



**Sri Lanka**  
**National Energy Efficiency Award 2012**

**Award for Excellence in Energy Conservation and Management**

**Guide Book**



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- Baldrige National Quality Programme (BNQP)** conducted by National Institute of Standards & Quality (NIST) of **USA**
- Sri Lanka National Quality Award (SLNQA)** conducted by Sri Lanka Standard Institute (SLSI)
- National Energy Conservation Award** conducted by Bureau of Energy Efficiency of **India**
- The **National Energy Efficiency Award** of **UK** conducted by UK Centre for Economic and Environmental Development (CEED)
- Stockholm Junior Water Prize (SJWP)** conducted by Stockholm International Water Institute (SIWI) on behalf of Stockholm Water Foundation (SWF), **Sweden**
- The **Deming Prize** conducted by Union of Japanese Scientists and Engineers (JUSE), **Japan**
- Japan's **Energy Conservation Grand Prize**
- Stars of Energy Efficiency Award** of **USA**
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# Chapter

# 1

## INTRODUCTION & GENERAL GUIDE

### Sri Lanka National Energy Efficiency Award (SLNEEA)

#### *Award for Excellence in Energy Conservation and Management*

#### 1.1 Sri Lanka Sustainable Energy Authority

Sri Lanka Sustainable Energy Authority (SLSEA) established under the Act No.35 of 2007 of Democratic Socialist Republic of Sri Lanka functions under the purview of the Ministry of Power & Energy. SLSEA has the **Vision** to make an energy secure Sri Lanka and functions with the **Mission** to guide the nation in all its efforts to develop indigenous energy resources and conserve energy resources through exploration, facilitation, research & development and knowledge management in the journey of national development by protecting natural, human and economic wealth by embracing best sustainability practices.

In the journey towards an energy secure Sri Lanka, SLSEA has set three primary goals, viz; all citizens to have access to modern energy services by 2015, 10% of all energy forms generated from non-conventional renewable energy resources by 2015 across all areas including electricity, transport and domestic sectors, and to manage the energy intensity of economy at 500toe/XDRM even in 2020 while keeping the economic development of Sri Lanka in focus in anticipation of a strong industrial growth.

#### 1.2 Sri Lanka National Energy Efficiency Award (SLNEEA)

The Sri Lanka National Energy Efficiency Awards competition is the annual national event conducted by the SLSEA for private and public sector institutions with the aim of recognizing their contribution towards an energy secure Sri Lanka.

Through this programme, SLSEA envisages prompting energy users to embrace many energy efficiency improvement opportunities, made available to them by the SLSEA or by various other sources.

The specific objective of this award is to bestow national recognition to the energy consumers in the sub sectors of manufacturing, services, and healthcare who have made systematic and serious attempts for efficient utilization, conservation and management of energy and have achieved substantial results/benefits during a period under review.

Through this award, it is expected to promote awareness of energy efficiency among energy consumers as an increasingly important element in competitiveness, understanding of the requirements for excellence in energy conservation and management, and sharing of information on successful energy saving measures and the benefits derived from implementation of such measures.

Furthermore, the awards showcase the successful implementation of innovative, cost effective and transferable energy efficiency measures across a range of categories. They cover the full range of energy users, including large and small companies and the public sector.

### 1.3 Purpose of the Guide Book

The purpose of this Guide Book is to provide the necessary application forms, questionnaires, instructions and guidelines for those entities who wish to apply for the SLNEEA. Detailed information is provided on the Award Application Process. Information on the fees and key dates in the award cycle is also given. It also includes the energy efficiency criteria, the award examination and the scoring system, scoring guidelines and the basis for submitting an award application. Organizations could use the check list for self-assessment of their energy efficiency status and other energy management and conservation purposes.

### 1.4 Applicant

An applicant for SLNEEA is a separate business entity functioning in certain physical boundaries. Even if the organization is a unit or subsidiary of a group of companies, the unit/ subsidiary need to apply as a separate applicant. When there are number of units or subsidiaries of a group of companies applying for SLNEEA those will be treated as separate applicants.

### 1.5 Application Requirements

Potential applicants must establish their eligibility in one of the award categories (*see Section 1.5 below*).

*Note: As the part of the eligibility determination process, potential applicants must be able to demonstrate that they existed as an organizational unit three (03) years prior to the award application.*

As the initial step, applicants need to submit a completed Energy Efficiency Check List (*see Chapter 5*) and Application Form (*see Chapter 6*) for eligibility establishment no later than the specified date in the award cycle calendar (*see Chapter 4*), to SLSEA.


Eligible applicants need to submit a completed Energy Efficiency Questionnaire (*see Chapter 7*) no later than the specified dates in the award cycle calendar (*see Chapter 4*), to SLSEA.

To be accepted into the eligibility establishment and thereafter into the application review process, applicants must provide two (02) copies of the completed documents.


### 1.6 Eligibility Criteria of Applicants & Award Categories

There are fifteen (15) eligibility categories of the award. Any entity located in Sri Lanka for a minimum period of three (03) years prior to the application date may apply for the award. Eligibility for the award is intended to be as open as possible to all entities. Eligibility restrictions and conditions ensure fairness and consistency in definition. State sector or state owned entities, publicly or privately owned, domestic or foreign-owned, joint ventures, incorporated firms, sole proprietorships, partnerships, and holding companies may apply. Award eligibility requirements of three sectors are as follows;


#### Manufacturing

	<p>Entities or subsidiaries (defined in Section 1.19 on page7) that produce and sell manufactured products or manufacturing processes and those entities that produce agricultural or construction products. {See <i>industrial Classification System (ICS) Codes on page 56</i>}.</p>
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**Services**

	<p>Entities or subsidiaries (defined in Section 1.19 on page7) that sell services other than healthcare (see ICS Codes on page 56). <i>Note: Proper classification of companies that perform both manufacturing and service is determined by the large percentage of sales.</i></p>
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**Health Care**

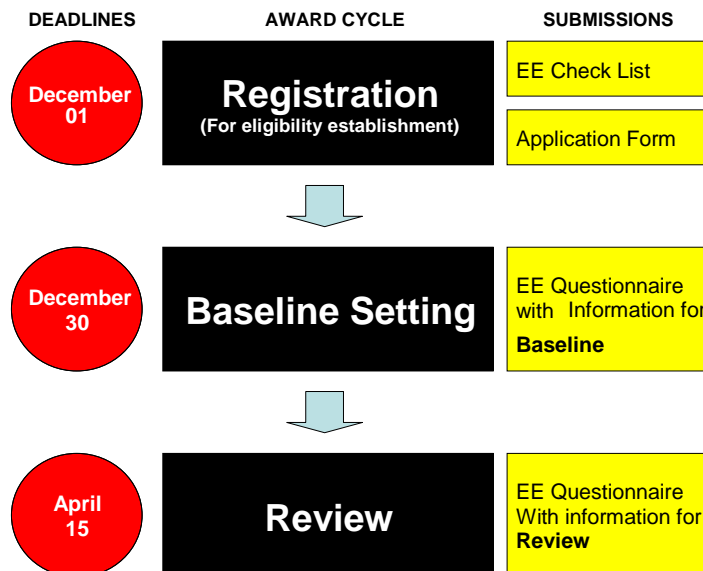
	<p>Entities involved in the service process of health care and related activities are eligible. Eligibility is open to state sector or state owned entities, public, private and foreign organizations - that are located in Sri Lanka. These entities must be engaged primarily in providing medical, surgical, or other health care services directly to people. For example, eligible organizations include hospitals, health maintenance organizations, long-term care facilities, health care practitioners' offices, home health agencies and ambulatory surgery centers.</p>
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SECTOR		LARGE	MEDIUM	SMALL
Manufacturing		√	√	√
Services	Hotels	√	√	√
	Commercial buildings	√	√	√
	State sector office buildings	√	√	√
Health care		√	√	√

Award categories include the sectors of **manufacturing**, **services** and **health care**. Each sector is categorized as **large**, **medium** and **small** scale. Service sector shall be further subdivided into three sub categories, viz., **hotels**, **commercial buildings** and **public sector office buildings**.

**1.7 Award Cycle**

Depicted below is the award cycle for the applicants with documents to be submitted along with applicable deadlines.



Award cycle commences with the registration of applicants. The purpose of registration is to establish the eligibility of applicants for the awards for which they are expected to submit two documents; Energy Efficiency Checklist (see Chapter 5) and the Application Form (see Chapter 6) before 01<sup>st</sup> December 2011.

All registered applicants shall be notified in writing of their eligibility (or otherwise with reasons for non-eligibility) by SLSEA within two weeks of the deadline for registration. Eligible applicants could proceed to the next stage; initially the baseline setting followed by the review.

Those applicants who participate in the commencement year of the SLNEEA or the new applicants in subsequent years are required to submit the Energy Efficiency Questionnaire (see Chapter 7) twice; initially for the baseline setting along with the applicable review fee (Section 1.8 on page 4) before 30<sup>th</sup> December of the same year and thereafter for the final review before 15<sup>th</sup> April of the following year. All relevant evidence documents are required to submit along with baseline and review EE questionnaires. A period of six months is allowed between the baseline and review stage enabling the applicants to be prepared with a comprehensive energy efficiency programme in their facilities. Information provided at the baseline stage shall be treated as the reference for evaluations. Therefore, repeat applicants (Repeat applicants are the ones continue to apply for the award once their eligibility is established in their first year of application) for the award in subsequent years are required to submit a fresh Energy Efficiency Questionnaire only at the review stage.

## 1.8 Awards

The SLNEEA is a national level annual award and the responsibility for the award is assigned to SLSEA. Applications are called annually and the applicant organizations are assessed against well defined criteria (see Chapter 2) and select the award winners.

The award scheme has been formulated to comply with the theme, "the improvement of energy management within the organization should be a result of a self-motivated effort influenced by the competitive advantage and positive image bestowed by the SLNEEA to the organization".

The awards are considered in fifteen (15) categories i.e. three (03) scales in seven (07) sectors including the above mentioned sub sectors of manufacturing and service sectors.

The award has following eligibility categories:

- Large scale Manufacturing/Service/Health Care organizations with monthly energy bill of more than LKR 1,000,000/=.
- Medium scale Manufacturing/Service/Health Care organizations with monthly energy bill ranging from LKR 250,000/= to LKR 1,000,000/=.
- Small scale Manufacturing/Service/Health Care organizations with monthly energy bill of less than LKR 250,000/=.

Award may be given in each category each year if substantiate submissions are made in respective categories. Award recipients receive a Trophy and a Certificate. In addition to **Award Winners, Merit Certificates** recipients may also be selected. Award recipients may publicize and advertise their awards. In addition to publicizing the receipt of the award, recipients are expected to share information about their successful energy conservation and management measures with other Sri Lankan organizations.

The awards will be presented at a national ceremony.

## 1.9 Registration & Application Fees (Not Applicable for 2012)

Registration fee for the establishment of the eligibility is LKR 5,000/= which is non refundable.

Application fees for the award are as follows for Manufacturing / Service / Health Care sectors;

- Large LKR 45,000/=
- Medium LKR 30,000/=
- Small LKR 15,000/=

Eligible applicants shall be notified and be requested to pay the relevant application fee upon review of the Application Forms by SLSEA for the eligibility of applicants.

### 1.10 Award Ceremony

Award will be presented by H E the President of Sri Lanka at a ceremony held at the Bandaranaike Memorial International Conference Hall (BMICH).

Details of the winners will appear in a special supplement being published in national newspapers on a day after the award ceremony.

### 1.11 The Award Examination

The award examination is based upon energy conservation and energy management excellence criteria. In responding to these criteria, each applicant is expected to provide information and data on the entity's energy efficiency processes and results through the Energy Efficiency Questionnaire (see Chapter 7). Information and data submitted must be adequate to demonstrate that the applicant's approaches could be replicated or adapted by other entities.

