

SOCIALCARBON® Standard

Indicators for Efficient Lighting PoA and Bundled Projects

Version 1.0, September 2011

DOCUMENT REVISION HISTORY

Version	Description of the main adjustments	Review Date
1.0	First version of the indicators	19/09/ 2011

1. Elements considered for using SOCIALCARBON in Efficient Lighting PoA and Bundled Projects

The SOCIALCARBON concept was first developed community based forest projects in 1998. Through the years, due to the beginning of new scope of emission reductions projects it was adapted also for other types of project activities such as switching fuels and renewable energy and energy efficiency. SOCIALCARBON was first adapted to be used in Efficient Lighting projects in 2011, in a Joint Implementation Project. These indicators were developed by:

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The indicators were submitted by the project proponent and subjected to a stakeholder consultation and approved by:

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Main considerations regarding the process of elaboration these indicators:

Comments	Response
In the “Acceptance” indicator it would be possible to consider quantitative acceptance or participation rates (1), such as: % of customers eligible for the program who participate within a fixed time period; % of eligible customers who were reached by the marketing effort and chose to participate.	Quantitative rates are already assessed in the Project Designed Document (PDD) and Monitoring Reports (MRs). To avoid double check, SOCIALCARBON assessment should consider qualitative aspects of acceptance of the project, such as opinion of end-users.
Assesses the comprehensiveness of government policies and the compatibility of the scheme with those policies.	All projects are subjected to political risks in different levels. Besides conformity with Policy and legal requirements are already assessed in the PDD and MRs. To avoid double check, the indicator “Adequacy of government policies and scheme compatibility” was excluded.
The indicators “Stakeholder involvement” and “Information campaigns” were originally segregated, because stakeholders involvement differs from the information campaign, since in the first case, stakeholders are involved in the decision making process, providing inputs to improve project design and implementation. Information campaign has the purpose of creating awareness about the project, especially to end-users, improving acceptance rates.	Although there is a difference between consultation and campaigns, not always project developers can segregate both things during evaluation. For example, workshops have an effect on improving awareness and also receiving feedback from end-users. For this reason both aspects were summarized in a single indicator. Also participation in networks and alliance was included in this indicator.
Finance was considered a relevant issue for successful energy efficiency programs. An indicator was suggested to assess if finance was need for	Finance and additional incentives are already assessed in the PDD and MRs. To avoid double check, the indicators “Finance” and “Incentives” was excluded.

implementing the project and also its availability and conditions of the terms.

Besides finance, another relevant financial indicator is incentive. Some energy efficiency programs need to combine more than one incentive to motivate target consumers, especially in cases where the share of income spent on electricity is low. Some examples of additional incentives: \$ per unit energy savings, loan financing, performance contracting, shared savings, or direct installation of efficient products.

The primary environmental impacts of the project are related to the physical waste created by the collection of old -inefficient lamps (ICLs). Other impacts such as emissions due to transport and logistics and impacts from the supply chain might be relevant but difficult for the project proponent to control.

For this reason, the indicator “environmental management” was adapted to focus on waste management.

Project proponents have two options when assessing this indicator:

- Assessing the impacts: waste quantity generated by the project considering the level of hazard; OR
- Assessing the process: how effective is the waste management of the project.

The second option was included, considering that positive results of the program, such as dissemination, replication will necessarily generate more waste, thus have a negative impact on this indicator.

It is necessary to determine if vendors can supply the quantity of eligible products and that these products are available from more than one manufacturer to avoid raising of emissions due to the need to go back to using the traditional incandescent lamps.

Also some stakeholders were concerned about the selection of suppliers with clear demonstration of compliance with environmental and labor legislation.

Three new indicators were created to assess this issue concerning the supply chain of the project:

- Product supply and service providers
- Selection of suppliers
- Quality of the CFLs/LEDs

Although more and more promoting sustainability in the supply chain is becoming relevant as a Corporate Social Responsibility (CSR) measure, the complexity of relations with suppliers must be considered when selecting and assessing these indicators.

2. Application of the indicators

Basic Guidelines for Assessment in POAs or Bundling Projects

A bundling project is a grouping of project activities validated and verified together as one. The projects included in this bundling are set at the start of the project activity and remain the same for the duration of the project. A PoA (program of activities) validates and verifies a number of voluntary-action project activities in carbon market that contribute to accomplishing a pre-stated goal. Projects included in the PoA can be added to the general validation as long as they help to achieve the pre-defined goal and meet the restrictions of the PoA. In a bundling project or PoA, the method used to collect and score SOCIALCARBON data is different.

