



## **Benchmark Energy Consumption for Government Offices in Bangladesh**

### **1. Introduction**

This document sets out the benchmark energy consumption guidelines for government offices in Bangladesh. The goal is to establish a reference standard that can guide government entities in achieving energy efficiency, reducing carbon footprints, and optimizing operational costs.

### **2. Energy Consumption Objectives**

The main objectives of this benchmark are:

- To reduce energy consumption in government offices by promoting efficient practices.
- To comply with national energy conservation targets and environmental commitments.
- To increase awareness and provide actionable strategies for reducing energy usage.

### **3. Scope of the Benchmark**

The benchmark applies to all government office buildings, including:

- Central Government Offices
- District Level offices
- Subordinate and Branch Offices

### **4. Energy Consumption Categories**

Government office energy consumption can be broken down into the following key categories:

- **Lighting:** Internal and external lighting, including LED and fluorescent lighting.
- **Heating, Ventilation, and Air Conditioning (HVAC):** Energy used for air conditioning, heating systems, and ventilation.
- **Office Equipment:** Computers, printers, photocopiers, and other electronic devices.
- **Other Appliances:** Kitchen appliances, elevators, water pumps, etc.

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## 5. Energy Efficiency Standards

Below are the general energy consumption standards for government office buildings:

Category	Energy Consumption (kWh/m <sup>2</sup> /year)
Lighting	8.5 kWh/m <sup>2</sup> /year
Air Conditioning	20 kWh/m <sup>2</sup> /year
Fan	3.5 kWh/m <sup>2</sup> /year
Office Equipment	10.2 kWh/m <sup>2</sup> /year
Overall Office	45 kWh/m <sup>2</sup> /year

## 6. Best Practices for Reducing Energy Consumption

Government offices should adopt the following best practices to stay within these benchmarks:

- **Lighting:**
  - Use energy-efficient lighting solutions like LED bulbs and automatic lighting systems.
  - Implement timers and motion sensors for spaces like bathrooms and corridors to reduce unnecessary lighting.
  - Ensure all lights are turned off when not in use.
- **HVAC:**
  - Set thermostats to an optimum temperature (e.g., 24-26°C for cooling and 20-22°C for heating).
  - Regularly maintain HVAC systems for optimum efficiency.
  - Implement natural ventilation where possible (e.g., open windows, ceiling fans).
- **Office Equipment:**
  - Encourage employees to switch off devices when not in use, especially at the end of the day.
  - Invest in energy-efficient equipment (Energy Star-rated devices).
  - Use power strips to easily disconnect multiple devices.
- **Other Appliances:**
  - Opt for energy-efficient kitchen appliances and water pumps.
  - Minimize the use of elevators by encouraging stairs for short distances.

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## 7. Monitoring and Reporting

Government offices should implement a system for monitoring energy consumption. Key actions include:

- Monthly energy usage tracking and comparison against benchmarks.
- Implementing an energy audit every two years to identify areas for improvement.
- Reporting energy usage to the relevant government body for transparency and accountability.

## 8. Incentives and Support

To encourage adherence to energy consumption benchmarks, the government may consider providing incentives such as:

- Financial support or grants for implementing energy-efficient technologies.
- Public recognition for offices that achieve significant reductions in energy consumption.
- Providing resources for training government employees on energy conservation practices.


## 9. Conclusion

Energy efficiency in government offices is critical for reducing costs and environmental impact. By following these benchmarks and adopting best practices, government offices in Bangladesh can significantly contribute to national energy conservation goals and lead by example in the public sector.

## References

[Energy Management guidelines prepared by SREDA]

[Study on 'Energy Efficiency in Public Building']

  
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