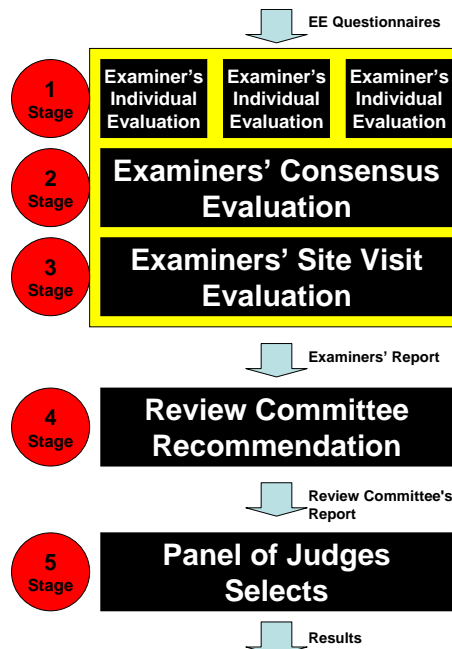
The award examination is designed not only to serve as a reliable basis for making awards but also to permit a diagnosis of each applicant's overall energy efficiency status.

### 1.12 Application Review

Applications are reviewed and evaluated by members of the **Board of Examiners, Review Committee** and the **Panel of Judges** in a five-stage process.

Examiners are assigned from the Board of Examiners to evaluate applications taking into account the nature of the applicants' businesses and the expertise of the Examiners. Assignments are made in accordance with strict rules regarding conflict of interest.

Five-stage evaluation and review process are as follows;



**(I) First Stage - Individual Evaluation**

An evaluation of the Energy Efficiency Questionnaire is conducted independently and individually by at least three members of the Board of Examiners and scores are allocated.

**(II) Second Stage - Consensus Evaluation**

Scores allocated at the first stage are critically reviewed by the examiners as a team and arrive at a consensus score. At the conclusion of the second stage review, the team determines whether the applicant should receive site visits.

**(III) Third Stage - Site Visit Evaluation**

The team led by a Senior Examiner (Team Leader) conducts an on-site evaluation to verify and clarify the contents of the Energy Efficiency Questionnaire and adjust the scores, as appropriate, given in the stage 2. Then the team develops a report to be submitted to the Review Committee.

*Note: The highest scoring candidates for the award undergo site visits by members of the Board of Examiners. The primary objective of site visits are to verify the information provided in the Energy Efficiency Questionnaire and to clarify issues and questions raised during review of the report. Site visits consist primarily of interviews by examiner team and team reviews of pertinent records and data. Applicants are permitted to make an introductory presentation.*

**(IV) Fourth Stage - Review Committee**

The report generated at the end of the third stage and the scores are reviewed by a Review Committee and make recommendations to the Panel of Judges.

**(V) Fifth Stage - Panel of Judges Selects**

The Panel of Judges reviews the recommendations made at the end of the fourth stage and selects the Award Winners and Merit Certificate recipients.

**1.13 Board of Examiners**

A Team of Examiners who is nominated from the Board of Examiners evaluates an Energy Efficiency Questionnaire received by SLSEA, makes recommendations to the Review Committee and prepares feedback reports. The Board of Examiners consists of energy conservation and management experts primarily from the SLSEA, and also from private and public sectors. Examiners are selected by SEA through a competitive application process and they are expected to have followed a comprehensive energy audit training programme accepted to SLSEA and possess over 5 years of related experience.

The Review Committee consists of members from SLSEA including Director General and Deputy Directors General and also personnel from private and public sector organizations who are recognized as experts in energy conservation and management.

The Panel of Judges is chaired by a retired Judge of the Supreme Court or the Court of Appeal. The other members are the Chairman, Director General and Deputy Directors General of SLSEA, Secretary to the Ministry of Power & Energy and the Secretaries of several other Ministries, and the President of Federation of Chamber of Commerce and Industries of Sri Lanka and Chairman of the Ceylon Chamber of Commerce.

Having evaluated and given scores for an Energy Efficiency Questionnaire, the Leader of the each examining team makes a presentation before the Review Committee with their observations and recommendations. Having reviewed the observations, scores obtained and recommendations made by the Team Leaders, the Review Committee makes its recommendations to the Panel of Judges.

## 1.14 Steering Committee

The management of SLSEA has the discretion to set up a Steering Committee consisting of competent and skilled personnel for the administration of SLNEEA and to drive the entire award process while demonstrating a high degree of professionalism from the inception.

## 1.15 Role Model Determination

The SLSEA is responsible for determining that a candidate would be an appropriate role model and therefore should be approved as an award winner. The purpose of this determination is to help ensure that the awards integrity is preserved.

## 1.16 Feedback to Applicants

All applicants will receive feedback reports at the conclusion of the review process commenting on their strengths and areas for improvement. The feedback is based upon the applicant's responses to the energy conservation and energy management excellence criteria.

The team of examiners prepares a feedback report and submits to the applicant. Applicants could use the feedback reports as a guidance document in their future energy conservation and management activities.

## 1.17 Award Recipients' Responsibilities and Contributions

Award recipients are required to share information on their successful performance with other Sri Lankan organizations. However, recipients are not required to share proprietary information, even if such information was part of their Energy Efficiency Questionnaire. The principal mechanism for sharing information is the Quest for Excellence in Energy Efficiency Conference.

## 1.18 Quest for Excellence in Energy Efficiency Conference

Quest for Excellence in Energy Efficiency, the official conference of the National Energy Efficiency Award, provides a forum for SLNEEA recipients to share their exceptional performance and practices with other organizations. Quest for Excellence in Energy Efficiency will showcase the sublime features of the award recipients and will provide learning points for future aspirants.

Participants will have the opportunity to ask questions from the award recipients. This one day conference is designed to maximize learning and networking opportunities.

## 1.19 Subsidiaries

For purposes of the SLNEEA application, a subsidiary will be taken to mean an actual subsidiary, business unit, division, or like organization. In the Manufacturing Healthcare and Service categories, subsidiaries of a company are eligible for the award. The following application conditions apply for subsidiary units;

- The subsidiary must have existed three (03) years prior to the award application date.
- The subsidiary must have a clear definition of organization as reflected in corporate literature, e.g. Organization charts, administrative manuals, and annual reports. That is the unit must function as a business entity, not as a collection of activities aggregated for purpose of writing an award application.

## **1.20 Future Eligibility for Re-awards**

There is no restriction whatsoever for award winning organizations to re-apply for awards in subsequent years as the evaluation is mainly based on the incremental improvement of specific energy consumption with respect to the baseline conditions established. However, evaluation criteria and the scoring system have been designed in such a way that due consideration will be given to past energy efficiency performance too.

## **1.21 Non-Disclosure**

Names of applicants, individual applications, commentary, and scoring information developed during the review of applications and questionnaires are regarded as proprietary and are kept confidential. Such information is available only to those individuals directly involved in the evaluation and application distribution processes. Board of Examiners are assigned to applications following strict conflict of interest rules and receive no information regarding the content or status of applications to which they are not assigned. Even after the completion of the evaluation process, the names of the applicants will not be disclosed unless they win an award or a merit certificate.

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# Chapter 2

## EVALUATION CRITERIA

### Sri Lanka National Energy Efficiency Award (SLNEEA) Award for Excellence in Energy Conservation and Management

#### 2.1 Rationale

The evaluation criteria have been formulated to comply with the underlying theme of the award scheme, "the improvement of energy management within the organization should be a result of a self-motivated effort influenced by the competitive advantage and positive image bestowed by the SLNEEA to the organization". The purpose of evaluation criteria is not only to serve as a reliable basis for making awards but also to permit a diagnosis of each applicant's overall energy efficiency status.

Criteria	Score					
1 Management Commitments	100	Energy Policy	Energy Conservation Cell	500		
		Energy Manager	Energy Audits			
2 Employee Awareness & Training	100	Systematic Training	Knowledge Enhancement		500	
		In Energy Efficiency	In Renewable Energy			
3 Financial Commitments (Investments)	100	Energy Performance	Trends			500
		Comparisons (Bench marking)	Integration with other systems			
4 Planning, Monitoring, Evaluation & Reporting	200	Electrical Thermal	New Projects / Innovations			
		Biomass Solar, Wind	Biogas & Other Cleaner E sources			
5 Energy performance (EE Improvements – SEC reduction)	400	Quality Enhancements	Reduced Rejection	500		
		Waste reduction	Customer Satisfaction & Green Image			
6 Increase of Renewable Energy Share in Energy Source Portfolio	50				500	
7 Outcomes (Non -energy)	50					500

#### 2.2 Criteria

Seven elements evaluation criterion is broadly classified into "Process" and "Results". "Process" consisting of 4 criteria refers to the methods an organization adopts in implementing energy efficiency programmes.

The four criteria of the process are;

1. Management commitment towards energy efficiency - Understanding the importance of energy efficiency for the organization's competitive advantage and positive image and transforming this understanding to a workable programme by way of establishing an energy efficiency policy, assigning priorities to energy efficiency projects, allocating resources, carrying out regular energy audits, etc.
2. Employee awareness & training on energy efficiency - Quantity and the quality of manpower which means deploying adequate number of people, enhancing their competencies by training them on energy efficiency, making all employees aware on the importance and best practices of energy efficiency, etc.
3. Financial commitments for energy efficiency & renewable energy projects – Investments made on energy efficiency improvements, energy conservations, and renewable energy sources.
4. Planning, monitoring, evaluation & reporting of energy efficiency & renewable energy projects – Energy performance monitoring, monitoring the trend with historical data, comparison of energy performance with similar entities or competitors (internal and external benchmarking), target setting and integration energy efficiency with other performance systems such as safety, environment, etc.

"Results" consisting of 3 criteria refers to the organization's 'outputs' and 'outcomes' in achieving energy efficiency. The three criteria of the results are;

5. Energy performance in terms of improved energy efficiency & reduction of specific energy consumption – Through general house keeping measures, best practices, retrofitting inefficient equipment and new projects in the usage of electrical as well as thermal energy.
6. Increase of Renewable Energy share in energy source portfolio – Use of renewable energy such as solar, wind, hydro, biomass, biogas and other cleaner energy sources and gradual reduction of dependence on non-renewable energy sources.
7. Non-energy outcomes as a result of improved energy efficiency – Enhanced competitiveness through customer satisfaction due to enhanced quality of products or service, reduced rejection, waste reduction and green image.

Of three criteria of results, No 5 and 6 are treated as outputs while No 7 is treated as the outcome.

## 2.3 Rationale for Score Allocation

In view of equal importance of process and results, equal scores amounting to 500 each has been assigned which makes the total score of 1000. Justification is that if the process is not prudent, satisfactory results are unlikely. On the other hand, the process is of little use if the desired results cannot be realized.

In process criteria, equal scores amounting to 100 each has been assigned to first 3 criteria while the 4<sup>th</sup> criteria has been assigned with 200 score in view of its relative importance. Planning, monitoring, evaluation & reporting of energy efficiency & renewable energy projects are considered as the key to success in energy efficiency.

In results criteria, equal scores amounting to 50 each has been assigned to last 2 criteria while the 5<sup>th</sup> criteria has been assigned with 400 score in view of its much greater importance. This is the highest score assigned as it is the most important criteria of all. Justification is that while the increase of Renewable Energy share in energy source portfolio and Non-energy outcomes as a result of improved energy efficiency need to be duly acknowledged, they should not be over emphasized at the introduction stage of the award. However, SLSEA could assign different scores in future when priorities are changed.

## 2.4 Energy Efficiency Questionnaire

Energy Efficiency Questionnaire (see Chapter 7) has been designed by taking the evaluation criteria described before as the basis and with the objective of obtaining the sufficient information of applicants on their energy efficiency projects and programmes enabling the Board of Examiners to conduct a rigorous evaluation.

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# Chapter

# 3

## SCORING SYSTEM

### Sri Lanka National Energy Efficiency Award (SLNEEA) *Award for Excellence in Energy Conservation and Management*

The scoring of responses to Criteria and award applicant feedback are based on two evaluation dimensions: (1) Process and (2) Results. Award applicants need to furnish information along with the evidence documents relating to these dimensions. Specific factors for these dimensions are described below. Scoring guidelines are given on pages 15 & 16.

#### 3.1 Process

"Process" refers to the methods your organization uses and improves to address the Criteria 1 - 4. The four factors used to evaluate process are Approach, Deployment, Learning, and Integration (ADLI).