Collecting data

The ideal way to assess the SOCIALCARBON projects is to apply the indicators to each project or plant individually and build a general hexagon with the average of the results scored by each project site/plant. However, in some cases it is not possible to collect information for all activities included in a bundling or PoA due to the cost and time required for a full assessment. For this reason, sampling techniques were developed for projects that include a large number of project owners or impacted stakeholders. Sampling techniques might be used when the project includes different communities, different project owners, or different sites/locations and should be adapted to a project-specific objective:

- Project developers may choose to **define different clusters (group of projects)** and include them in the assessment progressively, considering that by the end of the credit period all clusters must have been assessed. **Example of clusters: municipalities, or a group of municipalities.**
- For each cluster a **pre-defined number of samples should be selected** for collecting information and evidence. Number of samples should be defined according to the project, by selecting 'typical' villages/communities or project owners/project activities in each cluster and interviewing a number of people in each. **Example: a defined number of buildings or household in each municipality.**
- **At least one site visit per cluster must be done for the SOCIALCARBON assessment.** Additional site visits during validation/verification might be required by the responsible auditor.
- Results of the assessment of the clusters or project locations should be consolidated in the same SOCIALCARBON Report

The collection of information and evidence to score indicators should be done as in a standard SOCIALCARBON project. Consult the project indicators for more information on scoring indicators.

The collection of information and evidence to score indicators should be done preferable through:

- **Group Work:** Participatory meetings with representatives from the stakeholders involved in the project. The meeting is coordinated by a responsible professional whose function is orientating the participants to discuss the aspects included in the indicators. The results of the meeting ought to be compiled, and valued according to the indicators.

- Interviews: Key informers may be interviewed in a semi-structured way, aiming to indirectly obtain information concerning the six resources of SOCIALCARBON. The results of the interviews ought to be registered, compiled and valued according to the indicators.
- Questionnaires: Responsible professionals may apply questionnaires to key informers of the project in order to gather information. The results of the survey ought to be registered, compiled and valued according to the indicators.

The person responsible for collecting information or auditing the indicators may select one method or combine several to obtain the best results.

Other physical and documented evidence might be required to evidence information provided in the SOCIALCARBON Report. Each indicator provides a list of examples of evidences that could be collected. Not all of the many documents and physical evidences described in the indicators need to be checked or available for the auditing process, only those documents necessary to support or verify the audit evidence for the information that is disclosed in the indicator.

In developing countries, it is sometimes difficult to apply the traditional research methods, because documents, researches, studies, satellite images and monitoring parameters such water and air quality are not always available. For this reason, some indicators clearly states that physical and documented evidence is not required and testimonies from local stakeholders are enough to verify the audit evidence for the information that is disclosed in the indicator, especially indicators that assess the impact of the project in the communities.

Scoring indicators

Scoring of the indicators should adhere to the following guidelines:

- The person responsible for applying the indicators should obtain the information necessary to characterize the project's situation in relation to the particular indicator.
- Next, the researcher should compare the characteristics of the project with the six scenarios available for the indicator.
- The scenario that best represents the presented characteristics should be selected and the respective index should be attributed to the indicator.

Special cases:

- **The characteristics can't fit any possible scenario:** The person responsible should contact the SOCIALCARBON team to verify the need to reformulate the indicator or to create a new indicator.
- **The indicator does not apply:** The person responsible must justify why the indicator doesn't apply in the SOCIALCARBON Report and identify it as "Not Applicable." No value should be agreed upon in this case.

- **The information necessary to evaluate the indicator does not exist or is not available:** In the case when the absence of information is due to lack of evidence, Index 1 should be applied. If the absence of information is justified by confidentiality reasons, the indicator should be considered “Not Applicable” in the SOCIALCARBON Report and no value should be agreed upon.
- **The characteristics presented match with more than one possible scenario:** The person responsible should always select the scenario with the smaller index.

If the project developer decides to use **sampling techniques**, the final index will be:

- the **lowest index** of all samples. Example: public organization n. 1 lack of structure to coordinate activities while organization n.2 is head by capable people. The index 3 should be selected:

Indicator	1	2	3	4	5	6
Capacity of public organization(s)	Absence of public organization to coordinate activities with local stakeholders.	Focal point responsible (local expert) to coordinate activities with local stakeholders.	Organizations exist but they lack structure to coordinate activities with local stakeholders.	Organizations exist and are headed by capable and experienced people, but are not active in the project area or recognized by the local stakeholders.	Organizations exist and are headed by capable and experienced people.	Organizations exist and are headed by capable and experienced people

If the project developer decides to **segregate the project in clusters**, the final index will be:

- An average between the index selected and the **weight indicator** below, considering the number of clusters included in the assessment.
- In case the clusters score lower than the weight indicator, no average shall be used. Example: Cluster 1 (Cities in the North) scored 2.

