## Green Mark Assessment Report

| | |
|---|---|
| **Name of school** | XXX Secondary School |
| **Level (Primary/Secondary/Junior College)** | Primary |
| **Assessed on:** | **15/5/2017** |
| **Applied Learning Programme (ALP) Topic:** | |
| **Learning for Life Programme (LLP) Topic:** | |
| **Gross Floor Area (sqm):** | #REF! |
| **Site Area (sqm):** | |

| **Targeted GM Rating by School** | **Please Select** |
|---|---|

| | Description | Maximum points | Pre-Requisite G | Pre-Requisite G+ | Pre-Requisite P | By School Points Achieved | Gold Pre-req satisfied (Y/N/NA) | Fill in by assessor: Points Awarded | Fill in by assessor: Points TBC | Fill in by assessor: Remarks | Final assessment: Finalised Points |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Part 1: Energy Efficiency** | | | | | | | | | | | |
| **1-1** | **Energy Efficiency** | | | | | | | | | | |
| | (a) Computation of EUI based on area | 10 | 1 | 4 | 5 | (Please Select) | Yes | | | 0 | |
| | (b) Computation of Energy Index based on occupants | | 1 | | | (Please Select) | Yes | | | | |
| **1-2** | **Percentage of non air-conditioned areas based on total GFA** | | | | | | | | | | |
| | - | 5 | 3 | 3 | 3 | #VALUE! | #VALUE! | | | 0 | |
| **1-3** | **Air-Conditioning System** | | | | | | | | | | |
| | (a) AC inventory list with CU model, age, area served and COP. Include a schedule to reduce unnecessary usage of Air Conditioning | 14 | 3 | 3 | 3 | (Please Select) | Yes | | | 0 | |
| | (b) System efficiency of A/C system: Air Cooled Chilled-Water Plant/Unitary Air Conditioners | | | | 10 | #DIV/0! | N/A | | | | |
| | (c) Higher temperature for LAN room (in accordance to ASHRAE 2011 Thermal Guidelines for Data Centres, 24 degrees or above) | | | 1 | 1 | (Please Select) | N/A | | | | |
| **1-4** | **Building Orientation** | | | | | | | | | | |
| | - | 5 | | | | #DIV/0! | N/A | | | 0 | |
| **1-5** | **Lighting System** | | | | | | | | | | |
| | (a) Lighting Power Budget | 13 | 2 | 6 | 8 | #REF! | #REF! | | | 0 | |
| | (b) Photo/Motion sensors for common areas to encourage the use of energy efficient design and control of lighting in the following areas:<br>(i) Toilets<br>(ii) Staircases | | | | | #REF! | N/A | | | #REF! | |
| | (c) Controllability of lighting system | | | | | #REF! | N/A | | | | |
| **1-6** | **Ventilation in Carparks** | | | | | | | | | | |
| | - | 2 | | | | #REF! | N/A | | | #REF! | |
| **1-7**<br>**Format A** | **Ventilation in Common Areas** | | | | | | | | | | |
| | (a) Toilets<br>(b) Staircases<br>(c) Corridors | 3 | | | | #REF! | N/A | | | #REF! | |
| **1-7**<br>**Format B** | **Ventilation in Common Areas** | | | | | | | | | | |
| | (a) Toilets<br>(b) Staircases<br>(c) Corridors | | | | | #REF! | N/A | | | | |
| **1-8** | **Energy Monitoring** | | | | | | | | | | |
| | (a) To show monthly energy usage monitoring with reasons for increase and decrease in consumption documented. Show posters/email evidences/photos of assembly talks indicating communication of energy consumption trend to both staffs and students | 6 | 2 | 2 | 2 | #REF! | #REF! | | | #REF! | |
| | (b) Energy Sub-metering<br>Provide sub-metering to monitor energy consumption by:<br>(i) Tenants spaces e.g. Canteen, Multi-Purpose Halls, etc.<br>(ii) Blocks | | 1 | 1 | 1 | #REF! | #REF! | | | #REF! | |
| | (c) Monitoring of bulk meter (If yes, please indicate the name, designation, contact number of the person on duty) | | | | | #REF! | N/A | | | | |
| **1-9** | **Energy Commitment** | | | | | | | | | | |
| | (a) Commitment to achieve at least 3 ticks under the revised NEA mandatory energy labelling scheme for A/C units during replacement exercise | 2 | | | | #REF! | N/A | | | #REF! | |
| | (b) Commitment to specify energy efficient equipment during replacement exercise e.g. lighting, pumps, etc. | 1 | | | | #REF! | N/A | | | | |
