PRO-FORMA SUBMISSION

ASEAN Energy Efficiency and Conservation (EE&C)

Best Practices Competition for Energy Management in Buildings and Industries

ASEAN Energy Awards – 2026

CATEGORY: ENERGY MANAGEMENT IN BUILDINGS

SUB-CATEGORY: SMALL & MEDIUM / LARGE

CERTIFICATION AND COVERING NOTE FROM ENTREE

Sample:
The (*name of building*) is a *(type of building)* that occupies a site area of about _____ square meters and was completed in _____. (Following is a brief description of the building, energy management activities, and certification implemented in the building, say). The building has spent a total of USD _____ investment, and generate these amount of savings (energy savings, cost savings, CO_2 emission reduction, etc.)

The details of the applicant's general information (as appropriate) are:

Name of Company : **……** *(Name of Building)*
Type of Building : Office/Library/Retail/Hotels/Hospital/School/Apartments/Others (please specify)
Category : Small and Medium/Large Buildings
Primary Contact Person : .....
Designation : .....
Business Address : .....
Telephone/ Mobile Phone : .....
Email : .....

I T E M	D A T A	COMPLIANCE (PUT CHECK)
Submission Requirement	**(Total must be 17 pages, excluding attachments)**	
- Certification and Covering Note from Entree	Max 1 page	
- Cover of Report	Max 1 page	
- Project/Activity Overview	Max 1 page	
- Impact		
- Sustainability		
- Replicability		
- Originality		
- Supporting Documents/Attachments		
Pre-Qualification	**Data**	
- Average Annual Energy Consumption based on the last three (3) years prior to the submission year Small and Medium: Electricity ≤ 2,000 MWh/year Large: Electricity > 2,000 MWh/year	….....MWh/year	
- At least 5 full-year (60 months) of operation	_____ years	

The (name of building) hereby agreed to allow the Board of Judges to visit the building and verify the authenticity of the data. However, two weeks advance notice is required to allow for necessary arrangements.

The undersigned certified that the information given is true and accurate and prepared with the consent of the party/ies involved.

_____
Name of the Client
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Endorsed by Focal Point
Name, Office (*country*) & Position
Tel, Fax, e-mail

COVER OF REPORT
(NAME OF BUILDING, TYPE OF BUILDING, PHOTO, ETC.)
MAX 1 PAGE

PROJECT/ ACTIVITY OVERVIEW (1 PAGE WRITE-UP)

General discussion to focus on the description of the building and its energy consumption, the rationale, target of the energy management initiatives.

(**This introductory note must be deleted in the submission.)**

IMPACT
[30 POINTS]

1 Energy Saving **[12]**
2 Environmental Effect **[6]**
3 Economic Effect **[6]**
  3.1 Investment
  3.2 Payback Period
4 Energy Efficiency Index **[6]**

(**This introductory note must be deleted in the submission)**

SUSTAINABILITY
[40 POINTS]

1 Established or Improved Organization for Energy Management **[15]**

2 Top Level Management Commitment **[10]**

3 Short and Long-term Plan **[5]**

4 Capacity Building **[10]**

4.1 Activities

4.2 Educational Training

(**This introductory note must be deleted in the submission)**

REPLICABILITY
[20 POINTS]

1 Management Practices and Measures (Including staff with ASEAN Energy Management Scheme (AEMAS) and national certification systems) **[10]**

2 Technology (showcasing new and advanced technologies) **[10]**

(**This introductory note must be deleted in the submission)**

ORIGINALITY
[5 POINTS]

Discussion of originality features to focus on any creativity/ innovation projects being undertaken.

(**This introductory note must be deleted in the submission)**

SUPPORTING DOCUMENTS

Supporting documents may be attached.

(**This introductory note must be deleted in the submission)**

BUILDING ENERGY INFORMATION

a) General Information
   1) Name of Company:
   2) Name of Building:
   3) Location of Building:
   4) Building Category: Office/Retail/Hotel/Hospital/School/Residential/Other (please specify)
   5) Type of Business:
   6) Energy Manager:
   7) Year of operation:
   8) Total Gross Floor Area (m^2):
   9) Air-Conditioned Area (m^2):
   10) Average Annual Energy Consumption:

b) Historical Energy Consumption

No.	Type of Fuel	Unit	Year 1	Year 2	Year 3	Year 4	Year 5	Heating Value Conversion
1	Gasoline	*MJ*						
2	Diesel	*MJ*						
3	LPG	*MJ*						
4	Natural Gas	*MJ*						
5	Coal	*MJ*						
6	Firewood	*MJ*						
7	Charcoal	*MJ*						
8	Bagasse	*MJ*						
9	Municipal Solid Waste	*MJ*						
10	Sawdust	*MJ*						
11	Agriculture Waste	*MJ*						
12	Other	*MJ*						
13	Electricity	kWh						
14		*MJ*						
15	Total Fuel Consumption (1 – 12)	*MJ*						
16	Total Electricity Consumption (13)	*kWh*						
17	Total Energy Consumption (14+15)	*MJ*						

BUILDING ENERGY INFORMATION

c) Building Occupancy

	Year 1	Year 2	Year 3	Year 4	Year 5
Occupancy Rate (%)					
Average Annual Operating Hours (Hrs.)					

d) Energy Efficiency Index/Energy Intensity (kWh/m^2/yr)*

	Year 1	Year 2	Year 3	Year 4	Year 5
Energy Efficiency Index (GFA)					
Energy Efficiency Index (Air-Conditioned Area)					
% Improvements (compared to baseline – 2020)					

Based on **Gross Floor Area**, **EEI (GFA) = (TBEC ÷ GFA) x (NH ÷ OH)**
Based on **Air-conditioned area**, **EEI (AC) = (TBEC ÷ AC) x (NH ÷ OH)**

EEI	Normalized Energy Efficiency Index	kWh/m^2/yr
TBEC	Total Building Energy Consumption	kWh/yr
GFA	Total Gross Floor Area	m^2
NH	Normalized Operating Hours = 2000 hr/yr	hr/yr
OH	Operating Hours	hr/yr
AC	Air-conditioned area	m^2

e) Energy Consuming Facilities

No.	Type of Facilities/System	Unit and Capacity	Operating Hours	% of energy used

BUILDING ENERGY INFORMATION

f) Energy Conservation Measures

No.	Measures	Year Implemented	Baseline Energy Consumption (2019)	Energy Saving (kJ/yr)	Energy Saving (%)	Cost Saving (USD/year)	CO_2 Emission Avoided (Ton CO_2eq/year)	Investment (USD)	Payback Period (year)
TOTAL									

PRO-FORMA SUBMISSION

ASEAN Energy Efficiency and Conservation (EE&C)

Best Practices Competition for Energy Management in Buildings and Industries

ASEAN Energy Awards – 2026

CATEGORY: ENERGY MANAGEMENT IN INDUSTRIES

SUB-CATEGORY: SMALL& MEDIUM/ LARGE

CERTIFICATION AND COVERING NOTE FROM ENTREE

Sample:
The (*name of company*) is a *(type of industry)* that occupies a site area of about _____ square meters and was completed in _____. (Following is a brief description of the company/industry, energy management activities, and certification implemented in the company/industry, say). The industry has spent a total of USD _____ investment, and generate these amount of savings (energy consumption savings, cost savings, Carbon Dioxide Emissions reduction, etc.)

The details of the applicant's general information (as appropriate) are:

Name of Company	:	.....
Type of Industry	:	.....
Age of Industry	:	.....
Nature of Business	:	.....
Number of Employees	:	.....
Category	:	Small and Medium/ Large Industries
Primary Contact Person	:	.....
Designation	:	.....
Business Address	:	.....
Telephone/ Mobile Phone	:	.....
Email	:	.....

I T E M	**D A T A**	**COMPLIANCE (PUT CHECK)**
Submission Requirement	**(Total must be 17 pages, excluding attachments)**	
- Certification and Covering Note from Entree	Max 1 page	
- Cover of Report	Max 1 page	
- Project/Activity Overview	Max 1 page	
- Impact		
- Sustainability		
- Replicability		
- Originality		
- Supporting Documents/Attachments		
Pre-Qualification	**Data**	
- Average Annual Energy Consumption based on the last three (3) years prior to the submission year Small & Medium: ≤ 30 million MJ/year Large: ≥ 30 million MJ/year	….....MJ/year	
- At least 5 full-year (60 months) of operation	_____ years	

The (name of company) hereby agreed to allow the Board of Judges to visit the building and verify the authenticity of the data. However, two weeks advance notice is required to allow for necessary arrangements.

The undersigned certified that the information given is true and accurate and prepared with the consent of the party/ies involved.

_____
Name of the Client
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Endorsed by Focal Point
Name, Office (*country*) & Position
Tel, Fax, e-mail

COVER OF REPORT (NAME OF COMPANY, TYPE OF INDUSTRY, PHOTO, ETC.)
MAX 1 PAGE

PROJECT/ ACTIVITY OVERVIEW (1 PAGE WRITE-UP)

General discussion to focus on the description of the industry and its energy consumption, the rationale and target of the energy management initiatives.

(**This introductory note must be deleted in the submission)**

IMPACT
[30 POINTS]

1 Energy Saving **[12]**
2 Environmental Effect **[6]**
3 Economic Effect **[6]**
  3.1 Investment
  3.2 Payback Period
4 Energy Efficiency Index **[6]**

(**This introductory note must be deleted in the submission)**

SUSTAINABILITY
[40 POINTS]

1 Established or Improved Organization for Energy Management **[15]**

2 Top Level Management Commitment **[10]**

3 Short and Long-term Plan **[5]**

4 Capacity Building **[10]**

4.1 Activities

4.2 Educational Training

(**This introductory note must be deleted in the submission)**

REPLICABILITY
[20 POINTS]

1 Management Practices and Measures (Including staff with ASEAN Energy Management Scheme (AEMAS) and national certification systems) **[10]**

2 Technology (showcasing new and advanced technologies) **[10]**

(**This introductory note must be deleted in the submission)**

ORIGINALITY
[5 POINTS]

Discussion of originality features to focus on any creativity/ innovation projects being undertaken.

(**This introductory note must be deleted in the submission)**

SUPPORTING DOCUMENTS

Supporting documents may be attached.

