

UNEP GEF PIR Fiscal Year 2023

Reporting from 1 July 2022 to 30 June 2023

INSTRUCTIONS TO COMPLETE THIS PIR

1. PROJECT IDENTIFICATION

1.1. Project details

Identification Table	GEF ID.: 9283	Umoja no.:SB-011208
	SMA IPMR ID: 39016	Grant ID: S1-32GFL-000615
	Project Short Title: Costa Rica Energy Efficiency	
Project Title	Development of a market for energy efficient lighting, air conditioners and refrigerators in Costa Rica.	
Duration months	Planned	36
	Age	56
Project Type	Medium Size Project	
Parent Programme if child project	Name of Parent Program: Leapfrogging markets to high efficiency products (appliances, including lighting and electrical equipment).	
Project Scope	National	
Region	Latin America and the Caribbean	
Countries	Costa Rica	
GEF Focal Area(s)	Climate Change	
GEF financing amount	US\$ 2,000,000	
Co-financing amount	US\$ 4,972,452	
Date of CEO Endorsement/Approval	October 4, 2017	
UNEP Project Approval Date (on Decision Sheet)	October 22, 2018	
Start of Implementation (PCA entering into force)	October 22, 2018	
Date of Inception Workshop, if available	August 14, 2019	
Date of First Disbursement	18 December 2018	
Total disbursement as of 30 June 2023	USD 1117231,24	
Total expenditure as of 30 June 2023	USD 795881,21	
Midterm undertaken?	N/A	
Actual Mid-Term Date, if taken	N/A	
Expected Mid-Term Date, if not taken	N/A	
Completion Date	Planned – original PCA	31 December 2021
	Revised – Current PCA	31 January 2024
Expected Terminal Evaluation Date	31 July 2024	
Expected Financial Closure Date	31 January 2025	

1.2. Project description

The project's objective is to accelerate improvements in energy efficiency under Costa Rica's public procurement programs, thus reducing Costa Rica's energy consumption and carbon dioxide emissions. The project has four components, as follows:

COMPONENT 1: Energy diagnosis to identify and prioritize opportunities to replace conventional appliances with energy efficient appliances in highest energy consuming public institutions.

Expected outcome: Strategic sites from highest energy consuming public institutions showcase opportunities to replace conventional appliances with energy efficient appliances. It is priority to Costa Rica to raise awareness of the benefits of running large-scale replacement programs of conventional and obsolete appliances with energy-efficient appliances. Therefore, it is proposed to conduct energy diagnosis in public institutions to identify and showcase opportunities to replace conventional and obsolete appliances.

COMPONENT 2: Training and information program for market actors on the country's obligations to only procure energy efficient appliances and on mechanisms for product compliance.

Expected outcome: Suppliers provide the public sector with electric appliances that comply with required energy efficiency specifications (lighting, air conditioners and refrigerators) and energy efficiency services. The Costa Rican government is consolidating a procurement platform for the public sector named Integrated Purchase System for Public Institutions (SICOP). The transition from previously used procurement platforms is still on its way. This situation presents unsolved challenges that could be targeted by the project (e.g., incomplete public procurement databases). This component will also contribute to the issuance of a framework for efficient lighting, air conditioning, and refrigerating appliances; provide technical training in topics such as energy efficiency and integrated waste management; and create an online platform to centralize relevant information resources for public procurement of energy efficiency products and services.

* Executive Mandate 011-MINAE (2014) sets the requirement of purchasing efficient equipment (lighting, air conditioning and refrigeration) for the public sector in Costa Rica. Available [here](#).

COMPONENT 3: Regulation, financial tools and empirically-based guidelines for the financing of large-scale replacement programs in the public sector

Expected outcome: Regulation, financial tools and empirically based guidelines are in place for the financing of procurement of efficient appliances, that ensures sustainability of large-scale replacement programs. Component 3 focuses on the establishment of regulation, empirical evidence and tools to facilitate the financing of large-scale replacement programs in the public sector. Implementing the necessary activities will require an estimated period of 10 to 12 months. The revised work plan reallocates delayed activities and considers implementation of new ones, within a period of 13 months.

COMPONENT 4: Development of capacities for environmentally sound end-of-life integrated management of lighting, refrigeration, and air conditioning appliances.

Expected outcome: Authorized waste handlers offer their services for environmentally sound end-of-life integrated management of lighting, refrigeration, and air conditioning appliances. Outputs under Component 4 aim to strengthen capacities of relevant stakeholders and to increase their implementation scope regarding end-of-life integrated management of lighting, refrigeration, and air conditioning appliances. This component also includes the creation of an enabling framework for environmentally sound end-of-life integrated management services (i.e., from lighting, air conditioning and refrigeration) for public procurement. It will also include hiring of a social media and communication consultant to conduct information and dissemination actions through social media to promote environmentally sound end-of-life integrated management of special waste

1.3. Project Contacts

Division(s) Implementing the project	UNEP, Economy Division, Energy & Climate Branch, Climate Mitigation Unit
Name of co-implementing Agency	N/A
Executing Agency(ies)	Central American Bank of Economic Integration (CABEI)
	U4E
Names of Other Project Partners	Ministry of Energy and Environment (MINAE)
	Costa Rican Institute of Electricity (ICE)
	Rural Electrification Cooperative of San Carlos (COOPELESCA)
	Rural Electrification Cooperative of Guanacaste (COOPEGUANACASTE RL)
	Public Service Company of Heredia (ESPH)
	National Company of Force and Light (CNFL)
	National Lighting Test Center (NLTC)
	Whirlpool
	Mabe
UNEP Portfolio Manager(s)	Geordie Colville, Ruth Coutto
UNEP Task Manager(s)	Asher Lessels
UNEP Budget/Finance Officer	Fatma Twahir
UNEP Support/Assistants	Paula Cobas (programmatic) and Solange Rodriguez (finance)
EA Manager/Representative	Julio Cárcamo
EA Project Manager	Geilyn M Aguilar
EA Finance Manager	Ricardo Meoño
EA Communications Lead, if relevant	Pamela Baires

2. OVERVIEW OF PROJECT STATUS

2.1 UNEP PoW and UN

UNEP Current Subprogramme(s)	Climate action
PoW Indicator(s)	Outcome 1B: Countries and stakeholders have increased capacity, finance and access to technologies to deliver on the adaptation and mitigation goals of the Paris Agreement.