"Approach" refers to

- the methods used to accomplish the process
- the appropriateness of the methods to the criteria
- the effectiveness of the use of the methods
- the degree to which the approach is repeatable and based on reliable data and information (i.e., systematic)

"Deployment" refers to the extent to which

- the approach is applied in addressing criteria relevant and important to your organization
- the approach is applied consistently
- the approach is used by all appropriate areas or work units

"Learning" refers to

- refining the approach through cycles of evaluation and improvement
- encouraging breakthrough change to the approach through innovation
- sharing refinements and innovations with other relevant work units and processes in the organization

"Integration" refers to the extent to which

- the approach is aligned with the organizational needs in other Process Criteria
- the measures, information, and improvement systems are complementary across processes and work units
- the plans, processes, results, analyses, learning, and actions are harmonized across processes and work units to support organization-wide goals

## 3.2 Results

"Results" refers to the organization's 'outputs' and 'outcomes' in achieving the Criteria 5 - 7. The four factors used to evaluate results are Levels, Trends, Comparisons, and Integration (LeTCI).

"Levels" refers to

- the current level of energy efficiency performance

"Trends" refers to

- the rate of the energy efficiency performance improvements or the sustainability of good energy efficiency performance (i.e., the slope of trend data)
- the breadth (i.e., the extent of deployment) of the energy efficiency performance results

"Comparisons" refers to

- the energy efficiency performance relative to appropriate comparisons, such as competitors or similar organizations
- the energy efficiency performance relative to benchmarks or industry leaders

"Integration" refers to the extent to which

- the results measures address important customer, product and service, market, process, and action plan of energy efficiency performance requirements identified in the Results Criteria
- the results include valid indicators of future energy efficiency performance
- the results are harmonized across processes and work units to support organization-wide goals

## 3.3 Criteria Classification and Scoring Dimensions

Criteria are classified according to the kinds of information and data expected to furnish relative to the two evaluation dimensions given above.

The two types of Criteria are designated as

- |   |         |
|---|---------|
| 1 | Process |
| 2 | Results |

In Process Criteria, Approach, Deployment, Learning, and Integration are linked to emphasize that descriptions of approach should always indicate the deployment-consistent with the specific requirements of the Criterion. As processes mature, their description also should indicate how cycles of learning (including innovation), as well as integration with other processes and work units, occur. Although the ADLI factors are linked, feedback to award applicants reflects strengths and opportunities for improvement in any or all of these factors.

Results Criteria call for data showing energy efficiency performance Levels, Trends, and relevant Comparisons for key measures and indicators of organizational energy efficiency performance, and Integration with key organizational requirements. Results Criteria also call for data on the breadth of the energy efficiency performance results reported. This is directly related to deployment and organizational learning; if improvement processes are widely shared and deployed, there should be corresponding results. A score for a Results Criterion is thus a composite based on overall energy efficiency performance, taking into account the four results factors (LeTCI).

### 3.4 Importance as a Scoring Consideration

The two evaluation dimensions described previously are central to evaluation and feedback. A critical consideration in evaluation and feedback is important for the reported processes and results.

### 3.5 Assignment of Scores to the Responses

The following guidelines should be observed in assigning scores to Criteria responses.

- All areas to address should be included in the Criteria response. Also responses should reflect what is important to the organization.
- In assigning a score to a Criterion, first decide which scoring range (e.g. 50 percent to 65 percent) is more descriptive of the organization's achievement level as presented in the Criterion response. "Most descriptive of the organization's achievement level" can include some gaps in one or more of the ADLI (Process) factors or the LeTCI (Results) factors for the chosen scoring range. An organization's achievement level is based on a holistic view of either 4 processes or 4 results factors in aggregate and not on a tallying or averaging of independent assessment against each of the 4 factors. Assigning the actual score within the chosen range requires evaluating whether the Criterion response is closer to statement in the next higher or next lower scoring range.
- A Process Criterion score of 50 percent represents an approach that meets the overall requirements of the Criterion, that is deployed consistently and to most work units, that has been through some cycles of improvement and learning, and addresses the key organizational needs. Higher scores reflect greater achievement, demonstrated by broader deployment, significant organizational learning, and increased integration.
- A Results Criterion score of 50 percent represents a clear indication of good level of energy efficiency performance, beneficial trends, and appropriate comparative data for the results areas covered in the Criterion and important to the organization's business or mission. Higher scores reflect better trends and levels of energy efficiency performance, and broader coverage and integration with the requirements of the business or mission.

### 3.6 Scoring Guidelines

For use with Criteria 1- 4

Score	Process
0% or 5%	<ul style="list-style-type: none"> <li>• No systematic approach to Process Criterion is evident; information is anecdotal (A)</li> <li>• Little or no deployment of any systematic approach is evident (D)</li> <li>• An improvement orientation is not evident; improvement is achieved through reacting to problems (L)</li> <li>• No organizational alignment is evident; individual areas or work units operate independently (I)</li> </ul>
10%, 15%, 20%, or 25%	<ul style="list-style-type: none"> <li>• The beginning of a systematic approach to the basic requirements of the Process Criterion is evident (A)</li> <li>• The approach is in the early stage of deployment in most areas or work units, inhibiting progress in achieving the basis requirements of the Process Criterion (D)</li> <li>• Early stages of transition from reacting to problems to a general improvement orientation are evident (L)</li> <li>• The approach is aligned with other areas or work units largely through joint problem solving (I)</li> </ul>
30%, 35%, 40%, or 45%	<ul style="list-style-type: none"> <li>• An effective, systematic approach, responsive to the basic requirements of the Process Criterion is evident (A)</li> <li>• The approach is deployed, although some areas or work units are in the early stage of deployment (D)</li> <li>• The beginning of systematic approach to evaluation and improvement is evident (L)</li> <li>• The approach is in the early stage of alignment with the basic organizational needs identified in response to the Process Criteria (I)</li> </ul>
50%, 55%, 60%, or 65%	<ul style="list-style-type: none"> <li>• An effective, systematic approach, responsive to the overall requirements of the Process Criterion is evident (A)</li> <li>• The approach is well deployed, although deployment may vary in some areas or work units (D)</li> <li>• A fact based, systematic evaluation and improvement and some organizational learning, including innovation, are in place for improving the efficiency and effectiveness of the Process Criterion (L)</li> <li>• The approach is aligned with the organizational needs identified in response to the Process Criteria (I)</li> </ul>
70%, 75%, 80%, or 85%	<ul style="list-style-type: none"> <li>• An effective, systematic approach, responsive to the multiple requirements of the Process Criterion is evident (A)</li> <li>• The approach is well deployed, with no significant gaps (D)</li> <li>• A fact based, systematic evaluation and improvement and organizational learning, including innovation, are key management tools; there is a clear evidence of refinement as a result of organizational-level analysis and sharing (L)</li> <li>• The approach is integrated with the organizational needs identified in response to the Process Criteria (I)</li> </ul>
90%, 95%, or 100%	<ul style="list-style-type: none"> <li>• An effective, systematic approach, fully responsive to the multiple requirements of the Process Criterion is evident (A)</li> <li>• The approach is fully deployed without significant weaknesses or gaps in any area or work units (D)</li> <li>• A fact based, systematic evaluation and improvement and organizational learning through innovation are key organization-wide tools; refinement and innovation, backed by analysis and sharing, are evident through out the organization (L)</li> <li>• The approach is well integrated with the organizational needs identified in response to the Process Criteria (I)</li> </ul>

### 3.7 Scoring Guidelines

For use with Criteria 5 - 7

Score	Results
0% or 5%	<ul style="list-style-type: none"> <li>• There are no energy efficiency performance results and/or poor results in areas reported (Le)</li> <li>• Trend data either are not reported or show mainly adverse trends (T)</li> <li>• Comparative information is not reported (C)</li> <li>• Results are not reported for any areas of importance to the accomplishment of the organization's mission (I)</li> </ul>
10%, 15%, 20%, or 25%	<ul style="list-style-type: none"> <li>• A few energy efficiency performance results are reported, and early good energy efficiency performance levels are evident in a few areas (Le)</li> <li>• Some trend data are reported, with some adverse trends evident (T)</li> <li>• Little or no comparative information is reported (C)</li> <li>• Results are reported for a few areas of importance to the accomplishment of the organization's mission (I)</li> </ul>
30%, 35%, 40%, or 45%	<ul style="list-style-type: none"> <li>• Good energy efficiency performance levels are reported for some areas of importance to the Results Criterion (Le)</li> <li>• Some trend data are reported, and the majority of the trends presented are beneficial (T)</li> <li>• Early stages of obtaining comparative information are evident (C)</li> <li>• Results are reported for many areas of importance to the accomplishment of the organization's mission (I)</li> </ul>
50%, 55%, 60%, or 65%	<ul style="list-style-type: none"> <li>• Good energy efficiency performance levels are reported for most areas of importance to the Results Criterion (Le)</li> <li>• Beneficial trends are evident to the accomplishment of the organization's mission (T)</li> <li>• Some current energy efficiency performance levels have been evaluated against relevant comparisons and/or benchmarks and show areas of good relative energy efficiency performance (C)</li> <li>• Energy efficiency performance results are reported for most areas of importance to the accomplishment of the organization's mission (I)</li> </ul>
70%, 75%, 80%, or 85%	<ul style="list-style-type: none"> <li>• Good to excellent energy efficiency performance levels are reported for most areas of importance to the Results Criterion (Le)</li> <li>• Beneficial trends have been sustained over a time in most areas of importance to the accomplishment of the organization's mission (T)</li> <li>• Many to most trends and current energy efficiency performance levels have been evaluated against relevant comparisons and/or benchmarks and show areas of leadership and very good relative energy efficiency performance (C)</li> <li>• Energy efficiency performance results are reported for most areas of importance to the accomplishment of the organization's mission and they include some projections of the future energy efficiency performance (I)</li> </ul>
90%, 95%, or 100%	<ul style="list-style-type: none"> <li>• Excellent energy efficiency performance levels are reported for most areas of importance to the Results Criterion (Le)</li> <li>• Beneficial trends have been sustained over a time in all areas of importance to the accomplishment of the organization's mission (T)</li> <li>• Evidence of industry and benchmark leadership is demonstrated in many areas (C)</li> <li>• Energy efficiency performance results fully address the areas of importance to the accomplishment of the organization's mission and they include some projections of the future energy efficiency performance (I)</li> </ul>

# Chapter 4

## CALANDAR OF EVENTS

### Sri Lanka National Energy Efficiency Award (SLNEEA) *Award for Excellence in Energy Conservation and Management*

Event No	Year	Date	Event
1	Current Year	28 Sep	First sitting of the steering committee
2		09 Nov	Paper notice inviting the applications
3		01 Dec	Deadline for the application for eligibility establishment
4		08 Dec	Selection notice for eligible applicants for the competition
5		30 Dec	Deadline for the application for baseline establishment
6	Following Year	16 Apr	Deadline for the application for final application
7		18 Apr	Second sitting of steering committee
8		19 Apr	First sitting of review committee
9		23 Apr	Commencement of the examination process
10		20 July	Finalization of the examination process
11		25 July	Second and final sitting of the review committee
12		27 July	Final approval from panel of judges
13		08 Aug	Award Ceremony
14		09 Aug	Post-award special paper supplement publishing award winners
15		31 Aug	Conference-Quest for excellence in Energy efficiency
16		28 Sep	Feedback report to applicants
17		28 Sep	Review of the award process and making recommendation for the next year award

In case of a date falls on a holiday or a weekend, very next working day shall be treated as the date in lieu.

# Chapter 5

## ENERGY EFFICIENCY SELF-ANALYSIS CHECK LIST

### Sri Lanka National Energy Efficiency Award (SLNEEA) Award for Excellence in Energy Conservation and Management

#### Instructions for the applicant

- Please tick (√) the appropriate cage
- Please see the abbreviations at the end of this checklist

The check list below shall enable you to make a self assessment about the present status of energy efficiency in your facility and would guide you to achieve higher efficiencies.