| **1-10** | **Lifts** | | | | | | | | | | |
| | VVVF and Sleep Mode | 1 | | | | #REF! | N/A | | | #REF! | |
| **1-11** | **Office Equipment** | | | | | | | | | | |
| | Encourage the use of energy efficient office equipment in General Office and Staff Rooms (Energy Star, NEA Energy Labelling Scheme, etc.). Types of equipment include:<br><br>Computers/laptops<br>Monitors<br>Printers<br>Photocopiers<br>TVs | 5 | | | | #REF! | N/A | | | #REF! | |
| **1-12** | **Renewable Energy/Energy Efficient Features** | | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Encourage the application of renewable energy sources or energy efficient features in buildings. Examples include:<br><br>Solar energy and other renewable energy sources<br>Sun pipes<br>Heat recovery system<br>Re-generative lift<br>Light shelves<br>Heat pumps<br>Other energy efficient features<br><br>Additional 1 point will be awarded if energy efficient features, such as solar panels, are also used for educational purposes. | 10 | | | | #REF! | N/A | | | #REF! | |
| | Sub-Total | **77** | **13** | **20** | **33** | **#VALUE!** | | | | | |
| **Part 2: Water Efficiency** | | | | | | | | | | | |
| **2-1** | **Water Efficient Fittings** | | | | | | | | | | |
| | Encourage the use of water efficient fittings under Water Efficiency Labelling Scheme (WELS) or adopt equivalent water efficient flow-rate/flush volumes for water fittings. Examples include:<br><br>Basin taps and mixers<br>Shower taps, mixers or showerheads<br>Sink/bib taps and mixers<br>Urinals and urinal flush valves | 8 | 6 | 6 | 6 | #REF! | #REF! | | | #REF! | |
| **2-2** | **Water Monitoring & Water Efficiency Management** | | | | | | | | | | |
| | (a) Water sub-metering<br><br>Provide sub-metering to monitor water consumption by:<br>(i) Tenants spaces e.g. Canteen, Multi-Purpose Halls<br>(ii) Blocks | | 1 | 1 | 1 | #REF! | #REF! | | | | |
| | (b) Water usage monitoring by tracking of water meter/s readings. Provision of water meter reading (at least monthly) tracking system. Monthly water bills and summary of water bills should be provided | | | | | #REF! | N/A | | | | |
| | (c) Implementation of fault reporting system or posters to report leakages | | 1 | 1 | 1 | #REF! | #REF! | | | #REF! | |
| | (e) The water management plan should include targets to improve water performance. To show intent, measures and implementation strategies of water efficiency improvement plans over the next three years. Committed water savings accrued from proposed measures should be quantified. Completed Water Efficiency Management Plan submitted to PUB can be considered. Please refer to:http://www.pub.gov.sg/conserve/WEMP/Pages/default.aspx for the WEMP template . | 11 | | | | #REF! | N/A | | | | |
| | (f) Water efficiency management system compliant with SS 577: Water Efficiency Management System or equivalent | | | | | #REF! | N/A | | | | |
| | (g) Attain Water Efficient Building Silver or Gold | | | | | #REF! | N/A | | | | |
| | (d) To achieve a certain Water Efficiency Index based on Primary School, Secondary School or Junior College | | | | | #REF! | N/A | | | #REF! | |
| **2-3** | **Water Efficiency Performance Communication & Awareness** | | | | | | | | | | |
| | To show monthly water usage monitoring with reasons for increase and decrease in consumption documented. Show posters/email evidences/photos of assembly talks indicating communication of water consumption trends to students and staff. | 2 | 2 | 2 | 2 | #REF! | #REF! | | | #REF! | |
| **2-4** | **Alternative Water Sources** | | | | | | | | | | |