Indicator	1	2	3	4	5	6
Weight for indicators	No project/ cluster was assessed	< 20% of the clusters/ projects were included in the assessment	20-40% of the clusters/ projects were included in the assessment	40 - 60% of the clusters/ projects were included in the assessment	60-80 % of the clusters/ projects were included in the assessment	More than 80% clusters/ projects were included in the assessment

- Example: the project involves four different clusters: 1. Cities in the North; 2. Cities in the South; 3. Cities in the East; 4. Cities in the West. Each cluster is composed by approximately 10 cities. In the first year, only the cities in the North were included in the assessment, and they have

scored 5. So the final score to be represented in the hexagon will be: $5 + 3/2 = 4$. This is to avoid that the lack of information about other clusters gives the indicator a very high score.

Note: the clusters approach causes “distortions” in the results of the scoring. The cluster method is easier to collect information, but it is more difficult to comply with the “continual improvement” criteria, because the scores tend to be lower and the average index not always reflects the improvements in the project. Nevertheless, it is possible to comply with the “continual improvement criteria” even if none of the indicators. In this case project developer must: a) Define how the continual improvement will be achieved by the group (through a specific plan, defining wholes and responsibilities); b) Provide evidence that proposed actions to improve is in place, especially in cases where improvement is not perceptible in the indicators.

Thus, the cluster approach should only be used in specific cases where regular samples would not work, for example:

- Existence of a large number of municipalities or project owners involved; AND
- These municipalities or project owners are very different from each other according to geographic locations, cultural values, etc. (e.g. cities in the North are less developed than those in the South); AND
- Due to dislocation costs is not possible to assess all these different regions every year or every monitoring period.

For more information on guidance for PoAs and Bundlings, please download the BASIC GUIDELINES FOR ASSESSMENT IN POAS OR BUNDLING PROJECTS at: www.socialcarbon.org/Documents/

3. Indicators

Social Resource: The working networks, the social duties, social relations, relationships of trust, affiliations, and associations.

a. SOCIAL

Indicator	Description	Evaluation Methods
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<p>Social Impact</p>	<p>Evaluates if the project resulted in significant and evident socio-economic impacts due to the energy efficiency lighting project, e.g.:</p> <ul style="list-style-type: none"> - Working conditions improvements, - Improvement of conditions in public services (i.e. in schools, offices, health centers, etc.) provided to the publicity - Better illumination, less noise, cleaner air, increased productivity, etc (2). <p>And if there is a framework or plan for the assessment of social effects of the project.</p> <p>Alternatively it can also evaluates if the project benefits one or more end-users, considering five major areas: Industrial; Agricultural; Service/commercial; Households</p>	<ul style="list-style-type: none"> - Interviews, questionnaires or meetings: testimony from personnel and users; authoritative opinion on the level of social impact. - Physical evidence: i.e. site visit or pictures. - Documentation: researches and studies on social impacts of the project; social impact assessment and social management plans; Mitigation / compensation / enhancement plans or programs. <p>Note: testimonies from stakeholders are enough to verify the audit evidence for this indicator.</p>
<p>Stakeholders¹ Involvement</p>	<p>This indicator evaluates the level of relevant stakeholders' involvement, like: suppliers, end-use consumers, investors, government, and non-government organizations, manufacturers, services providers, considering the different stages:</p> <ul style="list-style-type: none"> • Design: Understanding how customers use energy, how they think about energy consumption, how they make decisions about buying energy-using products that helps in designing most effective programs (2). • Initial awareness: information on how the project promotes energy savings opportunities and direct impacts on the bills, brochures, radio, internet, establishing a program branding, advertisements in general. • Creating capacity and motivation to participate: live demonstrations, television and video messages, personal presentations, personal sales presentations, detailed description of the project and financial flows. <p>This indicator also access if those interactions results in collaborative actions</p>	<ul style="list-style-type: none"> - Interviews, questionnaires or meetings: testimony from local stakeholders. Physical evidence: i.e. pictures or records of consultation process. - Documentation: i.e. agreements with stakeholders; records or summary of interviews or meetings with local stakeholders; results of surveys; Plans for involvement and/or consultation with directly affected stakeholders; Plans for alliances and partnerships.

