. The ADB support is consistent with India's policies and initiatives. Taking into account India's energy security concerns and the environment, the Integrated Energy Policy 2006 identified the requirement to scale up renewable energy technologies as a key pillar for energy sector development.[10] The New Hydro Policy 2008 streamlines hydropower investment and tendering procedures, and the Jawaharlal Nehru National Solar Mission, launched in 2010 to deploy 20,000 MW of solar power by 2022. Renewable energy policy incentives includes tax incentives, feed-in (e.g. preferential) tariffs, generation-based incentives[11], and regulatory requirements of minimum renewable purchase obligations (RPOs) for power distribution utilities. India also established a mechanism for tradable renewable energy certificates (RECs) to facilitate efficient achievement of RPOs by enabling utilities to meet their obligations by purchasing RECs. By bringing the critically needed longer-term debt financing to the renewable energy sector in India, the ADB support will complement these government incentives, catalyze private sector investment, and greatly facilitate the sector development in the coming years.

D. Investment Program

8. Given IREDA's renewable energy development target outlined in paragraph 5, the government has requested ADB to provide a $500 million MFF to fund a portion of IREDA's long-term credit needs. The proposed ADB facility leverages public sector resources (from IREDA) to catalyze private sector investments in renewable energy. Increasing power supply through renewable energy sources sustains economic activities, alleviates poverty, and supports inclusive and environmentally sustainable growth, while minimizing India's carbon footprint. The facility will provide a comprehensive capacity development program. The preconditions for using the MFF modality are in place, including roadmap and strategy, policy framework, and investment and financing plans. The MFF is the most suitable modality and, as witnessed in ADB's successful financial intermediation MFFs with India Infrastructure Finance Company Limited (IIFCL),[12] allows ADB to take a longer-term commitment to support the institution. The MFF modality enables ADB to work with IREDA to better match ADB's evolving roadmap with the country's renewable energy goals over the medium-term. More specifically, the MFF approach gives IREDA phased funding needs to match its subproject pipeline growth, and provides flexibility to adjust the terms of the subloans and conditions of future tranches as necessary to better correspond to IREDA's onlending requirements while preserving the possibility for offering innovative financial products such as local currency financing, partial risk guarantee and other credit enhancement products.

E. Financing Plan

9. To finance IREDA's projected $6.6 billion of loan disbursements by FY2024, IREDA raises domestic funds via term loans and domestic bonds, and borrows in foreign currencies

---

[10] Government of India Planning Commission. 2006. *Integrated Energy Policy: Report of the Expert Committee*. New Delhi.

[11] A specified per kWh payment, paid out of funds allocated for such a program, to supplement the effective electricity sale price earned by renewable energy generators.

[12] ADB. 2013. *Report and Recommendation to the President to the Board of Directors: Accelerating Infrastructure Investment Facility in India*. Manila. (Loan 0077 for $700 million approved on 27 September 2013)

from development partners, including the $500 million from ADB.[13] The financing plan is in Table 1.

Table 1: IREDA Tentative Financing Plan (FY2014 - FY2024)

Source	Amount ($ million)	Share of Total
Asian Development Bank	500	7.6%
Other foreign borrowing [a]	1,581	24.1%
Local borrowing [b]	1,600	24.4%
IREDA net repayments	1,855	28.3%
IREDA internal accruals & government equity contributions [c]	1,021	15.6%
Total	**6,557**	**100.0%**

IREDA = Indian Renewable Energy Development Agency Limited.
[a] Includes bilateral and multilateral sources in the forms of credit lines.
[b] IREDA raises domestic bonds and term loans.
[c] This includes an estimated $411 million in government equity contributions if required.
Sources: Asian Development Bank and Indian Renewable Energy Development Agency Limited estimates.

10. ADB's $500 million MFF is expected to leverage around $300 million of equity and other investments from subproject sponsors comprising 30% of total subproject costs, and at least $200 million of additional debt funds from unrestricted sources,[14] for a total investment program of around $1 billion. At current prices, this $1 billion of total subproject investment financing translates into approximately 990 MW of the total 11.6 GW renewable energy capacity additions (paragraph 7). The investment program financing plan is in Table 2. ADB's $500 MFF contributes to only a part of IREDA's total financing plan from FY2014-2024 (Table 1).