#### 5.1 Electrical energy

Possibility for energy saving		Yes	No	N/A
1	Are you sure that you have obtained the best possible electricity tariff from CEB?			
2	Do you have a proper house keeping programme (minimizing idle time, etc.) with respect to the electricity consuming machines and equipment?			
3	Do you have a proper maintenance programme with respect to the electricity consuming machines and equipment?			
4	Do you have a programme to replace inefficient electricity consuming machines and equipment?			
5	Do you have an idea about the efficiencies of electricity consuming machines & equipment (motors, etc.)?			
6	Do you use high efficiency motors (HEM)?			
7	Have you matched electrical motor capacities to loads (correct sizing of motors)?			
8	Do you use variable speed drives (VSD) for variable loads?			
9	Do you use soft-starters in your electrical motors?			
<b>Electrical Power Demand Management</b>				
10	Do you know your Plant Load Factor LF (ratio between energy delivered - kWh and the maximum demand - kVA)?			
11	Do you have a control over the operation of non-critical electrical loads that are not directly contributing to the production?			
12	Do you start-up your electrical loads simultaneously at the beginning of the day or after a power failure?			
13	Have you introduced soft starters for large electrical motors?			
14	Have you carried out a load test of your standby generator to understand the fuel consumption and the kWh generating cost?			
15	Is there a possibility to control your maximum electrical power demand by			

	using your standby generator (Peak Clipping)?			
<b>Power Factor Correction</b>				
16	Do you know your Plant Power Factor?			
17	Have you corrected your Plant Power Factor?			
	If yes;			
18	Is it individual correction of motors?			
19	Is it centrally corrected?			
20	Is it a combination of individual correction of motors and central correction?			
21	Do you maintain your Power Factor Correction system?			

## 5.2 Lighting


Possibility for energy saving		Yes	No	N/A
1	Do you still use incandescent bulbs?			
2	Do you still use T12 linear fluorescent lamps?			
3	Do you use T8 linear fluorescent lamps?			
4	Do you use T5 linear fluorescent lamps?			
5	Do you use compact fluorescent lamps (CFL)?			
6	Do you still use Electromagnetic Ballasts for linear fluorescent lamps?			
7	Do you use Electronic Ballasts for linear fluorescent lamps?			
8	Do you use Metal Halide lamps (MH)?			
9	Do you use High Pressure Sodium lamps (HPS)?			
10	Do you use Low Pressure Sodium lamps (LPS)?			
11	Do you use LED lamps?			
12	Do you match the light level to visual requirements?			
13	Does your switching arrangement & switch locations allow the individual control (on/off) of lamps?			
14	Do you have a proper maintenance and house keeping arrangement (regular fixture cleaning, etc.) for the lighting system?			
15	Do you use natural lighting?			
16	Do you use time, occupancy, daylight based control mechanisms?			
17	Do you use task lighting?			
18	Do you use efficient lighting fixtures / Luminaires?			
19	Do you de-lamp after retrofitting of reflectors?			
20	Are bulbs left on even when lighting is no longer essential?			

 Shaded rows indicate inefficient practices

## 5.3 Air Conditioning

Possibility for energy saving		Yes	No	N/A
1	Did you consider the requirements for air conditioning at the time of building design?			
2	Do you have a control of Solar radiation (direct and indirect) into your air conditioned space?			
3	Have you either eliminated or reduced the glazed window areas on the west exposure?			
4	Did you consider the requirements for air conditioning at the time of deciding your building orientation?			
5	Do you have either thicker or insulated walls on the west exposure?			
6	Do you have double glazed windows?			
7	Do you have shading devices for glazed areas?			

8	Do you have insulated roofs?			
9	Do you have lighter colours for roof and walls?			
10	Have you ventilated the attic spaces of your building?			
11	Have you avoided the possibility of thermal bridging?			
12	Do you have proper sealing arrangements to minimize air infiltration?			
13	Have you controlled inflow of outside air into your air conditioned space?			
14	Have you minimized the leakage of conditioned air to the external environment?			
15	Do you have air-locking arrangements at main entrances?			
16	Have you controlled the internal heat gains due to office equipment such as computers, Photo copiers, Fax machines, Refrigerators, Cooking & heating equipment, Motors, etc. in your air conditioned space?			
17	Do you know the Coefficient of Performance (COP) or the Energy Efficiency Ratio (EER) of your air conditioners?			
18	Is the COP of your air conditioners below 2.7?			
19	Is the EER of your air conditioners below 9.2?			
20	Do you have Central Air Conditioning systems that are more energy efficient than small individual systems?			
21	Do you have Water Cooled Air Conditioning systems that are more energy efficient than air cooled systems?			
22	If you have a water cooled system, do you control the pH of water?			
23	If you have a water cooled system, do you control the hardness of water?			
24	Do you use individual air conditioning units for air conditioning needs with shorter & different period of operating time?			
25	Do you use central air conditioning units for air conditioning needs with uniform loading & same operating hours?			
26	Is there a possibility to reduce the condenser temperature of air conditioning units?			
27	Is there a possibility to increase the temperature of the air conditioned space without compromising the human comfort?			
28	Are your air conditioners equipped with Energy Efficient Inverter Technology?			

 *Shaded rows indicate inefficient practices*

### 5.4 Pumps

Possibility for energy saving		Yes	No	N/A
1	Do you know the efficiency of your pumps?			
2	Do your pump motors are efficient?			
3	Is it possible to operate your pumps during off-peak times?			
4	Do you use holding tanks to equalize flow over production cycle?			
5	Do you have bypass loops in your pumping system?			
6	Do you have unnecessary flows in your pumping system?			
7	Do you have large enough pipes in your pumping system to minimize flow losses?			
8	Did you match your pumps to loads?			
9	Do you have highly variable loads?			
10	Do you use parallel pumps for highly variable loads?			
11	Do you have throttle valves?			
12	Do you have speed controlling mechanisms for variable loads?			
13	Do you have belt drives to couple pumps to motors?			
14	Do you have direct couplings (pumps to motors)?			
15	Do you carry out proper maintenance?			

*Shaded rows indicate inefficient practices*

### 5.5 Compressors

Possibility for energy saving		Yes	No	N/A
1	Do you operate your compressors at the lowest possible pressure?			
2	Do you operate your compressors at their full loads?			
3	Do you have varying pressure (high & low) needs of your operation?			
4	Do you use variable speed drives?			
5	Do you use separate high pressure compressors for high pressure needs?			
6	Do you use separate low pressure compressors for low pressure needs?			
7	Do you use separate small capacity compressors for small capacity needs?			
8	Have you prevented compressed air leaks?			
9	Is your compressor intake air temperature high?			
10	Is your compressor intake air moist?			
11	Do you use compressed air for cooling purposes?			
12	Do you use compressed air operated hand tools?			
13	Do you carry out proper maintenance?			
14	Is your compressed air system very large?			
15	If your compressed air system is very large, do you have arrangements / facility for waste heat recovery?			

*Shaded rows indicate inefficient practices*

### 5.6 Fans & Blowers

Possibility for energy saving		Yes	No	N/A
1	Do you have large enough ducts to minimize flow losses?			
2	Do you have throttle valves & dampers?			
3	Do you have variable speed drives?			
4	Do you have belt drives to couple fans / blowers to motors?			
5	Do you have direct couplings (fans / blowers to motors)?			
6	Do you carry out proper maintenance?			

*Shaded rows indicate inefficient practices*

### 5.7 Thermal energy

Possibility for energy saving		Yes	No	N/A
1	Is there a possibility switch over to a cheaper fuel?			
2	Is the insulation of high temperature equipment adequate?			
3	Have you taken all measures to minimize waste of thermal energy?			
4	Have you taken all measures to recover waste heat?			

### 5.8 Boilers

Possibility for energy saving		Yes	No	N/A
1	Do you use the cheapest fuel that can be burnt in your boiler?			
2	If you use liquid fuel, do you maintain the right temperature of fuel?			
3	If you use liquid fuel, do you maintain the right pressure of fuel?			
4	If you use solid fuel, do you reduce the moisture content to the minimum possible level?			
5	If you use solid fuel, do you reduce the size of fuel pieces to the minimum possible level?			
6	Do you tune the burner?			
7	Do you maintain the correct air-to-fuel ratio in burning?			
8	Do you maintain the correct draft at the stack?			
9	Do you operate your boiler at the rated capacity?			
10	Do you operate your boiler at the rated pressure?			
11	Do you maintain the correct fuel feeding rate?			
12	Do you maintain the correct blow down rate?			
13	Does the insulation of the boiler and steam distribution system adequate?			
14	Do the steam traps of the steam distribution system work properly?			
15	Have you prevented the air leaks of the boiler?			
16	Do you have a condensate recovery system?			
17	Do you have arrangements / facilities to recover waste heat?			
18	Do you carry out proper boiler water treatment?			
19	Do you carry out only external water treatment (using softeners)?			
20	Do you carry out only internal water treatment (using chemicals)?			
21	Do you carry out both external & internal water treatment?			

*Shaded rows indicate inefficient practices*

## 5.9 Dryers

Possibility for energy saving		Yes	No	N/A
	<b>Material in</b>			
1	Do you have thermal drying?			
	If yes;			
2	Do you have possibilities to dry your product by mechanical means instead of thermal drying?			
3	Is there a possibility to adopt other forms of drying instead of thermal drying?			
4	Is it the minimum particle size possible of your products to be dried?			
	<b>Material out</b>			
5	Can you ensure that your product is not over-dried?			
6	Can you ensure that your product is not under-dried?			
	<b>Air in</b>			
7	Can you ensure that you have the right quantity of air intake to the dryer?			
8	Can you ensure that you have the right temperature of air intake to the dryer?			
9	Is there a possibility to pre-heat intake air?			
10	Can you ensure that you have the right humidity of air intake to the dryer?			
11	Can you ensure that you have a uniform flow of air intake to the dryer?			
12	Can you ensure that you have the right quantity of air intake to the dryer?			

	<b>Air out</b>			
13	Do you have arrangements / facilities to recover waste heat?			
14	Can you ensure that you have the lowest temperature possible of exhaust air?			
15	Can you ensure that you have the highest humidity possible of exhaust air?			
16	Is there a possibility for exhaust air re-circulation?			
17	Is there a possibility for the heat recovery of exhaust air?			
	<b>Heat in</b>			
18	If burning of fuel is taking place as the heat source of your dryer, do you have the highest possible combustion efficiency?			
19	If the steam is used as the source of heat, do you have a proper steam and condensate management system?			
20	If the hot air is used as the heating medium, do you have the right temperature of hot air?			
	<b>Insulation</b>			
21	Do you have the right type of insulation?			
22	Do you have the right thickness of insulation?			
23	Do you have right protection for insulation?			
	<b>Air leaks</b>			
24	Have you prevented the loss of hot air through leaks?			
25	Have you prevented fresh air entering the dryer through leaks?			
	<b>Other possibilities</b>			
26	Do you know the efficiency of your dryer?			
27	Is there a possibility to replace your dryer with a high efficiency dryer?			
28	If you use fuel as the source of energy and hot air as the heating medium through heat exchanging process, is there a possibility of direct firing of fuel and use the exhaust as the heating medium?			
29	Is there a possibility of using solar energy for air pre-heating?			

*Shaded rows indicate inefficient practices*

### 5.10 Declaration

I declare that the information provided herein are true and correct to the best of my knowledge and understanding.

.....  
Date

.....  
Signature of Highest-Ranking Official

Mr    Mrs    Ms    Dr

Name: .....

Title: .....

Address: .....

.....

.....

Telephone Number: .....

Fax Number: .....

E-mail: .....

**Submission:** Completed Energy Efficiency Check List must be post marked or hand delivered along with the Application Form no later than the specified date in the calendar in Chapter 4, to SLSEA. This check list may be copied and attached to, or bound with, other application materials.