¹ List of potential stakeholders:

- Users of the public buildings (students, employees, visitors, etc.)
- Leaders of local NGOs, associations or other organized groups
- Representatives of local environmental agencies or municipalities
- Partners, suppliers or services providers
- Local team responsible for coordinating the implementation activities

Reference “*Diálogo e engajamento das partes interessadas (Page. 19)*” (stakeholders) - Ethos 2008

	such as networks and alliances. Example of results coming from networks, alliances and partnerships: dissemination of good practices, replication of the program, creation of Program Branding).	
Acceptance	Evaluates the level of support or acceptance from the customers (and public building management) in regard to the project.	Interviews, questionnaires or meetings - Physical evidence: i.e. pictures or records of consultation process. - Documentation: i.e. summary of interviews or meetings with local stakeholders, Primary data are typically obtained from surveys of utility customers, pilot programs, Note: testimonies from stakeholders are enough to verify the audit evidence for this indicator.
Job Opportunities	Evaluates the level of job creation due to the development of the project activities	-Interviews, questionnaires or meetings: testimony from personnel and users; authoritative opinion on the level of social impact. Documentation: researches and studies on social impacts of the project; social impact assessment and social management plans Note: testimonies are enough to verify the audit evidence for this indicator.

Indicator	1	2	3	4	5	6
Social Impact	Significant negative social impacts.	There is not a significant relevance to negative social impacts.	There are no significant impacts. OR Project delivers benefits in to only one of the major areas.	Is expected that the project produce some positive social impacts, but there is no evidence if benefits are really happening. OR Project delivers benefits in to two of the major areas.	Evident positive impacts, however not measured. OR Project delivers benefits in to three of the major areas.	Measured and significant positive impacts. OR Project delivers benefits in to four or more of the major areas.
Stakeholders Involvement	There is no engagement with the stakeholders in relation to the project.	Project disclosure to the stakeholders without an systematic approach (e.g. random campaigns, such as workshops, or media, punctual disclosures).	Project disclosure to the stakeholders, with a structured plan (e.g. Integrated to an environmental marketing strategy and/or periodic and	In addition to the items in Index 3, participation in strategic networks and alliances, or other partnerships, but with very limited results.	In addition to the items in Index 3, participation in strategic networks and alliances, or other partnerships, with positive results, but	In addition to the items in Index 3, participation in network and alliances, or other structures of partnership, with evident results and/or

			organized campaigns).		that presents some gaps regarding effectiveness or parties have some gaps in performing their role.	benefits.
Acceptance	High level of opposition.	Low acceptance from customers/ end-use consumers.	Limited acceptance from local customers/ end-use consumers.	High acceptance from local customers/ end-use consumers, but some opposition still exists.	High acceptance from local customers/ end-use consumers and little opposition.	Full and strong acceptance from local customers/ end-use consumers.
Job Opportunities	Personnel do not have new responsibilities and No job creation	The level of personnel's responsibilities is not representative and low grade of job creation	Expansion of personnel duties and possible creation of job opportunities	Supplementary personnel duties and responsibilities. Some job creation	Additional and well-defined personnel duties and responsibilities and some job creation	Personnel has new assignments and job opportunities were created

Human Resource: The skills, knowledge, capacities for work and good health that people have. Taken together, these become fundamental for the successful pursuit of different strategies.

b. HUMAN

Indicator	Description	Evaluation Methods
Capacity of project proponents	Evaluates if the project is subject to risks or bad performance due to project proponents' lack of capacity or availability of human resources for managing the operational activities or participating in the carbon project design activities. Human resources required for EE programs may include: Marketing; Customer service; Engineering; Technology adeptness; Building design; Financial analysis; Data analysis; and Administration (2).	- Interviews, questionnaires or meetings: testimony from local stakeholders. - Physical evidence: none. - Documentation: Management systems audits and certifications; performance reporting (internal and external); Project proponents' asset management strategies and programs. Note: testimonies from stakeholders are enough to verify the audit evidence for this indicator.
Capacity of End-users	End-users may vary a lot, from Public Organizations to individual households, for this reason this indicator provides two alternatives to assess if the end-users are prepared to participate in the project, in other words if they have interest, are organized and know what to do. The first alternative evaluates the institutional capacity of public organizations responsible facilitating the implementation of programs to benefit local stakeholders.	Interviews, questionnaires or meetings: testimony from local stakeholders. - Physical evidence: none. - Documentation: none. Note: testimonies from stakeholders are enough to verify the audit evidence for this indicator.

	The second alternative evaluates if the end-users are organized and committed in participating in the project, facilitating the implementation of programs to benefit local stakeholders. Note: If both alternatives are applicable to your project, please assess it as two different indicators.	
Training for personal directly involved in project implementation	Assesses the entrepreneur's initiative in offering plans and training programs on efficient lighting, climate change and actions of health and Security to workers directly involved in the implementation of the project. Note: training for end-users and awareness campaign shall be addressed in the "Involvement with Stakeholders" indicator.	Interviews, questionnaires or meetings: testimony from final users. - Physical evidence: none. - Documentation: none. Note: testimonies from stakeholders are enough to verify the audit evidence for this indicator.