Table 2: Facility Investment Program
($ million)

Item	Total MFF	Share Total	Tranche 1 (actual)	Tranche 2 (expected)	Tranche 3 (expected)
Asian Development Bank loan funds	500	50%	200	150	150
Supplementary finance	200	20%	80	60	60
Subborrowers equity and others	300	30%	120	90	90
Total	1,000	100%	400	300	200

Sources: ADB and Indian Renewable Energy Development Agency Limited estimates.

11. The MFF will consist of three tranches, subject to the government's submission of related PFRs, execution of the related guarantee and loan agreements for each tranche, and fulfillment of terms and conditions and undertakings set forth in the framework financing agreement. The first tranche of the MFF will have a 20-year term, including a grace period of 5 years, an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, a commitment charge of 0.15% per year, and such other terms and conditions set forth in the guarantee and loan agreements. The second and third tranches are expected to be for $150 million each and estimated to occur in 2018 and 2021 respectively.

[13] Further detail including breakdown into foreign and domestic borrowings is shown in the supplementary appendix 12 (demand analysis). Detail on foreign development partner lenders is in the linked document on development coordination.
[14] The unrestricted sources are defined as any sources other than the ADB facility, e.g., any forms of debt or equity.

SCHEDULE 2

DESIGN AND MONITORING FRAMEWORK FOR THE FACILITY

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact Increased renewable energy infrastructure.	Installed generation capacity of renewable energy is 16.5% of total capacity by 2027 (2013 baseline is 9.25%) At least 70.0GW of renewable energy capacity is added by 2027 (2013 baseline is 29.5GW)	CEA annual reports. MNRE and MOP annual reports. CEA annual reports. MNRE and MOP annual reports.	**Assumption** Continued energy sector reforms such as development of a robust renewable energy certificate market, reduction in fossil fuel subsidies, and fair tariff setting. **Risk** Protracted economic slowdown in the international and domestic markets may reduce investor appetite in renewable energy projects.
Outcome Facilitated investment in renewable energy.	By 2024, $200 million of additional finance and about $300 million private sector equity and other funds leveraged by IREDA in order to achieve $1 billion of investments in renewable energy.[A] (2014 baseline data: 0) By 2024, at least 990 MW of additional renewable energy capacity added through IREDA's provision of long-term financing, generating an estimated 3,900GWh of electricity annually.[B] (2014 baseline data: 0) By 2024, approximately 3.2 million additional tons of CO_2 avoided annually.[C] (2014 baseline data: 0)	For all indicators: IREDA annual report and other project-specific reports.	**Assumption** Conducive government policy on renewable energy will be maintained. Private sector demand for renewable energy will be maintained. **Risks** Increase in borrowing costs could hinder demand for renewable energy project funding.
Outputs 1. Enhanced availability of long-term financing to	At least 30 private sector subprojects approved and funded by IREDA under	For all indicators: Project-specific reports from IREDA.	**Assumptions** IREDA and the project developers make available sufficient

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
support renewable energy projects. 2. Improved institutional capacity of IREDA.	this MFF by 2024 (footnote B). (2014 baseline data: 0) Timely disbursement of tranches. **Environment and Social Safeguards.** An integrated ESMS approved and operational by December 2014. ADB's environment and social safeguard system and other ADB facility agreements independently and successfully implemented by IREDA (by December 2016). **Project Administration.** ADB facility approval, disbursement, and liquidation successfully carried out by IREDA on a timely basis and an NPL level below 3.9% of disbursed subprojects maintained by IREDA (by March 2015). (2013 baseline: gross NPL 3.9%) **Operations.** Enhanced comprehensive capacity building plan for financing and credit risk management developed by IREDA by the end of 2018 **Monitoring and Review.** Semi-annual performance reports including risk management reports submitted to ADB by December 2018.	ADB project review missions and staff reports. IREDA annual reports. IREDA facility progress reports and risk management reports.	counterpart funds in a timely manner. Capacity development plan of development partners are successfully carried out. IREDA's developed staff capacity is maintained throughout the facility's implementation period. **Risk** IREDA's portfolio quality deteriorates. Adverse economic and/or policy conditions affect the forecasted demand for pipeline subprojects.

