SUBMISSION TEMPLATE

ENE – 1 GREENHOUSE GAS EMISSIONS

Project Name: _____

Project Number: GS- _____

Points available: **20**   **Points claimed:** _____

Conditional Requirement

Conformance Route	
Please indicate which compliance route has been selected	
Compliance Route 1	**Energy Modelling**
Compliance Route 2	**Deemed to Satisfy**

Compliance Route 1: Energy Modelling

Criteria	Points available	Points claimed
Green Star SA – Interiors Energy Calculator	20	_____

Through the Energy Modelling Compliance Route, I confirm that the project achieved _____ **[insert number of points out of 20]** points as calculated and determined by the Green Star SA – Interiors Energy Calculator.

I confirm that I have attached supporting documents that support these claims

☐ I CONFIRM

> **Supporting Attachments:**
> a. Attach a copy of the **Energy Modelling Report** (see checklist below)
>
> b. Attach a copy of <u>completed</u> **Green Star SA – Interiors PILOT Energy Calculator**
>
> c. Attach **As-Built drawings** demonstrating that all the inputs used in the energy simulation are reflected in the installation
>
> d. Additionally – for natural ventilated spaces, please attach a **Natural Ventilation Report** (see checklist below)

Checklist: Energy Modelling Report

Please confirm that the Energy Modelling Report has been prepared in accordance with the following guidelines:-	YES/NO/ n/a
Following the structure defined in the Green Star SA – Interiors PILOT Energy Calculator & Modelling Protocol Guide;	
Clearly identifying all assumptions made for tenant and other loads (e.g. occupant density);	
Clearly identifying all of the design-driven inputs and referencing drawings; and	
Clearly corresponding to the design.	
Whenever assumptions are used, they must be justified and conservative	

Checklist: Natural Ventilation Report

Please confirm that Natural Ventilation Report meets the following requirements:-	YES/NO/ n/a
Prepared by a mechanical engineer	
Description of how the fitout has been designed to be naturally ventilated and confirms that analysis has been carried out to check that internal conditions will be acceptable to the occupants.	
Opening Area Schedule of openings room by room, showing that each naturally ventilated space has an opening of area at least 5% of floor area (as required by SANS 10400-O).	
Thermal Analysis of all typical spaces in the fitout, using hourly weather data to show that internal conditions meet the following criteria: - **Internal operative temperatures** are within the 80% Acceptability Limits given in ASHRAE Standard 55-2004 for 90% of occupied hours in the year; OR - **PMV (Predicted Mean Vote) levels** are within -1.0 and +1.0 for 90% of occupied hours in the year.	
Geometry and materials of the model	
A list of all assumptions made such as clothing levels, etc. Occupancy times, equipment and lighting heat gains should be modelled using the same assumptions as the Green Star SA – Interiors PILOT Energy Calculator & Modelling Protocol Guide;	
A summary of the mean radiant temperatures and air temperature results from the simulation and details of the weather data used;	

Compliance Route 2: Deemed to Satisfy

Criteria	Points available	Points claimed
Artificial Lighting	2	_____
Lighting Controls	2	_____
Equipment	2	_____
Plug Load Control	1	_____
HVAC	2	_____
Space Heating	1	_____

Through the Deemed to Satisfy Compliance Route, I confirm that the project achieved _____ **[insert number of points out of 10]** points.

I confirm that I have attached supporting documents that support these claims

☐ I CONFIRM

Artificial Lighting

Insert the following details

- Project's building code classification _____.
- Lighting power density of the tenancy area _____.

I confirm the effective lighting power density for at least 95% of the tenancy area is less than the values prescribed in the table under ENE-1 'Deemed to satisfy' Part A - Artificial lighting.

I confirm that I have attached supporting documents that support these claims

Points available: 2

☐ I CONFIRM

Lighting Controls

Insert the following details

- I confirm that occupancy sensors have been installed for _____% of the tenancy area, excluding open desk areas.

- I confirm that photocell sensors have been used for _____% of the tenancy area, excluding open desk areas.

I confirm that I have attached supporting documents that support these claims

Points available: 2   ☐ I CONFIRM

Equipment

Insert the following details

- I confirm that energy efficient appliances and equipment (either by rated power or number of appliances) have been installed in _____% of the fitout.
  OR
- I confirm that _____% of appliances and equipment either by rated power or number of appliances) installed in the fitout are energy efficient.

I confirm that I have attached supporting documents that support these claims

Points available: 2   ☐ I CONFIRM

Plug Load Control

Insert the following details

- I confirm that plug load controls are used for _____% of plug points.

I confirm that I have attached supporting documents that support these claims

Points available: 1   ☐ I CONFIRM

HVAC

[Please select one of the sections below – Natural ventilation or Mechanical ventilation]

Natural Ventilation

Insert the following details

- I confirm that the fitout is naturally ventilated. _____ (YES/NO).

I confirm that I have attached supporting documents that support these claims

Points available: 2

☐ I CONFIRM

Mechanical Ventilation

I confirm that the equipment in the fitout meets the minimum efficiency as per the table *ENE-1 'Deemed to satisfy' Part E - HVAC?*

- [Tick boxes in table below to indicated compliance]

	Equipment	Performance requirement
	Unitary console and split type	3.2 COP*
	Packaged and Split Air Conditioning	3.2 COP*
	Water cooled chiller	5.05 IPLV**
	Air cooled chiller	3.5 IPLV**

* COP includes indoor fan unit at 35°C outdoor temperature
**ESEER or any other standard rating system can be used provided performance is shown to be equal or superior to IPLV figures used above.

Please indicate if any of the following initiatives have been implemented:-

	Economy cycle for systems serving at least 90% of the occupied area
	Evaporative cooling
	Ammonia based heat rejection
	Heat recovery chiller, heat pumps or ventilators
	Radiant Cooling systems
	Variable refrigerant flow systems

I confirm that I have attached supporting documents that support these claims

Points available: 2

☐ I CONFIRM

Space Heating

Insert the following details

- I confirm that the fitout makes no use of resistive heating for space heating purposes

I confirm that I have attached supporting documents that support these claims

Points available: 1

☐ I CONFIRM

Supporting Attachments:
Attach a copy of the **Contractual Documentation** (As-Built drawings or signed confirmation from the tenant stating all relevant equipment installed for the tenancy. All calculation inputs used for the short report must be referenced in this documentation)

<See next page for discussion and author sign off>

Discussion: Insert any issues you would like to highlight and clarify to the Assessment Panel.
_____

Author Details:

_____   _____
[Name]   [Position]

_____   _____
[Contact Details]   [Date]