	<p>Indicator (i): Number of national, subnational and private-sector actors that adopt climate change mitigation and/or adaptation and disaster risk reduction strategies and policies with UNEP support.</p> <p>Indicator (ii): Amounts provided and mobilized in \$ per year in relation to the continued existing collective mobilization goal of the \$100 billion commitment through to 2025 with UNEP support</p>
UNEP previous Subprogramme(s)	N/A
UNSDCF / UNDAF linkages	<p>UNDAF Costa Rica 2018-2022.</p> <p>Strategic Priority Area 1: Strengthened the capacities of public institutions, private organizations and civil society to facilitate and forge national, innovative, transformative and dialogue-based pacts and agreements, in order to accelerate the fulfilment of the SDGs for a development sustainable with equality.</p>
Link to relevant SDG Goal(s)	SDG 13: Take urgent action to combat climate change and its impacts through citizen participation, technological change, processes of innovation and research, while promoting the efficient use of energy in order to maintain and improve the country's competitiveness.
Link to relevant SDG Target(s)	<p>Target 13.2 Integrate climate change measures international policies, strategies and planning.</p> <p>Indicator 13.2.2: Total greenhouse gas emissions per year</p>

2.2. GEF Core Indicators:

Indicators	Targets – Expected Value			Materialized to date
	Mid-term	End-of-project	Total target	
6. Greenhouse Gas Emissions Mitigated (metric tons of CO ₂ e) (By 2035)	N/A	N/A	<p>330,328 (direct)*</p> <p>98,537 (indirect)*</p>	<p>0</p> <p>This figure will be re-assessed once the results and recommendations from the 20 energy audits (presented on April 2023) are applied and demonstrative projects are operating. Information about savings in terms of CO₂ emissions were included as a requirement for each of the audits.</p>

2.3. Implementation Status and Risk

	FY 2020	FY 2021	FY 2022	FY 2023	FY 20
PIR #	1 st	2 nd	3 rd	4 th

Rating towards outcomes (DO) (section 3.1)	S	S	MS	S	
Rating towards outputs (IP) (section 3.2)	S	MS	MS	MS	
Risk rating (section 3.3)	M	M	M	L	

Rating towards outcomes: **Satisfactory (S):**

Significant progress has been reached towards outcomes 1 (strategic sites from highest energy consuming public institutions showcase opportunities to replace conventional appliances with energy efficient appliances), 2 (suppliers provide the public sector with electric appliances that comply with required energy efficiency specifications and energy efficiency services, and 4 (Authorized waste handlers offer their services for environmentally sound end-of-life integrated management of lighting, refrigeration and air conditioning appliances). To date, the number of suppliers offering energy efficient appliances is 67 (25 lighting, 21 for air conditioning, 12 for refrigeration and 9 for energy efficiency services), largely surpassing the target of at least 5 for each category. 20 Energy Audits were carried out and results were presented to each of the beneficiary of the public institutions, with the recommendations for implementing efficient equipment to reduce its billing and help to preserve the environment. Finally, equipment was bought for recovery of mercury and refrigerant gas and transferred to MINAE and various capacity building activities for waste handlers and other actors involved in the disposal of appliances from public institutions were carried out.

Due to substantive barriers identified to implement a revolving fund, a redesign of component 3 was carried out, aiming at promoting the scaling-up of energy efficient equipment replacement in public institutions through implementing two demonstration projects. This demonstration projects aim to showcase efficiency in public institutions and to provide empirical information on the complete cycle of implementing large scale replacement of energy appliances in public sector and facilitate its financing. This revision, validated by the project Steering Committee and approved by UNEP, was accompanied by a project extension, to ensure the implementation of the proposed outputs.

Rating towards outputs: **Marginally Satisfactory (MS)**

Satisfactory progress has been achieved on outputs in component 1, 2, and 4. However, the redesign of component 3, led to delays in the implementation process. Although activities are on track, and the preliminary selection of the two demonstration projects was carried out, there are several pending outputs, including implementing demonstration projects, elaborating diffusion materials and operation manual, especially regarding procurement process and benefit obtained by the replacement. Also, to address administrative restrictions faced by public institutions in implementing energy appliance replacement, a revised regulation will be proposed for public procurement of energy efficiency appliances and services. Finally, financial tools (for calculating financial viability of building energy efficiency projects for financial institutions and private sector service providers) and training sessions for financial institutions on calculating the financial viability of building energy efficiency projects will be developed.

Overall risk rating: **Low (L)**

The consolidated risk rating is low. A revision of component 3 was carried out, aiming at ensuring the scaling up of large-scale equipment replacement in public buildings in Costa Rica. The proposed outputs are on track and outcomes are expected to be achieved. The main risk identified is the implementation schedule. Due to the necessary adjustments derived from the component 3 redesign, delays in implementation were verified.