(**This introductory note must be deleted in the submission)**

FACTORY ENERGY INFORMATION

a) General Information
   1) Name of Company:
   2) Name of Factory:
   3) Location of Factory:
   4) Type of Industry: Iron & Steel/Pulp Paper/Chemical/Cement & Non-Metallic Mineral/Textile/Food, Beverages, & Tobacco/Mining/Oil and Gas/Construction/Manufacturing/Other (please specify)
   5) Energy Manager:
   6) Year of operation:
   7) Operating Hours (days, week, months):
   8) Average Annual Energy Consumption:
   9) Main Products:
   10) Production Capacity:

b) Historical Energy Consumption

No.	Type of Fuel	Unit	Year 1	Year 2	Year 3	Year 4	Year 5	Heating Value Conversion
1	Gasoline	*MJ*						
2	Diesel	*MJ*						
3	LPG	*MJ*						
4	Natural Gas	*MJ*						
5	Coal	*MJ*						
6	Firewood	*MJ*						
7	Charcoal	*MJ*						
8	Bagasse	*MJ*						
9	Municipal Solid Waste	*MJ*						
10	Sawdust	*MJ*						
11	Agriculture Waste	*MJ*						
12	Other	*MJ*						
13	Electricity	kWh						
14		*MJ*						
15	Total Fuel Consumption (1 – 12)	*MJ*						
16	Total Electricity Consumption (13)	*kWh*						
17	Total Energy Consumption (14+15)	*MJ*						

FACTORY ENERGY INFORMATION

c) Production Output

No.	Type of Product	Unit	Prod. Capacity	Year 1	Year 2	Year 3	Year 4	Year 5
1								
2								
3								
4								

d) Energy Efficiency Index/Energy Intensity (kJ/unit/yr)*

Year	Year 1	Year 2	Year 3	Year 4	Year 5
Energy Efficiency Index					
% Improvements (compared to baseline – 2019)					

Standard Calculations for the Energy Efficiency Index in industry
Based on **Annual Production, EEI (AP) = (TIEC ÷ AP)**

EI	Energy Efficiency Index	kJ/unit/yr
TIEC	Total Industry Energy Consumption	kJ/yr
AP	Annual Production Output	Units/yr

e) Energy Consuming Facilities

No.	Type of Facilities/System	Unit and Capacity	Operating Hours	% of energy used

FACTORY ENERGY INFORMATION

f) Energy Conservation Measures

No.	Measures	Year Implemented	Baseline Energy Consumption (2019)	Energy Saving (kJ/year)	Energy Saving (%)	Cost Saving (USD/year)	CO_2 Emission Avoided (Ton CO_2eq/year)	Investment (USD)	Payback Period (year)
TOTAL									

PRO-FORMA SUBMISSION

ASEAN Energy Efficiency and Conservation (EE&C)

Best Practices Competition for Energy Management in Buildings and Industries

ASEAN Energy Awards – 2026

CATEGORY: ENERGY MANAGEMENT SPECIAL SUBMISSION

CERTIFICATION AND COVERING NOTE FROM ENTREE

Sample:
The (*name of project*) is a (*special project/pilot/demonstration/research development*) that applies energy management practices to reduce energy consumption in the building/factories. (Following is a brief description of the project, energy management activities, and certification implemented in the building/factories). The project has spent a total of USD _____ investment, and generate these amount of savings (energy consumption savings, cost savings, carbon dioxide emissions reduction, etc.)

The details of the applicant's general information (as appropriate) are:

Name of Project : .....
Primary Contact Person : .....
Designation : .....
Project Address : .....
Telephone/ Mobile Phone : .....
Email : .....

I T E M	D A T A	COMPLIANCE (PUT CHECK)
Submission Requirement	**(Total must be 10 pages, excluding attachments)**	
- Certification and Covering Note from Entree	Max 1 page	
- Cover of Report	Max 1 page	
- Project/Activity Overview	Max 1 page	
- Impact		
- Sustainability		
- Replicability		
- Originality		
- Supporting Documents/Attachments		
Pre-Qualification	**Data**	
- Focuses on energy management projects within a specific area, system, or process of the building or factory; - A special project, pilot, demonstration, or research development that apply energy management practices to reduce energy consumption; - Aims to promote the development of innovative energy efficiency solutions and management strategies that are replicable within the ASEAN local context and conditions.		

The (name of project) hereby agreed to allow the Board of Judges to visit the location of the project and verify the authenticity of the data. However, two weeks advance notice is required to allow for necessary arrangements.

The undersigned certified that the information given is true and accurate and prepared with the consent of the party/ies involved.

_____
Name of the Client
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Endorsed by Focal Point
Name, Office (*country*) & Position
Tel, Fax, e-mail

COVER OF REPORT (NAME OF COMPANY, TYPE OF INDUSTRY, PHOTO, ETC.)
MAX 1 PAGE

PROJECT/ ACTIVITY OVERVIEW (1 PAGE WRITE-UP)

- The project/activity focuses on energy management projects within a specific area, system, or process of the building or factory.

- It refers to special projects, pilots, demonstrations or research development that apply energy management practices to reduce energy consumption.

- It aims to promote the development of innovative energy efficiency solutions and management strategies that are replicable within the ASEAN local context and conditions.

(**This introductory note must be deleted in the submission)**

IMPACT

SUSTAINABILITY

REPLICABILITY

ORIGINALITY

SUPPORTING DOCUMENTS

Supporting documents may be attached.

(**This introductory note must be deleted in the submission)**

PRO-FORMA SUBMISSION

ASEAN Energy Efficiency and Conservation (EE&C)
Best Practice Competition for Green Building
ASEAN Energy Awards - 2026

CATEGORY: GREEN BUILDING

SUB - CATEGORY: SMALL & MEDIUM / LARGE BUILDING

CERTIFICATION AND COVERING NOTE FROM ENTREE

Sample:

The (*name of building*) occupies a site area of about _____ square meters and was completed in _____. (Following is a brief description of the building, say). The building has 2 basements and 9-storeys (5 storey H-shaped ward tower block above the 4-storey podium block) with a total gross floor area of _____ square meters. The building has spent a total of USD _____ investment, and generate these amount of savings (energy savings, cost savings, CO_2 emission reduction, etc.)

Type of Building: Office/Library/Retail/Hotels/Hospital/School/Apartments/Others (please specify)

The details of client and project consultants (as appropriate) are:

Client : ..... *(Name of Building)*

Architect : .....

M&E Engineers : .....

C&S Engineers : .....

Project Managers : .....

ITEM	DATA	COMPLIANCE (PUT CHECK)
Submission Requirement	**(Total must be Max. 25 pages)**	
- Certification and Covering Note from Entree	1 page	
- Cover of Report	1 page	
- Energy Efficiency (Active and Passive Designs)	Max 4 pages	
- Renewable Energy	Max 2 pages	
- Water efficiency	Max 1 page	
- Environmental Sustainability (Materials, Greenery, Sustainable Site, etc)	Max 2 pages	
- Indoor Environmental Quality and Well-Being	Max 3 pages	
- Operation and maintenance & Green features, Innovation, and Occupant's awareness	Max 3 pages	
- Building Information	Max 4 pages	
- Drawings (in A4 / A3 size): Typical floor plan, site layout, roof plan and vertical cross section, etc	Max 4 pages	
Pre-Qualification		
- Energy Efficiency Index of Occupied Air-conditioned Area: Office: 128 kWh/m^2/yr; Library: 160 kWh/ m^2/yr; Retail/Shopping Malls: 154 kWh/ m^2/yr; Hotels: 173 kWh/ m^2/yr; Hospital: 230 kWh/m^2/yr; School: 128 kWh/ m^2/yr; Apartment: 100 kWh/ m^2/yr; Others: 180 kWh/ m^2/yr	___ kWh/m^2/yr	
- Temperature and Other Settings: Not less than 21ºC but not more than 26ºC; RH: max 70% (applies to air-conditioning. Not pre-requisite - Higher score for having RH control system (below 65%).		
- Lighting Load: Office - Max 8 watts/m^2; Others - Max 15 watts/m^2	___ watts/m^2 (GFA)	
- Operating hours/yr: 2,000 hours/year		
- At least 1 full-year of operation prior to nomination in national competition	___ years	
Type of Font: Times Roman 12		

The (name of building) hereby agreed to allow the Board of Judges to visit the building and verify the authenticity of the data. However, two weeks advance notice is required to allow for necessary arrangements.

The undersigned certified that the information given is true and accurate and prepared with the consent of the party/ies involved.

_____
Name of the Client
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Endorsed by Focal Point
Name, Office (*country*) & Position
Tel, Fax, e-mail

COVER OF REPORT (NAME OF BUILDING, PHOTO, ETC.)

ENERGY EFFICIENCY - ACTIVE & PASSIVE DESIGN (MAX 4 PAGES) [30 POINTS]

A. ACTIVE DESIGN CONCEPTS [15 points]

1. Air-conditioning system (selection, layout and plant system design) **[5]**

:_____kW/ton_____W/m^2

Chiller Plant	Efficiency (kW/ton)
Chiller (A)	
Chilled water pump (B)	
Condenser water pump (C)	
Cooling tower (D)	
System efficiency (A + B + C + D)	

2. Overall energy consumption per sq.m. of normal air-conditioned areas **[2]**

3. Heat recovery systems (e.g. heat pump for hot water) **[1]**

4. Lighting systems: ___W/m^2 **[3]**

5. Vertical transportation systems (e.g. energy efficient lift, escalators with motion sensor control, etc.) **[3]**

6. Other efficiency strategies for active design, please specify **[1]**

B. PASSIVE DESIGN CONCEPTS [15 points]

1. Building orientation, shape, and façade design as a response to site location **[2]**

2. Overall heat transfer through building envelope **[4]**
   a. Wall Overall Thermal Transfer Value (OTTV) __W/m^2
   b. Roof U-Value_____W/m^2k)

3. Window to Wall Ratio (WWR)_____% **[2]**

4. Material of building envelope: **[2]**
   a. U value and SC value of fenestration, including shading elements of east and west façade
   b. U value of opaque wall element

5. Daylighting (the use of natural lighting in the building interior, including service areas, such as hall, atrium, corridor, parking, toilet, etc.) **[2]**

ENERGY EFFICIENCY - ACTIVE & PASSIVE DESIGN (MAX 4 PAGES)

6. Natural Ventilation (the use of natural ventilation in the building interior, including service areas, such as hall, atrium, corridor, parking, toilet, etc.) **[2]**

7. Other passive design strategies, please specify **[1]**

(Note: This introductory note must be deleted in the submission)

ENERGY EFFICIENCY - ACTIVE & PASSIVE DESIGN (MAX 4 PAGES)

ENERGY EFFICIENCY - ACTIVE & PASSIVE DESIGN (MAX 4 PAGES)

RENEWABLE ENERGY (MAX 2 PAGES)
[10 POINTS]

1. Total onsite renewable energy installed capacity and total energy generated (kWh) yearly **[3]**

2. % RE integration of total building energy consumption (onsite and offsite) and emission reductions **[3]**

3. Onsite RE system investment and pay-back period **[2]**

4. Other RE concepts (including offsite RE and REC) **[2]**
   (Proof of document/certification must be provided in the submission)

(Note: This introductory note must be deleted in the submission)

RENEWABLE ENERGY (MAX 2 PAGES)

WATER EFFICIENCY (1 PAGE)
[10 POINTS]

1. Use of water-efficient fittings (e.g. flow rate of taps L/min, dual flush WCs, L/flush etc.)**[2]**

2. Provision of water sub-metering and leak detection system **[3]**

3. Water-efficient landscaping **[2]**
   a. Use of recycled water for landscape irrigation
   b. Use of water-efficient irrigation system (e.g. drip irrigation with rain sensors)

4. Provision of alternative clean water supply **[2]**
   a. Water recycling systems (e.g. treat grey water and/or black water)
   b. Rainwater harvesting

5. Other water efficiency strategies, please specify **[1]**

(Note: This introductory note must be deleted in the submission)

ENVIRONMENTAL SUSTAINABILITY (MAX 2 PAGES)
[20 POINTS]

1. Sustainable construction **[3]**
   a. Conservation of existing structures & material reuse
   b. Use of materials/ products with recycled content
   c. Environmentally friendly products with green label certification
   d. Good Environmental Management system during construction
   e. Use of local materials
   f. Minimise pollution from construction activities

2. Sustainable site development **[5]**
   a. Restoration and conservation of existing trees
   b. Basic green area (without hardscape): ___ m^2
   c. Vertical and roof greeneries:___ m^2
   d. % landscape areas over total site area
   e. Stormwater management (e.g. zero run-off system)

3. Accessibility and active transport facilities **[3]**
   a. Distance from nearest bus stop/train station): ___ meter
   b. Building's permeability and ease of access (barrier-free)
   c. Promotion of active mobility (e.g. provision of bicycle parking)

4. Waste management system **[3]**
   a. Provision of facilities to separate solid waste (e.g. organic, inorganic, toxic/hazardous, etc)
   b. Implementation of waste recycling systems (e.g. composting facilities)

5. Green Building Certification **[5]**

6. Other environmental sustainability strategies, please specify **[1]**

(Note: This introductory note must be deleted in the submission.)