Indicator	1	2	3	4	5	6
Capacity of project proponents	The project has been impacted due to absence of human resources for managing the operational activities.	The project has been impacted due to continuously fails of some project proponents in management of operational activities.	Minor impacts on the project due to lack of management systems or low capacity of appropriate human resources	The project has not been impacted, but some gaps or weaknesses were identified regarding lack of management systems or low capacity of human resources.	Competent human resources facilitating the design and certification process of the project, but lack of comprehensive knowledge about the project.	Competent human resources and good comprehensive knowledge about the project.
Capacity of End-users	Absence of organization to coordinate activities with local end-users. OR End-users have no interest in participate in the project.	Focal point responsible (local expert) to coordinate activities with local end-users. OR End-users have little interest in participate in the project (e.g. some people engaged in unstructured or random way).	Organizations exist but they lack structure to coordinate activities with local end-users. OR End-users have some interest in participate in the project (e.g. some people support the project, but not the majority).	Organizations exist and are headed by capable and experienced people, but are not active in the project area or recognized by the end-users. OR End-users have interest in participate in the project, but find it had to know what to do.	Organizations exist and are headed by capable and experienced people. OR End-users are ready and willing to participate in the project.	Organizations exist and are headed by capable and Experienced people. OR End-users are ready and willing to participate in the project and actively engaged in further programs.
	No actions were taken.	Actions are in planning stage with high uncertainty the	Actions are in place, but there is high need of corrective actions	Some programs were held successfully, but limited impacts on the	Some programs were held successfully that had positive influence	Actions undertaken show positive results and improve the

Training for personal directly involved in project implementation		benefits can be delivered.	or deviations in the plan of activities so benefits can be delivered.	workers capacity were observed.	on almost all the professionals involved. Nevertheless some minor gaps in capacity of professional involved still exist.	capacity of workers. The professionals involved with the project have knowledge and experience for implementing the project.
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Financial Resource: The basic capital in the form of cash, credit/debt and other economic goods which are available or potential.

c. FINANCIAL

Indicator	Description	Evaluation Methods
Market	Evaluates eligibility of credits to compliance mechanisms or to voluntary markets.	<ul style="list-style-type: none"> - Interviews, questionnaires or meetings: testimony from proponent. - Physical evidence: none. - Documentation: Information on market conditions for similar projects. <p>Note: testimonies from project proponent are enough to verify the audit evidence for this indicator.</p>
Sale of Credits	Evaluates uncertainties regarding the value of commercialized credits generated by the project and their attractiveness to potential buyers.	<ul style="list-style-type: none"> Interviews, questionnaires or meetings: testimony from proponent. - Physical evidence: none. - Documentation: Information on market conditions for similar projects. <p>Note: testimonies from project proponent are enough to verify the audit evidence for this indicator.</p>
Costs for the programs	Assess if programs to achieve continual improvement goals have financial planning, such as financial analyses and budgets.	<ul style="list-style-type: none"> - Interviews, questionnaires or meetings: testimony from stakeholders and proponent. - Physical evidence: none. - Documentation: plan of activities for implementing additional programs; Agreements with partners and other organizations; periodic reports on status of implementation of additional programs.
Competitive Advantage	Evaluates if the Company obtained some economic benefits (cost reduction, offering products or services of low-carbon emission) or image improvements due to the project developing or other actions focus on climate change.	<ul style="list-style-type: none"> - Interviews, questionnaires or meetings: testimony from stakeholders and proponent. - Physical evidence: none. - Documentation: plan of activities for implementing additional programs; Agreements with partners and other organizations; periodic reports on status of implementation of additional programs.

Indicator	1	2	3	4	5	6
Market	Project activities are not eligible for the carbon market.	-	Project activities are eligible for the compliance or voluntary market.	-	-	Project activities are eligible for compliance markets.
Sale of Credits	Uncertainties about the commercialization of the carbon credits for the period.	Carbon credits are being negotiated, with little uncertainty regarding its commercialization.	Price of the credits is below the current market value.	Price of the credits is in accordance with the average market value.	-	Credits with high aggregated value, above the market average.
Costs for the programs	No planning or estimated budgets defined.	Planning or budgets with some significant elements missing.	Comprehensive Planning and estimated budgets, but costs of programs are higher than expected due to problems during implementation or it fails to meet some agreed targets.	Planning or budgets with some gaps, but costs of programs meets the expected targets.	Comprehensive planning and estimated budgets, costs of programs meets the expected targets.	Comprehensive planning and estimated budgets, costs of programs meets the expected targets meets and occasionally exceeds agreed targets.
Competitive Advantage	The organization already had economic or image loss, related to the absence of initiatives to mitigate climate change.	The project had a negative impact on the organization's economic performance or in its image.	The project didn't have a significant impact on organization's economic performance or image improvement.	The project didn't have a significant positive impact on organization's economic performance; however the project makes part of a sustainability strategy of the company.	The project had a positive impact on the organization's economic performance or in its image.	The project is aligned with business strategies related to the offering of sustainable products or services or low carbon emission.