2.4. Co-financing

Planned Co-finance.	The total committed co-finance was US\$ 4,972,432.00. By June 2023 US\$ 13,278,924 has been materialized, more than 100% of committed amount.
Total:	

<p>4,972,432.00 USD</p> <p>Actual to date:</p> <p>13.248.924 USD</p>	
Progress	<ul style="list-style-type: none"> • COOPELESCA: Reported US\$ 8,990,626.00, which exceeds the amount of its commitment, since it made a considerable investment in renovation of public lighting. • ESPH: Reported US\$ 2,793,901.00. People of ESPH were in around 15 meetings; 4,800 hours of work were held in the completion of the LED street lighting Modernization project. • CNFL: US\$ 10,295.00. The CNFL gave trainings according to Energy Efficiency and new products to MINAE. • MINAE: US\$ 453,094.00. People working on the project, usage of the office (Space, Light, Water, Internet, etc.) and supervision of the project. • COOPEGUANACASTE: US\$ 498,967.00. This investment was mostly in public lighting. • CABEL: US\$ 500,000.00. In-kind support from the lead executing agency, including time assigned to senior staff for the supervision of the project. • UNEP: US\$ 30,000.00. EE tracking instrument specialist 10.000, U4E Technical support 20.000 • DAIKIN: US\$ 2,041.00

2.5. Stakeholder engagement

Date of project steering committee meeting	<p>September 3, 2020</p> <p>October 13, 2021</p> <p>December 02, 2022.</p>
Stakeholder engagement	<p>The co-financing partners have maintained their support for the project by providing their contributions. Relevant private sector stakeholders have already been identified and engaged by U4E partner BASE on the market analysis stage. Representatives from leading public bodies are part of the Project Steering Committee (PSC), they remain engaged and provide feedback to project implementation. Also, more than 130 people from all main public institutions, including: Electric utilities (ICE and CNFL); National Insurance Company (INS), Costa Rican Social Insurance (CCSS), Ministry of Science Innovation, Technology and Telecommunications (MICITT), Ministry of Environment and Energy (MINAE) participated on INTECO norms informative session, Energy Audits and training activities regarding the energy efficient, develop by the project. During this period, the MINAE National Project Director supported and reinforced coordination with other ministerial offices and Government bodies.</p>

2.6. Gender

Does the project have a gender action plan?	No.
Gender mainstreaming	The project is actively supporting gender affirmative actions. For staff hiring, emphasis is placed on promoting women in leadership positions (in CABEL's

	<p>staff assigned to the project are a man and 3 women.). In project components sex-disaggregated data will be used. All training material in component 2 and 4 is requested to be with technical and more inclusive language.</p> <p>During 2022, the project worked with the main public sector female officials to promote the use of energy efficient and equipment replacement in at public sector institutions (including selection criteria for appliances and companies providing energy efficiency services, procurement, instalment, and monitoring), considering procedures, best practice and accessing credits.</p> <p>More than 32 women participated on INTECO norms informative session, energy audits and training activities to increase their implementation scope with regard to end-of-life integrated management of lighting, refrigeration, and air conditioning appliances.</p>
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2.7. Environmental and social safeguards management

Moderate/High risk projects (in terms of Environmental and social safeguards)	<p>This is a low-risk project according to its Environmental, Social and Economic Review Note (ESERN), included as Annex N of its CEO Endorsement Document. Thus, there are no specific elements that are being monitored as part of this project. Nonetheless, the project has undertaken activities that can have a positive impact on the environment:</p> <ul style="list-style-type: none"> • Resource Efficiency: The project contributed to the update of 8 technical standards by INTECO (Energy management, refrigeration, and air conditioner), continuous trainings about energy efficiency and waste management; and a list of possible providers of equipment fulfilling the 011 guideline for MINAE. • Pollution Prevention and Management: Increased hazardous waste production by the project is covered by authorized waste handlers, which received training to increase their capacity through the project (mainly under component 4). • Stakeholder Engagement and Information Disclosure: the project recognizes the importance of open and transparent engagement between the project and project stakeholders as an essential element of good international practice. Also, project applies all internationally proclaimed human rights. Information and dissemination actions have been developed by a communication specialist, including but not limited to dignity, cultural aspects, gender actions and indigenous people rights. • Labor and Working Conditions: With the PMU, the project recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Also, as the energy audits were performed with buildings continuing to operate, the project is promoting that energy efficiency companies provide safe and healthy working conditions.
New social and/or environmental risks	<p>Have any new social and/or environmental risks been identified during the reporting period?</p> <p>No</p> <p>As planned, the social impacts of the project have been:</p> <ul style="list-style-type: none"> - Respect internationally proclaimed human rights including dignity, cultural property and uniqueness and rights of indigenous people. -provided information through: <ul style="list-style-type: none"> • Trainings to relevant stakeholders

	<ul style="list-style-type: none"> An online platform to centralize and update information inputs related to public procurement. Information and dissemination actions to promote environmentally-sound end-of-life management of disposed lighting products and appliances. <p>-Implemented activities to accelerate improvements in energy efficiency under Costa Rica's public procurement programs.</p> <p>-The project will strengthen national capacities to recover mercury from disposed fluorescent lamps by delivered to MINAE the refrigerant gas treatment equipment (the gas recovery tanks for AC) and the bulb eater (i.e. instrument for the recovery of mercury from fluorescent tubes).</p>
Complaints and grievances related to social and/or environmental impacts (to be filled in by TM and EA)	<p>Has the project received complaints related to social and/or environmental impacts (actual or potential) during the reporting period?</p> <p>No.</p>
Environmental and social safeguards management	N/A.