ENVIRONMENTAL SUSTAINABILITY (MAX 2 PAGES)

INDOOR ENVIRONMENTAL QUALITY AND WELL-BEING
(MAX 3 PAGES)
[20 POINTS]

1. Thermal comfort **[5]**
   a. Design indoor temperature and relative humidity
   b. Number of ventilation air per person (CFM/person)
2. Visual comfort **[5]**
   a. Use of appropriate lighting illumination in accordance with building's function
   b. Quality of artificial lighting (e.g. Colour Rendering Index (CRI), responsive light control)
   c. Provision of circadian lighting system
3. Use of non-toxic materials **[3]**
   a. Use of low volatile organic compound (VOC) paints and coatings
   b. Use of VOC and low formaldehyde emission products (e.g. carpets)
4. Pollution management **[3]**
   a. Minimisation of pollution and disturbance, such as noise, vibration, EM wave, dust, bacterial count and CO_2 concentration
   b. Environmental tobacco smoke control (e.g. design of a no-smoking building, separated smoking area, etc)
5. Support for user's health and wellbeing **[3]**
   a. Provision of outside view
   b. Connection to natural elements, such as plants, water, and light (e.g. biophilic design, indoor plants, etc).
   c. Promotion of active interior design (e.g. design of internal stairs)
6. Other strategies to improve indoor environmental quality, please specify **[1]**

(Note: This introductory note must be deleted in the submission.)

INDOOR ENVIRONMENTAL QUALITY AND WELL-BEING
(MAX 3 PAGES)

INDOOR ENVIRONMENTAL QUALITY AND WELL-BEING
(MAX 3 PAGES)

OPERATION, MAINTENANCE, INNOVATION, OTHER GREEN FEATURES, AND OCCUPANT'S AWARENESS (MAX 3 PAGES) [8 POINTS]

1. Sustainable operation and maintenance **[2]**
   a. Management policies to support sustainable lifestyle (e.g. reduction of plastic use, sustainability awareness programmes, etc)
   b. Buildings Standard of Operation (SOP) to reduce energy consumption
   c. Records, logs & other documentation to show the improvement of green building design
2. Design innovation **[2]**
   a. Innovation in façade design
   b. Bio-climatic design
3. Innovation in energy efficiency (e.g. smart building management system, cogeneration, etc) **[2]**
4. Occupant's awareness of green building (e.g. conducting surveys for building's occupants on green building features, thermal comfort, building management system, etc) **[1]**
5. Other features and innovations for positive environmental impact, please specify **[1]**

(Note: This introductory note must be deleted in the submission.)

OPERATION, MAINTENANCE, INNOVATION, OTHER GREEN FEATURES, AND OCCUPANT'S AWARENESS (MAX 3 PAGES)

OPERATION, MAINTENANCE, INNOVATION, OTHER GREEN FEATURES, AND OCCUPANT'S AWARENESS (MAX 3 PAGES)

BUILDING INFORMATION (FILL UP DETAILS MAX 4 PAGES)

A. *General Information*

1. Name of the building
2. Name of owner and management company
3. Building Category: Office/Retail/Hotel/Hospital/School/Residential/Other (please specify)
4. Address
5. Tel. No./Fax No./E-mail address

B. *Building Physical Information*

1. Physical building background
   - Brief history
   - Single function usage or mix function usage (specify)
2. Age of building
3. Year of construction
4. Retrofitting history (Specify the changes and year of retrofitting)
5. Total number of storeys
6. Total number of basement floor
7. Number of car park storeys
8. Total gross floor area
9. Surface area of the envelope including the roof to gross floor area ratio
10. Car park area
11. Gross lettable area
12. Air-conditioned area
13. Non-air conditioned area
14. Plot ratio (total GFA / ground area)

C. *Building Design and Practice Information*

1. Plants and landscape design/ wind and natural ventilation/ water features/ daylighting/ etc.
2. Facade and shading design
   - Type of facade
   - Color of facade
   - Use of shading devices
3. Location of service core
4. Shape of building
5. Overall heat transfer through building envelope: Wall___ W/m^2; Roof_____ W/m^2
6. Lighting fixtures
7. Lighting load_____ W/m^2 (gross floor area)
8. Building air-conditioner system and equipment
   - Fresh air exchange rate:_____ m^3/hour/person
     _____ $m^3/hour/m^2$
     _____ m^3/hour
   - Energy efficiency of aircon chiller:_____ kW/ton
9. Cooling Load_____ W (electricity consumption) / m^2 (air-conditioned area)

BUILDING INFORMATION (FILL UP DETAILS MAX 4 PAGES)

D. *Operation Information*

1. Occupancy rate (year 2001): Minimum_____% of total area
2. Total number of occupants
3. Ownership of building (occupied by owner(s), renter(s), etc.)
4. Building operating schedule
   - Weekdays from _____to _____
   - Saturday from _____to _____
   - Sunday from _____to _____
   - Operating hours/ year _____
5. Building indoor environment: Indoor air temperature, humidity, and quality
   - Air temperature: _____°C
   - Air Humidity: _____ $g.m^{-3}$
   - Air quality:

Thermal Comfort (m^3/hour/person, etc.)	**Ventilation (m^3/hour/person, etc.)**	**Others (m^3/hour/person, etc.)**

E. *Energy Consumption Information*

1. Peak demand (monthly)
2. Energy used (monthly)
3. Typical Load curve (weekdays, weekends)
4. Energy efficiency index - air-conditioned area: _kWh/m^2/year (based on 2,000 operational hours/year)
5. Energy efficiency index - GFA: _____kWh/m^2/year
6. Energy consumption – Electricity:_____kWh/m^2/year (based on 2,000 operational hours/year)
7. Energy consumption – Fuel:_____liters/year (not for electricity generation)
8. Energy Consumption by system

Type of System	**Electricity Consumption (kWh)**	**% of energy used**
HVAC (Heating, Ventilation, Air Conditioning)		
Lighting		
Transportation		
Others		

F. *Energy Management Information*

1. Building energy management system Connected physical points_____(no)
2. Energy saving:
   - Schedule programme_____kWh/year
   - Duty cycle programme_____kWh/year Optimum
   - Start / stop programme_____kWh/year Power
   - Demand programme_____kW (mean)

BUILDING INFORMATION (FILL UP DETAILS MAX 4 PAGES)

G. ***Maintenance Information***

1. Maintenance programme
   - Manpower: _____man-hour/year
   - Maintenance contractor
   - Availability of energy management engineer
   - Training of maintenance workers: cumulative hours/yr

H. ***Environmental Impacts***

1. Impacts of waste
2. Impacts of pollution (air, noise, visual, exhaust, etc.)

(Note: This introductory note must be deleted in the submission)

BUILDING INFORMATION (FILL UP DETAILS MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

PRO-FORMA SUBMISSION

ASEAN Energy Efficiency and Conservation (EE&C)
Best Practice Competition for Green Building
ASEAN Energy Awards - 2026

CATEGORY: GREEN RESIDENTIAL

CERTIFICATION AND COVERING NOTE FROM ENTREE

Sample:

The (*name of dwelling*) occupies a site area of about _____ square meters and was completed in _____. (Following is a brief description of the dwelling, say). The dwelling has 3 storeys (3 storey with garage/shed and is a detached/ semi-detached hosue) with a total gross floor area of _____ square meters. The building has spent a total of USD _____ investment, and generate these amount of savings (energy savings, cost savings, CO_2 emission reduction, etc.)

The details of client and project consultants (as appropriate) are:

Client : ..... *(Name of Building)*

Architect : .....

M&E Engineers : .....

C&S Engineers : .....

Project Managers : .....

ITEM	DATA	COMPLIANCE (PUT CHECK)
Submission Requirement	**(Total must be Max. 25 pages)**	
- Certification and Covering Note from Entree	1 page	
- Cover of Report	1 page	
- Energy Efficiency (Active and Passive Designs)	Max 4 pages	
- Renewable Energy	Max 2 pages	
- Water efficiency	Max 1 page	
- Environmental Sustainability (Materials, Greenery, Sustainable Site, etc)	Max 2 pages	
- Indoor Environmental Quality and Well-Being	Max 3 pages	
- Operation and maintenance & Green features, Innovation, and Occupant's awareness	Max 3 pages	
- Building Information	Max 4 pages	
- Drawings (in A4 / A3 size): Typical floor plan, site layout, roof plan and vertical cross section, etc	Max 4 pages	
Pre-Qualification		
- Energy Efficiency Index based on Gross Floor Area: 55 kWh/m^2/yr	___ kWh/m^2/yr	
- Temperature and Other Settings: Not less than 21ºC but not more than 26ºC; RH: max 70% (applies to air-conditioning. Not pre-requisite - Higher score for having RH control system (below 65%).		
- Lighting Load: Max 20 watts/m^2	___ watts/m^2 (GFA)	
- Operating hours/yr: 2,000 hours/year		
- At least 1 full-year of operation prior to nomination in national competition	___ years	
Type of Font: Times Roman 12		

The (name of dwelling) hereby agreed to allow the Board of Judges to visit the building and verify the authenticity of the data. However, two weeks advance notice is required to allow for necessary arrangements.

The undersigned certified that the information given is true and accurate and prepared with the consent of the party/ies involved.

_____
Name of the Client
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Endorsed by Focal Point
Name, Office (*country*) & Position
Tel, Fax, e-mail

COVER OF REPORT (NAME OF BUILDING, PHOTO, ETC.)

ENERGY EFFICIENCY - ACTIVE & PASSIVE DESIGN (MAX 4 PAGES) [35 POINTS]

1. ACTIVE DESIGN CONCEPTS [15 points]

a. Use of energy-efficient air conditioning systems, as shown in COP (Coefficient of Performance) or CSPF (Cooling Seasonal Performance Factor) **[5]**

b. Overall energy consumption per m^2 of normal air-conditioned areas **[2]**

c. Use of energy-efficient appliances, such as refrigerators, lighting, fans, water heaters, etc **[5]**

d. Use of building management system (e.g. integrated monitoring system) **[2]**

e. Other efficiency strategies for active design, please specify **[1]**

2. PASSIVE DESIGN CONCEPTS [20 points]

a. Building orientation, shape, and façade design as a response to site location **[2]**

b. Overall heat transfer through building envelope **[5]**
   i. Wall Overall Thermal Transfer Value (OTTV) _____W/m^2
   ii. Roof U-Value _____W/m^2k

c. Window to Wall Ratio (WWR): _____% **[3]**

d. Material of building envelope **[3]**
   i. U value and SC value of fenestration, including shading elements
   ii. U value of opaque wall element

e. Daylighting (the use of natural lighting in the building interior) **[3]**

f. Natural Ventilation (the use of natural ventilation in the building interior) **[3]**

g. Other passive design strategies, please specify **[1]**

(Note: This introductory note must be deleted in the submission.)

