



# Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

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Appraisal Stage | Date Prepared/Updated: 8 January 2017 | Report No: 122550

**BASIC INFORMATION**

## Proposed Development

**A. Basic Project Data**

Country India	Project ID P165488	Project Name India Energy Efficiency Scale-Up Program: IPF Guarantee	Parent Project ID (if any) P162849
Region South Asia	Estimated Appraisal Date January 2018	Estimated Board Date February 2018	Practice Area (Lead) Energy & Extractives
Lending Instrument Investment Project Financing	Borrower(s) Energy Efficiency Services Limited (EESL)	Implementing Agency Energy Efficiency Services Limited (EESL)	

## Objective(s)

The project development objectives are to scale up energy savings in residential and public sectors, strengthen EESL's institutional capacity, and enhance its access to commercial financing.

## Components

The scope of the Program proposed for support includes Government of India's "Unnat Jyoti by Affordable LEDs for All" (UJALA) initiative implemented by EESL, covering Light Emitting Diode (LED) lightbulbs, LED tubelights, and ceiling fans; and the "Street Lighting National Program" (SLNP). The proposed PforR operation would support the scale up of EE market transformation under UJALA and SLNP; as well as the incorporation of sustainability elements into EESL's newer business areas and institutional strengthening of EESL for sustainable scale-up. In addition, through the provision of an IPF loan/bond guarantee, the operation will enhance EESL's access to commercial financing markets which would further scale investments in UJALA and SLNP.

**Financing (in USD Million)**

<b>Financing Source</b>	<b>Amount</b>
BORROWER/RECIPIENT: Energy Efficiency Services Ltd.	548
IBRD Loan	220
COMMERCIAL FINANCING	
Commercial Financing Guaranteed by IBRD (\$80 million)	200
OTHER DEVELOPMENT PARTNERS	380



Total | 1,348

Environmental Assessment Category

**B**

Have the Safeguards oversight and clearance functions been transferred to the Practice Manager? (Will not be disclosed)

Yes

Decision

Other Decision (as needed)

## B. Introduction and Context

### Country Context

1. **India's power sector is going through sustained efforts to fuel economic growth and meet the needs of its population.** Energy demand will continue to grow rapidly, contributing about a quarter of the increase in global energy demand by 2040. Significant growth in demand is expected due to rising incomes and rapidly urbanizing populations purchasing more electrical appliances.
2. **Energy efficiency is critical to helping India address the multiple challenges facing the power sector, moderate demand growth, and meet its climate change goals.** Maintaining India's electricity supply-demand balance while curbing thermal generation and therefore Greenhouse Gas (GHG) emission, will require a combination of investments in networks, additional clean energy generation capacity and energy efficiency (EE). However, India's EE potential remains largely untapped, in part due to limited availability and high cost of financing for these types of investments. Going forward, electricity consumption by lighting, ceiling fans, air conditioners, refrigerators, agricultural pumps, and industrial motors is set to grow significantly.<sup>1</sup> Given the potential growth in use of such appliances, and electricity consumption, the Government shifted its focus to supporting the scale-up of EE appliances and equipment particularly in the residential sector.

### Sectoral and Institutional Context

3. **Energy Efficiency Services Limited (EESL) has emerged as a vital entity for EE in India by financing and delivering EE solutions, especially in the residential and public sectors.** EESL was established in 2009 as a state-owned ESCO under Ministry of Power (MOP), as a joint venture between four Public Sector Utilities – National Thermal Power Corporation (NTPC), Rural Electrification Corporation (REC), Power Finance Corporation (PFC), and Power Grid Corporation of India (PGCIL).

<sup>1</sup> From an estimated 235,757 GWh/year in 2016 to 508,485 GWh/year by 2031. Source: World Bank, *Residential consumption of electricity in India: Strategies for low carbon growth* (2008).



4. **EESL has been a key implementing agency in the implementation of the Government's EE vision.** EESL's approach involves aggregating demand for energy efficient appliances and equipment and using competitive bulk procurement to improve affordability while ensuring quality. **The Government of India has requested World Bank financing to support EESL in the implementation of its growing program, covering priority EE initiatives.**

5. **The proposed operation by the World Bank would support the Government's program, for EE market transformation in residential and public sectors which would be implemented through EESL.** It comprises a US\$220 million Program for Results (PforR) loan and US\$80 million as Guarantee to support EESL in scaling up its energy efficiency programs. The proposed scope includes support for scaling up of EESL activities related to Light Emitting Diode (LED) lightbulbs, LED tube lights, and ceiling fans under the Government of India's (GoI) UJALA initiative and scaling up of GoI's Street Lighting National Program (SLNP). The program will also include institutional strengthening of EESL and the incorporation of sustainability elements into EESL's business models in new EE market segments. In addition, the program will enhance EESL's access to commercial financing.

