HERITAGE MAX REALTECH PRIVATE LIMITED

Version #	Version Date	Change Type
V1	02-May-2022	Created

Document Review Cycle		
#	Effective Date	Next review date
1	02-May-2022	On or before Sep 30, 2023

Energy Efficiency Policy

Purpose

The purpose of this policy is to set directives for the integration of energy efficiency measures during the design and construction phases of the project

Scope

This policy applies to all development projects funded or commissioned by Heritage Max Realtech Private Limited (HMRPL)and they must comply with the following energy efficiency requirements:

1. Planning & Design stage Requirements
    a. Architectural
        i. Optimize the building's orientation & design to maximize natural daylight and minimize heat gain or loss and therefore, reducing the need for artificial lighting and heating/cooling systems.
        ii. Selecting high performance building envelope materials as per relevant standard like ASHRAE/ ECBC
        iii. Using high SRI material for the terrace area to reduce urban heat island effect and reduce the cooling load on the building
        iv. Effective communication and coordination between all stakeholders are crucial to ensure the integration of energy efficiency requirements into the architectural design
    b. Electrical
        i. Energy efficient lighting design as per ASHRAE/ ECBC standards
        ii. Install occupancy sensors or motion detectors to automatically turn off lights in unoccupied areas.
        iii. Selecting energy-efficient appliances and electrical equipment's as per ECBC standards
        iv. Investigate the potential of renewable energy systems to offset electrical consumption whenever feasible
        v. Designing electrical distribution systems with proper sizing, reduced electrical losses, and optimized power factor to minimize energy waste
        vi. Integrating energy sub-metering and Building Management System (BMS) monitoring requirements into the initial design stage that allows for real-time monitoring, energy benchmarking, and automated reporting.
    c. Mechanical
        i. Energy modeling for identifying the most energy-efficient options which enables informed decision-making and selection of HVAC equipment that will minimize energy consumption and reduce operational costs over the building's lifetime.
        ii. Selecting energy-efficient HVAC equipment's as per ECBC/ ASHRAE standards

iii. Utilize building automation systems (BAS) or energy management systems (EMS) to monitor and control mechanical systems, allowing for precise control of temperature, humidity, and ventilation based on occupancy and usage patterns.
iv. Incorporating demand-controlled ventilation (DCV) strategies that adjust ventilation rates based on occupancy levels, reducing energy waste during periods of low occupancy.

2. Operational stage requirements
    a. Implement a commissioning process to verify that the building systems perform as intended and optimize energy efficiency. Continuous monitoring and data analysis help identify areas for improvement and ensure ongoing energy performance.
    b. Proactive maintenance program to ensure that building systems, such as HVAC, lighting, and controls, are operating optimally. Regularly clean or replace air filters, inspect insulation, and calibrate equipment to maintain peak performance and energy efficiency.
    c. Utilizing the energy monitoring system to track and analyze energy usage patterns, enabling the identification of areas with excessive consumption and guiding energy management strategies
    d. Provide detailed guidelines to building occupants and facility management to effectively implement and utilize green features both after occupancy and during building renovation, thus promoting awareness and education on sustainable practices.

Implementation

HMRPL will implement this policy by:

- Ensuring that all development projects comply with the energy efficiency requirements outlined in this policy.
- Providing training and support to project teams to facilitate the implementation of energy efficiency practices.
- Monitoring compliance with this policy and taking appropriate action in cases of non-compliance.
- Regularly reviewing and updating this policy to ensure that it remains current and relevant.

Review

This policy shall be reviewed annually to ensure that it remains current and relevant. Any necessary changes or updates shall be made in consultation with stakeholders, including project teams, contractors, and suppliers.

Conclusion:

This policy outlines the energy efficiency requirements for development projects to promote environmentally responsible and sustainable practices in buildings. By adopting energy-efficient measures and strategies, project can realize significant benefits on multiple fronts like reduction in energy consumption, minimizing reliance on non-renewable resources and enhances building performance and occupant comfort.