| | Use of suitable systems that utilize alternative water sources for non-potable uses: irrigation, washing, water features, water to reduce use of potable water. Alternative sources can include rainwater, grey water, NEWater, AHU condensate and recycled water from approved sources.<br><br>Provision of private meter for alternative water sources | 2 | | | | #REF! | N/A | | | #REF! | |
| **2-5** | **Water Efficient Irrigation system for Landscape Areas** | | | | | | | | | | |
| | Provision of water efficient irrigation systems.<br>For example utilization of rainwater or recycled water, use of drought tolerant resistant plants that require minimal irrigation, use of automatic water efficient irrigation system (e.g. drip irrigation with rain sensor, and etc.) | 1 | | | | #REF! | N/A | | | | |
| | Sub-Total | **24** | **10** | **10** | **10** | **#REF!** | | | | | |
| **Part 3: Sustainable Awareness & Management** | | | | | | | | | | | |
| **3-1** | **School Wide Sustainability Awareness & Education** | | | | | | | | | | |
| | (a) Create awareness to staff and students on environmental sustainability<br>(i) Framework for Environmental Sustainability Education (e.g. how environmental sustainability is tailored and taught to students of different levels)<br>(ii) School Wide Awareness talks / Assembly talks to students on environmental sustainability topics / Environmental Programmes / Competitions / Values in Action (VIA) Programme<br><br>Examples of the various avenues:<br>• Posters<br>• Emails<br>• Morning Prep Talks to remind, promote & encourage staff (cleaners/gardeners and etc.)<br>• Courses<br>• Competitions (e.g. Green Wave, Green Audit) | 14 | 2 | 3 | 4 | #REF! | #REF! | | | #REF! | |
| | (b) Provision of a Green Corner at a prominent area with adequate learning materials covering at least 3 of the following topics:<br>(i) Energy Conservation<br>(ii) Water Conservation<br>(iii) Environmental Protection<br>(iv) Waste Management<br>(v) Sustainable Transport<br>(vi) Climate Change | | | 1.5 | 2 | #REF! | N/A | | | | |
| | (c) Indicate how Green Corner or feature(s) are incorporated into curriculum (e.g. Outdoor Learning) | | | | 2 | #REF! | N/A | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3-2 | **Environment Envoys** | | | | | | | | | | |
| | (a) Student-led programmes or sharing sessions related to environmental sustainability (e.g. sharing session, competition) (to indicate frequency of event, external partners involved in programme, topics) | 10 | | | | #REF! | N/A | | | #REF! | |
| | (b) Appointment of Environment Envoys within each class to promote and ensure green practices are carried out. | | | 2 | 2 | #REF! | N/A | | | | |
| | (c) Environmental Club Co-curriculum Activity) | | | 1 | 1 | #REF! | N/A | | | | |
| | (d) Staff involvement<br><br>i. Staff sharing of sustainable practices beyond school (e.g. Cluster Sharing Session, etc)<br>ii. Staff learning journey<br>iii. Staff initiated/participation in environmental sustainability programmes/projects | | | 1 | 1 | #REF! | N/A | | | | |
| | (e) Partnership beyond the school<br><br>i. Partnerships with external organisations with a focus on environmental sustainability<br>ii. Parents participating in the execution of the programme<br>iii. Environmental related programmes targeting parents | | | | 2 | #REF! | N/A | | | | |
| 3-3 | **Building Operation & Maintenance** | | | | | | | | | | |
| | (a) Environmental policy and commitment that includes:<br>i. Energy Targets/Management Plan<br>ii. Water Targets/Management Plan<br>iii. Waste Targets/Management Plan<br>iv. Commitment to review environmental policy and environmental curriculum. | 4 | | 3 | 3 | #REF! | N/A | | | #REF! | |
| | (b) Green Procurement Policy for items that schools may be able to procure (e.g. refrigerators, event venues, low VOC paint) | 1 | | | | #REF! | N/A | | | | |
| 3-4 | **Post Occupancy Evaluation** | | | | | | | | | | |