2.8. Knowledge management

Knowledge activities and products	<p>The knowledge management strategy for this project consists of external and internal actions. External knowledge management is undertaken through: i) an online platform to centralize and update information relevant for public procurement of efficient appliances and energy efficiency services, ii) information and dissemination actions to promote environmentally sound end-of-life management of replaced conventional lighting products and appliances.</p> <p>Main activities include:</p> <ul style="list-style-type: none"> - Energy Savings: 20 Energy Audits studies were carried with 20 public entities (including hospitals and universities, which will serve as an example for other institutions) as prioritized top intervention to generate examples to be used by MINAE and other institutions in future. - The Software application as tracking instrument (Output 1.2) were installed on MINAE data center. It is automated energy data collection and management for most public sectors, generating key process indicators and provide control and planning tool. Also, vendor list will be an output for MINAE to know better the manufacturers and master distributors for energy efficiency products. - The Institute of Technical Standards of Costa Rica (INTECO) has already actualized ISO 50001:2011 certification standard for energy management systems and ISO 50002:2014 to set guidelines for energy audits. Also, contribute to the adaptation of a certification standard to define requirements for bodies providing audit and certification of energy management systems (e.g. ISO 50003:2014). - The homologation of all the datasheets in Costa Rica's procurement platform for the public sector ("Integrated Purchase System for Public Institutions", SICOP) for compliance with the guideline for efficient products (Executive Mandate 011-MINAE (2014)*) were done by ICE-RACSA during the years 2021 and 2022 - Trainings in the workplan have been conducted by the project team, MINAE and U4E. - Project training material and videos (videos based on the results of the Energy Audits are under edition to have a testimony of the beneficiaries
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	<p>of the project) which is developing over the reporting period, as online energy efficiency training and workshop videos, is available for Costa Rica</p> <ul style="list-style-type: none"> - Two web section of the project are available with all the information regarding the project. MINAE: https://energia.minae.go.cr/?page_id=10283 BCIE: https://www.bcie.org/paises-socios/fundadores/costa-rica/proyecto-en-eficiencia-energetica-en-costa-rica
Main learning during the period	<p>The implementation of Energy Audits has been one of the most important activities held to 20 public institutions in Costa Rica, the energy audit can help reduce the carbon footprint by pinpointing trouble areas in the institutions buildings that may be wasting energy.</p> <p>The results have made awareness that, reducing the energy consumption can help save money on the energy bill. Most of the institutions are looking forwards on the implementation of the recommendations that CIRE (the consulting in charge of the Energy Audits) made, considering small actions that can be change in a minimum time and the estimated budget of those activities that take time and are bigger invest on the building. CIRE made a presentation to each of the 20 institutions on the results of their Energy Audits and the results are public at https://energia.minae.go.cr/?page_id=10283</p>

2.9. Stories to be shared

Stories to be shared	<p>Energy Audit in 20 public institutions in Costa Rica – Story case</p> <p>Public Institutions energy consumption patterns are different from one another. Several public Institutions carry energy audit studies in various segments - industry, commercial, building, and domestic with different objectives. For this project we can present 3 case study out of 20 public institutions in Costa Rica that received an energy audit to analyse the energy consumption patterns and to provide specific recommendations to improve energy consumption efficiency and to reduce their energy bills. (videos)</p>
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3. PROJECT PERFORMANCE AND RISK

3.1 Rating of progress towards achieving the project outcomes (Development Objectives)

Project objective and Outcomes	Indicator	Baseline level	Mid-term target	End-of-project target	Progress as of current period (numeric, percentage, or binary entry only)	Summary by the EA of attainment of the indicator & target as of 30 June 2023	Progress rating ¹
Objective: Accelerating improvements in energy efficiency under Costa Rica's public procurement programs and reducing Costa Rica's energy consumption and carbon dioxide emissions.	% of top 20 highest energy consuming public institutions procuring efficient appliances in accordance with Executive Mandate 011-MINAE	15%	N/A	100% (By the end of the project)	100%	The 20 largest public institutions (in terms of energy consumption) have been identified in the CEO Endorsement Document. The key barriers preventing the adoption of the Executive Mandate has been the lack of updated records (i.e. records in the public purchase database showing inefficient equipment), which the project has already addressed through the homologation of datasheets in the website for governmental purchases. Therefore, it is expected that the 100% target is reached due to compliance of the law on governmental purchases by public sector institutions. This information will be confirmed at the end of the project.	HS

¹ Use GEF Secretariat required six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU).

Project objective and Outcomes	Indicator	Baseline level	Mid-term target	End-of-project target	Progress as of current period (numeric, percentage, or binary entry only)	Summary by the EA of attainment of the indicator & target as of 30 June 2023	Progress rating ¹
	Amount of Direct GHG emissions reductions	0 tCO _{2eq}	N/A	330,328tCO _{2eq} ² (By 2035)	0%	Emission reductions will be reached through the implementation of two demonstration project and the expect implementation of the recommendations included in the 20 energy audits carried out in public institutions. Once the results and recommendations from the 20 energy audits (presented in April 2023) are applied and U4E demonstrative projects are operating, the amount of direct GHG emissions reductions expected to be achieved thorough the project by 2035 will be estimated. Information about savings in terms of CO2 emissions were included as a requirement for each of the audits.	S
Outcome 1: Strategic sites from highest energy consuming public institutions showcase opportunities to replace conventional appliances with energy efficient appliances	# of buildings retrofitted following the recommendations of the diagnoses	0	N/A	At least 3 buildings (by end of the project)	0	The 20 diagnoses are available since Q1 2023. During 2022, institutions like the Costa Rican Social Insurance (CCSS), Banco Nacional and the Agricultural Marketing Agency (PIMA) have manifested their interest in implementing these measures within 2023 – 2024 based on the results of energy audits and the U4E cooperation. Other institutions will base their decision to replace inefficient equipment on the availability of funds U4E, which would be covered through component 3. The project extension will provide the time required to U4E to implement the energy efficiency retrofits to at least 2 buildings.	S

²This figure represents 50% of the Direct GHG emission reductions calculated in Annex J-2. Indeed, as agreed with the GEF Secretariat, the Direct benefits to be attributable to a child project under the "Leapfrogging markets to high efficiency products (appliances, including lighting and electrical equipment)" Programme shall represent 50% of the project's estimated Direct GHG emission reductions.

