

**Energy Audit Report Comments**

**Building Name:**

**Building Owner / Management:**

**Energy Auditor:**

**Date of Submission:**

| **No.** | **Sections** | **Subsections** | **Check****(****)** | **Remarks/Comments** | **ESCO Feedback** |
| --- | --- | --- | --- | --- | --- |
| 1 | Title and Cover | The title of the Energy Audit exercise with full name and address of the building facilities |  |  |  |
|  |  | Location of facility or building |  |  |  |
|  |  | The auditor’s full name |  |  |  |
| 2 | Executive Summary | Baseline/SEC (kWh, RM) |  |  |  |
|  |  | Carbon Emission Conversion (Electrical) (peninsular=0.639t/MWh, Sabah and WP Labuan=0.512t/MWh)Natural gas(m3) = 2.3 kgC02/unitDiesel(L) =2.7 KgCO2/unit |  |  |  |
|  |  | General info (GFA, NFA, building info and etc) |  |  |  |
|  |  | Load Apportioning |  |  |  |
|  |  | BEI/SEU reduction Chart |  |  |  |
|  |  | ESM Summary (Percentage saving compare with baseline/system) |  |  |  |
|  |  | Brief summarized description of energy saving recommendations and their cost-effectiveness |  |  |  |
|  |  | GreenPASS Assessment scheme **(Only for commercial sector)** | NA | To add GreenPASS Assessment scheme **(Only for commercial sector)** (Page 17)Based on the SEDA Sustainable Energy Low Carbon Building Assessment GreenPASS by Construction Industry Standard 2012 CIS20, the level of achivement in xx % carbon reduction is eligible for xx diamond certification. All the information can get from the SEDA website.https:/www.seda.gov.my/greenpass |  |
| 3 | Introduction | Objectives, scope and type of audit. |  |  |  |
|  |  | Key systems and equipment audited |  |  |  |
|  |  | Time Schedule (DEA Gannt Chart) and Audit framework  |  |  |  |
|  |  | List of energy audit equipment |  |  |  |
| 4 | Energy Management Review | Policy and targets.  |  |  |  |
|  |  | Energy data, documentation and monitoring |  |  |  |
|  |  | Compliance with towards the regulations |  |  |  |
|  |  | Energy management team |  |  |  |
|  |  | Energy audit team |  |  |  |
|  |  | Energy Management Matrix |  |  |  |
| 5 | Building Description | Describe building function, occupancy, general services provided, production process, active system, NFA/GFA |  |  |  |
|  |  | Building orientation and footprint if any |  |  |  |
|  |  | Building envelop (OTTV and RTTV) if any |  |  |  |
|  |  | Active System Description -overall view of the electrical distribution and reflecting the energy balance in the premise. |  |  |  |
| 6 | Energy Supply Information | Describe tariff system used, Account Number |  |  |  |
|  |  | Historical Energy Consumption, Productions  |  |  |  |
|  |  | Yearly energy consumption (RM, kWh) |  |  |  |
|  |  | Monthly Energy Consumption (RM, kWh) |  |  |  |
|  |  | Maximum demand  |  |  |  |
|  |  | Total electricity supplied and consumption trends including natural gas etc. If Any |  |  |  |
|  |  | Sources and types of energy supplied |  |  |  |
|  |  | types of baseline data |  |  |  |
|  |  | Regression Analysis |  |  |  |
|  |  | BEI/SEU Analysis |  |  |  |
| 7 | Energy Consumption Information and analysis (Electrical) | Electrical schematic diagram (Overall view of electrical distribution, building energy balance) |  |  |  |
|  |  | Trends on energy consumption and load profile over specified period with relevant charts. |  |  |  |
|  |  | Electricity Load Profile Estimated annual energy consumption in energy unit (electricity/fuel) and the percentage (%) of load distribution such as HVAC, lighting and etc |  |  |  |
|  |  | Observations and finding (electrical) |  |  |  |
|  |  | Remarks and conclusions from supply and consumption profiles and trends from energy bills and measurements. |  |  |  |
|  |  | Load Apportioning |  |  |  |  |  |
| 8 | Energy Consumption Information and analysis (Audited system) | System Description, System schematic diagram, System Performance/Analysis  |  |  |  |
|  |  | Trends on energy consumption and load profile over specified period with relevant charts. |  |  |  |
|  |  | Room data survey (Lux level, Room Temperature, Co2 level, RH and etc) |  |  |  |
| 9 | Energy Saving Measures | No cost/low cost/medium cost/high cost: housekeeping, minor repairs |  |  |  |
|  |  | Potential of energy savings in energy units and currency |  |  |  |
|  |  | Energy saving measurements and calculation methods |  |  |  |
|  |  | Potential returns from the costs to implement energy saving measures (Simple Payback Period/Investment Rate Return) |  |  |  |
|  |  | Summary ESM Table |  |  |  |
|  |  | Financing options/Government Incentives available |  |  |  |
| 10 | Energy Saving Measurement and Verification | Proposed measurement and verification methods/ Guides on how to implement proposed energy saving measures |  |  |  |
| 11 | Financial and ESM Implementations planning for owner to implement (3 Years) | Planning Gantt chart for the ESM implementation for 3 years (Proposed action plan and estimated time required to implement each measure) |  |  |  |
| 12 | Conclusion | BEI reduction Chart |  |  |  |
|  |  | GreenPASS Assessment Scheme **(Only for commercial sector)** | NA | To add GreenPASS Assessment scheme in conclusion **(Only for commercial sector)** (Page 17)Based on the SEDA Sustainable Energy Low Carbon Building Assessment GreenPASS by Construction Industry Standard 2012 CIS20, the level of achivement in xx % carbon reduction is eligible for xx diamond certification. All the information can get from the SEDA website.https:/www.seda.gov.my/greenpass |  |
| 12 | Verification |  |  | To add one more column for SEDA (2 person will sign the report)  |  |
| 13 | Appendix/Attachment (TNB Bill) |  |  |  |  |