SAUDI ELECTRONIC UNIVERSITY

ENERGY EFFICIENT RENOVATION AND BUILDING POLICY

Title: Energy Efficient Renovation and Building Policy

Authority:

Purpose: This document outlines Saudi Electronic Universities' approach to green building for building operations including new construction, retrofits and renovations, and operations and maintenance.

Date of Incorporation: October 2022

Date of Review: 2026 (and every three years thereafter).

Policy Number:

1. GOAL

The goal of the commissioning effort involves:

- Conducting investigation and analysis of building's major energy consuming systems
- Breakdown of different energy use profile in the building
- Operating problems that affect occupant's comfort and energy use
- Finding potential operational changes to solve operating problems of energy use systems
- Identifying a variety of recognizable efficiency opportunities.

2. POLICY SCOPE

Saudi Electronic University is committed to perform commissioning for this facility with an objective of systematically identifying energy saving opportunities.

Commissioning activities will consist of:

- Documenting the breakdown of energy use in the building
- Developing procedures for and overseeing functional testing and systems diagnostics of the building systems
- Identifying any operating problems
- Identifying any and all potential capital improvements related to energy use and occupant comfort
- Providing a cost-benefit analysis for cost-effective capital improvements.

2.1. Systems commissioned:

1. Heating system and distribution
2. Cooling system equipment and distribution
3. Air-handling and fan-coil units and air distribution system
4. Ventilation and exhaust systems
5. HVAC controls
6. Lighting controls
7. Electrical sub-metering systems

2.2. Commissioning Services

The following services define the scope of work:

1. Fully develop a retro-commissioning plan detailing the roles, responsibilities, and actions required to commission the facility, along with a timetable for completion. Develop the plan at the outset of the project, and define all actions to be taken by the department. Identify a team member to be present for each activity. Include a checklist of all equipment to be tested.
2. Review all building documents, including mechanical drawings, equipment specifications, operations and maintenance manuals, utility bills, and operating documents.
3. Conduct a site assessment to understand how the building systems operate.
4. Conduct interviews with the building operations staff.
5. Undertake a detailed energy-use breakdown

6. Develop specific equipment and system, functional performance test procedures and diagnostic monitoring based on energy management control system trend logging, stand-alone portable data logging, and manual function testing for applicable project systems:
7. Submit a Master List of Findings to the Management, identifying all the operating problems that affect occupants' comfort and energy use and detailing all problems identified during the investigation and analysis phase. Include a cost-benefit analysis for each operational problem and proposed change.

Above commissioning activities shall be carried out at an interval of every six months.

3. ENERGY AUDIT

SEU management is very sensitive about energy consumption at their buildings and campuses. SEU Power Management team is designated for monitoring energy consumption at Saudi Electronic University. The energy consumption data maintained and provided by them were helpful in identifying problems of energy use systems and recognizing various energy saving opportunities.