Project objective and Outcomes	Indicator	Baseline level	Mid-term target	End-of-project target	Progress as of current period (numeric, percentage, or binary entry only)	Summary by the EA of attainment of the indicator & target as of 30 June 2023	Progress rating ¹
Outcome 2: Suppliers provide the public sector with electric appliances that comply with required energy efficiency specifications (lighting, air conditioners and refrigerators) and energy efficiency services	# of appliance suppliers registered in the Electronic Catalog	0	N/A	At least 5 suppliers per appliance type (by the end of the project)	67	<p>To date, the number of suppliers registered offering energy efficient appliances is 67:</p> <ul style="list-style-type: none"> • Lighting: 25 manufactures and master distributors • Air conditioning: 21 manufactures and master distributors • Refrigeration: 12 manufactures and master distributors • Energy Audits: 9 companies. <p>The project conducted a survey with all these 67 suppliers to have more technical information on all of them, including: which products or services meets the Executive Mandate 011-MINAE; if they are subscribing in SICOP web page (Purchase Website for governmental institutions); which certifications they have among other information.</p>	HS
Outcome 3 Regulation, financial tools and empirically based guidelines are in place for the financing of procurement of efficient appliances, that ensures	Regulation adopted by the Costa Rica government for facilitating the replacement and procurement of - energy efficient appliances in public sector buildings	0	N/A	1	0	A regulation draft is being prepared by a consultant team, based on the information gathered by the project during its implementation period. Inputs from the procurement process for implementing the demonstration projects will also be considered. The draft will be discussed with MINAE, and once validated, further steps needed for adoption will be identified.	S

Project objective and Outcomes	Indicator	Baseline level	Mid-term target	End-of-project target	Progress as of current period (numeric, percentage, or binary entry only)	Summary by the EA of attainment of the indicator & target as of 30 June 2023	Progress rating ¹
sustainability of large-scale replacement programs	Amount of Direct energy savings	0 GJ	N/A	16,117,915 GJ (by 2035)	0	<p>Energy savings will be reached through the implementation of two demonstration project and the expect implementation of the recommendations included in the 20 energy audits carried out in public institutions.</p> <p>Once the results and recommendations from the 20 energy audits (presented in April 2023) are applied and the demonstrative projects are operating, the amount of direct energy savings expected to be achieved thorough the project by 2035 will be estimated. Information about savings in terms of energy were included as a requirement for each of the audits.</p>	S
Outcome 4 Authorized waste handlers offer their services for environmentally sound end-of-life integrated management of lighting, refrigeration and air conditioning appliances. Outcome 1.2:	# of fluorescent tubes from which mercury can be recovered	0	N/A	At least 18,000 fluorescent tubes (by the end of the project)	54.000 per month	The project bought a bulb eaters machine with a capacity to process 54,000 tubes per month. This equipment is in possession of MINAE, which is expected to donate to a public institution and begin its usage in December 2023. This institution, together with MINAE will be in charge of monitoring the number of effectively processed bulbs. The user manual includes details on the monitoring and reporting of the treated fluorescent tubes.	S
	Storage capacity to recover refrigerant gas from replaced appliances	6,000 lb	N/A	9,000 lb. (by the end of the project)	7090 lb	The project purchased one tank with a capacity of 1090 lb, which added to the initial baseline level, implies a storage capacity of 7090 lb. Although the increase in the capacity represents 37% of the 3,000 lb increment set as target for this indicator, it was assessed as an appropriate investment by the project team, since the tanks and the gas recovery machine can be used several times, to reach the target capacity.	S

3.2 Rating of progress implementation towards delivery of outputs (Implementation Progress)

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%)	Implementation status as of 30 June 2023 (%)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
Output 1.1: Energy diagnosis implemented in strategic sites from highest energy consuming public institutions.	Sep 2022	15%	100%	The energy audits for 20 public institutions are made and the results are public at https://energia.minae.go.cr/?page_id=10283	HS
Output 1.2: Tracking instruments developed for efficient appliance procurement by public institutions	Jan 2021	70%	100%	U4E presented the tool in the month of November 2021 to representatives from all the public institutions through all members of the Institutional Environmental Management Plan IEMP (Plan de Gestion Ambiental Institucional - PGAI) (CCSS, INS, Hacienda, UCR, etc.). Additionally, MINAE asked to make 3 examples with the tool that are to be published in the project web site making and a video of one of it. PMU is recollecting all the information (Videos of the trainings, list of participants, etc.) to close this output improving the goal for the project. The tracking instrument (Software) were moved to MINAE's servers.	S
Output 2.1: Database of companies that can provide energy efficiency services to the public sector	Dec-22	25%	100%	As the final output from The Institute of Technical Standards of Costa Rica (INTECO) 8 norms (certification standard for energy management systems and set guidelines for energy audits) were received between July to August 2022. Also, informative session in June 2022 were carried out, with a participation of more than 130 people from all main public institutions, including: Electric utilities (ICE and CNFL); National Insurance Company (INS), Costa Rican Social Insurance (CCSS), Ministry of Science Innovation, Technology and Telecommunications (MICITT), Ministry of Environment and Energy (MINAE). During 2022, the PMU defined selection criteria to design surveys and interviews to companies that offer goods and/or services for the treatment of electronic waste components of lighting, air conditioning and refrigerants in Costa Rica.	S

³ Outputs and activities (or deliverables) as described in the project logframe (and workplan) or in any updated project revision.