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**Abbreviations**

<b>CEB</b>	-	<i>Ceylon Electricity Board</i>
<b>CFL</b>	-	<i>Compact Fluorescent Lamp</i>
<b>HEM</b>	-	<i>High Efficiency Motor</i>
<b>kWh</b>	-	<i>Kilo Watt Hour</i>
<b>LF</b>	-	<i>Load Factor</i>
<b>N/A</b>	-	<i>Not applicable</i>
<b>VSD</b>	-	<i>Variable Speed Drive</i>

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# Chapter 6

## APPLICATION FORM

### Sri Lanka National Energy Efficiency Award (SLNEEA) *Award for Excellence in Energy Conservation and Management*

*(See Chapter 8 for detailed instructions)*

*This form may be copied and attached to, or bound with, other application materials*

**Instructions for the applicant**

- Please fill in the blanks where applicable
- Please attach the relevant support documents
- Please strike-off inappropriate word/s where applicable
- Please tick (✓) the appropriate cage or cages where applicable

#### 6.1 Applicant

Official Name:  
 (in English) .....  
 (in Sinhala) .....  
 (in Tamil) .....

Head Office Address: .....  
 .....  
 .....

Factory Address: .....  
 .....  
 .....

#### 6.2 Highest-Ranking Official

Name: .....  
 Mr    Mrs    Ms    Dr

Title: .....

Address: .....  
 .....  
 .....

Telephone Number: .....

Fax Number: .....

E-mail: .....

### 6.3 Contact Point

Name: .....

Mr  Mrs  Ms  Dr

Title: .....

Address: .....

.....

.....

Telephone Number: .....

Fax Number: .....

E-mail: .....

### 6.4 Alternate Contact Point

Name: .....

Mr  Mrs  Ms  Dr

Title: .....

Address: .....

.....

.....

Telephone Number: .....

Fax Number: .....

E-mail: .....

### 6.5 Applicant Status (Check one)

Has the applicant officially or legally existed for at least three years prior to the Award Application date?

Yes  No

### 6.6 Registration Fee

Enclosed is the non refundable registration fee of LKR 5,000/= to cover one application.  
Please indicate method of payment below;

Cheque  Cash

Make cheque payable to “Sri Lanka Sustainable Energy Authority”

### 6.7 Award Category (Check only one category as appropriate)

SECTOR		LARGE	MEDIUM	SMALL
Manufacturing				
Services	Hotels			
	Commercial buildings			
	State sector office buildings			
Health care				

### 6.8 Industrial Classification

List up to three of the most descriptive three-or four-digit ICS codes. (See page 58 for ICS codes)

a. .... b. .... c. ....

### 6.9 Size and Location of Applicant

a. Total number of employees: .....

b. For the preceding fiscal year:

- Check one financial descriptor:  Sales  Revenue  Budget
- Check amount:  Up to LKR 100,000  
 From LKR 100,000 to LKR 1 M  
 From LKR 1 M to LKR 10 M  
 From LKR 10 M to LKR 100 M  
 Over LKR 100 M

c. In the event the applicant receives an award, can the applicant make available sufficient personnel and documentation to share its practices at the Quest for Excellence in Energy Efficiency Conference?

Yes  No

d. Attach a line and box organization chart for the applicant. In each box, include the name of each subsidiaries and its head.

### 6.10 Subsidiaries

*(If the applicant is a subsidiary, please proceed to question)*

a. Is the applicant \_\_\_\_\_ a larger parent or system? *(Check all that apply)*

- |  |   |                                   |
|--|---|-----------------------------------|
| <input type="checkbox"/> a subsidiary of | <input type="checkbox"/> a unit of              | <input type="checkbox"/> owned by |
| <input type="checkbox"/> a division of   | <input type="checkbox"/> a like organization of |                                   |
| <input type="checkbox"/> controlled by   | <input type="checkbox"/> administered by        |                                   |

b. Parent organization:

Name: .....

Address: .....

.....

.....

Name of the highest-ranking official: .....

Title: .....

Number of employees of the parent: .....

c. Briefly describe the major functions provided to the applicant by the parent or by other subsidiaries of the parent. Examples of such functions include but are not limited to strategic planning, business acquisition, research and development, data gathering and analysis, human resources, legal services, finance or accounting, sale/marketing, supply chain management, global expansion, information and knowledge management, education/training programs, information systems and technology services, curriculum and instruction, and academic program coordination/development.

.....  
 .....  
 .....

d. Is the applicant self-sufficient enough to respond to all SLNEEA criteria?

Yes  No (Briefly explain)

.....  
 .....  
 .....

e. Provide the name and date of the official document (e.g., annual report, organization literature, press release, etc.) supporting the subunit designation. Attach relevant portions of the document showing clear definition of the applicant as a discrete entity.

Name: ..... Date: .....

f. Briefly describe the organizational structure and relationship to the parent.

Attach line and box organization chart(s) showing the relationship of the applicant to the highest management level of the parent, including all intervening levels. In each box, include the name of the subsidiaries and its head.

g. Is the applicant’s product or service unique within the parent organization? (Check one)

Yes  No

If “No”, do other subsidiaries within the parent provide the same products or services to a different customer base? (Check one)

Yes  No

If neither of the boxes in “g” is checked “Yes”, complete 1,2 and 3 below.

1 Provide a brief description of how the market and product(s) or service(s) are similar.

.....  
 .....  
 .....

2 Indicate the organizational relationships of all subsidiaries that provide similar or identical products or services, including the approximate sales, revenues, or budgets for each.

.....  
 .....  
 .....

3 Describe how the applicant is different from its parent and other subsidiaries of the organization (e.g., market, location, name)

.....  
 .....  
 .....

h. Was the applicant independent prior to being acquired, and does it continue to operate independently under its own identity?

Yes  No

*Note: If eligibility is based on the subsidiary being independent prior to being acquired and continuing to operate independently under its own identity, provide a copy of an official document to support this response.*

### 6.11 Commitment, Self-Certification Statement & Signature of the Highest-Ranking Official

We understand that this application will be reviewed by the members of the Board of Examiners.

Should our organization be selected for a site visit, we agree to facilitate an open and unbiased examination.

If our organization is selected to receive an award, we agree to share non-proprietary information on our successful energy efficiency performance with other Sri Lankan organizations.

I state and attest that;

- 1 I have reviewed the information provided by my organization in this application.
- 2 To the best of my knowledge, no untrue statement of a material fact is contained in this application, and no omission of a material fact has been made in this application.
- 3 Based on the information herein and the current eligibility requirements for the SLNEEA, my organization is eligible to apply.
- 4 I understand that at any time during the award process cycle, if the information is found not to support eligibility, my organization will no longer receive consideration for the award and will receive only a feedback report.
- 5 In the event my organization wins the Award/Merit Certificate, I will tag the year of the Award / year of the Merit Certificate whenever I brand the winning the award in activity of any nature in relation to my company.

Date	Signature of Highest-Ranking Official
Name:	.....
<input type="checkbox"/> Mr <input type="checkbox"/> Mrs <input type="checkbox"/> Ms <input type="checkbox"/> Dr	
Title:	.....
Address:	..... ..... .....
Telephone Number:	.....
Fax Number:	.....
E-mail:	.....

**Submission:** Completed Application Form must be post marked or hand delivered no later than the specified date in the calendar in Chapter 4, to SLSEA. This form may be copied and attached to, or bound with, other application materials.

# Chapter 7

## ENERGY EFFICIENCY QUESTIONNAIRE

### Sri Lanka National Energy Efficiency Award (SLNEEA) *Award for Excellence in Energy Conservation and Management*

**(See Chapter 9 for detailed instructions)**

*This questionnaire may be copied and attached to, or bound with, other application materials*

#### **Instructions for the respondent**

- Please fill in the blanks where applicable
- Please provide the support documents where applicable
- Please strike-off inappropriate word/s where applicable
- Please tick (✓) the appropriate cage or cages where applicable □
- Please see the abbreviations at the end of this questionnaire

### 7.1 Energy Utilization Equipment

Indicate the energy utilization equipment in your facility.

Electrical		Thermal	
Lights		Steam Boilers	
Air conditioners		Hot water Boilers	
Fans, blowers & other ventilation equipment		Thermal Fluid heaters	
Office equipment such as computers, photo copiers, etc.		Dryers	
Fridges, freezers, etc.		Furnaces	
Kitchen equipment		Kilns	
Laundry equipment		Generators	
Lifts, escalators, etc.		Others (Please specify)	
Pumps		.....	
Compressors		.....	
Chillers		.....	
Heaters		.....	
Motors		.....	
Others (Please specify)		.....	
.....		.....	

.....		.....	
.....		.....	
.....		.....	

## 7.2 Source of Energy

Indicate the sources of energy used in your facility (excluding transport)

- 1 Electricity
- 2 Fossil Fuel 
  - Diesel
  - Furnace Oil
  - Kerosene
  - LPG
  - Coal
  - Other  .....
- 3 Biomass 
  - Firewood
  - Saw dust
  - Paddy husk
  - Bagasse
  - Coconut shell
  - Other  .....
- 4 Hydro
- 5 Solar
- 6 Wind
- 7 Other  .....

### 7.3 Management Commitment to Energy Efficiency (Score – 100)

Provide the answers to the below questions by checking the appropriate cage

Question		Baseline Stage Date: 30.09.2011			Review Stage Date: 31.03.2012		
		Yes	No	N/A	Yes	No	N/A
1	Do you have an Energy Efficiency Policy?						
2	Does your organization have an Energy Conservation Cell?						
3	Have you appointed an Energy Manager?						
4	Do you carry out Energy Audits in your facility?						

If 'Yes' is the answer to Question 1, attach the copy of energy policy.

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....
.....	.....

Describe if 'Yes' is the answer to Question 2

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....
.....	.....

Describe if 'Yes' is the answer to Question 3

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....
.....	.....

Describe If 'Yes' is the answer to Question 4

Baseline Stage				Review Stage			
Date of Audit	Recommendations given	Implementation		Date of Audit	Recommendations given	Implementation	
		Yes	No			Yes	No
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....

### 7.4 Employee Awareness & Training on Energy Efficiency (Score – 100)

Provide the answers to the below questions by checking the appropriate cage.

Question	Baseline Stage Date: 30.09.2011			Review Stage Date: 31.03.2012		
	Yes	No	N/A	Yes	No	N/A
	1	Have you assigned sufficient manpower to energy efficiency related activities?				
2	If yes, have you trained such manpower in energy conservation & management?					
3	Have you created awareness among the employees on the importance of energy efficiency?					

Describe if 'Yes' is the answer to Question 1

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....
.....	.....

If 'Yes' is the answer to Question 2, Describe and attach the copies of training certificates.

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....
.....	.....

If 'Yes' is the answer to Question 3, Describe the methods used and frequency of the programs.

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....
.....	.....

### 7.5 Financial Commitment to Energy Efficiency (Score – 100)

Provide the answers to the below questions by checking the appropriate cage

Question	Baseline Stage Date: 30.09.2011			Review Stage Date: 31.03.2012		
	Yes	No	N/A	Yes	No	N/A
	1   Have you invested on energy efficiency projects?					
2   Have you invested on renewable energy projects?						

Describe if 'Yes' is the answer to Question 1

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....

Describe if 'Yes' is the answer to Question 2

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....

### 7.6 Planning, Monitoring, Evaluation & Reporting (Score – 200)

Provide the answers to the below questions by checking the appropriate cage

Question		Baseline Stage Date: 30.09.2011			Review Stage Date: 31.03.2012		
		Yes	No	N/A	Yes	No	N/A
1	Do you set energy efficiency targets?						
2	Do you monitor energy efficiency trends using historical data?						
3	Do you compare your energy performance with that of similar entities?						
4	Do you integrate energy performance with other performances such as environment, quality, safety, etc.?						

Describe if 'Yes' is the answer to Question 1

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....

Describe if 'Yes' is the answer to Question 2

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....

Describe if 'Yes' is the answer to Question 3

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....

Describe if 'Yes' is the answer to Question 4

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....

## 7.7 Energy Performance (Score – 400)

### 7.7.1 Monthly Average Energy Consumption

Indicate the monthly average energy consumption (during the past twelve months) in your facility (excluding transport) at the date of baseline stage or at the date of review stage as appropriate. Attach a copy of an electricity bill within last twelve months period.

Source of Energy	Type	Units	Baseline Stage	Review Stage
			Date: 30.09.2011	Date: 31.03.2012
			Consumption	Consumption
1	Electricity	kWh / month	.....	.....
2	Solid Fuel	..... kg / month	.....	.....
		..... kg / month	.....	.....
		..... kg / month	.....	.....
3	Liquid Fuel	..... Liters / month	.....	.....
		..... Liters / month	.....	.....
		..... Liters / month	.....	.....
4	Gaseous Fuel	..... kg / month	.....	.....
		..... kg / month	.....	.....
		..... kg / month	.....	.....