| | (a) Conduct post occupancy evaluation annually that should include technical performance, energy and environmental performance, cost-effectiveness and occupant's satisfaction.<br>The minimum number of staff surveyed should be 30.<br><br>The minimum number of students surveyed should be 50.<br><br>*Note that the POE sample templates will be provided in technical guide. | 2 | 2 | 2 | 2 | #REF! | #REF! | | | #REF! | |
| | (b) List of corrective actions taken following the post occupancy evaluation, if any. | 1 | 1 | 1 | 1 | | No | | | | |
| 3-5 | **Waste Management** | | | | | | | | | | |
| | (a) Provision of recycling facilities to encourage segregation of waste(such as plastics, metals and paper) at strategic locations (such as canteens, sports hall, school hall and office) | 7 | 1 | 1 | 1 | #REF! | #REF! | | | #REF! | |
| | (b) Promote and encourage recycling among student, tenants, cleaners and visitors by displaying recycling posters at strategic locations - with information on what not to put into recycling bins (e.g. food/liquid waste) | | 1 | 1 | 1 | #REF! | #REF! | | | | |
| | (c) Provision of a waste storage area to promote sorting, collecting, and recycling of a large range of waste generated in-house. Examples of types of waste recycled:<br>• Plastic waste<br>• Paper waste<br>• Metal waste (including drink cans)<br>• Glass waste<br>• Food waste<br>• Printer Cartridges<br>• Electronic wastes<br>• Others | | 1 | 1 | 1 | #REF! | #REF! | | | | |
| | (d) Create a monitoring system to track the amount of waste and recyclables generated. | | | | | #REF! | N/A | | | | |
| | (e) In-house composting of horticulture waste and use of compost produced within the school OR Recycling of horticulture waste through landscape contractors or other avenues | | | | | #REF! | N/A | | | | |
| 3-6 | **Environmental Protection** | | | | | | | | | | |
| | (a) Refrigerants with ozone depletion potential (ODP) of zero or with global warming potential (GWP) of less than 100 | 1 | | | | #REF! | N/A | | | #REF! | |
| 3-7 | **Greenery & Biodiversity** | | | | | | | | | | |
| | (a) Provide sufficient greenery. Greenery Provision (GnP) is calculated by considering the 3D volume covered by plants using the following Green Area Index (GAI) :<br>Grass GAI = 1 ; Shrubs GAI = 3; Palms<br>Trees GAI = 4; Trees GAI = 6 | 10 | | | | #REF! | N/A | | | #REF! | |
| | (b) Provision of:<br>i. Vertical greening<br>ii. Green roof or rooftop garden<br><br>Usable area is deemed as available roof spaces (including sloping roofs) that are free from M&E equipment and able to support greenery on top, as opposed to the total roof footprint | | | | | #REF! | N/A | | | | |
| | (c)<br>Provision of a range of native plants.<br>Refer to: https://florafaunaweb.nparks.gov.sg/<br>OR<br>Commitment to source native plants from accredited nurseries Refer to:<br>https://www.cuge.com.sg/landscapeservices/Nursery-Accreditation-Scheme for the list of accredited nurseries | | | | | #REF! | N/A | | | | |
| | (d) Provision of Eco-Pond, Eco-Garden or equivalent with informational/educational facility at the pond/garden area (e.g. information on plant species, technology used, etc) | | | 2 | 2 | #REF! | N/A | | | | |
| 3-8 | **Public Transport Accessibility** | | | | | | | | | | |
| | (a) Good access to nearest MRT/LRT or bus stops with provision of covered walkway to facilitate connectivity and use of public transport | 1 | | | | #REF! | N/A | | | #REF! | |
| | (b) Provision of covered walkway to facilitate connectivity and use of public transport | 1 | | | | #REF! | N/A | | | | |
| | (c) Adequate bicycles parking lots with shower facilities | 1 | | | | #REF! | N/A | | | | |
| | Sub-Total | **53** | **8** | **19.5** | **25** | **#REF!** | | | | | |