⁴ The completion dates should be as per latest workplan (latest project revision).

⁵ As much as possible, describe in terms of immediate gains to target groups, e.g. access to project deliverables, participation in receiving services; gains in knowledge, etc.

⁶ To be provided by the UNEP Task Manager

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%)	Implementation status as of 30 June 2023 (%)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
Output 2.2: Enabling framework provided to update current catalogue of energy efficient appliances available to the public sector through their purchase platforms	Oct-22	10%	100%	<p>The homologation of all the datasheets in Costa Rica's procurement platform for the public sector ("Integrated Purchase System for Public Institutions", SICOP) for compliance with the guideline for efficient products (Executive Mandate 011-MINAE (2014)*) were done by ICE- RACSA during the years 2021 and 2022 (* Executive Mandate 011-MINAE (2014) sets the requirement of purchasing efficient equipment (lighting, air conditioning and refrigeration) for the public sector in Costa Rica). Trainings in the workplan have been conducted by the project team, MINAE and U4E.</p> <p>The PMU received the MINAE clarification and justification that 2.2.1, 2.2.2, 2.2.3, 2.3.1, 2.3.2, 4.4.1 Activities were done by MINAE, and the other institutions involved to the project during the project period (MINAE Letter DE-0144-2022, sept 2022).</p>	S
Output 2.3: Training delivered to (A) procurement and environmental management officials from highest energy consuming public institutions; (B) efficient appliances and energy efficiency service providers; and (C) technical public officials	Jun-22	15%	100%	<p>Training to procurement and environmental management officials were carried out. Participants included representatives from all the Public Institutions that are required to implement an Institutional Environmental Management Plan (IEMP, including Costa Rican Social Insurance (CCSS), National Insurance Institute (INS), Ministry of Finance (Hacienda), University of Costa Rica (UCR), etc.). The training was held between January 2021 and September 2021.</p>	S
Output 2.4: Online platform launched to centralize information resources relevant for procurement of efficient appliances and energy efficiency services	Feb-22	10%	100%	<p>SICOP became the official platform and mandatory use for government purchases, this platform promotes compliance with Directive 011-MINAE, which establishes which equipment is energy efficient.</p>	S

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%)	Implementation status as of 30 June 2023 (%)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
Output 3.1B: U4E- Regulations which overcome barriers to procurement of public building energy efficiency appliances and services, for adoption by MINAE	Jan 24	0	0	A regulation draft is being prepared by a consultant team, based on the information gathered by the project during its implementation period. Inputs from the procurement process for implementing the demonstration projects will also be considered. It is expected that a first draft of the revised regulation for procurement of public building energy efficiency appliances and services will be delivered by November 2023.	S
Output 3.2B: U4E- Development of operational manual for such procurement, based on evidence from demonstrations in public buildings	Jan 24	0	25%	U4E has reviewed data provided by the energy audits in the different public buildings and have conducted a mission to Costa Rica to assess the interest from potential beneficiary institutions, and also to assess the availability of technology providers for the demonstration projects. Based on these results, U4E has proposed a short list of projects to be submitted to the selection committee. The committee is composed by MINAE, UNEP-U4E and the Compañía Nacional de Fuerza y Luz (CNFL). It is expected that two demonstrations projects get approved by the selection committee, and that the procurement process of the efficient equipment for these projects is finalized during Q3-2023.	MS
Output 3.3B: Financial institutions, including Banco Nacional de Costa Rica and Banco de Costa Rica, and private sector service providers have access to financial tools and feasibility studies and enhanced capacity for financing energy efficiency appliances and services in public buildings	Jun 24	0	25%	Terms of reference are being prepared for hiring a consultant team to develop financial tools, financial prefeasibility studies and capacity building activities for Banco Nacional de Costa Rica and Banco de Costa Rica. Reception of quotations are expected by July 2023.	S
Output 4.1: Diagnosis about current processing capacity to provide environmentally-sound end-of-life integrated management of disposed appliances	Jan-22	5%	100%	The diagnosis was concluded in December 2021. Training sessions for actors of most of public institutions (representatives from all the Public Institutions with an IEMP) making an extended analysis of the current situation in Costa Rica. The result was delivered in April 2022.	S

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%)	Implementation status as of 30 June 2023 (%)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
Output 4.2: New equipment operating to recover disposed refrigerant gas and mercury (contained in disposed conventional appliances) to be later destroyed	Mar-22	20%	100%	In December 2022, the project delivered to MINAE the refrigerant gas treatment equipment (the gas recovery tanks for AC). This acquisition will increase the country's storage capacity to recover refrigerant gas from replaced appliances. The institutional arrangements for the provision of these services are yet to be defined by MINAE. Also, in Q1 of 2023 the project provided to MINAE a bulb eater (i.e., instrument for the recovery of mercury from fluorescent tubes). The purchase of this equipment (Bulb Eater for fluorescent treatment) was done during 2022.	S
Output 4.3: Methodology developed to establish recovery targets for replaced conventional lighting, air conditioning and refrigeration appliances in accordance to Executive Mandate 38272-S Articles 9 and 10.	Feb-22	0%	100%	The final document was delivered by the U4E expert and approved by the Health Ministry in 2022.	S
Output 4.4: Enabling framework provided for environmentally sound end-of-life integrated management services (i.e., from lighting, air conditioning and refrigeration) available in purchase platforms used by the public sector	May-22	0%	100%	MINAE informed that the Issuance of new framework agreement on waste from end-of-life integrated management of lighting, refrigeration and air conditioning appliances to be adopted by the procurement platforms used by the public sector (activity 4.4.1) was completed.	S
Output 4.5: Training delivered to (D) waste compliance units, authorized waste handlers and suppliers; (E) procurement and environmental management officials from highest energy consuming public institutions; and (F) technical public officials	Jun-22	10%	90%	<p>Waste compliance units: Beneficiaries were representatives from all the Public Institutions with an IEMP. Training covered topics regarding Electric and Electronic Equipment Waste (RAAE) and waste management. The training was held in the month of March 2022.</p> <p>Procurement and environmental management officials from highest energy consuming public institutions: Beneficiaries were representatives from all the Public Institutions with an IEMP. Training covered topics regarding the current legislation in waste management in the country. Training held in March 2022.</p> <p>As agreed by the Project Steering Committee in the last meeting (December 2022), the initially proposed Ambilamp training that could not be implemented due to implementation restrictions, will be replaced by energy efficiency training videos</p>	MS