### 7.7.2 Monthly Average Output (Production or Services)

Indicate the monthly average output (during the past twelve months) in your facility at the date of baseline stage or at the date of review stage as appropriate.

Type of Output	Description	Units	Baseline Stage	Review Stage
			Date: 30.09.2011	Date: 31.03.2012
			Output Quantity	Output Quantity
1	Manufacturing	.....	.....	.....
		.....	.....	.....
		.....	.....	.....
2	Services (Buildings)	..... m <sup>2</sup> Floor Area	.....	.....
		.....	.....	.....
		.....	.....	.....
2	Services (Hotels)	..... m <sup>2</sup> of Gross Floor Area including the area of swimming pool	.....	.....
		..... Occupied Rooms	.....	.....
		.....	.....	.....
3	Healthcare	..... Patient days	.....	.....
		.....	.....	.....
		.....	.....	.....

### 7.7.3 Specific Energy Consumption - Electrical (SEC)

By using the average monthly output and average monthly energy consumption stated above, calculate and then indicate below the specific energy consumption - electrical in your facility at the date of baseline stage or at the date of review stage as appropriate.

Type of Output		Units	Baseline Stage	Review Stage
			Date: 30.09.2011	Date: 31.03.2012
			SEC	SEC
1	Manufacturing	kWh per .....	.....	.....
		kWh per .....	.....	.....
		kWh per .....	.....	.....
2	Services	kWh per .....	.....	.....
		kWh per .....	.....	.....
		kWh per .....	.....	.....
3	Healthcare	kWh per patient day	.....	.....
		kWh per .....	.....	.....
		kWh per .....	.....	.....

Some examples of “Units” of specific energy consumption - electrical;

#### Manufacturing

- Tea industry - kWh per kg of Made Tea
- DC industry - kWh per kg of Desiccated Coconut
- Tile industry - kWh per 1,000 Tiles
- Garment industry - kWh per 5,000 m of Thread Cones used
- kWh per earned h
- Ceramics industry - kWh per MT of Raw Materials
- kWh per MT of Products
- kWh per Piece
- kWh per m<sup>2</sup> (for Ceramic Tiles)
- Rubber industry - kWh per MT of Rubber

#### Services

- Buildings - kWh per m<sup>2</sup> floor area (FA)
- kWh per 1,000 m<sup>2</sup> per Daily Operating Hour (Known as Building Power)
- Hotels - kWh per m<sup>2</sup> of Gross Floor Area (GFA) including the area of swimming pool
- kWh per Occupied Room (OR)

#### Healthcare

- Hospitals - kWh per Patient Day

### 7.7.4 Specific Energy Consumption - Thermal (SEC)

By using the average monthly output and average monthly energy consumption stated above, calculate and then indicate below the specific energy consumption - thermal in your facility at the date of baseline stage or at the date of review stage as appropriate.

Type of Output		Units	Baseline Stage	Review Stage
			Date: 30.09.2011	Date: 31.03.2012
			SEC	SEC
1	Manufacturing	..... per .....	.....	.....
		..... per .....	.....	.....
		..... per .....	.....	.....
2	Services	..... per .....	.....	.....
		..... per .....	.....	.....
		..... per .....	.....	.....
3	Healthcare	..... per patient day	.....	.....
		..... per .....	.....	.....
		..... per .....	.....	.....

Some examples of “Units” of specific energy consumption - thermal:

#### Manufacturing

- Tea industry
  - kg of Firewood per kg of Made Tea
  - Liters of Furnace Oil per kg of Made Tea
  - Liters of Diesel per kg of Made Tea
- DC industry
  - kg of Firewood per kg of Desiccated Coconut
  - Liters of Furnace Oil per kg of Desiccated Coconut
- Tile industry
  - kg of Firewood per 1,000 Tiles
- Garment industry
  - Liters of Diesel per 5,000 m of Thread Cones used
- Ceramics industry
  - Liters of Furnace Oil per MT of Raw Materials
  - kg of LPG per MT of Products
  - Liters of Furnace Oil per Piece
  - kg of LPG per m<sup>2</sup> (for Ceramic Tiles)
- Rubber industry
  - kg of Firewood per MT of Rubber
  - Liters of Furnace Oil per MT of Rubber

#### Services

- Buildings
  - Liters of Diesel per m<sup>2</sup>
  - Liters of Diesel per 1,000 m<sup>2</sup> per Daily Operating Hour (Known as Building Power)
- Hotels
  - Liters of Furnace Oil per m<sup>2</sup> of Gross Floor Area (GFA) including the area of swimming pool
  - Liters of Furnace Oil per Occupied Room (OR)

#### Healthcare

- Hospitals
  - Liters of Furnace Oil per Patient Day

### 7.7.5 Energy Efficient Improvement Projects

Provide the information of electrical energy efficiency projects implemented.

Project Description	Duration		Cost Benefit	Units	Baseline Stage Date: 30.09.2011	Review Stage Date: 31.03.2012
	Start date	End date				
1	.....	.....	Investment	LKR	.....	.....
			Annual energy saving	kWh	.....	.....
			Annual financial saving	LKR	.....	.....
2	.....	.....	Investment	LKR	.....	.....
			Annual energy saving	kWh	.....	.....
			Annual financial saving	LKR	.....	.....
3	.....	.....	Investment	LKR	.....	.....
			Annual energy saving	kWh	.....	.....
			Annual financial saving	LKR	.....	.....
4	.....	.....	Investment	LKR	.....	.....
			Annual energy saving	kWh	.....	.....
			Annual financial saving	LKR	.....	.....
5	.....	.....	Investment	LKR	.....	.....
			Annual energy saving	kWh	.....	.....
			Annual financial saving	LKR	.....	.....
6	.....	.....	Investment	LKR	.....	.....
			Annual energy saving	kWh	.....	.....
			Annual financial saving	LKR	.....	.....

Provide the information of thermal energy efficiency projects implemented

Project Description	Duration		Cost Benefit	Units	Baseline Stage Date: 30.09.2011	Review Stage Date: 31.03.2012
	Start date	End date				
1	.....	.....	Investment	LKR	.....	.....
			Annual energy saving	kWh	.....	.....
			Annual financial saving	LKR	.....	.....
2	.....	.....	Investment	LKR	.....	.....
			Annual energy saving	kWh	.....	.....
			Annual financial saving	LKR	.....	.....
3	.....	.....	Investment	LKR	.....	.....
			Annual energy saving	kWh	.....	.....
			Annual financial saving	LKR	.....	.....
4	.....	.....	Investment	LKR	.....	.....
			Annual energy saving	kWh	.....	.....
			Annual financial saving	LKR	.....	.....
5	.....	.....	Investment	LKR	.....	.....
			Annual energy saving	kWh	.....	.....
			Annual financial saving	LKR	.....	.....
6	.....	.....	Investment	LKR	.....	.....
			Annual energy saving	kWh	.....	.....
			Annual financial saving	LKR	.....	.....

Thermal energy savings in the form of kg of Firewood, Liters of Diesel / Furnace Oil, or in kJ.

### 7.8 Renewable Energy Share in Energy Source Portfolio (Score – 50)

Provide the answers to the below questions by checking the appropriate cage

Question	Baseline Stage Date: 30.09.2011			Review Stage Date: 31.03.2012		
	Yes	No	N/A	Yes	No	N/A
	1   Do you use renewable energy sources?					
2   Do you set renewable energy targets (as a percentage of your total energy requirement)?						

Describe if 'Yes' is the answer to Question 1

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....

Describe if 'Yes' is the answer to Question 2

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....

### 7.9 Non-Energy Outcome (Score – 50)

Provide the answers to the below questions by checking the appropriate cage

Question	Baseline Stage Date: 30.09.2011			Review Stage Date: 31.03.2012		
	Yes	No	N/A	Yes	No	N/A
	1					
2						
3						
4						
5						

Describe if 'Yes' is the answer to Question 1

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....

Describe if 'Yes' is the answer to Question 2

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....

Describe if 'Yes' is the answer to Question 3

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....

Describe if 'Yes' is the answer to Question 4

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....

Describe if 'Yes' is the answer to Question 5

Baseline Stage	Review Stage
.....	.....
.....	.....
.....	.....

### 7.10 Declaration

I declare that the information provided herein are true and correct to the best of my knowledge and understanding.

.....  
 Date Signature of Highest-Ranking Official

Mr  Mrs  Ms  Dr

Name: .....

Title: .....

Address: .....

.....

.....

Telephone Number: .....

Fax Number: .....

E-mail: .....

**Submission:** Completed Energy Efficiency Questionnaire must be post marked or hand delivered no later than the specified date in the calendar in Chapter 4, to SLSEA. This form may be copied and attached to, or bound with, other application materials.

**Abbreviations**

<b>DC</b>	-	Desiccated Coconut
<b>FA</b>	-	Floor Area
<b>GFA</b>	-	Gross Floor Area
<b>kg</b>	-	Kilo gram
<b>kJ</b>	-	Kilo Joules
<b>kW</b>	-	Kilo Watt
<b>kWh</b>	-	Kilo Watt Hour
<b>l</b>	-	Liter
<b>LKR</b>	-	Sri Lanka Rupees
<b>LPG</b>	-	Liquefied Petroleum Gas
<b>m<sup>3</sup></b>	-	Cubic meter
<b>MT</b>	-	Metric Ton
<b>N/A</b>	-	Not Applicable
<b>OR</b>	-	Occupied Rooms
<b>SEC</b>	-	Specific Energy Consumption

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# Chapter

# 8

## INSTRUCTIONS TO FILL THE APPLICATION FORM

(in Chapter 6)

### Sri Lanka National Energy Efficiency Award (SLNEEA) *Award for Excellence in Energy Conservation and Management*

#### 8.1 Applicant

Provide the applicant's name, (in **English, Sinhala and Tamil**) which will be used to make the role model determination (Award Winner).

#### 8.2 Highest-Ranking Official

Provide the necessary contact information requested for the applicant's highest-ranking official.

#### 8.3 Contact Point

Please designate a person who is knowledgeable about the organization, its structure and energy efficiency aspect of the organization and who will be available to answer inquiries after submission of the application form.

#### 8.4 Alternate Contact Point

In the event that the Contact Point is not available, an Alternate Contact Point will be needed to answer questions or convey a message to the Contact Point. Designate a person who is available after submission of the Application Form.

#### 8.5 Applicant Status

Indicate whether or not the applicant has existed for at least three years prior to Award application date.

#### 8.6 Registration Fee

Enclose LKR 5,000/= as the non refundable fee for registration. Make cheque payable to "Sri Lanka Sustainable Energy Authority".

Application fee for the award:

Manufacturing / Service / Health Care

- Large                    LKR    45,000/=
- Medium                LKR    30,000/=
- Small                    LKR    15,000/=

Eligible applicants shall be notified and be requested to pay the relevant application fee upon review of the Application Forms by SLSEA for the eligibility of applicants.

## 8.7 Award Category

Based on the total monthly energy bill (both electricity & fuel) in LKR, indicate which of the Twenty one (21) Award categories is appropriate to your organization.

Small	-	Total monthly energy bill; Below 250,000/= LKR/Month
Medium	-	Total monthly energy bill; From 250,000/= to 1,000,000/= LKR/Month
Large	-	Total monthly energy bill; Above 1,000,000/= LKR/Month

## 8.8 Industrial Classification

Using the three or four-digit ICS codes listed on page 56, provide up to three codes that best describe the applicant's products and/or services.

## 8.9 Size and Location of Applicant

- Provide the total number of employees as of award application date.
- Check the appropriate financial descriptor (sales, revenues, or budgets) and the appropriate range for the preceding fiscal year.
- Check the appropriate response.
- Attach a line and box organization chart for the applicant. In each box, include the name of the unit/division and its head.

## 8.10 Subsidiaries

If the applicant is a subsidiary of a larger organization, then responses to 10a through 10h are required; otherwise, go to question 11.