Natural Resource: The stock of natural resources (soil, water, air, etc.) and environmental services (soil protection, maintenance of hydrological cycles, pollution sinks, pest control, pollination, among others), from which resources for livelihoods are derived.

d. NATURAL		
Indicator	Description	Evaluation Methods

Environmental impact of Project	Evaluates if the project resulted in significant environmental impacts due to the use of efficient lighting. Evaluates magnitude of environmental impacts of the project and statements/studies, and maintenance of environmental evaluation procedures.	Interviews, questionnaires or meetings: testimony from local stakeholders and/or regulators. - Physical evidence: i.e. site visit or pictures; Records of stakeholder involvement. - Documentation: Identification of directly affected stakeholders; Agreements with stakeholders and/or regulators; Environmental Impact Study (EIS/ EIR or equivalents) and Mitigation / compensation / enhancement plans or programs if required by local government.
Environmental Legislation	Evaluates the accordance of the project (or the unit where the project takes place) with environmental laws and norms, including agreements with public authorities, such as environmental licenses and requested authorizations for installation, etc.	Interviews, questionnaires or meetings: testimony from local stakeholders. - Physical evidence: none. - Documentation: Environmental licenses and certifications related to the fulfillment of obligations stated by environmental organizations.
Projected waste quantity and environmental consequences (1)	Assesses projected wastes generation (e.g. disposal of CFL/LED and incandescent light bulb) in terms of quantity and environmental consequence. OR Assess the waste management procedures including the organization and coordination of actions and documentation such as monitoring waste quantity, and emissions of periodic report, as well as existence of adequate destination.	- Interviews, questionnaires or meetings: testimony from local stakeholders. - Physical evidence: area used to store or disposal waste. - Documentation: reports, project documentation, related to estimative or destination of waste.
Management costs for waste treatment (1)	Assesses projected wastes generation (e.g. disposal of CFL/LED and incandescent light bulb) in terms of management costs, that may include collection of baseline technology from distribution hubs and/or destruction or recycling of incandescent bulbs	Interviews, questionnaires or meetings: testimony from local stakeholders. - Physical evidence: none. - Documentation: environmental management plans and reports, project documentation, environmental licenses and certifications related to the fulfillment of obligations stated by environmental organizations.

Indicator	1	2	3	4	5	6
Environmental impact of project	Significant negative environmental impacts. OR There is no knowledge.	Not significant relevance of negative environmental impacts.	There are no significant impacts.	Is expected that the project produce some positive impacts, but there is no evidence if benefits are really happening.	Significant positive impacts, however not measured.	Measured and significant positive impacts.
Environmental	There is no knowledge	The project proponent	The project proponent	The project proponent	The project	Besides the previous

Legislation	about the environmental legislation and norms.	knows the legal obligations, but has no environmental license, or it was suspended for not accomplishing the constraints.	has environmental license, but he has difficulties to keep in date with environmental requires. He may present some temporary inconformity.	has environmental license, but with difficulties to accomplish the constraints.	proponent has environmental license according to the constraints and deadline sets.	item, the project proponent has a systematic control of the licensing process and/or control of the environmental legislation of its main suppliers.
Projected waste quantity and environmental consequences	No assessment or knowledge about waste quantity and environmental consequences. OR Absence of management strategy.	Significant projected high hazard waste products. OR Significant gaps in the management strategy.	Moderate projected waste products of higher environmental consequence. OR Minor gaps in the management strategy.	Minor projected waste products of higher environmental consequence. OR Adequate and suitable management strategy (e.g. recycling) only for high hazard waste.	Moderate projected waste products of low environmental consequence. OR Adequate and suitable management strategy (e.g. recycling) for most of the waste.	Minor projected waste products of minor environmental consequence. OR Adequate and suitable management strategy for practically all the waste generated.
Management costs for waste treatment	Very high cost to treat and disposal waste generated by the project activity.	Very high cost to treat and disposal waste generated by the project activity.	Moderate or low cost to treat and disposal waste generated by the project activity.	Moderate cost to treat and disposal waste generated by the project activity.	Moderate cost to treat and disposal waste generated by the project activity.	Low cost to treat and disposal waste generated by the project activity.