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2022 (%)	Implementation status as of 30 June 2023 (%)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
Output 4.6: Information and dissemination actions carried out to promote environmentally sound end-of-life integrated management of special waste (from lighting, air conditioning and refrigeration appliances)	Dec-22	5%	100%	<p>Actions undertaken include:</p> <ul style="list-style-type: none"> - Strategy plan of communication. - A digital brochure of the main information is available to the public - Project web section in CABEL's webpage as in MINAE web page is public. - Publication of information regarding the project on the web, Yammer and LinkedIn. - Videos of the Energetic Audits carried out and their impacts are made. - Technical training to public institutions, including energy efficiency and integrated waste management have been undertaken throughout the project. <p>There will be continuous information to be published in all the media until the end of the project.</p>	S

4. Risk Rating

4.1 Table A. Project management Risk

Please refer to the **Risk Help Sheet** for more details on rating.

Risk Factor	EA's Rating	TM's Rating
1. Management structure – Roles and responsibilities	<i>L</i>	<i>L</i>
2. Governance structure – Oversight	<i>M</i>	<i>L</i>
3. Implementation schedule	<i>S</i>	<i>M</i>
4. Budget	<i>L</i>	<i>L</i>
5. Financial Management	<i>L</i>	<i>L</i>
6. Reporting	<i>L</i>	<i>L</i>
7. Capacity to deliver	<i>L</i>	<i>L</i>

If any of the risk factors is rated a Moderate or higher, please include it in table B below.

4.2 Table B. Risk-Log

Risk	Risk affecting: Outcome / outputs	Risk Rating							Variation respect to last rating	
		CEO ED	PIR 1	PIR 2	PIR 3	PIR 4- 2023	PIR 5	PIR 6	Δ	Justification
<u>Stakeholder engagement</u> Government ministries remove their support for the project.	All outcomes & outputs	L	L	L	L	L			=	The energy efficiency project is vital for this government looking to the decarbonization plan, a strategy that will be reached in 2030. This risk has a very low probability of happening because the MINAE with his Minister and Vice Minister are very implicated and interested in the project. Also, the project has the active participation of representatives from the Health Ministry as well as Treasury Ministry.
<u>Political influences</u> Changes of staff in policy-making bodies, especially after election time in 2022, may hinder implementation and cause delays.	All outcomes & outputs	L	L	L	L	L			=	The government staff changed in May 2022. The new representatives, the Minister, Vice-Minister, Energy Department Director, and other representatives from the MINAE; consider that the project has a priority scope and support every activity this one has contemplated.
<u>Political prioritization</u> Policy inputs might be recommended but not implemented	Outcome1	M	L	L	L	L			=	The government staff changed in May 2022. The new representatives, the Minister, Vice-Minister, Energy Department Director and other representatives from the MINAE; consider that the project has a priority scope and support every activity this one has contemplated. The results of the project such as energy audits, trainings, software and information are reinforcing the prioritization of the nation in these topics.
<u>Stakeholder engagement</u> Low commitment of key public sector stakeholders (i.e., highest energy consuming public institutions, relevant Ministries);	All outcomes& outputs	L	L	L	L	L			=	All the public institutions part of the energy audits were very pleased to have the results of the energy audits (with a support letter of interest from each one) and of them will be looking forward, to make those changes.
<u>Stakeholder engagement</u> Low participation from the private sector actors	Outputs 2& 4	M	L	L	L	L			=	Some private companies offer Co-financing (in-kind) to the project (Right now, the only challenge is that the point of contact of those private companies is through U4E, the project always needs this organization to have information about them and to date the PMU hasn't received any report). All the information they give to us could be very important to complete the help that could be given by the private sector.

									Additionally, some private companies participated in the technical talk from INTECO.
Stakeholder contributions Co-finance partners remove support for the Initiative	All outcomes& outputs	L	L	L	L	L		=	Not all the institutions that offered co-financing (in-kind) have provided their co-financing report yet. This does not affect the development of the project in the stage where we are right now, because the project already has all the necessary resources to operate and deliver every output.
Management Delayed implementation of activities that are baselines for specific incremental activities	All outcomes& outputs	M	M	M	L	L		=	The New Project Management Unit (PMU) is in process to be hired. Special attention and follow up is given to pending / delayed outputs.
Revolving fund Delays in the structuring of the revolving fund could affect the approval/constitution of the fund, the start of the fund's operation phase in the bank and the mobilization of investments	Outcome 3	H	M	M	H	N/A			Component 3 was redesigned. A revolving fund will no longer be implemented.
External communications Designed and executed information and dissemination actions are not effective in terms of educating and raising awareness of target groups	Output 4	L	L	L	L	L		=	A Communication expert was hired that worked in the dissemination of project information. The project website is hosted by CABEL's server. Also, information regarding the project is available at MINAE's Web page (i.e., the diagnose of the Energy Audits).
Climate change negatively impacts the optimal functioning of cooling appliances	Outcome 2	L	L	L	L	L		=	Having warmer or cooler days implies less or more consumption, then less or more money savings. The differences in the near future will not affect the data.
Demonstration projects Demonstration projects and related monitoring equipment in minimum two different types of public buildings, including procurement, installation and one-year maintenance is delayed, and installation goes beyond execution period.	Output 3	-	-	-	-	M			After the redesign of component 3 in December 2022, administrative process was required to adjust budget and responsibilities of the executing agencies. These procedures delayed the start of activities for component 3, to the second quarter of 2023. Since June 2023, U4E- MINAE are working on determinate the demonstration projects and related monitoring equipment in minimum two different types of public buildings, including procurement, installation and one-year maintenance. The expected time framework for the installment of demonstration projects and monitoring is beyond the remaining execution period.