Activities with Milestones	Inputs	
1. Enhanced availability of long-term financing to support renewable energy projects (first tranche by December 2014, second tranche by December 2017, and third tranche by December 2020)	**Item**	**Amount** ($ million)
	ADB (Loan)	500.00
	Unrestricted funds	200.00
	Project Developers/Others	300.00

1.1 ADB provides $500 million credit line to IREDA to provide required long-term funds to onlend to eligible renewable energy subprojects (three tranches in accordance with the disbursement rate). 1.2 IREDA sources, appraises, and funds renewable energy projects using the ADB facility in a satisfactory manner to promote private sector renewable energy (continuous). 1.3 IREDA leverages the ADB facility to catalyze private sector finance in terms of both equity and debt financing (continuous). **2. Improved institutional capacity of IREDA (by December 2018).** 2.1 IREDA establishes an ESSU by May 2014 and makes it operational prior to the first drawdown of the ADB funds to implement ADB's environment and social safeguard system. 2.2 An adequate number of IREDA staff will be trained on subproject implementation and administration) by December 2018. 2.3 IREDA improves its financial and credit risk management and other areas under the facility's capacity development plan. 2.4 IREDA improves its subproject monitoring, review, and reporting process by December 2017. 2.5 Based on its business plan and the MOU signed with MNRE, IREDA develops its human resources, information technologies, and financial and risk management (continuous).	IREDA	Counterpart staff

ADB = Asian Development Bank; CEA = Central Electricity Authority, Government of India; CO_2 = carbon dioxide; CSO = Central Statistical Organization; ESMS = Environmental and Social Management System; ESSU = environment and social safeguard unit; GDP = Gross Domestic Product; GW = gigawatt; IREDA = Indian Renewable Energy Development Agency Limited; MFF = multitranche financing facility; MNRE = Ministry of New and Renewable Energy; MOP = Ministry of Power, MOU = memorandum of understanding; NPL = nonperforming loan; RBI = Reserve Bank of India.

[A] This is based on a 70%/30% debt equity ratio and $1 billion total subproject costs funded under the Facility (including subborrower equity and additional financing).

[B] The 990 MW figure is based on a near-term historical and pipeline average cost per subproject and MW capacity per subproject, such that the $500 million ADB facility plus subborrower equity and additional financing is estimated to fund at least 50 subprojects totaling about 990 MW. This figure includes bagasse cogeneration facilities. Electricity generation calculations assume the 990 MW consists of an assumption of 20% wind, 13% solar, 33% hydropower, and 25% cogeneration. (Actual percentages may vary.) Capacity factors for wind, solar, hydropower, and cogeneration of 0.3, 0.1, 0.45, and 0.7, respectively.

[C] Greenhouse gas emission reduction calculated using the estimated annual GWh produced annually, and using the weighted average emission factor for the Indian power grid of 0.82, published by the CEA. Reference http://www.cea.nic.in/reports/planning/cdm_co2/user_ guide_ver9.pdf.

Source: Asian Development Bank estimates.

SCHEDULE 3

IMPLEMENTATION FRAMEWORK

A. Implementation Arrangements

1. Unless modified or amended in related loan agreements, the Investment Program will be implemented as below.

2. **Executing Agency.** IREDA will be the executing agency for the Investment Program.

3. IREDA was established on 11th March, 1987 as a Public Limited Government Company under the Companies Act, 1956. IREDA has been notified as a "Public Financial Institution" under section 4 'A' of the Companies Act, 1956 and registered as Non-Banking Financial Company (NFBC) with Reserve Bank of India (RBI). One of IREDA's main objectives is to give financial support to specific projects and schemes for generating energy through non-conventional and renewable materials and sources and conserving energy through energy efficiency. The policy direction and strategic oversight for IREDA's operation and the implementation of the Investment Program will be provided by IREDA's Board of Directors. IREDA shall ensure that the project management unit (PMU) of IREDA monitors the screening and selection of subprojects, and also monitors the day-to-day implementation of selected subprojects. The environment and social safeguard unit (ESSU) shall be responsible for ensuring that all qualified subprojects are in compliance with the environment and social safeguard management system (ESMS), applicable national and state policies relating to environment, resettlement, and indigenous peoples, and health and safety. IREDA shall ensure that PMU and ESSU are adequately staffed. An institutional compliance officer reporting directly to the chairman and managing director of IREDA shall be responsible for ensuring IREDA's compliance with the ESMS. The PMU shall also have a dedicated financial/accounting officer to monitor project accounts and process claims.