- Check the appropriate response.
- Provide the name and address of the parent organization and the name and title of the highest-ranking official of the highest ownership level of the parent organization. Provide the number of employees of the parent, including all subsidiaries. Do not include joint ventures.
- Briefly describe the major functions provided to applicant by the parent or by other subsidiaries of the parent.
- Check the appropriate response to indicate the applicant's ability to respond to all SLNEEA criteria.
- Provide the name and date of the official document (and a copy of relevant portions) showing clear definition of the applicant as a discrete entity.
- Briefly describe the applying subsidiary's organizational structure and management links to the parent.

*Note: Attach a line and box organization chart(s) showing the relationship of the applicant to the highest management level of the parent, including the intervening levels. In each box, include the name of the unit/division and its head.*

- g. Check the appropriate responses. If neither of the boxes is checked "Yes" (1) provide a brief description of how the market and product(s) or service(s) are similar; (2) indicate the organizational relationships of all units that provide similar or identical products or services, including the approximate sales, revenues, or budgets for each; and (3) describe how the applicant is different from its parent and the other subsidiaries of the organization (e.g. market, location, name).
- h. All business subsidiaries regardless of parent size: Check the appropriate response.

### **8.11 Commitment, Self-Certification Statement & Signature of the Highest-Ranking Official**

Please read this section carefully. Provide the signature of the applicant's highest-ranking official. Type the person's name, title, address, and telephone number below the signature, as indicated.

The signature of the highest-ranking official indicates that the applicant agrees to the terms and conditions stated therein.

This signature also acknowledges that the answers provided are accurate and also certifies that the applicant is eligible based on the requirements for the SLNEEA.

If the applicant's organization is selected for a site visit and an Examiner discovers that one or more of the responses in the application are inaccurate, the applicant will no longer be eligible for the Award. The applicant will be eligible for feedback on its organization, however.

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## Chapter

# 9

## INSTRUCTIONS TO FILL THE ENERGY EFFICIENCY QUESTIONNAIRE

(in Chapter 7)

### Sri Lanka National Energy Efficiency Award (SLNEEA) *Award for Excellence in Energy Conservation and Management*

**Purpose** - The purpose of this chapter is to provide eligible applicants with instructions for preparing the Energy Efficient Questionnaire.

**Objective** - The objective of the Energy Efficiency Questionnaire is for the applicant to provide sufficient information to enable the Board of Examiners to conduct a rigorous evaluation. Information is required on the applicant's energy management system and on the results of its processes. All information provided is considered confidential.

**Dual Submission** – Those applicants who participate in the commencement year of the SLNEEA or the new applicants in subsequent years are required to submit this questionnaire twice; initially at the **Baseline Stage** and also at the **Review Stage**. A period of six months is allowed between the baseline and review stage. To enable this dual submission, provisions have been made in questions number 3 through 9 to provide information at baseline or review stage. Information provided at the baseline stage shall be treated as the reference for evaluations. Therefore, repeat applicants are required to submit this questionnaire only at the review stage. Completed Energy Efficiency Questionnaire must be post marked or hand delivered no later than the specified dates in the calendar in Chapter 4, to SLSEA.

### 9.1 Energy Utilization Equipment

Indicate the electrical and thermal energy utilization equipment / appliances / machines in your facility by checking relevant cages. If you possess electrical and thermal energy utilization equipment / appliances / machines other than the list provided, write them down in the blanks.

### 9.2 Source of Energy

Indicate the sources of energy used in your facility (excluding transport) by checking relevant cages. If you use sources of energy other than the list provided, write them down in the blanks.

### 9.3 Management Commitment to Energy Efficiency

Provide the answers to the questions by checking the appropriate cage (Yes, No, N/A) under baseline or review stage as appropriate while indicating the respective date. If the answer is 'Yes' to any question, describe your answer in detail in the space provided under each question and provide the support documents.

## 9.4 Employee Awareness & Training on Energy Efficiency

Provide the answers to the questions by checking the appropriate cage (Yes, No, N/A) under baseline or review stage as appropriate while indicating the respective date. If the answer is 'Yes' to any question, describe your answer in detail in the space provided under each question and provide the support documents.

## 9.5 Financial Commitment to Energy Efficiency

Provide the answers to the questions by checking the appropriate cage (Yes, No, N/A) under baseline or review stage as appropriate while indicating the respective date. If the answer is 'Yes' to any question, describe your answer in detail in the space provided under each question.

## 9.6 Planning, Monitoring, Evaluation & Reporting

Provide the answers to the questions by checking the appropriate cage (Yes, No, N/A) under baseline or review stage as appropriate while indicating the respective date. If the answer is 'Yes' to any question, describe your answer in detail in the space provided under each question.

## 9.7 Energy Performance

### 9.7.1 Monthly Average Energy Consumption

Indicate the monthly average energy consumption (during the past twelve months) in your facility (excluding transport) at the date of baseline stage or at the date of review stage as appropriate while indicating the respective date. In case of fuel, indicate the type of fuel in the space provided.

### 9.7.2 Monthly Average Output (Production or Services)

Indicate the monthly average output (during the past twelve months) in your facility at the date of baseline stage or at the date of review stage as appropriate while indicating the respective date. Name your output and indicate the unit in the space provided. Where the units are already given, indicate the output only in the units provided.

### 9.7.3 Specific Energy Consumption - Electrical (SEC)

Divide the average monthly electrical energy consumption (Section 7.1) by the average monthly output (Section 7.2) and then indicate the result which is the specific energy consumption - electrical in your facility at the date of baseline stage or at the date of review stage as appropriate while indicating the respective date. Also fill the blanks of units as per the examples given below.

Some examples of "Units" of specific energy consumption - electrical are given below;

#### Manufacturing

Tea industry	-	kWh per kg of Made Tea
DC industry	-	kWh per kg of Desiccated Coconut
Tile industry	-	kWh per 1,000 Tiles
Garment industry	-	kWh per 5,000 m of Thread Cones used
Ceramics industry	-	kWh per MT of Raw Materials
	-	kWh per MT of Products
	-	kWh per Piece
	-	kWh per m <sup>2</sup> (for Ceramic Tiles)
Rubber industry	-	kWh per MT of Rubber

Services

- |           |   |
|-----------|---|
| Buildings | - kWh per m <sup>2</sup> Floor Area (FA)  |
|           | - kWh per 1,000 m <sup>2</sup> per Daily Operating Hour<br>(Known as Building Power)      |
| Hotels    | - kWh per m <sup>2</sup> of Gross Floor Area (GFA) including the area<br>of swimming pool |
|           | - kWh per Occupied Room (OR)  |

Healthcare

- |           |                       |
|-----------|-----------------------|
| Hospitals | - kWh per Patient Day |
|-----------|-----------------------|

**9.7.4 Specific Energy Consumption - Thermal (SEC)**

Divide the average monthly thermal energy consumption (Section 7.1) by the average monthly output (Section 7.2) and then indicate the result which is the specific energy consumption - thermal in your facility at the date of baseline stage or at the date of review stage as appropriate while indicating the respective date. Also fill the blanks of units as per the examples given below.

Some examples of “Units” of specific energy consumption - thermal are given below;

Manufacturing

- |                   |  |
|-------------------|--|
| Tea industry      | - kg of Firewood per kg of Made Tea                  |
|                   | - Liters of Furnace Oil per kg of Made Tea           |
|                   | - Liters of Diesel per kg of Made Tea                |
| DC industry       | - kg of Firewood per kg of Desiccated Coconut        |
|                   | - Liters of Furnace Oil per kg of Desiccated Coconut |
| Tile industry     | - kg of Firewood per 1,000 Tiles                     |
| Garment industry  | - Liters of Diesel per 5,000 m of Thread Cones used  |
| Ceramics industry | - Liters of Furnace Oil per MT of Raw Materials      |
|                   | - kg of LPG per MT of Products                       |
|                   | - Liters of Furnace Oil per Piece                    |
|                   | - kg of LPG per m <sup>2</sup> (for Ceramic Tiles)   |
| Rubber industry   | - kg of Firewood per MT of Rubber                    |
|                   | - Liters of Furnace Oil per MT of Rubber             |

Services

- |           |   |
|-----------|---|
| Buildings | - Liters of Diesel per m <sup>2</sup>   |
|           | - Liters of Diesel per 1,000 m <sup>2</sup> per Daily Operating Hour<br>(Known as Building Power)           |
| Hotels    | - Liters of Furnace Oil per m <sup>2</sup> of Gross Floor Area (GFA)<br>including the area of swimming pool |
|           | - Liters of Furnace Oil per Occupied Room (OR)  |

Healthcare

- |           |   |
|-----------|---|
| Hospitals | - Liters of Furnace Oil per Patient Day |
|-----------|---|

**9.7.5 Energy Efficient Improvement Projects**

Provide the information (Investment in LKR, Annual Energy Saving in kWh and Annual Financial Saving in LKR) of electrical energy efficiency projects implemented in your facility at the date of baseline stage or at the date of review stage as appropriate while indicating the respective date.

Also separately provide the information (Investment in LKR, Annual Energy Saving in relevant units and Annual Financial Saving in LKR) of thermal energy efficiency projects implemented in your facility at the date of baseline stage or at the date of review stage as appropriate while indicating the respective date. Units of thermal energy savings could be in the form of kg of Firewood, Liters of Diesel / Furnace Oil, or kJ.

## 9.8 Renewable Energy Share in Energy Source Portfolio

Provide the answers to the questions by checking the appropriate cage (Yes, No, N/A) under baseline or review stage as appropriate while indicating the respective date. If the answer is 'Yes' to any question, describe your answer in detail in the space provided under each question.

## 9.9 Non-Energy Outcome

Provide the answers to the questions by checking the appropriate cage (Yes, No, N/A) under baseline or review stage as appropriate while indicating the respective date. If the answer is 'Yes' to any question, describe your answer in detail in the space provided under each question.

## 9.10 Declaration

Please read this section carefully.

Provide the signature of the applicant's highest-ranking official. Type the person's name, title, address, and telephone number below the signature, as indicated. This signature also acknowledges that the answers provided are accurate.

The signature of the highest-ranking official indicates that the applicant agrees to the terms and conditions of the SLNEEA.

If the applicant organization is selected for a site visit and an Examiner discovers that one or more of the responses in the application are inaccurate, the applicant will no longer be eligible for the Award. The applicant will be eligible for feedback on its organization, however.

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## Chapter

# 10

## GLOSSARY OF KEY TERMS

### **Sri Lanka National Energy Efficiency Award (SLNEEA)** ***Award for Excellence in Energy Conservation and Management***

This glossary of key terms defines and briefly describes terms used throughout this booklet that are important to energy efficiency.

#### **Action Plans**

- Specific actions that respond to short and long term strategic objectives.
- Action plans include details of resource commitments and time horizons for accomplishment.

#### **Alignment**

- “Alignment” refers to consistency of plans, processes, information, resource decisions, actions, results, and analysis to key organization wide goals.
- Effective alignment requires common understanding of purpose, and goals.
- It also requires the use of complementary measures and information for planning, tracking, analysis, and improvement at three levels; the organizational level, the key process level, and the work unit level.

#### **Analysis**

- An examination of facts and data to provide a basis for effective decisions.
- Analysis often involves the determination of cause-effect relationships.
- Overall organizational analyses guide the management of work systems and work processes toward achieving key business results and towards attaining strategic objectives.
- Despite their importance, individual facts and data do not usually provide an effective basis for actions or setting priorities.
- Effective actions depend on an understanding of relationships, derived from analysis of facts and data.

#### **Anecdotal**

- The term “anecdotal” refers to process of information that lacks specific methods, measures, deployment mechanisms, and evaluation, improvement, and learning factors.
- Anecdotal information frequently uses examples and describes individual activities rather than systematic process.

## Approach

- The term “approach” refers to the methods used by an organization to address the energy efficiency criteria item requirements.
- Approach includes the appropriateness of the methods to the item requirements and the effectiveness of their use.

## Baseline

- Baseline data is basic information gathered before an energy efficiency program begins. It is used later at the review stage to provide a comparison for assessing program impact.