ENERGY EFFICIENCY - ACTIVE & PASSIVE DESIGN (MAX 4 PAGES)

ENERGY EFFICIENCY - ACTIVE & PASSIVE DESIGN (MAX 4 PAGES)

ENERGY EFFICIENCY - ACTIVE & PASSIVE DESIGN (MAX 4 PAGES)

RENEWABLE ENERGY (MAX 2 PAGES)
[10 POINTS]

1. Total onsite renewable energy installed capacity and total energy generated (kWh) yearly **[3]**

2. % RE integration of total building energy consumption (onsite and offsite) and emission reductions **[3]**

3. Onsite RE system investment and pay-back period **[2]**

4. Other RE concepts (including offsite RE and REC) **[2]**
   (Proof of document/certification must be provided in the submission)

(Note: This introductory note must be deleted in the submission)

RENEWABLE ENERGY (MAX 2 PAGES)

WATER EFFICIENCY (1 PAGE)
[10 POINTS]

1. Use of water-efficient fittings (e.g. flow rate of taps L/min, dual flush WCs, L/flush etc.)**[2]**

2. Provision of water sub-metering and leak detection system **[3]**

3. Water-efficient landscaping **[2]**
   a. Use of recycled water for landscape irrigation
   b. Use of water-efficient irrigation system (e.g. drip irrigation with rain sensors)

4. Provision of alternative clean water supply **[2]**
   a. Water recycling systems (e.g. treat grey water and/or black water)
   b. Rainwater harvesting

5. Other water efficiency strategies, please specify **[1]**

(Note: This introductory note must be deleted in the submission.)

ENVIRONMENTAL SUSTAINABILITY (MAX 2 PAGES)
[20 POINTS]

1. Sustainable construction **[3]**
   a. Use of materials/ products with recycled content
   b. Environmentally friendly products with green label certification
   c. Good environmental management system during construction
   d. Use of local materials
   e. Minimise pollution from construction activities

2. Sustainable site development **[5]**
   a. Restoration and conservation of existing trees
   b. Provision of green basic area (without hardscape): _____ m^2 or _____% of total site area
   c. Provision of vegetation/plants:_____ m^2 or number of plants
   d. Stormwater management

3. Sustainable transport mode **[3]**
   a. Promotion of active mobility (e.g. provision of bicycle parking)
   b. Provision of charging facility for electric vehicles

4. Waste management system **[3]**
   a. Provision of facilities to separate solid waste (e.g. organic, inorganic, toxic/hazardous, etc)
   b. Implementation of waste recycling systems (e.g. composting facilities)

5. Green Building Certification **[5]**

6. Other environmental sustainability strategies, please specify **[1]**

(Note: This introductory note must be deleted in the submission.)

ENVIRONMENTAL SUSTAINABILITY (MAX 2 PAGES)

INDOOR ENVIRONMENTAL QUALITY AND WELL-BEING
(MAX 3 PAGES)
[15 POINTS]

1. Design of indoor temperature and relative humidity to achieve thermal comfort **[4]**

2. Visual comfort **[4]**
   a. Use of appropriate lighting illumination
   b. Quality of artificial lighting (e.g. Colour Rendering Index (CRI), responsive light control)
   c. Provision of circadian lighting system

3. Use of non-toxic materials **[2]**
   a. Use of low volatile organic compound (VOC) paints and coatings
   b. Use of VOC and low formaldehyde emission products (e.g. carpets)

4. Pollution management **[2]**
   a. Minimisation of pollution and disturbance, such as noise, vibration, EM wave, dust, bacterial count and CO_2 concentration
   b. Environmental tobacco smoke control (e.g. design of a no-smoking building)

5. Support for user's health and wellbeing **[2]**
   a. Provision of outside views in each room
   b. Connection to natural elements, such as plants, water, and light (e.g. biophilic design, indoor plants, etc).
   c. Promotion of active interior design (e.g. design of internal stairs)

6. Other strategies to improve indoor environmental quality, please specify **[1]**

(Note: This introductory note must be deleted in the submission)

INDOOR ENVIRONMENTAL QUALITY AND WELL-BEING
(MAX 3 PAGES)

INDOOR ENVIRONMENTAL QUALITY AND WELL-BEING
(MAX 3 PAGES)

OPERATION AND MAINTENANCE & OTHER GREEN FEATURES, INNOVATION AND OCCUPANT'S AWARENESS (MAX 3 PAGES) [8 POINTS]

1. Sustainable lifestyle (e.g. use of motion sensor lighting, reduction of plastic use, etc) **[2]**

2. Design innovation **[2]**
   a. Innovation in façade design
   b. Bio-climatic design

3. Innovation in energy efficiency (e.g. smart building management system, cogeneration, etc) **[2]**

4. Neighbourhood policies to support energy efficiency and environmental sustainability **[1]**

5. Other features and innovations for positive environmental impact, please specify **[1]**

(Note: This introductory note must be deleted in the submission.)

OPERATION AND MAINTENANCE & OTHER GREEN FEATURES, INNOVATION AND OCCUPANT'S AWARENESS (MAX 3 PAGES)

OPERATION AND MAINTENANCE & OTHER GREEN FEATURES, INNOVATION AND OCCUPANT'S AWARENESS (MAX 3 PAGES)

BUILDING INFORMATION (FILL UP DETAILS MAX 4 PAGES)

A. *General Information*

1. Name of the building
2. Name of owner and management company
3. Building Category: Office/Retail/Hotel/Hospital/School/Residential/Other (please specify)
4. Address
5. Tel. No./Fax No./E-mail address

B. *Building Physical Information*

1. Physical building background
   - Brief history
   - Single function usage or mix function usage (specify)
2. Age of building
3. Year of construction
4. Retrofitting history (Specify the changes and year of retrofitting)
5. Total number of storeys
6. Total number of basement floor
7. Number of car park storeys
8. Total gross floor area
9. Surface area of the envelope including the roof to gross floor area ratio
10. Car park area
11. Gross lettable area
12. Air-conditioned area
13. Non-air conditioned area
14. Plot ratio (total GFA / ground area)

C. *Building Design and Practice Information*

1. Plants and landscape design/ wind and natural ventilation/ water features/ daylighting/ etc.
2. Facade and shading design
   - Type of facade
   - Color of facade
   - Use of shading devices
3. Location of service core
4. Shape of building
5. Overall heat transfer through building envelope: Wall___ W/m^2; Roof_____ W/m^2
6. Lighting fixtures
7. Lighting load_____ W/m^2 (gross floor area)
8. Building air-conditioner system and equipment
   - Fresh air exchange rate:_____ m^3/hour/person
     _____ $m^3/hour/m^2$
     _____ m^3/hour
   - Energy efficiency of aircon chiller:_____ kW/ton
9. Cooling Load_____ W (electricity consumption) / m^2 (air-conditioned area)

BUILDING INFORMATION (FILL UP DETAILS MAX 4 PAGES)

D. *Operation Information*

1. Occupancy rate (year 2001): Minimum_____% of total area
2. Total number of occupants
3. Ownership of building (occupied by owner(s), renter(s), etc.)
4. Building operating schedule
   - Weekdays from _____to _____
   - Saturday from _____to_____
   - Sunday from _____to_____
   - Operating hours/ year _____
5. Building indoor environment: Indoor air temperature, humidity, and quality
   - Air temperature: _____°C
   - Air Humidity: _____ $g.m^{-3}$
   - Air quality:

Thermal Comfort (m^3/hour/person, etc.)	**Ventilation (m^3/hour/person, etc.)**	**Others (m^3/hour/person, etc.)**

E. *Energy Consumption Information*

1. Peak demand (monthly)
2. Energy used (monthly)
3. Typical Load curve (weekdays, weekends)
4. Energy efficiency index - air-conditioned area: _kWh/m^2/year (based on 2,000 operational hours/year)
5. Energy efficiency index - GFA: _____kWh/m^2/year
6. Energy consumption – Electricity:_____kWh/m^2/year (based on 2,000 operational hours/year)
7. Energy consumption – Fuel:_____liters/year (not for electricity generation)
8. Energy Consumption by system

Type of System	**Electricity Consumption (kWh)**	**% of energy used**
HVAC (Heating, Ventilation, Air Conditioning)		
Lighting		
Transportation		
Others		

F. *Energy Management Information*

1. Building energy management system Connected physical points_____(no)
2. Energy saving:
   - Schedule programme_____kWh/year
   - Duty cycle programme_____kWh/year Optimum
   - Start / stop programme_____kWh/year Power
   - Demand programme_____kW (mean)

BUILDING INFORMATION (FILL UP DETAILS MAX 4 PAGES)

G. ***Maintenance Information***

1. Maintenance programme
   - Manpower: _____man-hour/year
   - Maintenance contractor
   - Availability of energy management engineer
   - Training of maintenance workers:_____cumulative hours/yr

H. ***Environmental Impacts***

1. Impacts of waste
2. Impacts of pollution (air, noise, visual, exhaust, etc.)

BUILDING INFORMATION (FILL UP DETAILS MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

PRO-FORMA SUBMISSION

ASEAN Energy Efficiency and Conservation (EE&C)
Best Practice Competition for Energy Efficient Buildings
ASEAN Energy Awards – 2026

CATEGORY: NEW AND EXISTING BUILDING

CERTIFICATION AND COVERING NOTE FROM ENTREE

Sample:

The (*name of building*) occupies a site area of about _____ square meters and was completed in _____. (The following is a brief description of the building.) The building has 2 basements and 9-storeys (5 storey H-shaped ward tower block above the 4-storey podium block) with a total gross floor area of _____ square meters. The building has spent a total of USD _____ investment, and generate these amount of savings (energy savings, cost savings, CO_2 emission reduction, etc.)

Type of Building: Office/Library/Retail/Hotels/Hospital/School/Apartments/Others (please specify)

The details of client and project consultants (as appropriate) are:

Client : ..... *(Name of Building)*

Architect : .....

M&E Engineers : .....

C&S Engineers : .....

Project Managers : .....

ITEM	DATA	COMPLIANCE (PUT CHECK)
Submission Requirement		
- Certification and Note from Entree	1 page	
- Cover of Report	1 page	
- Overall On-Site Design	Max 2 pages	
- Active Design	Max 4 pages	
- Passive Design	Max 4 pages	
- Maintenance and Management	Max 4 pages	
- Environmental Impacts	1 page	
- Building Information	Max 6 pages	
- Drawings	Max 4 pages	
Pre-Qualification	**Data**	
- **Energy Efficiency Index of Occupied Air-conditioned Area**: Office: 128 kWh/m^2/yr; Library: 160 kWh/ m^2/yr; Retail/Shopping Malls: 154 kWh/ m^2/yr; Hotels: 173 kWh/ m^2/yr; Hospital: 230 kWh/m^2/yr; School: 128 kWh/ m^2/yr; Apartment: 100 kWh/ m^2/yr; Others: 180 kWh/ m^2/yr	___ kWh/m^2/yr	
- Temperature and Other Settings: Not less than 21ºC but not more than 26ºC; RH: max 70% (applies to air-conditioning. Not pre-requisite - Higher score for having RH control system (below 65%).		
- Lighting Load: Office - Max 8 watts/m^2; Others - Max 15 watts/m^2	___ watts/m^2 (GFA)	
- Operating hours/yr: 2,000 hours/year	___ hours/year	
- At least 1 full-year of operation prior to nomination in national competition	___ years	
Type of Font: Times Roman 12		

The (name of building) hereby agreed to allow the Board of Judges to visit the building and verify the authenticity of the data. However, two weeks advance notice is required to allow for necessary arrangements.