Consolidated project risk		N/A	M	M	M	L			=	The consolidated rating is L.
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Table B. Outstanding Moderate, Significant, and High risks

Risk	Actions decided during the previous reporting instance (PIR _{t-1} , MTR, etc.)	Actions effectively undertaken this reporting period	Additional mitigation measures for the next periods		
			What	When	By whom
Demonstration projects Demonstration projects and related monitoring equipment in minimum two different types of public buildings, including procurement, installation and one-year maintenance is delayed and installation goes beyond execution period.	N. A	NA	1. Prepare a schedule with required activities for implementing demonstration projects, and timeline to identify possible delays. 2. Hold a SCM to analyse potential extension to finalize activities	July- September 2023 September 2023	U4E BCIE SCM

High Risk (H): There is a probability of greater than 75% that **assumptions** may fail to hold or materialize, and/or the project may face high risks.
Significant Risk (S): There is a probability of between 51% and 75% that **assumptions** may fail to hold and/or the project may face substantial risks.
Moderate Risk (M): There is a probability of between 26% and 50% that **assumptions** may fail to hold or materialize, and/or the project may face only modest risks.
Low Risk (L): There is a probability of up to 25% that **assumptions** may fail to hold or materialize, and/or the project may face only modest risks.

Project Minor Amendments

5.1 Table A: Listing of all Minor Amendment

- ☒ Results framework
☒ Components and cost
☐ Institutional and implementation arrangements
☐ Financial management

- ☒ Implementation schedule
☐ Executing Entity
☐ Executing Entity Category
☐ Minor project objective change

- | | |
|---|---|
| <input type="checkbox"/> Safeguards | <input type="checkbox"/> Co-financing |
| <input type="checkbox"/> Risk analysis | <input type="checkbox"/> Location of project activity |
| <input type="checkbox"/> Increase of GEF project financing up to 5% | <input type="checkbox"/> Other |

Minor amendments	<p>COMPONENT 3: During the design of the revolving fund, substantive barriers were in terms of the ability of public institutions to apply for external financing. Addressing this barrier is a pre-requisite for the public institutions' ability to access debt markets in general – including through a concessional revolving fund such as the one envisioned under the scope of this project. In this context and aiming to accomplish the project objective of accelerating improvements in energy efficiency under Costa Rica's public procurement programs reducing Costa Rica's energy consumption and carbon dioxide emissions, a redefinition of component 3 was proposed. This redefinition implies eliminating the outputs related to the RLF and proposing new outputs, that will facilitate the financing of procurement of efficient appliances and energy efficiency services in the country in the near future. The proposed outputs build on the results already obtained by the project, and complement, to strengthen their impact on the development of a market for energy efficient lighting, air conditioners and refrigerators in Costa Rica. Expected Outcome 3 is: Regulation, financial tools and empirically based guidelines are in place for the financing of procurement of efficient appliances, that ensures sustainability of large-scale replacement programs. This redesign required a budget revision.</p>
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5.2 Table B: History of project revisions and/or extensions

Version	Type	Signed/Approved by UNEP	Entry into Force (last signature Date)	Agreement Expiry Date	Main changes introduced in this revision
Original legal instrument	PCA	October 22, 2018	October 22, 2018	December 31, 2021	Budget adjustment at internalization phase.
Amendment 1	Revision 2	July 26, 2021	July 26, 2021	December 31, 2022	Extend the Technical Completion date to 31 December 2022 and re-phase the unspent balance to 2021 and 2022
Amendment 2	Revision 3	December 19, 2022	December 19, 2022	January 31, 2024	Revise the project technical completion date (extension) to finalize all pending activities as per revised work plan and budget

GEO Location Information:

The Location Name, Latitude and Longitude are required fields insofar as an Agency chooses to enter a project location under the set format. The Geo Name ID is required in instances where the location is not exact, such as in the case of a city, as opposed to the exact site of a physical infrastructure. The Location & Activity Description fields are optional. Project longitude and latitude must follow the Decimal Degrees WGS84 format and Agencies are encouraged to use at least four decimal points for greater accuracy. Users may add as many locations as appropriate. Web mapping applications such as [OpenStreetMap](https://www.openstreetmap.org/) or [GeoNames](https://www.geoNames.org/) use this format. Consider using a conversion tool as needed, such as: <https://coordinates-converter.com> Please see the Geocoding User Guide by clicking [here](#)

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Costa Rica EE**

Location Name Required field	Latitude Required field	Longitude Required field	Geo Name ID Required field if the location is not an exact site	Location Description Optional text field	Activity Description Optional text field
San José de Costa Rica	9.93333	-84.08333	3621849		

Please provide any further geo-referenced information and map where the project interventions is taking place as appropriate. *

N/A