### **C. Proposed Development Objective(s)**

6. **Project and Program Development Objective.** The project and program development objectives are to scale up energy savings in residential and public sectors, strengthen EESL's institutional capacity, and enhance its access to commercial financing.

7. The PDO level outcome indicators of the Program would focus on market transformation of select energy efficient appliances and equipment, development of sustainable business models in new EE market segments, raising commercial financing and institutional strengthening.

8. **Key Results.** The operation combines a Program for Results instrument and a Guarantee instrument. Under the PforR, there are four Results Areas, whose achievement will be measured through six Disbursement Linked Indicators. The Results Areas are:

- (i) Results Area 1: Energy savings and EE market transformation in the residential sector
- (ii) Results Area 2: Energy savings and EE market transformation in public street lighting
- (iii) Results Area 3: Development of sustainable business models in new EE market segments
- (iv) Results Area 4: Institutional strengthening for sustainable EE scale-up.

9. For the IPF component, the key results on the amount of commercial financing leveraged by the IBRD guarantee will be quantified, measured and reported as a PDO outcome indicator.

### **D. Description of the Operation**

10. The Government of India has requested World Bank financing to support EESL in the implementation of its growing program, covering priority energy efficiency (EE) initiatives.

11. The proposed operation by the World Bank would support the Program to be implemented by Energy Efficiency Services Limited (EESL) for EE market transformation in residential and public sectors. The proposed operation comprises a US\$220 million Program for Results (PforR) loan and a US\$80 million loan/bond



guarantee to support EESL in raising commercial financing for scaling up its EE programs. The scope of the Program proposed for support includes Government of India's (GoI) "Unnat Jyoti by Affordable LEDs for All" (UJALA) initiative implemented by EESL, covering Light Emitting Diode (LED) lightbulbs, LED tube lights, and ceiling fans; and the "Street Lighting National Program" (SLNP). The proposed PforR operation would support the scale up of EE market transformation under UJALA and SLNP; as well as the incorporation of sustainability elements into EESL's newer business areas and institutional strengthening of EESL for sustainable scale-up. In addition, through the provision of an IPF loan/bond guarantee, the operation will enhance EESL's access to commercial financing markets which would further scale investments in UJALA and SLNP.

12. The proposed IBRD Guarantee will leverage existing financing sources by mobilizing commercial financing to support the Government Program. It is proposed that IBRD provides a guarantee of up to US\$80 million to either a loan or a bond to enhance EESL's creditworthiness and enable it to raise up to an estimated US\$200 million (or the equivalent in INR) of commercial financing. The Guarantee instrument will support investments under UJALA and SLNP, complementing the actions under the PforR.

13. The Operation is primarily focused on scaling up deployment of energy efficient appliances and equipment in the residential and public sectors. The interventions planned are expected to result in substantial environmental and social benefits. Adverse effects that are sensitive, diverse and unprecedented on the environment and people are not expected currently. However, planned efforts are essential to ensure that the Program interventions will result in sustainable social and environmental benefits. As required by the Bank Policy on Program-for-Results Financing (July 2015), an Environmental and Social Systems Assessment (ESSA) was conducted to assess the adequacy of Program environmental and social systems and identify specific measures. This ISDS relates to the IPF instrument supporting EESL (i.e. the guarantee) proposed to raise commercial financing for investments proposed to be made under the Program, namely UJALA and SLNP.

## E. Implementation

14. **The Operation will be implemented by EESL.** As a corporate entity set up under the 2013 Companies Act, EESL is a joint venture of four state public sector units,<sup>2</sup> to facilitate the implementation of EE projects in partnership with private ESCOs, state level institutions and other companies to achieve EE goals. EESL is one of the key agencies tasked with the implementation of the National Mission for Enhanced Energy Efficiency (NMEEE).

15. **Decisions are taken by the Managing Director under the overall guidance and support of the Board of Directors.** EESL's Board of Directors comprises representatives of its promoters along with MOP and BEE. All project investment decisions above a certain monetary threshold set by the Board must be approved by the Board of Directors, while decisions below that threshold are delegated to the MD. Project-related performance targets are set annually after deliberations at the organizational level and subsequent review and approval by the Board of Directors of EESL. Generally, there is a fair amount of involvement of senior staff including the MD in all important decision making processes and project implementation phases.