Technology Resource: evaluates the conditions of access to new technologies, as well as its contribution to the economic development and diminished impacts to the environment.

e. TECHNOLOGY

Indicator	Description	Evaluation Methods
Transfer of New Technology	Evaluates the level of technological innovation and the technologies employed in the project or regarding operational procedures and maintenance, actions for mitigation of impacts, or other aspects that show a break from the common practice of the sector (e.g. Install and/or maintain a BAS to automatically control key building systems,	Interviews, questionnaires or meetings: testimony from local stakeholders. - Physical evidence: none. - Documentation: registers of the capacity building programs due the implementation of a new technology; agreements for acquisition of the new technology; reports on results in considerable efficiency

	innovation in terms of monitoring and management). The existence of research and development projects (R&D).	gains of the new technology; Researches on new technologies. Note: testimonies from stakeholders are enough to verify the audit evidence for this indicator.
Operations & Maintenance (2)	Assess the ability of the organization in keeping the project on track, regarding four main areas: - transport of CFLs from supply partner - storage and distribution to Households/Buildings - preventive maintenance - monitoring of the project such as electricity Changes in electricity consumption on demand side Note: organizations may consider to adapt this indicator to add other services (e.g. design assistance, installing, energy auditing) or focus on one or more critical areas for your specific project (e.g. monitoring of the project)	- Interviews, questionnaires or meetings: testimony from local stakeholders. - Physical evidence: none. - Documentation: Monitoring reports, Project proponents' asset strategies and plans, documents containing information on the operation of the project and electricity consumption figures; assessments and reports of management system; Information on comparative equipment and system performance; Operational efficiency identification, measurement, and assessment process; Monitoring and analysis program. Note: this indicator should assess the efficiency of the operations and maintenance based on performance of the project and testimony from stakeholders, not necessary to present benchmarking and specific studies on efficiency of the operational system.
Performance of the efficient lighting technologies	Evaluates the performance level of efficient lighting technologies among the public services. This is the continuous operation of the efficient lamps installed within the project and their continuous monitoring. It is specifically important for the satisfactory level of services provided in public buildings.	- Interviews, questionnaires or meetings: testimony from local stakeholders. - Physical evidence: none. - Documentation: Monitoring reports, Project proponents' asset strategies and plans, documents containing information on the operation of the project and electricity consumption figures. Note: testimonies from stakeholders are enough to verify the audit evidence for this indicator.
Product Supply and service providers	Assesses the organization's relationships with major suppliers and service providers (e.g., network service provider). Note: organizations may choose a more specific approach based only on product supply or a broad approach including: Distributors; Designers; Architects; Electrical contractors.	- Interviews, questionnaires or meetings: testimony from stakeholders and suppliers. - Physical evidence: Not required. - Documentation: Contracts and agreements with suppliers.
Selection of suppliers	Measures the organization's consideration of sustainability issues when purchasing goods and services.	- Interviews, questionnaires or meetings: testimony from stakeholders. - Physical evidence: Not required. - Documentation: Supplier / service provider pre-qualification processes; Tender requirements; Evaluation of supplier performance; Purchasing policy and procedures.
Quality of CFLs/LEDs	Assess if the technologies featured in a program are selected considering its: - Performance, reliability, and quality	- Interviews, questionnaires or meetings: testimony from stakeholders. - Physical evidence: Certification and Quality labels.

	- the highest efficiency or most cost-effective products	- Documentation: Some programs list eligible products by model number while others by specification and performance criteria; assessments on product 's quality and performance.
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Indicator	1	2	3	4	5	6
Transfer of New Technology	The project does not promote transfer of new technology.	Technology transfer is restricted to building capacity of employees involved in project activities.	The project has some technological or process innovation.	Technological innovation results in considerable efficiency gains and reduced environmental impacts.	R&D projects are conducted.	Results of the R&D projects are incorporated in operational activities and/or the project has royalties and/or technological licenses.
Operations & Maintenance	Significantly inefficient operations in practically all areas impacting the performance of the project. AND No action taken to improve Operations & Maintenance in this monitoring period.	Significant gaps in operation, impacting the performance of the project. AND Little progress in improving Operations & Maintenance in this monitoring period.	Some gaps in operation, impacting the performance of the project. AND Little progress in improving Operations & Maintenance in this monitoring period.	Some gaps in operation, impacting the performance of the project. AND Organization has specific goals and planning to improve Operations & Maintenance in this monitoring period.	Efficient operations with minor impact on performance of the project.	The project proponent has clear evidence that operation and maintenance activities are efficient, with no significant impact on performance.
Performance of the efficient lighting technologies	No actions were taken.	Efficient lighting technologies actions are on planning stage with high uncertainty that performance level can be achieved.	Performance management actions are in place, but there is high need of corrective actions or deviations in the plan of activities so that goals of the project can be achieved.	Actions were held successfully, but with limited impacts on technology improvement were observed.	Actions were held successfully that had positive influence on technology improvement.	Actions were held which show positive results and improve technology.
Product supply and service providers	Limited number of suppliers (e.g. only one manufacturer for main products/lamps). Organization has poor relationships with	Limited number of suppliers. Organization has variable relationships with major suppliers and service providers.	Limited number of suppliers. Organization has strong relationships with nearly all major suppliers and service	Good number of suppliers (e.g. more than one and enough to supply demand). Organization has poor relationships with	Good number of suppliers. Organization has variable relationships with major suppliers and service providers.	Good number of suppliers. Organization has strong relationships with nearly all major suppliers and service