4. **Subproject and Subborrower Selection Criteria.** The selection criteria are outlined in Schedule 4.

SCHEDULE 4

SELECTION CRITERIA AND APPROVAL PROCESS FOR PROJECTS

A. Selection Criteria

1. The following criteria will apply for selecting and approving Subprojects intended for financing under the Facility:

(i) the subprojects shall follow IREDA's Financing Norms as acceptable to ADB;

(ii) the subproject should be within the renewable energy or energy efficiency subsectors such that the subproject (i) generates electricity and/or energy through new and renewable sources[15], or (ii) conserves energy through energy efficient processes and procedures[16];

(iii) the subproject will be economically viable and financially sustainable. Economically viable and financially sustainable subprojects may also include those subprojects that will become economically viable and financially sustainable after receiving any form of financial support, such as viability gap funding under a government sponsored scheme;

(iv) sufficient counterpart funding for the subproject has been allocated by the subproject sponsors as needed to implement the subproject on schedule and successfully operate the subproject following completion;

(v) the subproject has reached the requisite specified construction and other milestones to qualify for the requested financing;

(vi) the subproject borrower is able to provide adequate security as required by IREDA;

(vii) all necessary national and state government approvals have been obtained for the subproject;

(viii) the subproject complies with ADB's policies and procedures and national and state level policies, laws, and regulations relating to environment, resettlement and indigenous peoples;

(ix) the subproject was prepared in compliance with the FFA (including ADB's Social Dimensions and Safeguard Requirements set forth in Schedule 5 to the FFA); and

(x) the subprojects undergoing takeout finance (see section C below) shall follow IREDA's *Guidelines to Take Over Loans by IREDA from Other Financial Institutions / Banks* and comply with the same requirements as any other subprojects funded under the ADB facility.

---

[15] Including wind, solar thermal, solar photovoltaic, hydropower, biomass, or cogeneration projects.

[16] Includes end user energy efficiency retrofit projects, demand side management projects taken up by utilities, projects promoted by Energy Service Companies (ESCOs), and power plants based on recovery of energy from exhaust gasses.

B. Subproject Selection and Approval Process

2. IREDA shall provide long-term finance to eligible renewable energy (and energy efficiency) subprojects in accordance with its internal guidelines. The process starts with a prospective subborrower submitting a loan application along with additional requisite subproject information. The next step is a Know Your Customer appraisal as required by Reserve Bank of India guidelines for Non-Banking Finance Companies to verify the credentials of the borrower, requisite documentation, and transparency aspects on the borrower's sources of funds from an anti-money laundering perspective. The subproject is then assigned to the respective technical team for full due diligence including evaluation of the subproject developer's capability and track record, and review of the subproject's cost estimates, legal aspects, required licenses, permits and clearances, technical, commercial and financial viabilities, and environmental and social safeguard impacts. Acceptable subprojects are then presented to IREDA management for approval, and if exceeding certain loan size and other parameters, also to IREDA's Board of Directors for approval.[17] During this process, IREDA identifies potential lines of credit for which the subproject is eligible and during the due diligence process collects any additional information required by specific lenders. This framework will also apply to any subproject that utilizes the ADB funds.

(i) For subprojects to be considered under the ADB Facility, IREDA shall first prepare a confirmed subproject pipeline list requiring ADB funding by using the Estimate of Expenditures Form (FAM Appendix 4). IREDA shall also provide ADB with basic subproject information[18] for ADB's preliminary approval of the subproject.
(ii) IREDA will follow the ADB procedures as outlined in the ESMS. IREDA will submit the environmental, social and indigenous peoples due diligence reports, environment and social safeguard checklists, and categorization forms, along with detailed subproject files, to ADB. Each respective tranche loan documentation will specify whether, for non-category A subprojects, this submission is for review and approval, or for information.
(iii) As outlined in the ESMS, for a subproject using ADB funds and likely to be classified as category A for any environment, involuntary resettlement, or indigenous peoples impacts under tranche 2 and 3, IREDA will refer the subproject to ADB and provide relevant environmental and social information to ADB early in its due diligence process, and submit the draft EIA, RP, and/or IPP to ADB for review and clearance before the subproject is approved for use of funds from the ADB facility. The draft EIA report will be made publicly available at least 120 days before the approval of the subproject, and the draft RP and draft IPP will be made publicly available before the approval of the subproject.
(iv) Under tranche 1, no free limit will be provided. Under tranches 2 and 3, ADB may, subject to its policies and procedures, permit on request a free limit up to a specified threshold, based on ADB's assessment of IREDA's operating