16. **EESL programs are jointly implemented by EESL's corporate headquarters in Noida near New Delhi and fourteen regional offices.** Each EESL program has a national program manager in the corporate office

<sup>2</sup> NTPC Limited, Power Finance Corporation, Rural Electrification Corporation and POWERGRID



responsible for program results, who coordinates closely with local and regional staff. Procurement and finance are managed centrally by the corporate office to capture the benefits of economies of scale, while program-specific functions are managed regionally. The program manager works closely with regional centers, which have autonomy on decisions that affect them, and are headed by regional managers for each program. Regional centers are responsible for implementing the programs (through distribution agencies such as in the case of UJALA, vendors (lighting agencies) / contractors or sub-contractors in case of SLNP, Asset Management Consultants and Project Management Consultants). Staff from the corporate office make regular visits to field offices to monitor progress.

17. **Procurement, contract management and finance functions.** The procurement process is currently centralized in EESL and it is handled at its headquarters. Contract management is however largely decentralized to regional and zonal offices of EESL. EESL's "Guidelines, Policy and Procedure for Procurement of Goods, Works and Non-Consulting Services" dated November 19, 2013 describes procurement procedures. The same procurement and contract management approaches will be applicable for Program. Overall governance of the implementing agency EESL will be vested in a Board of Directors and the day to day affairs will be under a Managing Director. The Finance function is under a Finance Controller or Chief Finance Officer and is divided into functional groups each headed by a Deputy General Manager (Finance) and responsibilities have been assigned

18. **Environmental and Social.** EESL has prepared an Environmental, Occupational Health & Safety and Social (EHSS) Manual to guide its operations. EESL has a designated EHSS officer and has initiated the process of disseminating EHSS internally within EESL and for the external stakeholders including vendors and contractors. As part of the preparation of the proposed DLI under the parent *Program for Results (PforR)* Component, the need to strengthen internal institutional capabilities for Environmental and Social aspects was identified, and EESL agreed to establish a Sustainable Development Department. The establishment of this Department was included as a Disbursement Linked Indicator (DLI), against which IBRD financing would be disbursed, under the proposed PforR. This Department will be strengthened to the extent that it can also address the IPF requirements under the guarantee product.

#### **F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)**

19. UJALA and SLNP will be implemented nationwide, both in urban as well as rural areas. The project is supporting deployment of energy efficient LED lightbulbs, which, in case of UJALA are sold to consumers and in case of SLNP, are installed by replacing the existing conventional streetlights, and to a limited extent, supporting electrical systems and light poles. The nature of activities (especially in case of SLNP), requires more focus on occupational health and safety aspects relating to installation of equipment, more than the project locational aspects. Under this nationwide program, it is possible that specific project locations can be in urban and rural areas in proximity to the coasts, forests and other natural habitats. While it is not envisaged that the project activities will infringe into such areas, such characteristics are of importance especially for handling the wastes generated from the project activities. Since exact project locations are not yet known, the safeguards management approach will be based on exclusion principles for avoiding environmental risks.

#### **G. Environmental and Social Safeguards Specialists on the Team**

Addepalli Sita Ramakrishna, Senior Environmental Specialist, GEN06

Deepa Balakrishnan, Environmental Specialist, GEN06

Gitanjali Chaturvedi, Senior Social Development Specialist, GEN06



**SAFEGUARD POLICIES THAT MIGHT APPLY**

Safeguard Policies

Triggered?

Explanation (Optional)

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>The IPF component would utilize IBRD resources for raising commercial financing to support EESL’s Program. EESL’s program focuses on scaling up the deployment of LED lightbulbs and other energy efficient appliances under UJALA and SLNP, covering locations in both urban and rural areas across India. IPF component intends to support only the deployment of LED bulbs, tube lights and ceiling fans under UJALA Program, and SLNP. The proposed activities under the IPF component will have significant positive impact as the lifecycle environmental impacts of LED bulbs are significantly less, when compared to that of the alternatives, such as incandescent or CFL bulbs. Moreover, EESL’s initiatives will have significant positive impact on the environment because of significant energy savings it stands to generate by replacing less efficient options.</p> <p>Some of the planned activities under the IPF component, if not managed systematically are expected to have impacts on the environment. These include placement of temporary kiosks for distribution of bulbs, quality of the lighting products, and disposal of wastes. . These aspects would assume importance when the project locations (urban and rural settlements) are in the proximity to sensitive areas. Hence, there is a need for systematic safeguards management with pre-defined framework for risk mitigation, if any. While such aspects are covered by and large under existing EHSS manual of EESL, there is a need to update the same to establish an Environmental Management Framework (EMF) with relevant screening and impact assessment procedures, and Environmental management measures complying with World Bank requirements including occupational health and safety aspects</p>
Natural Habitats OP/BP 4.04	No	<p>The UJALA and SLNP programs will be implemented under the IPF component in existing settlement areas and are not envisaged to infringe in to any of the natural habitats. However, to avoid doing harm to sensitive areas, the borrower will be advised to incorporate exclusion principles to avoid natural habitats in the vicinity of the</p>