## Part 4: Indoor Environmental Quality

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **4-1** | **Indoor Air Quality Performance** | | | | | | | | | | |
| | To promote a healthy indoor environment<br><br>To conduct an IAQ audit once in three years that complies with Guidelines for Good Indoor Air Quality in Office Premises or Singapore Standard Code of Practice for `Indoor air quality for air-conditioned buildings' (SS 554:2009) by SINGLAS accredited laboratories. | 3 | | | 3 | #REF! | N/A | | | #REF! | |
| **4-2** | **Indoor Air Pollutants** | | | | | | | | | | |
| | Minimize indoor airborne contaminants for the well-being and comfort of users.<br><br>Use of low/no volatile organic compounds (VOC) paints certified by approved local certification. e.g. Singapore Green Building Council (SGBC), Singapore Green Label System (SGLS) | 1 | | | | #REF! | N/A | | | #REF! | |
| **4-3** | **Lighting Quality** | | | | | | | | | | |
| | (a) Lighting level to comply with the lux level requirement for various uses. (Refer to the rationale for the lux level requirement) | 2 | 1 | 1 | 1 | #REF! | #REF! | | | #REF! | |
| | (b) High Frequency ballast | | | | | #REF! | N/A | | | | |
| **4-4** | **Thermal Comfort** | | | | | | | | | | |
| | (a) Comfort Level to meet temperature of 24ºC (+1ºC) and a relative humidity of 65% (+5%).<br><br>*Applicable to air-conditioned areas only. | 2 | 1 | 1 | 1 | #REF! | #REF! | | | | |
| | (b) Reminders to maintain air-conditioning set-point to 24 Degrees Celsius or higher for all air-conditioned rooms | | 1 | 1 | 1 | #REF! | #REF! | | | | |
| **4-5** | **Outdoor Thermal Environment** | | | | | | | | | | |
| | (a) Use of paving materials with Solar Reflectance Index > 29 | 2 | | | | #REF! | N/A | | | #REF! | |
| | (b) Use of heat reflective paints on walls | | | | | #REF! | N/A | | | #REF! | |
| | Sub-Total | **10** | **3** | **3** | **6** | **#REF!** | | | | | |
| **Part 5: Other Green Features** | | | | | | | | | | | |
| **5-1** | **Green Features and Innovations** | | | | | | | | | | |
| | To encourage the use of other green features which are innovative or/and alleviate environmental detriments.<br>Non-exhaustive list of examples :<br><br>• High Volume Low Speed (HVLS) Fans in large spaces<br>• Positive Energy School<br>• Energy Management System (EMS) to facilitate monitoring and trend logging of school's energy consumption.<br>• Use of self-cleaning façade system<br>• Use of grey water recycling system for toilet washing<br>• Recycling of AHU condensate<br>• Remote metering with automated tracking system<br>• Use of non-chemical termite treatment system such as termite baiting system, anti-termite mesh<br>• Titanium Dioxide solutions to remove odour in toilets<br>• Ultraviolet light-C band (UV) emitters in all air handling units (AHUs) to improve indoor air quality | 5 | | | | #REF! | N/A | | | #REF! | |
| | **Sub-Total** | **5** | **0** | **0** | **0** | **#REF!** | | | | | |
| **Total** | | **169** | **34** | **52.5** | **74** | **#REF!** | | | | | |

| | |
|---|---|
| **GM Rating achieved by School** | **Please Select** |

Please select
Primary
Secondary
Junior College

## 1-1 Energy Efficiency

*Please attach a separate document of the utility bills and the total population in school.