The undersigned certified that the information given is true and accurate and prepared with the consent of the party/ies involved.

_____
Name of the Client
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Endorsed by Focal Point
Name, Office (*country*) & Position
Tel, Fax, e-mail

COVER OF REPORT (NAME OF BUILDING, PHOTO, ETC.)

OVERALL ON-SITE NATURAL ENVIRONMENT CONSIDERATIONS
(2 PAGES WRITE-UP)
[15 POINTS]

1. Use of vegetation, landscape and hardscape **[3]**
   - Effective application of ground covering plant and large plant
   - The modification of landscape and topography
   - The use of hardscape materials
2. The use of water body **[4]**
   - Effective application of water body: location, quantity, etc.
3. The use of wind **[5]**
   - Effective application of wind: natural ventilation, stack ventilation, etc.
4. Other use of on-site natural environment **[3]**
   - The use of night sky radiation
   - Others (specify)

Note: **This introductory note must be deleted in the submission.**

OVERALL ON-SITE NATURAL ENVIRONMENT CONSIDERATIONS (2 PAGES WRITE-UP)

ACTIVE DESIGN (DISCUSSION OF 4 FEATURES IN MAX 4 PAGES) [25 POINTS]

1. Air-conditioning system (selection, layout and plant system design) **[6]**

Chiller Plant	**Efficiency (kW/ton)**
Chiller (A)	
Chilled water pump (B)	
Condenser water pump (C)	
Cooling tower (D)	
System efficiency (A + B + C + D)	

   - Cooling Load: _____ W/m^2
   - Air conditioning system total annual electricity consumption _____ kWh
   - Share of AC system energy consumption in overall building energy consumption _____%

2. Lighting systems **[4]**: _____ W/m^2

3. Transportation systems **[4]**: _____W/m^2

4. Indoor air temperature, humidity, and quality **[3]**
   - Air temperature: _____ °C
   - Air Humidity: _____ $g.m^{-3}$
   - Air quality:

Thermal Comfort m^3/hour/person, etc.)	**Ventilation) m^3/hour/person, etc.)**	**Others m^3/hour/person, etc.)**

5. Overall energy consumption per sq.m. of normal air-conditioned areas **[5]**: W/m^2

6. Other active design concepts (specify) **[3]**

(**This introductory note must be deleted in the submission).**

ACTIVE DESIGN (DISCUSSION OF 4 FEATURES IN MAX 4 PAGES)

ACTIVE DESIGN (DISCUSSION OF 4 FEATURES IN MAX 4 PAGES)

ACTIVE DESIGN (DISCUSSION OF 4 FEATURES IN MAX 4 PAGES)

PASSIVE DESIGN (DISCUSSION OF 4 FEATURES MAX 4 PAGES) [25 POINTS]

1. Orientation and building design **[4]**
   - The orientation of building
   - The shape of building (surface area to gross floor area ratio)
   - The location of service core
   - The position of entrances
   - The hardscape around building
   - Spatial organisation for various functions
   - etc.

2. Envelope design (material, shading, fenestration, etc.) **[5]**

   Material
   - Heat transfer protection
   - Humidity protection
   - MRT effect
   - Color of envelope
   - Infiltration protection and control
   - Etc.

   Shading
   - Efficiency of shading devices
   - The use of natural shading devices
   - The use of shading from adjacent buildings
   - Etc.

   Fenestration
   - Fenestration design: location, nature and size of opening
   - Light to solar heat gain ratio (LT/SC)
   - Etc.

3. Overall heat transfer through building envelope **[6]**:
   Wall _____ W/m^2; Roof _____ W/m^2

4. Daylighting **[4]**
   - The use of diffuse radiation in building: hall, atrium, corridor, parking, toilet, etc.
   - Zoning for integrated lighting and daylighting
   - Contrast ratio of brightness

5. Natural Ventilation **[4]**

6. Other passive design concepts (specify) **[2]**

(This introductory note must be deleted in the submission).

PASSIVE DESIGN (DISCUSSION OF 4 FEATURES MAX 4 PAGES)

PASSIVE DESIGN (DISCUSSION OF 4 FEATURES MAX 4 PAGES)

PASSIVE DESIGN (DISCUSSION OF 4 FEATURES MAX 4 PAGES)

MAINTENANCE AND MANAGEMENT
(DISCUSSION OF 4 FEATURES MAX 4 PAGES)
[23 POINTS]

1. Energy management systems **[7]**
   - Building Energy Management System (BAS)
   - Energy consumption monitoring system
   - Etc.

2. Maintenance and management measures **[8]**
   - Manpower: _____ man-hour/year
   - Maintenance contractor
   - Availability of energy management engineer
   - Training of maintenance workers: _____cumulative no. of hours

3. Future improvement plans **[4]**

4. EE measures investment cost and payback period **[2]**
   - Investment cost: _____US Dollar
   - Payback period:_____ years

5. Others (specify) **[2]**

(This introductory note must be deleted in the submission).

MAINTENANCE AND MANAGEMENT
(DISCUSSION OF 4 FEATURES MAX 4 PAGES)

MAINTENANCE AND MANAGEMENT
(DISCUSSION OF 4 FEATURES MAX 4 PAGES)

MAINTENANCE AND MANAGEMENT
(DISCUSSION OF 4 FEATURES MAX 4 PAGES)

ENVIRONMENTAL IMPACTS CONSIDERATION
(GENERAL DISCUSSION MAX 1 PAGE)

[10 POINTS]

1. Waste management **[3]**
2. Pollution management (air, noise, visual, exhaust, etc.) **[2]**
3. Green/non-toxic materials **[3]**
4. Others (specify) **[2]**

(This introductory note must be deleted in the submission).

BUILDING INFORMATION (FILL UP DETAILS MAX 6 PAGES)

A. ***General Information***

1. Name of the building
2. Name of owner and management company
3. Building Category: Office/Retail/Hotel/Hospital/School/Residential/Other (please specify)
4. Address
5. Tel. No./Fax No./E-mail address

B. ***Building Physical Information***

1. Physical building background
   - Brief history
   - Single function usage or mix function usage (specify)
2. Year of construction
3. Age of building
4. Retrofitting history (Specify the changes and year of retrofitting)
5. Total number of storeys
6. Total number of basement floor
7. Number of car park storeys
8. Total gross floor area
9. Surface area of the envelope including the roof to gross floor area ratio
10. Car park area
11. Gross lettable area
12. Air-conditioned area
13. Non-air conditioned area
14. Plot ratio (total GFA / ground area)

C. ***Building Design and Practice Information***

1. Plants and landscape design/ wind and natural ventilation/ water features/ daylighting/ etc.
2. Facade and shading design
   - Type of facade
   - Color of facade
   - Use of shading devices
3. Location of service core
4. Shape of building
5. Overall heat transfer through building envelope: Wall____ W/m^2; Roof____ W/m^2
6. Lighting fixtures
7. Lighting load_____ W/m^2 (gross floor area)
8. Building air-conditioner system and equipment
   - Fresh air exchange rate: _____ m^3/hour/person
     _____ $m^3/hour/m^2$
     _____ m^3/hour
   - Energy efficiency of aircon chiller:_____kW/ton
9. Cooling Load_____W (electricity consumption) /m^2 (air-conditioned area)

BUILDING INFORMATION (FILL UP DETAILS MAX 6 PAGES)

D. ***Operation Information***

1. Occupancy rate: Minimum_____% of total area
2. Total number of occupants
3. Ownership of building (occupied by owner(s), renter(s), etc.)
4. Building operating schedule
   - weekdays from _____to_____
   - Saturday from __ to_____
   - Sunday from __ to_____
   - Operating hours/ year _____
5. Building indoor environment: Indoor air temperature, humidity, and quality
   Air temperature: _____°C
   Air Humidity: _____ $g.m^{-3}$
   Air quality:

Thermal Comfort (m^3/hour/person, etc.)	**Ventilation (m^3/hour/person, etc.)**	**Others (m^3/hour/person, etc.)**

E. **Energy Consumption Information**

1. Peak demand (monthly)
2. Energy used (monthly)
3. Typical Load curve (weekdays, weekends)
4. Energy efficiency index - air-conditioned area: _____kWh/m^2/year (based on 2,000 operational hours/year)
5. Energy efficiency index - GFA: ____kWh/m^2/year
6. Energy consumption – Electricity:_____kWh/m^2/year (based on 2,000 operational hours/year)
7. Energy consumption – Fuel:_____liters/year (not for electricity generation)
8. Energy Consumption by system

Type of System	**Electricity Consumption (kWh)**	**% of energy used**
HVAC (Heating, Ventilation, Air Conditioning)		
Lighting		
Transportation		
Others		

F. ***Energy Management Information***

1. Building energy management system Connected physical point ____(no)
2. Energy saving: Schedule programme_____kWh/year
   Duty cycle programme_____kWh/year
   Optimum start / stop programme_____kWh/year
   Power demand programme_____kW (mean)

BUILDING INFORMATION (FILL UP DETAILS MAX 6 PAGES)

G. ***Maintenance Information***

1. Maintenance programme
   - Manpower: _____man-hour/year
   - Maintenance contractor
   - Availability of energy management engineer
   - Training of maintenance workers:_____cumulative hours/yr

H. ***Environmental Impacts***

1. Impacts of waste
2. Impacts of pollution (air, noise, visual, exhaust, etc.)
3. Impacts to CO_2 emission reduction

I. ***Additional Information for Retrofitted Buildings***

1. *Energy savings in air-conditioned area_____kWh/m^2/year (based on 2,000 operational hours/year
2. *Energy savings in lighting systems_____kWh/m^2/year (based on 2,000 operational hours/year)
3. *Retrofitted area:_____% of total area

* - *mentioned in the pre-qualification criteria*

BUILDING INFORMATION (FILL UP DETAILS MAX 6 PAGES)

BUILDING INFORMATION (FILL UP DETAILS MAX 6 PAGES)

BUILDING INFORMATION (FILL UP DETAILS MAX 6 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

PRO-FORMA SUBMISSION

ASEAN Energy Efficiency and Conservation (EE&C)
Best Practice Competition for Energy Efficient Buildings
ASEAN Energy Awards – 2026

CATEGORY: RETROFITTED BUILDING

CERTIFICATION AND COVERING NOTE FROM ENTREE

Sample:
The (*name of building*) occupies a site area of about _____ square meters and was completed in _____. (Following is a brief description of the building, say). The building has 2 basements and 9-storeys (5 storey H-shaped ward tower block above the 4-storey podium block) with a total gross floor area of _____ square meters. The building has spent a total of USD _____ investment, and generate these amount of savings (energy savings, cost savings, CO_2 emission reduction, etc.)

