

**MITIGATION  
BLENDED**

<b>PROJECT NAME</b>	<b>Affordable LEDs for all by Energy Efficiency Services Limited (EESL)<sup>1,2</sup></b>
<b>COUNTRY/REGION</b>	India
<b>SECTOR</b>	Energy
<b>PROJECT/INVESTMENT AMOUNT</b>	Not disclosed
<b>DEVELOPMENT PARTNER(S)/STAKEHOLDERS</b>	Implemented by EESL, an Energy Service Company under the Ministry of Power, Government of India with the support of the Global Environment Facility
<b>COUNTERPARTY MINISTRY/ INSTITUTION</b>	Ministry of Power, Government of India
<b>INVESTOR(S) AND FUNDERS</b>	Energy Efficiency Services Limited (EESL) GEF
<b>GUIDEBOOK TAXONOMY FINANCIAL SYSTEM ACTOR</b>	Bilateral, Multilateral & Development Finance Institution Public Balance Sheet
<b>PROJECT OVERALL GOAL</b>	Expand the use of LED bulbs in Indian households to improve energy-efficiency
<b>PROJECT OUTCOMES</b>	<p>With support from the Global Environment Facility, EESL was able to take advantage of economies of scale and aggregation to reduce the cost of LED bulbs to consumers from 400 Rupees to Rupees 70 Rupees, making the greener option cheaper than less efficient compact fluorescent bulbs. As a result, families report monthly savings of 150-200 Rupees in their electricity bills.<sup>3</sup></p> <p>According to EESL's web page, over 367 million LED bulbs, 7.2 million LED tube lights and 2.3 million energy-efficient fans have been distributed across the country. This represents estimated energy savings of 47.98 billion kWh per year, and GHG emission reduction of 39 million tCO<sub>2</sub> per year.<sup>4</sup></p>
<b>ALIGNMENT WITH COUNTRY IDENTIFIED CLIMATE STRATEGIES, NDCs, ETC. (IF APPLICABLE)</b>	In August 2022, India updated its NDCs containing the framework for the country's transition to cleaner energy for the period 2021-2030. The PAYS model in the Affordable LEDs for all program is fully aligned with India's goal to reduce overall emission intensity and improve energy efficiency while ensuring the protection of the most vulnerable population. <sup>5</sup>
<b>CONTRIBUTION OF THE PROJECT TO THE UN SDGs</b>	SDG 7: Affordable and clean energy SDG 9: Industry, innovation and infrastructure SDG 12: Responsible consumption and production

<sup>1</sup> This case was provided by CrossBoundary as a contribution to the Sharm El-Sheikh Guidebook for Just Financing

<sup>2</sup> EESL is a joint venture of four power service providers (NTPC, Rural Electrification Corporation, Power Finance Corporation, and Powergrid Corporation of India) to facilitate implementation of energy-efficiency projects. See Clean Light Coalition, 2021. <https://cleanlightingcoalition.org/resources/case-study-energy-efficiency-services-limited-eesl-india/>

<sup>3</sup> UNEP, 2018. <https://www.unep.org/news-and-stories/story/seeing-light-leds-power-indias-drive-household-energy-efficiency>

<sup>4</sup> EESL, UJALA. <https://eeslindia.org/en/ourujala/>

<sup>5</sup> Government of India, Press Release, 2022. <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1847812>