| Energy Consumption (kWh) | |
|---|---|
| **Month** | **Y_____** |
| Jan | |
| Feb | |
| Mar | |
| Apr | |
| May | |
| Jun | |
| Jul | |
| Aug | |
| Sep | |
| Oct | |
| Nov | |
| Dec | |
| Total | - |

**(a) Computation of Energy Untility Index (EUI) based on area (kWh/m²/year)**

| | |
|---|---|
| Gross Floor Area,m² (A) | #VALUE! |
| Total Building Energy Consumption,kWh (B) | - |
| Energy Utility Index, EUI (B/A) | #VALUE! |

| kWh/**m²**/year | | | |
|---|---|---|---|
| Points | Primary | Secondary | JC |
| 5 | ≤ 27.07 | ≤ 27.37 | ≤ 40.07 |
| 4 | ≤ 29.98 | ≤ 31.97 | ≤ 43.82 |
| 3 | ≤ 33.77 | ≤ 35.38 | ≤ 49.19 |
| 2 | ≤ 38.98 | ≤ 40.22 | ≤ 54.80 |
| 1 | ≤ 54.10 | ≤ 73.82 | ≤ 64.88 |

(Up to 5 points)

| | |
|---|---|
| Points awarded | **(Please Select)** |

**(b) Computation of Energy Index based on number of occupants (kWh/person/year)**

| | |
|---|---|
| Number of staff (A) | |
| Number of students (B) | |
| Total Building Energy Consumption (kWh) (C) | - |
| Energy Index (C/(A+B)) | #DIV/0! |

| kWh/**person**/year | | | |
|---|---|---|---|
| Points | Primary | Secondary | JC |
| 5 | ≤ 343 | ≤ 488 | ≤ 788.80 |
| 4 | ≤ 348 | ≤ 577 | ≤ 846.62 |
| 3 | ≤ 413 | ≤ 678 | ≤ 1001.89 |
| 2 | ≤ 459 | ≤ 1035 | ≤ 1041.14 |
| 1 | ≤ 1644 | ≤ 4371 | ≤ 1306.53 |

(Up to 5 points)

| | |
|---|---|
| Points awarded | **(Please Select)** |

| | |
|---|---|
| **Total Points Awarded** | **#VALUE!** |

### For Assessor

| Evidence Given | | | Remarks |
|---|---|---|---|
| Utilities Bills | ☐ | | |
| GFA | ☐ | | |
| No. of occupants | ☐ | | |
| Score | Awarded | Pending | |
| (a) | | | |
| (b) | | | |

## 1-2 Percentage Of Non Air-Conditioned Areas

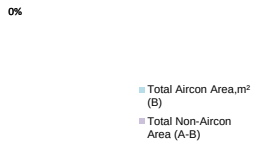
*Please attach a separate document of the ACMV plans

### XXX School air-conditioned areas:

| Standard Room (Air Con Room) | |
|---|---|
| **Location** | **Area (m²)** |
| General Office | |
| Printing Room | |
| Pantry | |
| Principal Office | |
| Vice-Principal Office | |
| Central Server Room | |
| Meeting Room | |
| Lan Room | |
| Staff Room | |
| Staff Lounge | |
| Staff Work Room | |
| HOD Room | |
| Music/Dance Studio Room | |
| Computer Lab | |
| Computer Work Room | |
| Library | |
| AVA Room | |
| AVA Store | |
| IT Resource Room | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| Total | 0 |

| Non-Standard Room (A/C Room) | |
|---|---|
| **Location** | **Area (m²)** |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| Total | 0 |