---

[17] IREDA's current guidelines on delegation of authority are as follows: IREDA directors (up to Rs. 2 crores with annual accumulative ceiling of Rs. 40 crores), chairman and managing director (between Rs. 2-10 crores with an annual accumulative ceiling of Rs. 200 crores), and committee of directors (between Rs. 10-70 crores with an annual accumulative ceiling of Rs. 1,400 crores) for approval, and if exceeding Rs. 70 crores, to the Board of Directors for approval.

[18] Basic information shall include the subborrower (business) name and contact, the subsector (e.g. the renewable energy technology involved), the proposed power generation capacity in megawatts, the estimated total subproject cost and loan amount, the subproject site location (State and district).

performance, appraisal standards, portfolio quality, and average loan size during the facility implementation. For subprojects above the free limit for the respective loan tranche, IREDA will submit to ADB (a) the subloan application forms and related documents, (b) IREDA's internal technical and credit appraisal reports, together with supporting documents such as the detailed project reports, and (c) environmental and social safeguards compliance documents as described under (ii) and (iii) above.

(v) For subprojects requiring ADB's approval, including (i) all subprojects under tranche 1, (ii) subprojects above the free limit, if any, under tranches 2 and 3, and (iii) all subprojects with environment and social safeguard categorization A, ADB's findings will be forwarded to IREDA. If any questions arise or lack of sufficient information is found during such reviews, ADB will request such information from IREDA to ensure that the subprojects meet ADB's safeguard and other eligibility requirements. If all satisfactory, ADB will issue an approval letter for the respective subprojects.

(vi) For subprojects whose loan size is below the free limit for the respective loan tranche, IREDA is required to follow the ESMS procedures and submit to ADB the same set of information as described under (ii) and (iii) above for approval of the safeguard categorization prior to releasing the funds to subborrowers. ADB will approve the safeguard categorizations and issue an acknowledgement letter for the submitted subprojects, such that the subprojects are recognized by both parties to be funded under the ADB Facility.

(vii) For takeout finance, IREDA is required to review the individual subproject documents to ensure that ADB's safeguard and eligibility criteria are fully met and IREDA's own guidelines under the same subject matter are followed. IREDA at least needs to review the available environment and social safeguard due diligence reports to produce safeguard checklists and subproject categorizations compliant with the ADB ESMS requirements. If compliance gaps exist, IREDA has the responsibility to conduct additional due diligence and produce additional reports to ensure that the same requirements as under the greenfield subprojects are fully met. In principle, there should not be any difference in compliance requirements among greenfield subprojects, subprojects at advanced stage, or subprojects for takeout finance. The free limit also applies to takeout finance.

C. Takeout Finance

3. Prior to the transfer of the assets, IREDA shall also follow any relevant Reserve Bank of India guidelines on takeout finance in terms of risk weight, asset classification and provisioning, and other accounting rules such as income recognition.[19] Subprojects under the takeout finance scheme shall comply with the same ADB requirements as any other subprojects funded under the ADB facility, subject to the maximum allowable percentage of ADB funds as specified in the respective tranches. Under tranche 1, up to 20% of the total ADB fund could be used for takeout finance.

[19] Available: http://rbi.org.in/scripts/NotificationUser.aspx?Id=7200&Mode=0 and http://www.rbi.org.in/Scripts/BS_ECMNotificationUserView.aspx?Id=123.