		settlements, if any. It is recommended that EESL prepares an EMF complying with OP 4.01 to define exclusion principles.
Forests OP/BP 4.36	No	The planned activities under the IPF component is not expected to have any impacts or harm to forests and do not involve in any forest based commercial activities or logging.
Pest Management OP 4.09	No	Pest Management aspects would not be applicable for the planned activities under the IPF component and hence not triggered
Physical Cultural Resources OP/BP 4.11	Yes	As part of SLNP, installation of LED bulbs may be undertaken in the vicinity of heritage and culturally important precincts. Associated activities may possibly have impacts on the physical and cultural resources. Hence this policy is triggered. The proposed EMF will integrate considerations for managing probable risks related to physical and cultural resources including chance find procedures.
Indigenous Peoples OP/BP 4.10	Yes	Program locations are not yet known. The policy is triggered as a precaution in the event that the planned activities under the IPF component are scaled up to include states with tribal populations such as Chhattisgarh, Jharkhand, and/or states in North East India, this policy will be triggered. An Indigenous People’s Planning Framework is therefore included as a measure to comply with World Bank requirements.
Involuntary Resettlement OP/BP 4.12	No	Planned activities under the IPF component do not involve land acquisition that would lead to physical resettlement or loss of assets or access to resources.
Safety of Dams OP/BP 4.37	No	The program activities envisaged under IPF component are not expected to have any impact on the Safety of Dams. Hence, this policy is not triggered.
Projects on International Waterways OP/BP 7.50	No	The project relates to energy efficient bulbs and appliances which does not involve waterways and hence the International Waterways policy is not triggered
Projects in Disputed Areas OP/BP 7.60	No	The program activities envisaged under the IPF component are not expected to be implemented in international disputed territories.





## KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

### A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

20. This is a Category B Project with no major negative environmental impacts. The safeguard policies that this Project triggers are the Environmental Assessment (OP/BP/GP 4.01), Physical Cultural Resources OP/BP 4.11 and the Indigenous Peoples policy (OP/BP 4.10). The program will have minor adverse environmental impacts. The proposed Program is primarily focused on scaling up deployment of energy efficient appliances and equipment in the residential and public sectors, and institutional strengthening of EESL. The interventions planned are expected to result in environmental and social benefits. Adverse effects that are sensitive, diverse and unprecedented on the environment and people are not foreseen. However, planned efforts are essential to ensure that the Program interventions will result in sustainable social and environmental benefits. The proposed Program would result in significant benefits – including (i) energy savings from installation of EE equipment; (ii) avoided energy and capacity benefits; (iii) avoided environmental and health costs from reduction of thermal generation; and (iv) economic value of improved quality of life for consumers.

21. While the environmental risks due to different programs of EESL are low to moderate. Risks associated with UJALA program mainly include (i) material and waste management (ii) poor product quality which impacts the environment, and (iii) risks during installation and maintenance including safety issues. In case of SLNP, in addition to the above, risks due to inappropriate planning of activities and placement decisions for installing street lights are also pertinent. However, these risks are manageable through appropriate mitigation measures, institutional systems and monitoring developed as part of EMF; in addition to following the Environmental, Occupational Health & Safety and Social (EHSS) Manual (EHSS).

22. The EMF prepared for the Project (with updated EHSS SOPs for UJALA and SLNP) which defines in detail the actions to be taken to guarantee the compliance of National (Indian) Environmental legislations and the OP/BP 4.01 and OP/ BP 4.11; the Bank environmental safeguard policies. Public consultations with stakeholders took place for the preparation of EMF during June-July, 2017 and October-November, 2017 in accordance with OP/BP 4.01, and their relevant suggestions were included in the final reports. The draft is EMF is currently updated by EESL based on bank team comments. The updated final draft EMF will be disclosed in-country prior to finalizing, incorporating RSA's comments, if any. The final EMF has been disclosed by EESL and by the Bank prior to appraisal.

23. An IPPF for the Project has been prepared by EESL. The IPPF defines the actions to be taken in the event the project activities under the IPF would be undertaken in areas with significant tribal populations ensure the compliance of OP/BP 4.10. The final draft of the IPPF will be disclosed in-country prior to finalizing, incorporating RSA's comments, if any. The final IPPF has been disclosed by EESL and by the Bank prior to appraisal.