### Percentage of Non AC Area




| | |
|---|---|
| **Total GFA, m² (A)** | #VALUE! |
| **Total Aircon Area,m² (B)** | 0 |
| **Total Non-Aircon Area (A-B)** | #VALUE! |
| **Non Aircon Area (%)** | #VALUE! |

| | |
|---|---|
| **Points Awarded** | **#VALUE!** |

### For Assessor

| Evidence Given | | | Remarks |
|---|---|---|---|
| ACMV Plans | ☐ | | |
| Areas tally with 1-3 | ☐ | | |
| Score | Awarded | Pending | |
| | | | |

## 1-3(a) AC Inventory List & Schedule

## 1-3(b) System Efficiency Of AC System

| Standard Rooms | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | Schedule & Control Of AC System | | | |
| Level | Block | Area Served | Area | CU No. | Brand | Model No.(CU) | Qty | Cooling Load (kW) | Input power (kW) | Total Cooling Load (kW) | Total Input Power (kW) | COP or Weighted COP (If available) | Office Hours/ Timing | Estimated Operation Hr/Week | Control Of System (Timer/Centralise/Manual) | Remarks |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | | 0 | 0.00 | | | | (Please Select) | |
| | | | | | | | | | **Total** | 0 | 0.00 | | | | | |

| Non-Standard Rooms | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | Schedule & Control Of AC System | | | |
| Level | Block | Area Served | Area | CU No. | Brand | Model No(CU) | Qty | Cooling Load (kW) | Rated Input power (kW) | Total Cooling Load | Total Input Power | COP or Weighted COP (If available) | Office Hours/ Timing | Estimate Operation Hr/Week | Control Of System (Timer/Centralise/Manual) | Remarks |
| | | | | | | | | | | | | | | | (Please Select) | |
| | | | | | | | | | | | | | | | (Please Select) | |
| | | | | | | | | | | | | | | | (Please Select) | |
| | | | | | | | | | | | | | | | (Please Select) | |
| | | | | | | | | | | | | | | | (Please Select) | |
| | | | | | | | | | | | | | | | (Please Select) | |

| | |
|---|---|
| Total Average COP | #DIV/0! |
| Average Plant Efficiency (kW/ton) | #DIV/0! |
| Percentage Improvement | #DIV/0! |

| | |
|---|---|
| Points scored for completion of Inventory List & Schedule | (Please Select) |

| | |
|---|---|
| Points scored for achieving less than 1.1kW/ton | (Please Select) |
| Points scored for improvement | #DIV/0! |
| **Total Points Awarded** | **#DIV/0!** |

**Option 1. Attach a separate document of the technical specifications of all the Condensing Units(CUs) used in school.**

**OR**

**Option 2. Insert Photos of the motor nameplate of all the Condensing Units(CUs) used in school.**

Photos of the CUs' Motor Nameplate

## 1-3(c) Higher Temperature For LAN Room

Insert Picture of LAN Room Temperature Display

**Points Awarded** **(Please Select)**

### For Assessor

| Evidence Given | Remarks |
|---|---|
| ACMV Plans ☐ | |
| Areas tally with 1-2 ☐ | |
| Spec Sheet ☐ | |
| Photo Evidence of CU ☐ | |
| Photo Evidence of lan room ☐ | |