SCHEDULE 5

SOCIAL DIMENSIONS AND SAFEGUARD REQUIREMENTS

1. IREDA will comply with all the safeguards requirements outlined in this Schedule during processing and implementation of subprojects as per the Environmental and Social Safeguard Management System (ESMS), (as updated from time to time), posted on ADB's website (http://www.adb.org/sites/default/files/projdocs/2014/46268-001-esms.pdf); also available on IREDA's website (http://www.ireda.gov.in/writereaddata/20140523%20ESMS%20IREDA_final_clean.pdf).

2. IREDA will ensure that each subproject is screened to ascertain whether it will have any environmental and social impacts that would trigger ADB's Safeguard Policy Statement 2009 using the screening instruments provided in the ESMS (as updated from time to time). If it does, IREDA will discuss with the subborrower how to formulate adequate planning instruments to address such policy safeguard issues.

3. In case of an ongoing subproject, IREDA will review to ascertain whether it would trigger ADB safeguard policies. If it triggers major safeguards issues, IREDA will require the subborrower to address them adequately following the guidelines outlined in the ESMS.

4. In both of the above cases, IREDA will issue the safeguards compliance certificate. A copy of the certificate will be sent to ADB for information.

SCHEDULE 6

UNDERTAKINGS

1. The Guarantor and IREDA shall ensure that :

(a) IREDA complies, at all times, with the prudential norms as made applicable to it by the Guarantor, including capital adequacy, income recognition, classification, and provisioning of nonperforming assets;
(b) The subprojects and subborrowers meet the eligibility criteria agreed with ADB (as set out in schedule 4 and the loan agreement for each tranche), including technical, commercial, and financial/economic viability;
(c) The onlending rates to subborrowers are market-based and adequate to cover all costs and risks associated with the onlending;
(d) The subborrowers adopt and implement appropriate procurement procedures that are based on competitive bidding and foster economy, efficiency, and transparency; and
(e) A subloan to a subborrower is made for only such subprojects that involve procurement of goods, works, and consulting services from ADB's member countries.

2. IREDA shall select subprojects for financing under this facility in accordance with the selection and approval criteria set out below. IREDA shall ensure that subborrowers will:

(a) have sufficient resources and financial capability to raise resources to complete and operate the relevant subproject successfully;
(b) not be in default under any prior loan from IREDA or any other lenders;
(c) be able to provide appropriate security as required by IREDA;
(d) maintain appropriate financial records of income and expenditure to the satisfaction of IREDA and ADB;
(e) comply with and cause each subproject to comply with ADB's safeguard requirement and national and state policies, laws, and regulations relating to environment, resettlement, and indigenous peoples applicable at the date of the relevant periodic financing request (PFR) is submitted.

3. IREDA shall ensure that the environmental management system framework, as set out in the ESMS, is implemented in accordance with its terms to ensure that each subproject is undertaken in compliance with applicable environmental laws of India, relevant State of India, and ADB's *Safeguard Policy Statement* (2009), as amended from time to time. Further, that for each subproject, the initial environmental examination (IEE), environmental impact assessment (EIA), and the environmental management plan (EMP), as applicable, are submitted to ADB.

4. IREDA shall ensure that the social safeguards framework, as set out in the ESMS, is implemented in accordance with its terms and satisfactory to ADB, and that each subproject, which involves land acquisition and has resettlement impacts, is undertaken in compliance with all the applicable laws of India, the relevant State of India, and ADB's *Safeguard Policy Statement* (2009), as amended from time to time. Further, that any resettlement plans, as required, are submitted to ADB before IREDA approves the subproject. Furthermore, each subborrower is required by IREDA to ensure that (i) all land and rights-of-way required for subprojects are obtained in a timely manner, (ii) the provisions of the resettlement plans, if

applicable, are implemented in accordance with its terms, (iii) all compensation and resettlement assistance, if applicable, is given to the affected persons prior to their dispossession and displacement and commencement of civil works, (iv) resettlement plans, if applicable, are updated upon completion of the detailed design and submitted to ADB for approval prior to commencement of civil works, (v) adequate staff and resources are committed to supervising and monitoring implementation of any resettlement plans, and (vi) if applicable, an independent agency acceptable to ADB and IREDA is engaged by the subborrower to monitor and evaluate results of implementation of resettlement plans and forward reports to ADB and IREDA as required.