2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

24. The agreed EMF includes measures to address the impacts with necessary generic and specific environmental management measures. The EMF provides Standard Operating Procedures to ensure effective EHSS considerations in EESL operations. In addition, the in-country regulatory framework that applies to each component of the project also will minimize impacts. Given this, no indirect and/or long term impacts are expected. To avoid any such impacts, the EMF also defines the continuous monitoring and supervision protocols to be followed by EESL through the proposed Sustainable Development unit.

25. The disposal of mercury halide, sodium vapor and other bulbs, and other electrical / electronic wastes replaced under SLNP, if not addressed effectively, may lead to possible long term impacts. The EMF has examined such events and noted that the associated risks are addressed by EESL at two levels: (a) having a back to back arrangement with the supplier to buy back the replaced lights and lighting equipment with a contractual provision to meet the Extended Producer Responsibility and/or Safe disposal complying with e-waste and/or hazardous waste regulations of the country; and (b) Local body managing the replaced items to reuse in places where applicable. These arrangements prevent long term impacts.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

26. None. LED bulbs have a distinct environmental benefit when compared to other types of lighting appliances due to its energy efficiency feature.

27. None. The project is not expected to create any adverse social impacts.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

28. As part of its experience in accessing financing from different development finance institutions, EESL has already prepared an Environmental, Occupational Health & Safety, and Social (EHSS) Manual. The manual mainly covers UJALA and SLNP, and includes relevant Standard Operating Procedures (SOPs), which are intended to be integrated into EESL's operations as part of these programs. While many of these SOPs have been integrated in to EESL operations, a clear mandate with specific monitoring and institutional mechanism for safeguards management is yet to be established by EESL. EESL has initiated this process by designating an EHSS officer and initiated the process of disseminating EHSS internally within EESL and for the external stakeholders including vendors and contractors. As part of the preparation of the proposed DLI under the parent Program for Results Component, the need to strengthen internal institutional capabilities was identified, and EESL agreed to establish Sustainable Development Department. The establishment of this Department was included as a Disbursement Linked Indicator (DLI), against which IBRD financing would be disbursed, under the proposed PforR. This Department will be strengthened to the extent that it can also address the IPF requirements under the guarantee product.

29. By incorporating a dedicated and full-fledged unit or department to focus on environmental and social sustainability of program operations, it is expected that EESL will be able to manage the program impacts. EMF prepared by EESL also acts as a guidance document incorporating the guidelines for screening of activities under various programs.



5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

30. Environment: The key stakeholders include citizens, local bodies, and vendors. These stakeholders have been consulted as part of preparation of EMF to address potential environmental impacts.

31. Social: Key stakeholders include citizens, local bodies, and vendors as above and have been consulted during project preparation.

**B. Disclosure Requirements (N.B. The sections below appear only if corresponding safeguard policy is triggered)**

Environmental Assessment/Audit/Management Plan/Other:	<i>Env. Mgt. Framework</i>
Was the document disclosed prior to appraisal?	<i>To be Disclosed</i>
Date of receipt by the Bank	<i>2/12/2017</i>
Date of "in-country" disclosure	<i>1/1/2018</i>
Date of submission to InfoShop	<i>To be Submitted</i>
For category A projects, Summary of the EA to the Executive Directors	<i>Not Applicable</i>

Social Safeguards Framework/Other:	<i>Indig. People PI Framework</i>
Was the document disclosed prior to appraisal?	<i>To be Disclosed</i>
Date of receipt by the Bank	<i>1/12/2017</i>
Date of "in-country" disclosure	<i>12/29/2017</i>
Date of submission to Infoshop	<i>To be submitted</i>

**C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting) (N.B. The sections below appear only if corresponding safeguard policy is triggered)**

Yes/No

**OP/BP/GP 4.01 - Environment Assessment**

Does the project require a stand-alone EA (including EMP) report?	<b>Yes</b>
If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?	<b>To be completed</b>
Are the cost and the accountabilities for the EMP incorporated in the credit/loan?	<b>Yes</b>

**CONTACT POINT**

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**Borrower/Client/Recipient**



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**Implementing Agencies**

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**APPROVAL**

Task Team Leader(s):	Defne Gencer, Ashok Sarkar, Simon Stolp, Don Purka
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**Approved By**

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Practice Manager/Manager:	Demetrios Papathanasiou, Pankaj Gupta	4 December 2017
Country Director:	Junaid Ahmad	4 December 2017

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