The details of client and project consultants (as appropriate) are:

Client	:	.....	*(Name of Building)*
Architect	:	.....	
M&E Engineers	:	.....	
C&S Engineers	:	.....	
Project Managers	:	.....	

ITEM	DATA	COMPLIANCE (PUT CHECK)
Submission Requirement		
- Certification and Covering Note from Entree	1 page	
- Cover of Report	1 page	
- Actual/Measured Energy Savings	Max 2 pages	
- Active Design	Max 4 pages	
- Passive Design	Max 4 pages	
- Maintenance and Management	Max 4 pages	
- Environmental Impacts	1 page	
- Building Information	Max 6 pages	
- Drawings	Max 4 pages	
Pre-Qualification	**Data**	
- Energy Efficiency Index of Occupied Air-conditioned Area: Office: 128 kWh/m^2/yr; Library: 160 kWh/ m^2/yr; Retail/Shopping Malls: 154 kWh/ m^2/yr; Hotels: 173 kWh/ m^2/yr; Hospital: 230 kWh/m^2/yr; School: 128 kWh/ m^2/yr; Apartment: 100 kWh/ m^2/yr; Others: 180 kWh/ m^2/yr	___ kWh/m^2/yr	
- Temperature and Other Settings: Not less than 21ºC but not more than 26ºC; RH: max 70% (applies to air-conditioning. Not pre-requisite - Higher score for having RH control system (below 65%).		
- Lighting Load: Office - Max 8 watts/m^2; Others - Max 15 watts/m^2	___ watts/m^2 (GFA)	
- Operating hours/yr: 2,000 hours/year		
- At least 1 full-year of operation after retrofitting prior to nomination in national competition	___ years	
- Total Energy Savings: 20% of the total energy consumption for a/c retrofits; 10% of the total energy consumption for non-a/c retrofits	…....%	
Type of Font and Size: Times Roman 12		

The (name of building) hereby agreed to allow the Board of Judges to visit the building and verify the authenticity of the data. However, two weeks advance notice is required to allow for necessary arrangements.
The undersigned certified that the information given is true and accurate and prepared with the consent of the party/ies involved.

_____
Name of the Client
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Endorsed by Focal Point
Name, Office (*country*) & Position
Tel, Fax, e-mail

COVER OF REPORT (NAME OF BUILDING, PHOTO, ETC.)

ACTUAL/MEASURED ENERGY SAVINGS (2 PAGE WRITE-UP) [30 POINTS]

Major change in:
(For at least 1 full-year of operation)

1. **Actual/Measured Energy Savings [30 points]**

   1.1. Total energy savings in overall building **[12]**
   _____ kWh _____% from baseline*

   1.2. Air conditioner **[8]**
   _____ kWh _____% from baseline*

   1.3. Lighting systems **[6]**
   _____ kWh _____% from baseline*

   1.4. Others (specify) **[4]**
   _____ kWh _____% from baseline*
   ** Baseline from overall energy building consumption*

(**This introductory note must be deleted in the submission.)**

ACTUAL/MEASURED ENERGY SAVINGS (2 PAGE WRITE-UP)

ACTIVE DESIGN (DISCUSSION OF 4 FEATURES IN MAX 4 PAGES) [25 POINTS]

1.1. Air-conditioning system (selection, layout and plant system design) **[7]**

Chiller Plant	**Efficiency (kW/ton)**
Chiller (A)	
Chilled water pump (B)	
Condenser water pump (C)	
Cooling tower (D)	
System efficiency (A + B + C + D)	

- Cooling Load: _____ W/m^2
- Air conditioning system total annual electricity consumption _____ kWh
- Share of AC system energy consumption in overall building energy consumption _____%

1.2. Lighting systems _____ W/m^2 **[4]**

1.3. Indoor air temperature, humidity, and quality **[3]**

- Air temperature: _____ °C
- Air Humidity: _____ $g.m^{-3}$
- Air quality:

Thermal Comfort m^3/hour/person, etc.)	**Ventilation) m^3/hour/person, etc.)**	**Others m^3/hour/person, etc.)**

1.4. Overall energy consumption per sqm. of air-conditioned area_____ W/m^2 **[6]**

1.5. Others (please specify) **[5]**

(**This introductory note must be deleted in the submission).**

ACTIVE DESIGN (DISCUSSION OF 4 FEATURES IN MAX 4 PAGES)

ACTIVE DESIGN (DISCUSSION OF 4 FEATURES IN MAX 4 PAGES)

ACTIVE DESIGN (DISCUSSION OF 4 FEATURES IN MAX 4 PAGES)

PASSIVE DESIGN (DISCUSSION OF 4 FEATURES MAX 4 PAGES) [15 POINTS]

1.1. Spatial organisation for various functions **[2]**

1.2. Environmental improvement of surroundings **[2]**

1.3. Envelope design (material, shading, fenestration, etc.) **[3]**

Material

- Heat transfer protection
- Humidity protection
- MRT effect
- Color of envelope (exterior)
- Infiltration protection and control
- Etc.

Shading

- Effectiveness of shading devices
- The use of natural shading devices
- The use of shading from adjacent buildings
- Etc.

Fenestration

- Fenestration design: location, nature, and size of opening
- Light to solar heat gain ratio (LT/SC)
- Etc.

1.4. Overall heat transfer through building envelope **[4]**: Wall_____W/m^2; Roof _____W/m^2

1.5. Daylighting **[2]**

1.6. Others passive design concepts (specify) **[2]**

(This introductory note must be deleted in the submission).

PASSIVE DESIGN (DISCUSSION OF 4 FEATURES MAX 4 PAGES)

PASSIVE DESIGN (DISCUSSION OF 4 FEATURES MAX 4 PAGES)

PASSIVE DESIGN (DISCUSSION OF 4 FEATURES MAX 4 PAGES)

MANAGEMENT AND MAINTENANCE SCHEME
(DISCUSSION OF 4 FEATURES MAX 4 PAGES)
[20 POINTS]

1. Energy management systems **[7]**
   - Building Energy Management System (BAS)
   - Energy consumption monitoring system
   - Etc.

2. Maintenance and management measures **[7]**
   - Manpower: _____man-hr/yr
   - Maintenance contractor
   - Availability of energy management engineer
   - Training of maintenance workers: _____ cumulative hours/year

3. Future improvement plans **[3]**

4. EE measures investment cost and payback period **[2]**
   - Investment cost: _____US Dollar
   - Payback period:_____ years

5. Others (please specify) **[1]**

(This introductory note must be deleted in the submission).

MAINTENANCE AND MANAGEMENT
(DISCUSSION OF 4 FEATURES MAX 4 PAGES)

MAINTENANCE AND MANAGEMENT
(DISCUSSION OF 4 FEATURES MAX 4 PAGES)

MAINTENANCE AND MANAGEMENT
(DISCUSSION OF 4 FEATURES MAX 4 PAGES)

ENVIRONMENTAL IMPACTS CONSIDERATION
(GENERAL DISCUSSION MAX 1 PAGE)

[8 POINTS]

1. Waste management **[3]**
2. Pollution management (air, noise, visual, exhaust, etc.) **[2]**
3. Green/non-toxic materials **[2]**
4. Others (specify) **[1]**

(This introductory note must be deleted in the submission).

BUILDING INFORMATION (FILL UP DETAILS MAX 6 PAGES)

A. General Information

1. Name of the building
2. Name of owner and management company
3. Building Category: Office/Retail/Hotel/Hospital/School/Residential/Other (please specify)
4. Address
5. Tel. No./Fax No./E-mail address

B. *Building Physical Information*

1. Physical building background
   - Brief history
   - Single function usage or mix function usage (specify)
2. Year of construction
3. Age of building
4. Retrofitting history (Specify the changes and year of retrofitting)
5. Total number of storeys
6. Total number of basement floor
7. Number of car park storeys
8. Total gross floor area
9. Surface area of the envelope including the roof to gross floor area ratio
10. Car park area
11. Gross lettable area
12. Air-conditioned area
13. Non-air conditioned area
14. Plot ratio (total GFA / ground area)

C. *Building Design and Practice Information*

1. Plants and landscape design/ wind and natural ventilation/ water features/ daylighting/ etc.
2. Facade and shading design
   - Type of facade
   - Color of facade
   - Use of shading devices
3. Location of service core
4. Shape of building
5. Overall heat transfer through building envelope: Wall__ W/m^2; Roof____ W/m^2
6. Lighting fixtures
7. Lighting load_____ W/m^2 (gross floor area)
8. Building air-conditioner system and equipment
   - Fresh air exchange rate: _____ m^3/hour/person
     _____ $m^3/hour/m^2$
     _____ m^3/hour
   - Energy efficiency of aircon chiller:_____kW/ton
9. Cooling Load_____W (electricity consumption) /m^2 (air-conditioned area)

BUILDING INFORMATION (FILL UP DETAILS MAX 6 PAGES)

D. *Operation Information*

1. Occupancy rate: Minimum_____% of total area
2. Total number of occupants
3. Ownership of building (occupied by owner(s), renter(s), etc.)
4. Building operating schedule
   - weekdays from _____to_____
   - Saturday from __ to_____
   - Sunday from __ to_____
   - Operating hours/ year _____
5. Building indoor environment: Indoor air temperature, humidity, and quality
   Air temperature: _____°C
   Air Humidity: _____ $g.m^{-3}$
   Air quality:

Thermal Comfort (m^3/hour/person, etc.)	**Ventilation (m^3/hour/person, etc.)**	**Others (m^3/hour/person, etc.)**

E. Energy Consumption Information

1. Peak demand (monthly)
2. Energy used (monthly)
3. Typical Load curve (weekdays, weekends)
4. Energy efficiency index - air-conditioned area: _____kWh/m^2/year (based on 2,000 operational hours/year)
5. Energy efficiency index - GFA: ____kWh/m^2/year
6. Energy consumption – Electricity:_____kWh/m^2/year (based on 2,000 operational hours/year)
7. Energy consumption – Fuel:_____liters/year (not for electricity generation)
8. Energy Consumption by system

Type of System	**Electricity Consumption (kWh)**	**% of energy used**
HVAC (Heating, Ventilation, Air Conditioning)		
Lighting		
Transportation		
Others		

F. *Energy Management Information*

1. Building energy management system Connected physical point ____(no)
2. Energy saving: Schedule programme_____kWh/year
   Duty cycle programme_____kWh/year
   Optimum start / stop programme_____kWh/year
   Power demand programme_____kW (mean)

BUILDING INFORMATION (FILL UP DETAILS MAX 6 PAGES)

G. *Maintenance Information*

1. Maintenance programme
   - Manpower: _____man-hour/year
   - Maintenance contractor
   - Availability of energy management engineer
   - Training of maintenance workers:_____cumulative hours/yr.

