



## 2. Size of Business

- Number of staff:
- No. of main buildings:
- Estimated total Net / Occupied Floor Areas (NFA): \_\_\_\_\_m<sup>2</sup>
- Estimated total Gross Floor Areas (GFA): \_\_\_\_\_m<sup>2</sup>
- For factory only

No. of productions per year (kg):

## 3. Operating Time

- General starting time:
- General finish time:
- No of working days per week and per year:
- Do you work on public holidays? **Yes/No**

## 4. Installation Description

Premise No.	Usage	No. of Floors	Premise materials & color's (Walls & Roof)	Are windows tinted?	Total occupied areas (m <sup>2</sup> )	Is the roof insulated ? (Yes/No)
1						
2						
3						
4						
5						

Add additional sheet for extra premise.

### 5. Electricity

- Tariff code:
- Electricity End-Users

List in the following the estimated percentages of end-user consumption of the total electricity bill:

<b>End-User Load</b>	<b>Percentage of Total Bill %</b>
<b>Boilers</b>	%
<b>ACMV</b>	%
<b>Production Equipment</b>	%
<b>Pump</b>	%
<b>Air Compressor</b>	%
<b>Fan and Blower</b>	%
<b>Lighting</b>	%
<b>Others (please specify)</b>	%
<b>Total</b>	100 %

- Estimated energy savings (%) based on ESCO observations/simple measurements:
- List your electricity bill history for the last 12 months:

<b>Month</b>	<b>Year</b>	<b>KWh (Peak)</b>	<b>KWh (off-peak)</b>	<b>MD (kW)</b>	<b>PF penalty (RM)</b>	<b>Total Bill (RM)</b>


- Do you pay a Power Factor penalty? **Yes/No**
  
- Please attach **a copy of the latest annual TNB electricity bill** of your company.

• **Electricity Metering**

Main utility meters (kWh & kVARh):

<b>Meters</b>	<b>Function</b>	<b>Type (Electronic/Electro- mechanical with rotation disk)</b>

Sub-meters (kWh & kVARh):

<b>Meters</b>	<b>Function</b>	<b>Type (Electronic/Electro- mechanical with rotation disk)</b>

## 6. Fuels

- Do you use any type of fuel? **Yes/No**

If **Yes**, please fill the following table:

Fuels	Usage	Unit	Estimated annual costs (RM)

## 7. Boilers (if any)

This is related to boilers used for generating steam used in the operations.

If you have boilers, please complete the following information:

Boilers	1	2	3	4
Fuel type				
Boiler Type Water-tube/Fire-tube				
Steam Capacity (Ton/hr)				
Steam values (Ton/hr, °C, bar)				
Efficiency or Heat Rate (%)				
Frequency of blow down				
Does it have heat recovery? Yes/No				
Age and Year of Commissioning (Years/ 19...)				
Manufacturer				
Use				

- Do you have any heat recovery/rejection? **Yes/No**

If the answer **Yes**, describe briefly how:

**8. ACMV System**

- Start-up time:
- Shut down time:
- Is there any control to the amount of fresh air used by the air-conditioning system?  
**Yes/No**

If the answer **Yes**, describe briefly how:

- Indicate the type of air-conditioning system used in your premise:

Location	Type	Control (Manual /Automatic)	Capacity	Total Unit	Year Manufactured

- Is there any future upgrading for your air-conditioning system? **Yes/No**

If **Yes**, please indicate when and what type of the new system (capacity, type).

**9. Production equipment (if related)**

- List the types of production machines or equipment:

Type of Equipment	Brand	Model	Year of Manufactured	Capacity (kW)

**10. Pump (if related)**

- List of the type of pump:

Type of pump	Brand	Model	Year of Manufactured	Rated Power (kW)

- Is there any retrofitting equipment attached? **Yes/No**

If **Yes**, please justify.

**11. Air Compressor (if related)**

- List of the types of air compressor:

<b>Compressor No.</b>	<b>Brand</b>	<b>Model</b>	<b>Capacity (m<sup>3</sup>/hour)</b>	<b>Rated Power (kW)</b>

**12. Fan and Blower (if related)**

- List of type of fan and blower:

<b>Type</b>	<b>Brand</b>	<b>Model</b>	<b>Rated power (kW)</b>	<b>Year Manufactured</b>



### 13. Lighting

- List the types of lighting technologies used in your premise:

Lighting Technologies	Place of Use	Total No.	Total kW	Remarks
Ordinary fluorescent tubes				
Compact fluorescent lamps				
Incandescent globes				
Luminaires without reflector				
Luminaires with mirror reflectors				
Tri-phosphor fluorescent tubes				
Lighting energy savings systems (provide the brand name)				
Lighting control system				
Others (please state)				



**16.** Are there any future expansion plans for hot water and power demand? **Yes/No**

- If **Yes**, please describe the plans briefly.

**17.** Do you have any plans for an Energy Efficiency project? **Yes/No**

- If **Yes**, please describe the projects:

**18.** Have you recently implemented any Energy Efficiency Projects? **Yes/No**

- If **Yes**, please describe the projects:

**19.** Is there any energy saving equipment installed in your premise? **Yes/No**

If **Yes**, please describe briefly about the equipment:

**20.** Do you have Supervisory Control and Data Acquisition (SCADA) or Building Automation System (BAS) for monitoring and controlling your operations?  
**Yes/No**

If **Yes**, does your SCADA/BAS record electricity demand of your manufacturing facilities?

**21.** Is there any future upgrading for any facilities for your premises? **Yes/No**

If **Yes**, indicate when and provide the description of the upgrade.