

Part 1 Energy Efficiency

NDC 1-2 System Energy Efficiency

Actual Assessment Submission ☐Site Verification Submission ☐

| Criteria | Credit Available | Credit Claimed |
|--|------------------|----------------|
| (i) 1-2-1 Cooling System | | |
| (a) Water Cooled Chilled-Water Plant | | |
| OR | 10 | |
| (b) Air Cooled Chilled-Water Plant / Unitary Air-Conditioners | 10 | |
| (c) Using chilled water from a central facility | 4 | |
| (d) Air Management System | 4 | |
| (ii) 1-2-2 Electrical System | | |
| (i) Transformer loss value as MS1525:2019 | 1 | |
| (ii) Provision of UPS | 2 | |
| (iii) IT Power Chain Efficiency | 6 | |
| (iii) 1-2-3 IT Equipment | | |
| (i) Energy Star ICT equipment | 2 | |
| (ii) Low Power control of ICT equipment | 2 | |
| (iii) Software control technologies | 2 | |
| (iv) Monitoring of ICT or Server Equipment Utilisation | 2 | |

Strategies:

Documentary Evidences:

Order of documents to be submitted accordingly and clearly labeled.

| | Actual Assessment | Submitter | Assessor |
|--|-------------------|--------------------------|--------------------------|
| <i>1-2-1 Cooling System (a) & (b) & (c)</i> | | | |
| 1. Detailed calculations of the overall improvement in equipment/system efficiency of the air-conditioning plants/ units showing the design cooling system capacity and the system efficiency (including individual equipment efficiency). | | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Calculation and technical data of the designed system efficiency of chillers at part load condition. | | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Technical product information of all air-conditioning and system which included chillers, chilled water pumps, condenser water pumps, cooling towers. | | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Schematic drawings showing the air-conditioning system. | | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Schedules of the air-conditioning system. | | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>1-2-1 Cooling System (d)</i> | | | |
| 1. Detailed calculations of the overall improvement for air distribution system. | | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Technical product information of all AHUs, FCUs, and etc. | | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. AHUs and FCUs schedule and schematic drawing | | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>(ii) 1-2-2 Electrical system</i> | | | |
| 1. Extracts from the tender specification stating the provision of energy - efficient UPS. | | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Technical information of the UPS. | | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. UPS schedule and schematic drawing. | | <input type="checkbox"/> | <input type="checkbox"/> |

(iii) I-2-3 IT equipment

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|----|---|--------------------------|--------------------------|
| 1. | Technical specification of the IT equipment. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. | Energy Star certificate of the IT equipment | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. | Technical specification of the IT equipment showing the low power mode | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. | Brief on the software control technologies used which will be minimizing energy utilisation | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. | Brief and technical specification on the server equipment utilisation features | <input type="checkbox"/> | <input type="checkbox"/> |
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| | Site Verification | Submitter | Assessor |
|---|---|--------------------------|--------------------------|
| <i>1-2-1 Cooling System (a) & (b) & (c)</i> | | | |
| 1. | Detailed calculations of the overall improvement in equipment/system efficiency of the air-conditioning plants/ units showing the design cooling system capacity and the system efficiency (including individual equipment efficiency). | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. | Calculation and technical data of the designed system efficiency of chillers at part load condition. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. | Technical product information of all air-conditioning and system which included chillers, chilled water pumps, condenser water pumps, cooling towers and its purchase and delivery orders. | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. | As built schematic drawings showing the air-conditioning system. | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. | As built schedules of the air-conditioning system. | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. | Photographic evidences | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. | Test and commissioning report of the air conditioning system | <input type="checkbox"/> | <input type="checkbox"/> |
| <i>1-2-1 Cooling System (d)</i> | | | |
| 1. | Detailed calculations of the overall improvement for air distribution system. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. | Technical product information of all AHUs, FCUs and its purchase and delivery orders. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. | As built schedule and schematic drawing for the AHUs and FCUs | <input type="checkbox"/> | <input type="checkbox"/> |

(ii) 1-2-2 Electrical system

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|--|--------------------------|--------------------------|
| 1. Extracts from the tender specification stating the provision of energy - efficient UPS. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Technical information of the UPS. | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. As built UPS schedule and schematic drawing. | <input type="checkbox"/> | <input type="checkbox"/> |

(iii) 1-2-3 IT equipment

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|---|--------------------------|--------------------------|
| 1. Technical specification of the IT equipment. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Energy Star certificate of the IT equipment | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Technical specification of the IT equipment showing the low power mode | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. As built Brief on the software control technologies used which will be minimizing energy utilisation | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. As built Brief and technical specification on the server equipment utilisation features | <input type="checkbox"/> | <input type="checkbox"/> |
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