<b>SOCIOECONOMIC IMPACT</b>	Families report monthly savings of 150-200 Rupees in their electricity bills, which leaves more available income for other priorities such as nourishment and education
<b>ENVIRONMENTAL IMPACT (ON CLIMATE MITIGATION AND/OR ADAPTATION)</b>	Significant GHG emissions reductions through energy-efficient light bulb installation
<b>ENABLING ENVIRONMENT (SUPPORTING POLICIES)</b>	N/A
<b>TECHNICAL ASSISTANCE (IF PROVIDED)</b>	N/A
<b>FINANCING MODEL/APPROACH (EX: BLENDED FINANCE)</b>	Blended Finance through the support of the Global Environment Facility
<b>RATIONALE FOR FINANCING MODEL/APPROACH</b>	The model removes barriers to access to the consumer, as no up-front investment is required from them, and their total tariff remains equal or lower as a result of the cost-savings action. Thanks to the on-bill-financing feature of the scheme, the capital provider has certainty in the recovery of the investment
<b>FINANCIAL INSTRUMENT(S) (LOANS (COMMERCIAL/ CONCESSIONAL), EQUITY, GUARANTEE)</b>	Upfront financing, Pay-as-you-save (PAYS), a type of loan in which repayment is made through the utility bill, and partly covered by savings through the financed action
<b>DIAGRAM OF THE FINANCING STRUCTURE</b>	<p>The diagram illustrates the financing structure. At the top, a 'Capital provider' (dark blue box) provides funding to two 'Utility' entities (light blue boxes). The left utility provides 'On-Bill (cost recovery tied to meter)' to a 'Metered site' (dark blue box). The right utility provides 'Investment (in upgrades)' to 'Solution providers' (dark blue box). The 'Solution providers' then provide services to the 'Metered site'. The 'Metered site' serves the 'Customer (current &amp; future)' (grey box). A note at the bottom states: 'Note: The structure is a simplified illustration and does not represent a full depiction of all the actors involved in the transaction.'</p>

### Executive Summary

Pay-as-you-save (PAYS) is a model in which a utility or other service -provider covers up-front financing of cost-saving activity and passes this on to the customer over time through a voluntary tariff. The customer's total tariff remains equal or lower as a result of the cost-savings action.

PAYS originally emerged as a model in which a utility's customer chooses improvements to be made to gain service utilization efficiency (for example, the acquisition of a smart meter, or more efficient light bulbs), and the utility pays a contractor to make the improvements. The customer accepts a voluntary tariff from the utility through which the contractor's cost is repaid, and this voluntary tariff is, in turn, offset by the customer's savings. The utility has certainty in recovery and reduces its load, and the client benefits from costs cost savings without having to pay up-front for the improvement.

A successful and frequently cited example of the PAYS model is the Affordable LEDs for all program, implemented by the Indian company Energy Efficiency Services Ltd (EESL). It was implemented to develop the use of LEDs in the country and achieve energy efficiency, as LED lights provide better illumination and are 50-55% more efficient than traditional yellow lights. EESL works with consumers through pay-as-you-save mechanisms, with utilities through on-bill financing, and with manufacturers through annuity financing for municipal street lighting. This model is now being expanded by EESL to other geographies including the UK and Saudi Arabia, to scale-up demand-side measures.

### Analysis

<b>WHAT MADE THIS PROJECT SUCCESSFUL?</b>	Innovative product design, in which an entity with greater financial capacity effectively meets the initial financing needs of consumers, who are often less able or willing to invest in solutions, even if these provide long-term cost efficiency
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<p><b>TO WHAT EXTENT IS THIS MODEL SCALABLE?</b></p>	<p>PAYS is a highly scalable model, as it can be replicated for a variety of services provided by both the public and private sectors, bringing about efficiency gains and reducing barriers to customer adoption</p>
<p><b>WHAT ARE THE NECESSARY CONDITIONS TO MAKE IT REPLICABLE IN OTHER COUNTRIES/REGIONS?</b></p>	<p>This model is applicable all around the world. It has been replicated in numerous geographies both across developed and developing economies.</p>
<p><b>CONSTRAINTS/DRAWBACKS OF FINANCING MODEL</b></p>	<p>A key challenge of the model is related to the measurement of savings and the calculation of applied tariffs. Also, this model only applies to services for which customers pay based on their consumption. Lastly, when the improvement or solution to be financed is larger than the estimated savings over a period of time, the model can't be successfully implemented</p>
<p><b>LESSONS LEARNT</b></p>	<p>Consumers are often deterred from solutions that require upfront financing, even if these can provide long-term savings. PAYS model enables the implementation of climate-friendly solutions, by removing the investment barrier for consumers, without imposing a debt obligation on them</p> <p>Efforts in the measurement of potential cost-savings, and properly designed communication strategies when selling the idea to customers, are critical for a successful design and implementation of PAYS systems</p>