H. *Environmental Impacts*

1. Impacts of waste
2. Impacts of pollution (air, noise, visual, exhaust, etc.)
3. Impacts to CO_2 emission reduction

I. *Additional Information for Retrofitted Buildings*

1. *Energy savings in air-conditioned area_____kWh/m^2/year (based on 2,000 operational hours/year
2. *Energy savings in lighting systems_____kWh/m^2/year (based on 2,000 operational hours/year)
3. *Retrofitted area:_____% of total area

** - mentioned in the pre-qualification criteria*

BUILDING INFORMATION (FILL UP DETAILS MAX 6 PAGES)

BUILDING INFORMATION (FILL UP DETAILS MAX 6 PAGES)

BUILDING INFORMATION (FILL UP DETAILS MAX 6 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

PRO-FORMA SUBMISSION

ASEAN Energy Efficiency and Conservation (EE&C)
Best Practice Competition for Energy Efficient Buildings
ASEAN Energy Awards – 2026

CATEGORY: TROPICAL BUILDING

CERTIFICATION AND COVERING NOTE FROM ENTREE

Sample:

The (*name of building*) occupies a site area of about _____ square meters and was completed in _____. (Following is a brief description of the building, say). The building has 2 basements and 9-storeys (5 storey H-shaped ward tower block above the 4-storey podium block) with a total gross floor area of _____ square meters. The building has spent a total of USD _____ investment, and generate these amount of savings (energy savings, cost savings, CO_2 emission reduction, etc.)

The details of client and project consultants (as appropriate) are:

Client : ..... *(Name of Building)*
Architect : .....
M&E Engineers : .....
C&S Engineers : .....
Project Managers : .....

ITEM	DATA	COMPLIANCE (PUT CHECK)
Submission Requirement		
- Certification and Note from Entree	1 page	
- Cover of Report	1 page	
- Overall On-Site Design	Max 2 pages	
- Active Design	Max 2 pages	
- Passive Design	Max 4 pages	
- Maintenance and Management	Max 1 page	
- Environmental Impacts	Max 1 page	
- Building Information	Max 4 pages	
- Drawings	Max 4 pages	
Pre-Qualification	**Data**	
- Energy Efficiency Index: (150 kWh/m^2/yr based on GFA)	___ kWh/m^2/yr	
- Air-conditioning up to 50 percent of total gross floor area (GFA)	___ %	
- Temperature and Other Settings: Not less than 21^o C but not more than 26^o C		
- Lighting load (Office – max 8 W/m^2 of GFA; Others – max 15 W/m^2 of GFA)	___ W/m^2 (GFA)	
- Operating hours/yr.: To be based on 2,000 hours/year		
- At least 1 full-year of operation prior to nomination in national competition	___ years	

The (name of building) hereby agreed to allow the Board of Judges to visit the building and verify the authenticity of the data. However, two weeks advance notice is required to allow for necessary arrangements.

The undersigned certified that the information given is true and accurate and prepared with the consent of the party/ies involved.

_____
Name of the Client
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Endorsed by Focal Point
Name, Office (*country*) & Position
Tel, Fax, e-mail

COVER OF REPORT (NAME OF BUILDING, PHOTO, ETC.)

OVERALL ON-SITE NATURAL ENVIRONMENT CONSIDERATIONS
(2 PAGE WRITE-UP)
[20 POINTS]

1. Use of vegetation, landscape and hardscape **[7]**
   - Effective application of ground covering plant and large plant
   - The modification of landscape and topography
   - The use of hardscape materials

2. The use of water body **[5]**
   - Effective application of water body: location, quantity, etc.

3. The use of wind **[5]**
   - Effective application of wind: natural ventilation, stack ventilation, etc.

4. Other use of on-site natural environment **[3]**
   - The use of night sky radiation
   - Others (specify)

Note: **This introductory note must be deleted in the submission.**

OVERALL ON-SITE NATURAL ENVIRONMENT CONSIDERATIONS (2 PAGE WRITE-UP)

ACTIVE DESIGN (GENERAL DISCUSSION MAX 2 PAGES) [15 POINTS]

1. Air-conditioning system (selection, layout and plant system design) **[5]**: ____

Chiller Plant	**Efficiency (kW/ton)**
Chiller (A)	
Chilled water pump (B)	
Condenser water pump (C)	
Cooling tower (D)	
System efficiency (A + B + C + D)	

   - Cooling Load: _____ W/m^2
   - Air conditioning system total annual electricity consumption _____ kWh
   - Share of AC system energy consumption in overall building energy consumption _____%

2. Lighting systems **[3]**: _____ W/m^2

3. Transportation systems **[2]**: _____W/m^2

4. Indoor air temperature, humidity, and quality **[2]**
   - Air temperature: _____ °C
   - Air Humidity: _____ $g.m^{-3}$
   - Air quality:

Thermal Comfort m^3/hour/person, etc.)	**Ventilation) m^3/hour/person, etc.)**	**Others m^3/hour/person, etc.)**

5. Overall energy consumption per sq.m. of normal air-conditioned areas **[2]**: W/m^2

6. Other active design concepts (specify) **[1]**

(**This introductory note must be deleted in the submission).**

ACTIVE DESIGN (GENERAL DISCUSSION MAX 2 PAGES)

PASSIVE DESIGN (DISCUSSION OF 4 FEATURES MAX 4 PAGES) [40 POINTS]

1. Orientation and building design **[10]**
   - The orientation of building
   - The shape of building (surface area to gross floor area ratio)
   - The location of service core
   - The position of entrances
   - The hardscape around building
   - Spatial organisation for various functions
   - etc.

2. Envelope design (material, shading, fenestration, etc.) **[6]**

   Material
   - Heat transfer protection
   - Humidity protection
   - MRT effect
   - Color of envelope
   - Infiltration protection and control
   - Etc.

   Shading
   - Efficiency of shading devices
   - The use of natural shading devices
   - The use of shading from adjacent buildings
   - Etc.

   Fenestration
   - Fenestration design: location, nature and size of opening
   - Light to solar heat gain ratio (LT/SC)
   - Etc.

3. Overall heat transfer through building envelope **[6]**:
   Wall _____ W/m^2; Roof _____ W/m^2

4. Daylighting **[8]**
   - The use of diffuse radiation in building: hall, atrium, corridor, parking, toilet, etc.
   - Zoning for integrated lighting and daylighting
   - Contrast ratio of brightness

5. Natural Ventilation **[8]**

6. Other passive design concepts (specify) **[2]**

(This introductory note must be deleted in the submission).

PASSIVE DESIGN (DISCUSSION OF 4 FEATURES MAX 4 PAGES)

PASSIVE DESIGN (DISCUSSION OF 4 FEATURES MAX 4 PAGES)

PASSIVE DESIGN (DISCUSSION OF 4 FEATURES MAX 4 PAGES)

MANAGEMENT AND MAINTENANCE SCHEME
(GENERAL DISCUSSION MAX 1 PAGE)
[13 POINTS]

1. Energy management systems **[5]**
   - Building Energy Management System (BAS)
   - Energy consumption monitoring system
   - Etc.

2. Maintenance and management measures **[3]**
   - Manpower: _____ man-hour/year
   - Maintenance contractor
   - Availability of energy management engineer
   - Training of maintenance workers: _____cumulative no. of hours

3. Future improvement plans **[3]**

4. EE measures investment cost and payback period **[1]**
   - Investment cost: _____US Dollar
   - Payback period:_____ years

5. Others (specify) **[1]**

(This introductory note must be deleted in the submission).

ENVIRONMENTAL IMPACTS CONSIDERATION
(GENERAL DISCUSSION MAX 1 PAGE)

[10 POINTS]

1. Waste management **[3]**
2. Pollution management (air, noise, visual, exhaust, etc.) **[2]**
3. Green/non-toxic materials **[3]**
4. Others (specify) **[2]**

(This introductory note must be deleted in the submission).

BUILDING INFORMATION (FILL UP DETAILS MAX 4 PAGES)

A. General Information

1. Name of the building
2. Name of owner and management company
3. Building Category: Office/Retail/Hotel/Hospital/School/Residential/Other (please specify)
4. Address
5. Tel. No./Fax No./E-mail address

B. *Building Physical Information*

1. Physical building background
   - Brief history
   - Single function usage or mix function usage (specify)
2. Year of construction
3. Age of building
4. Retrofitting history (Specify the changes and year of retrofitting)
5. Total number of storeys
6. Total number of basement floor
7. Number of car park storeys
8. Total gross floor area
9. Surface area of the envelope including the roof to gross floor area ratio
10. Car park area
11. Gross lettable area
12. Air-conditioned area
13. Non-air conditioned area
14. Plot ratio (total GFA / ground area)

C. *Building Design and Practice Information*

1. Plants and landscape design/ wind and natural ventilation/ water features/ daylighting/ etc.
2. Facade and shading design
   - Type of facade
   - Color of facade
   - Use of shading devices
3. Location of service core
4. Shape of building
5. Overall heat transfer through building envelope: Wall__ W/m^2; Roof____ W/m^2
6. Lighting fixtures
7. Lighting load_____ W/m^2 (gross floor area)
8. Building air-conditioner system and equipment
   - Fresh air exchange rate: _____ m^3/hour/person
     _____ m^3/hour/m^2
     _____ m^3/hour
   - Energy efficiency of aircon chiller:_____kW/ton
9. Cooling Load_____W (electricity consumption) /m^2 (air-conditioned area)

BUILDING INFORMATION (FILL UP DETAILS MAX 4 PAGES)

D. *Operation Information*

1. Occupancy rate: Minimum_____% of total area
2. Total number of occupants
3. Ownership of building (occupied by owner(s), renter(s), etc.)
4. Building operating schedule
   - weekdays from _____to_____
   - Saturday from __ to_____
   - Sunday from __ to_____
   - Operating hours/ year _____
5. Building indoor environment: Indoor air temperature, humidity, and quality
   Air temperature: _____°C
   Air Humidity: _____ $g.m^{-3}$
   Air quality:

Thermal Comfort (m^3/hour/person, etc.)	**Ventilation (m^3/hour/person, etc.)**	**Others (m^3/hour/person, etc.)**

E. Energy Consumption Information

1. Peak demand (monthly)
2. Energy used (monthly)
3. Typical Load curve (weekdays, weekends)
4. Energy efficiency index - air-conditioned area: _____kWh/m^2/year (based on 2,000 operational hours/year)
5. Energy efficiency index - GFA: ____kWh/m^2/year
6. Energy consumption – Electricity:_____kWh/m^2/year (based on 2,000 operational hours/year)
7. Energy consumption – Fuel:_____liters/year (not for electricity generation)
8. Energy Consumption by system

Type of System	**Electricity Consumption (kWh)**	**% of energy used**
HVAC (Heating, Ventilation, Air Conditioning)		
Lighting		
Transportation		
Others		

F. *Energy Management Information*

1. Building energy management system Connected physical point ____(no)
2. Energy saving: Schedule programme_____kWh/year
   Duty cycle programme_____kWh/year
   Optimum start / stop programme_____kWh/year
   Power demand programme_____kW (mean)

BUILDING INFORMATION (FILL UP DETAILS MAX 4 PAGES)

G. *Maintenance Information*

1. Maintenance programme
   - Manpower: _____man-hour/year
   - Maintenance contractor
   - Availability of energy management engineer
   - Training of maintenance workers:_____cumulative hours/yr.