5. IREDA shall ensure that subprojects do not adversely affect vulnerable groups, such as indigenous peoples, and, in the event of any impact or their involvement, IREDA will implement the ESMS in accordance with its terms to ensure compliance with ADB's *Safeguard Policy Statement* (2009), as amended from time to time.

6. IREDA will ensure that civil works contracts under Qualified Subprojects under subloan agreements follow all applicable national and state level labor laws and that these further include provisions to the effect that contractors: (a) carry out HIV/AIDS awareness programs for labor and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS as part of health and safety measures for those employed during construction; and (b) follow and implement all statutory provisions on labor (including not employing or using children as labor, equal pay for equal work), health, safety, welfare, sanitation, and working conditions. Such contracts shall also include clauses for termination in case of any breach of the stated provisions by the contractors.

7. IREDA shall only finance commercially viable subprojects and provide financing on commercial terms. IREDA will undertake extensive due diligence for all aspects of subproject economics and creditworthiness prior to loan approval by IREDA.

8. Towards smooth implementation of the Project, IREDA shall ensure that grievance(s) if any from stakeholders, relating to subproject implementation or use of funds are addressed effectively and efficiently.

9. IREDA shall ensure that (a) accountability and transparency in IREDA are maintained in its operations through stakeholder meetings and publication of progress reports through the duration of the Facility; and (b) internal procedures and controls are instituted, maintained, and complied with to prevent any corrupt, fraudulent, collusive, or coercive practices.

10. IREDA shall comply with ADB’s Anticorruption Policy (1998, as amended to date) and (a) shall ensure that the anticorruption provisions acceptable to ADB and IREDA are included in all bidding documents and contracts financed by ADB in connection with the Project, including provisions specifying the right of ADB to review and examine the records and accounts of IREDA, the Qualified Enterprises and all contractors, suppliers, consultants, and other service providers as they relate to the Qualified Subprojects and the Project, and as included in the FAM; (b) shall allow and assist ADB’s representatives to carry out random spot checks on the work in progress and utilization of funds for the Project; (c) acknowledge that ADB reserves the right to investigate directly or through its agents any alleged corrupt, fraudulent, collusive or coercive practice relating to the Project; and (d) cooperate with any such investigation and extend all necessary assistance for satisfactory completion of such investigation, and as included in the FAM.

11. IREDA shall ensure that its annual report to its board of directors, and ADB, includes a report and discussion of the implementation of its corporate governance practice. Consistent with its commitment to good governance, accountability, and transparency, ADB reserves the right to review and examine any alleged corrupt, fraudulent, coercive practices relating to subprojects.

12. IREDA shall establish an investment program performance monitoring system (IPPMS) acceptable to ADB within 3 months from the signing of this FFA. For the IPPMS, IREDA will select a set of clearly measurable performance monitoring indicators relating to implementation, improvements, institutional development, and capacity building milestones, including those in the design and monitoring framework. IREDA shall, through the project management unit, review the performance of the Facility against the DMF on a quarterly basis which shall be completed by the tenth day of the month following the quarterly review. IREDA management shall review the performance of the Facility semi-annually and shall forward semiannual progress reports to ADB by the tenth day of the month following the semiannual review. ADB will review the quarterly progress reports and semiannual reports and undertake the annual review missions and tripartite reviews chaired by the Guarantor. In addition, a midterm review of the investment program will be conducted in FY2018-19.

13. IREDA shall facilitate ADB's annual reviews of management, financial, and operational performance of IREDA and subprojects financed under the Facility after the closing of withdrawals. Such reviews will include environmental and social safeguard implementation and procurement procedures used by the subprojects.

14. IREDA shall develop and maintain the capacity of the PMU staff to perform the responsibilities of the PMU, including developing and maintaining specialist capacity and expertise to conduct and implement environmental and social safeguards due diligence by (i) developing and training existing staff with such capacity and expertise, and/or (ii) engaging staff or consultants with such capacity or expertise.

15. IREDA shall at all times continue to adequately staff the ESSU. Based on a mid-term review of Project 1, this requirement may become a condition precedent for ADB's approval of PFR 2 under the Facility.

16. IREDA shall comply at all times with the prudential norms as made applicable to IREDA by relevant authorities in India.

17. IREDA shall ensure that it has no arrears in repayment of its current debt obligations.