| Score | Awarded | Pending |
|---|---|---|
| (a) | | |
| (b) | | |
| (c) | | |

## 1-4 Building Orientation

**1. Computation of the west &east façades**

| Summary table | | | | | | |
|---|---|---|---|---|---|---|
| **Block** | **Area Usage** | **Orientation Of Façade** | **Mitigation Strategies** | **Points for Mitigation Strategy (A)** | **Window Area (m²) (B)** | **(A) X (B)** |
| | | (Please Select) | (Please Select) | 0 | | 0 |
| | | (Please Select) | (Please Select) | 0 | | 0 |
| | | (Please Select) | (Please Select) | 0 | | 0 |
| | | (Please Select) | (Please Select) | 0 | | 0 |
| | | (Please Select) | (Please Select) | 0 | | 0 |
| | | (Please Select) | (Please Select) | 0 | | 0 |
| | | (Please Select) | (Please Select) | 0 | | 0 |
| | | (Please Select) | (Please Select) | 0 | | 0 |
| | | (Please Select) | (Please Select) | 0 | | 0 |
| | | (Please Select) | (Please Select) | 0 | | 0 |
| | | (Please Select) | (Please Select) | 0 | | 0 |
| | | (Please Select) | (Please Select) | 0 | | 0 |
| | | | **Total** | | 0 | 0 |

| | |
|---|---|
| **Points Awarded** | **#DIV/0!** |

| For Assessor | | | |
|---|---|---|---|
| Evidence Given | | | Remarks |
| Section Views | | ☐ | |
| Floor Plans | | ☐ | |
| Photo Evidence | | ☐ | |
| Score | Awarded | Pending | |
| | | | |

**2. Identify the west & east façades**

| Insert a copy of the site plan with the west facades shaded | Insert pictures of the identified west facades |
|---|---|
| | |

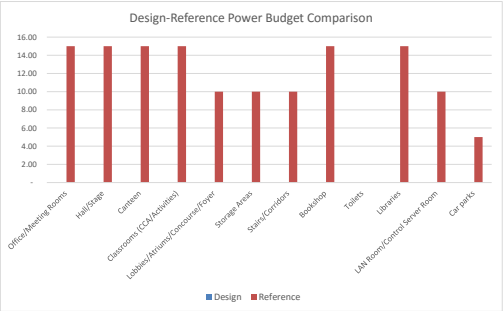
| Insert a copy of the site plan with the east facades shaded | Insert pictures of the identified east facades |
|---|---|
| | |

## 1-5 (a) Lighting Power Budget

*Please attach a separate document of the lighting plans and technical specifications of the light fittings

| Summary of Lighting Power Budget | | | | | |
|---|---|---|---|---|---|
| **Location** | **Total Power Consumption (W)** | **Reference Total Consumption (W)** | **Area Covered ($m^2$)** | **Average Design Lighting Power Budget ($W/m^2$)** | **Reference Lighting Power Budget ($W/m^2$)** |
| Office/Meeting Rooms | #REF! | #REF! | #REF! | #REF! | 15.00 |
| Hall/Stage | #REF! | #REF! | #REF! | #REF! | 15.00 |
| Canteen | #REF! | #REF! | #REF! | #REF! | 15.00 |
| Classrooms (CCA/Activities) | #REF! | #REF! | #REF! | #REF! | 15.00 |
| Lobbies/Atriums/Concourse/Foyer | #REF! | #REF! | #REF! | #REF! | 10.00 |
| Storage Areas | #REF! | #REF! | #REF! | #REF! | 10.00 |
| Stairs/Corridors | #REF! | #REF! | #REF! | #REF! | 10.00 |
| Bookshop | #REF! | #REF! | #REF! | #REF! | 15.00 |
| Toilets | #REF! | #REF! | #REF! | #REF! | #REF! |
| Libraries | #REF! | #REF! | #REF! | #REF! | 15.00 |
| LAN Room/Control Server Room | #REF! | #REF! | #REF! | #REF! | 10.00 |
| Car parks | #REF! | #REF! | #REF! | #REF! | 5.00 |
| **Total** | **#REF!** | **#REF!** | **#REF!** | - | - |

| | |
|---|---|
| Improvement | #REF! |
| Improvement (%) | #REF! |
| Relative Points | #REF! |
| **Total Points Awarded** | **#REF!** |




| For Assessor | | | |
|---|---|---|---|
| Evidence Given | | | Remarks |
| Lighting Specification | ☐ | | |
| Lighting Plans | ☐ | | |
| Score | Awarded | Pending | |
| | | | |