	nearly all major suppliers and service providers. Likelihood that these could compromise the project.	Likelihood that these represent significant risks the project.	providers. Moderate degree of uncertainty about the risks posed to the project.	nearly all major suppliers and service providers. Moderate or low degree of uncertainty about the risks posed to the project.	Good degree of confidence that these will not pose a threat to the project.	providers. Good degree of confidence that these will not pose a threat to the project.
Selection of suppliers	Suppliers are selected only by price and delivery, without considering other requirements.	Additional requirements exist, but no sustainability considerations in the goods and service provider assessment and selection process.	Sustainability requirements exist, but major gaps in goods and service provider assessment and selection process.	Sustainability requirements exist, but some gaps in goods and service provider assessment and selection process.	Sustainability requirements exist, and most suppliers and service providers have comprehensive to good sustainability performance.	Comprehensive goods and service provider assessment and selection process. Suppliers and service providers have comprehensive sustainability performance.
Quality of the CFLs/LEDs	No assessment of the quality of the lamps.	Very poor quality lamps and associated performance (including if motivated by limited financial resources or limited supply of quality lamps in the market.	Satisfactory quality lamps and associated performance, with some eventual acquisition of poor quality lamps.	Satisfactory quality lamps and associated performance.	High quality lamps with high performance, but limiting customer choice.	High quality lamps with high performance.

Carbon Resource: The type of carbon project developed, encompassing the methodologies utilized and project performance.

f. CARBON

Indicator	Description	Evaluation Methods
Emission Reductions Calculations & Monitoring	Evaluates the methodologies used to calculate the greenhouse gases emission reductions; the monitoring; and in compliance with national and international standards.	Interviews, questionnaires or meetings: testimony from proponent. - Physical evidence: none. - Documentation: PDD & Verification Report
Validation & Verification	Evaluates the existence of partial or total validation/verification of the project by a third part and if the validation and verification procedures are in accordance with the national and international standards.	Interviews, questionnaires or meetings: testimony from proponent. - Physical evidence: none. - Documentation: PDD & Verification Report

Project Performance	Evaluates the project performance comparing the GHG emission reductions estimated in the PDD- Project Design Document and in the monitoring report - MR.	Interviews, questionnaires or meetings: testimony from proponent. - Physical evidence: none. - Documentation: PDD & Verification Report
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Indicator	1	2	3	4	5	6
Emission Reductions Calculations & Monitoring	Absence of a specific methodology to calculate the emission reductions AND/OR It does not have a monitoring plan, nor has only a partial or insufficient monitoring.	It has an emission reductions calculation methodology limited to the project portions.	There are some doubts about the methodology consistence for calculation of the base line and monitoring plan.	It possesses a consistent methodology to calculate the emission reduction. AND It possesses a consistent monitoring plan, approaching all the dimensions of the project.	In addition to the last item, the methodology of the base line and the monitoring plans are based in international recognized standards.	It possesses a methodology to calculate the emission reductions, and a monitoring plan based on approved methodology
Validation & Verification	There is no validation or verification done by a third part.	Validation/verification of the project is conducted by an independent third party that is not registered by the UNFCCC (DOE*).	Validation and verification by a DOE is limited to parts of the project.	Validation/ verification are conducted by a Designated Operational Entity but don't follow any Internationally recognized procedures.	Validation/ verification are conducted by a Designated Operational Entity Following nationally/ internationally recognized procedures.	Validation/ Verification are done by a Designated Operational Entity, based on international recognized procedures.
Project Performance	Not successful. 0% of the carbon credits predicted in the period were effectively generated.	Very Low. From 01% to 25% of the carbon credits predicted by the period were effectively generated.	Low. From 26% to 50% of the carbon credits predicted by the period were effectively generated.	Reasonable: From 51% to 75% of the carbon credits predicted by the period were effectively generated.	Good: From 76% and 95% of the carbon credits predicted by the period were effectively generated.	Excellent: More than 95% of the carbon credits predicted by the period were effectively generated.

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