H. *Environmental Impacts*

1. Impacts of waste
2. Impacts of pollution (air, noise, visual, exhaust, etc.)
3. Impacts to CO_2 emission reduction

I. *Additional Information for Retrofitted Buildings*

1. *Energy savings in air-conditioned area_____kWh/m^2/year (based on 2,000 operational hours/year
2. *Energy savings in lighting systems _____kWh/m^2/year (based on 2,000 operational hours/year)
3. *Retrofitted area:_____% of total area

* - *mentioned in the pre-qualification criteria*

BUILDING INFORMATION (FILL UP DETAILS MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

DRAWINGS (A4/A3 SIZE: TYPICAL FLOOR PLAN, SITE LAYOUT, ROOF PLAN, AND VERTICAL CROSS SECTION - MAX 4 PAGES)

PRO-FORMA SUBMISSION

ASEAN Energy Efficiency and Conservation (EE&C)
Best Practice Competition for Energy Efficient Buildings
ASEAN Energy Awards – 2026

CATEGORY: SPECIAL SUBMISSIONS

SUB-CATEGORY: CUTTING EDGE TECHNOLOGY & APPROPRIATE TECHNOLOGY

CERTIFICATION AND COVERING NOTE FROM ENTREE

Sample:

The (*name of building*) studied, applied, and/or developed innovative use of technologies _____ to reduce energy consumption in buildings that occupy a site area of about _____ square meters and was completed in _____. (Following is a brief description of the building and the name of the technology used). The project has spent a total of USD _____ investment, and generate these amount of savings (energy savings, cost savings, CO_2 emission reduction, etc.)

The details of the applicant's general information (as appropriate) are:

Client : ..... *(Name of Building)*
Type of Building : Office/Library/Retail/Hotels/Hospital/School/Apartments/Others (please specify)
Architect : .....
M&E Engineers : .....
C&S Engineers : .....
Project Managers : .....

ITEM	DATA	COMPLIANCE (PUT CHECK)
Submission Requirement	**(Total must be Max. 12 pages)**	
- Certification and Covering Note from Entree	1 page	
- Cover of Report	1 page	
- Project/Activity Overview	Max 1 page	
- Objective of the Project/Activity	Max 1 page	
- Detailed Description of the Project/Activity (Technology Explanation, Impact on Energy Saving, Economy, Environment, etc.)	Max 4 pages	
- Special Contributions and Benefits of Project/Technology to the National and ASEAN level	Max 1 page	
- Summary of Project/Activity (Building Energy Performance/Savings)	Max 1 page	
- Building information	Max 2 pages	
Pre-Qualification	**Data**	
- Name of Technology Used		
- Gross Floor Area (GFA) of 2,000 square meters or above	___ m^2	
- At least 1 full-year of operation	___ years	
Type of Font and Size: Times Roman 12		

The (name of building) hereby agreed to allow the Board of Judges to visit the building and verify the authenticity of the data. However, two weeks advance notice is required to allow for necessary arrangements.

The undersigned certified that the information given is true and accurate and prepared with the consent of the party/ies involved.

_____
Name of the Client
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Name of Consultant
Office, Position
Tel, fax, e-mail

_____
Endorsed by Focal Point
Name, Office (*country*) & Position
Tel, Fax, e-mail

COVER OF REPORT (NAME OF BUILDING, TYPE OF BUILDING, NAME OF TECHNOLOGY USED, PHOTO, ETC.) (MAX 1 PAGE)

PROJECT/ ACTIVITY OVERVIEW (MAX 1 PAGE)

OBJECTIVE OF THE PROJECT/ACTIVITY (MAX 1 PAGE)

This category refers to special projects which study, apply, and/or develop innovative use of technologies which could be applied to reduce energy consumption in buildings. The aim is to promote the development of innovative energy efficiency-related solutions together with ASEAN wisdom.

Special submissions are projects which involve significant development in the field of energy efficiency in buildings. Such development may be achieved in the areas of equipment, material, system applications, design and management processes. Such development and innovation may be demonstrated through actual application in real project(s).

(**This introductory note must be deleted in the submission)**

DETAILED DESCRIPTION OF THE PROJECT/ACTIVITY (TECHNOLOGY EXPLANATION, IMPACT ON ENERGY SAVING, ECONOMY, ENVIRONMENT, ETC.) (MAX 4 PAGES)

Cutting Edge Technology Sub-Category

To qualify under Cutting Edge Technology Sub-Category, a project must involve the development and/or innovative use of technology, materials, equipment, and processes. In addition, technology shall refer to the **innovative, latest or most advanced technologies**.

The entry shall list down the cutting-edge technology and the economic information (cost and impacts) to inform the Judges. Special focus will be given to projects which contribute to the promotion and development of ASEAN wisdom. The application of new technology that has not yet been applied in other countries is an advantage. The project should present a **new idea, new concept, and/or new design.**

Below are the examples of technology/projects for the **Cutting Edge Technology Sub-Category**, from some net zero studies, but are not limited to:

- **Heat Pump Technology for Chiller, Variable Refrigerant Flow (VRF). and Water Heater:** Technology used for chillers, VRF systems, and water heaters, that utilise refrigeration cycles to efficiently transfer heat from ambient sources for both cooling and heating
- **Energy-generating façade:** Integration of renewable energy sources with building façade, for example, the application of Building Integrated Photovoltaics (BIPV).
- **Smart Building Management Systems (BMS) with AI tools:** Intelligent and automated systems that leverage the Internet of Things (IoT) and advanced data analytics to provide an integrated dashboard to optimise energy efficiency measures in building operations.
- **Smart Thermostats**: Programmable thermostats, often controlled remotely via smartphone apps, to achieve thermal comfort while optimising energy efficiency.
- **Integrated Air Conditioning Control:** Automated systems that control the energy consumption from air conditioning appliances by leveraging building sensors, integrating mixed-mode ventilation systems, and other advanced technologies.

Appropriate Technology Sub-Category

To qualify under Appropriate Technology Sub-Category, a project must involve the development and/or innovative use of technology, materials, equipment, and processes. In addition, the technology shall refer to the **innovative, low-cost, and/or modification** techniques/tools to optimise the existing equipment.

The entry shall highlight the new modified system and the economic information (cost and impacts) to inform the Judges. Special focus will be given to projects which contribute to the promotion and development of ASEAN wisdom. The application of modification techniques shall be **well-suited design addressing the special needs** of the building in the respective countries, considering factors such as:

DETAILED DESCRIPTION OF THE PROJECT/ACTIVITY (MAX 4 PAGES)

- **Climate**: The technology should be adapted to the local climate conditions, such as temperature, humidity, and wind patterns;
- **Local resources**: Utilising locally available materials and labour can reduce costs and environmental impact;
- **Cultural and social factors**: The technology should be culturally appropriate and socially acceptable;
- **Economic constraints**: The technology should be affordable and accessible to the target population;
- **Environmental impact**: The technology should minimise its negative impact on the environment.

Below are the examples of technology/projects for **Appropriate Technology Sub-Category**, but are not limited to:

- **Energy-efficient lighting**: Using LED or CFL lighting instead of traditional incandescent bulbs
- **Lighting controls**: Using sensors and timers to automatically adjust lighting levels based on occupancy and daylight availability.
- **High-performance insulation**: Using materials with high thermal resistance to reduce heat transfer through walls, roofs, and floors.

(**This introductory note must be deleted in the submission)**

DETAILED DESCRIPTION OF THE PROJECT/ACTIVITY
(MAX 4 PAGES)

DETAILED DESCRIPTION OF THE PROJECT/ACTIVITY
(MAX 4 PAGES)

SPECIAL CONTRIBUTIONS AND BENEFITS OF PROJECT/TECHNOLOGY TO THE NATIONAL AND ASEAN LEVEL (MAX 1 PAGE)

SUMMARY OF BUILDING ENERGY PERFORMANCE/ SAVINGS
(MAX 1 PAGE)

BUILDING INFORMATION (FILL UP DETAILS MAX 2 PAGES)

A. General Information

1. Name of the building
2. Name of owner and management company
3. Building Category: Office/Retail/Hotel/Hospital/School/Residential/Other (please specify)
4. Address
5. Tel. No./Fax No./E-mail address

B. *Building Physical Information*

1. Physical building background
   - Brief history
   - Single function usage or mix function usage (specify)
2. Year of construction
3. Age of building
4. Retrofitting history (Specify the changes and year of retrofitting)
5. Total number of storeys
6. Total number of basement floor
7. Number of car park storeys
8. Total gross floor area
9. Surface area of the envelope including the roof to gross floor area ratio
10. Car park area
11. Gross lettable area
12. Air-conditioned area
13. Non-air conditioned area
14. Plot ratio (total GFA / ground area)

C. *Building Design and Practice Information*

1. Plants and landscape design/ wind and natural ventilation/ water features/ daylighting/ etc.
2. Facade and shading design
   - Type of facade
   - Color of facade
   - Use of shading devices
3. Location of service core
4. Shape of building
5. Overall heat transfer through building envelope: Wall__ W/m^2; Roof____ W/m^2
6. Lighting fixtures
7. Lighting load_____ W/m^2 (gross floor area)
8. Building air-conditioner system and equipment
   - Fresh air exchange rate: _____ m^3/hour/person
     _____ $m^3/hour/m^2$
     _____ m^3/hour
   - Energy efficiency of aircon chiller:_____kW/ton
9. Cooling Load_____W (electricity consumption) /m^2 (air-conditioned area)

D. *Operation Information*

1. Occupancy rate: Minimum_____% of total area
2. Total number of occupants
3. Ownership of building (occupied by owner(s), renter(s), etc.)

BUILDING INFORMATION (FILL UP DETAILS MAX 2 PAGES)

4. Building operating schedule
   - weekdays from _____to_____
   - Saturday from __ to_____
   - Sunday from __ to_____
   - Operating hours/ year _____
5. Building indoor environment: Indoor air temperature, humidity, and quality
   Air temperature: _____°C
   Air Humidity: _____ $g.m^{-3}$
   Air quality:

Thermal Comfort (m^3/hour/person, etc.)	Ventilation (m^3/hour/person, etc.)	Others (m^3/hour/person, etc.)

E. Energy Consumption Information

1. Peak demand (monthly)
2. Energy used (monthly)
3. Typical Load curve (weekdays, weekends)
4. Energy efficiency index - air-conditioned area: _____kWh/m^2/year (based on 2,000 operational hours/year)
5. Energy efficiency index - GFA: _____kWh/m^2/year
6. Energy consumption – Electricity:_____kWh/m^2/year (based on 2,000 operational hours/year)
7. Energy consumption – Fuel:_____liters/year (not for electricity generation)
8. Energy Consumption by system

Type of System	Electricity Consumption (kWh)	% of energy used
HVAC (Heating, Ventilation, Air Conditioning)		
Lighting		
Transportation		
Others		

F. *Energy Management Information*

1. Building energy management system Connected physical point ____(no)
2. Energy saving: Schedule programme_____kWh/year
   Duty cycle programme_____kWh/year
   Optimum start / stop programme_____kWh/year
   Power demand programme_____kW (mean)

G. *Maintenance Information*

1. Maintenance programme
   - Manpower: _____man-hour/year
   - Maintenance contractor
   - Availability of energy management engineer
   - Training of maintenance workers: cumulative hours/yr

H. *Environmental Impacts*

1. Impacts of waste
2. Impacts of pollution (air, noise, visual, exhaust, etc.)
3. Impacts to CO_2 emission reduction