## Benchmarks

- The term “benchmarks” refers to processes and results that represent best practices and performance for similar activities, inside or outside an organization’s industry.
- Organizations engage in benchmarking to understand the current dimension of world-class performance and to achieve discontinuous (nonincremental) or “breakthrough” improvement.
- Benchmarks are one form of comparative data.
- Other comparative data organizations might use include industry data collected by a third party (frequently industry averages, data on competitors’ performance, and comparison with similar organizations that are in the same geographic area or that provide similar products and services in other geographic areas).

## Customers

- Actual or potential end users of your products.
- Immediate purchasers or users such as distributors, agents, organizations that further process your product as a component of their product.
- Customers of your competitors.

## Deployment

- The term “deployment” refers to the extent to which an approach is applied in addressing the requirement of energy efficiency criteria items.
- Deployment is evaluated on the basis of the breadth and the depth of application of the approach to relevant areas or work units through out the organization.

## Effective

- How well a process or a measure addresses its intended purpose.
- Determining effectiveness requires;
- The evaluation of how well the process is aligned with the organization’s needs and how well the process is deployed.
- The evaluation of the outcome of the measure used.

## Energy Audit

- An energy audit is an inspection, survey and analysis of energy flows in a building, process or system with the objective of understanding the energy dynamics of the system under study.
- Typically an energy audit is conducted to seek opportunities to reduce the amount of energy input into the system without negatively affecting the output(s).

## Energy Conservation Cell

- A dedicated unit or division of the organization focusing on and responsible for energy efficiency aspects.

## Energy Efficiency

- Energy efficiency is the ratio between the useful output of an energy conversion machine or equipment and the input, in energy terms. The useful output may be electric power, mechanical work, or heat.
- Efficient energy use, sometimes simply called energy efficiency, is using less energy to provide the same level of energy service.

## Energy Manger

- An energy manager is responsible for improving the energy efficiency of an organization. They are often required to act as agents of change within their organization, coordinating all aspects of energy management, from energy efficiency to reduction of carbon dioxide emissions by: encouraging the use of renewable/sustainable energy resources within an organization or community and raising the profile of energy conservation.

## Goals

- “Goals” refers to a future condition or performance level that one intends to achieve.
- Goals can be both short and long-term.
- Goals are ends that guide actions.
- Quantitative goals frequently referred to as “targets” include a numerical point or range.
- Term “Stretch Goals” refers to desired major, discontinuous (non incremental) or “breakthrough” improvements usually in areas most critical to your organization’s future success.
- Goals can serve many purposes, including;
- Clarifying strategic objectives and action plans to indicate how you will measure success.
- Fostering teamwork by focusing on a common end.
- Encouraging “out-of-the-box” thinking to achieve a stretch goal.
- Providing a basis for measuring and accelerating progress.

## Green Image

- Customer or public perception as an environmentally friendly and responsible entity.

## Historical Data

- A series of past daily, weekly, or monthly data.
- Historical data are used for trend analysis and for comparisons to previous periods.

## Innovation Process

- Making meaningful change to improve products, programmes, services, processes, or organizational effectiveness and to create new value for stakeholders.
- Innovation involves the adoption of an idea, process, technology or product that is either new or new to its proposed application.
- Innovation is a multistep process that involves development & knowledge sharing, a decision to implement, implementation, evaluation & learning.
- Innovation includes both technological and organizational innovation to succeed in the future.

## Integration

- The term “integration” refers to the harmonization of plans, processes, information, resource decisions, actions, results, and analyses to support key organization-wide goals.
- Effective integration goes beyond alignment and is achieved when the individual components of an energy efficiency performance management system operates as a fully interconnected unit.

## Learning

- “Learning” refers to new knowledge or skills acquired through evaluation, study, experience, and innovation.
- Two distinct kinds of learning; organizational & personal.
- Organizational learning is achieved through research & development, evaluation and improvement cycles, workforce & stakeholder ideas and input, best practice sharing and benchmarking.
- Personal learning is achieved through education, training and developmental opportunities that further individual growth.
- Learning contributes to a competitive advantage and sustainability for the organization and its workforce.

## Levels

- Numerical information that places or positions an organization’s results and performance on a meaningful measurement scale.
- Performance levels permit evaluation relative to past performance, projections, goals, and appropriate comparisons.

## Load Factor (LF)

- Load factor is an indicator of the ratio between energy delivered and the maximum demand
- $LF = (\text{Energy kWh consumed in the year}) / (\text{Average monthly maximum demand kVA}) \times (\text{Hours per year}) \times (\text{Average Power Factor})$

## Measures or Indicators

- “Measures and indicators” refer to numerical information that quantifies input, output, and performance dimension of processes, products, programmes, projects, services and the overall organization (outcomes).

## Mission

- Mission statements detail the purpose, path and philosophy of an organization.
- They clarify who the company is, what it does, what it stands for, and why it does these things.
- It can also address problems or needs the organization is trying to address or identify what makes the organization unique.
- Mission statement is the organization's reason for existence.

## Monitoring

- Monitoring is the systematic collection and analysis of information to provide management and the main stakeholders of an activity with information for decision-making.

## Renewable Energy

- Renewable energy is [energy](#) generated from [natural resources](#) such as [sunlight](#), [wind](#), hydro, biomass, etc. which are [renewable](#) (naturally replenished).

## Results

- The term “results” refers to outputs and outcomes achieved by an organization in addressing the requirement of energy efficiency criteria items.
- Results are evaluated on the basis of current performance, performance relative to appropriate comparisons, the rate, breadth, and importance of performance improvements; and the relationship of results measures to key organizational performance requirements.

## Soft Starter

- A soft starter is a device used with alternative current ([AC](#)) [electric motors](#) to temporarily reduce the load and [torque](#) in the [power-train](#) of the motor during startup.

## Specific Energy Consumption

- Specific Energy Consumption is the [energy](#) consumed to produce a unit of output (product or service).

## Sustainability

- Your organization’s ability to address current business needs and to have the agility and strategic management to prepare successfully for your future business, market and operating environment.
- Sustainability considerations might include workforce capability and capacity, resource availability, technology, knowledge, core competencies, work systems, facilities and equipment.
- A sustainable organization ensures a safe and secure environment for the workforce and other key stakeholders.
- Sustainability has a component related to preparedness for real-time or short-term emergencies.

## Systematic

- Approaches that are well ordered, are repeatable, and use data and information so learning is possible.
- Approaches are systematic if they build in the opportunity for evaluation, improvement and sharing, thereby permitting a gain in maturity.

## Target

- Target is the aim or the goal intended to be attained.
- Target is believed to be attainable.

## Trends

- Numerical information that shows the direction and rate of change for an organization’s results.
- Trends provide a time sequence of organizational performance.
- A minimum of historical data (not projected) data points generally is needed to begin to ascertain a trend.
- More data points are needed to define a statistically valid trend.

- Time period for a trend is determined by the cycle time of the process being measured.
- Shorter cycle times demand more frequent measurements while longer cycle times might require longer time periods before meaningful trend can be determined.

### **Variable Speed Drive (VSD)**

- A variable speed drive is a system for controlling the rotational speed of an [alternating current](#) (AC) [electric motor](#) by controlling the frequency of the electrical power supplied to the motor.
- Variable speed drives are also known as adjustable-frequency drives (AFD), variable-frequency drives (VFD), AC drives, microdrives or inverter drives. Since the voltage is varied along with frequency, these are sometimes also called VVVF (variable voltage variable frequency) drives.

### **Workforce**

- All people actively involved in accomplishing the work of your organization.
- Includes paid employees & contract employees supervised by the organization.
- Includes team leaders, supervisors & managers at all levels.

### **Workforce Capability**

- Your organization's ability to accomplish its work processes through the knowledge, skills, abilities and competencies of its people.
- Capability may include ability to build and sustain relationships with your customers, to innovate and transition to new technologies, to develop new products, services and work processes and to meet changing business, market and regulatory demands.

### **Workforce Capacity**

- Your organization's ability to ensure sufficient staffing levels to accomplish its work processes and successfully deliver your products and services to your customers including the ability to meet seasonal or varying demand levels.

## Industrial Classification System (ICS) Codes

Please insert ICS codes most relevant to your area(s) of operation in the Application Form (Chapter 6)

Code	Sector	Code	Sector	Code	Sector
111	Crop Production	444	Building Material and Garden Equipment and Supplies Dealers		
112	Animal Production	445	Food and Beverage Stores		
113	Forestry and Logging	446	Health and Personal Care Stores		
115	Support Activities for Agriculture and Forestry	447	Gasoline Stations		
211	Oil and Gas Extraction	448	Clothing and Clothing Accessories Stores		
212	Mining (except Oil and Gas)	451	Sporting Goods, Hobby, Book, and Music Stores		
213	Support Activities for Mining	452	General Merchandise Stores		
221	Utilities	453	Miscellaneous Store Retailers		
236	Construction of Buildings	454	Nonstore Retailers		
237	Heavy and Civil Engineering Construction	481	Air Transportation	621	Ambulatory Health Care Services
238	Specialty Trade Contractors	482	Rail Transportation	6211	Offices of Physicians
311	Food Manufacturing	483	Water Transportation	6212	Offices of Dentists
312	Beverage and Tobacco Product Manufacturing	484	Truck Transportation	6213	Offices of Other Health Practitioners
313	Textile Mills	485	Transit and Ground Passenger Transportation	6214	Outpatient Care Centers
315	Apparel Manufacturing	486	Pipeline Transportation	6215	Medical and Diagnostic Laboratories
316	Leather and Allied Product Manufacturing	487	Scenic and Sightseeing Transportation	6216	Home Health Care Services
321	Wood Product Manufacturing	48~	Support Activities for Transportation	6219	Other Ambulatory Health Care Services
322	Paper Manufacturing	491	Postal Service	622	Hospitals
323	Printing and Related Support Activities	492	Couriers and Messengers	623	Nursing and Residential Care Facilities
324	Petroleum and Coal Products Manufacturing	493	Warehousing and Storage	711	Performing Arts, Spectator Sports, and Related Industries
325	Chemical Manufacturing	511	Publishing Industries (except Internet)	712	Museums, Historical Sites, and Similar Institutions
326	Plastics and Rubber Products Manufacturing	512	Motion Picture and Sound Recording Industries	713	Amusement, Gambling, and Recreation Industries
327	Nonmetallic Mineral Product Manufacturing	515	Broadcasting (except Internet)	721	Accommodation
331	Primary Metal Manufacturing	516	Internet Publishing and Broadcasting	722	Food Services and Drinking Places
332	Fabricated Metal Product Manufacturing	517	Telecommunications	811	Repair and Maintenance
333	Machinery Manufacturing	521	Monetary Authorities-Central Bank	812	Personal and Laundry Services
334	Computer and Electronic Product Manufacturing	522	Credit Intermediation and Related Activities	813	Religious, Grantmaking, Civic, Professional, and Similar Organizations
335	Electrical Equipment, Appliance, and Component Manufacturing	523	Securities, Commodity Contracts, and Other Financial Investments and Related Activities	814	Private Households
336	Transportation Equipment Manufacturing	524	Insurance Carriers and Related Activities	921	Executive, Legislative, and Other General Government Support
337	Furniture and Related Product Manufacturing	525	Funds, Trusts, and Other Financial Vehicles	922	Justice, Public Order, Safety Activities
339	Miscellaneous Manufacturing	531	Real Estate	923	Administration of Human Resource Programs
423	Merchant Wholesalers, Durable Goods	532	Rental and Leasing Services	924	Administration of Environmental Quality Programs
424	Merchant Wholesalers, Nondurable Goods	533	Lessors of Nonfinancial Intangible Assets (except Copyrighted Works)	925	Administration of Housing Programs, Urban Planning, and Community Development
425	Wholesale Electronic Markets and Agents and Brokers	541	Professional, Scientific, and Technical Services	926	Administration of Economic Programs
441	Motor Vehicle and Parts Dealers	551	Management of Companies and Enterprises	927	Space Research and Technology
442	Furniture and Home Furnishings Stores	561	Administrative and Support Services	928	National Security and International Affairs
443	Electronics and Appliance Stores	562	Waste Management and Remediation Services	999	Unclassified Establishments