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REVIEWER'S REPORT

Manuscript No.: IJAR-59727

Title: Energy Efficiency Improvement Through Sustainable MEP Systems and Electrical Infrastructure Integration in Saudi Mega Projects.

Recommendation:

Accept as it is .....

Accept after minor revision.....

Accept after major revision .....

Do not accept (*Reasons below*) .....

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity			✓	
Significance		✓		

Reviewer Id: JPR-284

Reviewer's Comment for Publication.

The manuscript addresses an important and relevant topic concerning energy efficiency through sustainable mechanical, electrical and plumbing (MEP) systems and electrical infrastructure integration in Saudi mega projects. It presents a comprehensive critical review of research published between 2020 and 2025, covering cooling systems, hydraulic and ventilation design, renewable energy integration, electrical infrastructure, digital coordination, fault detection, and whole-life carbon considerations. The discussion demonstrates a good understanding of the technical and operational challenges associated with energy efficiency in large-scale developments, particularly under Saudi Arabia's climatic and infrastructure conditions.

The manuscript is logically organised and provides useful insights into the relationship between building services, electrical networks, operational controls, and energy performance. The proposed implementation and measurement framework, along with the comparative tables and conceptual figures, adds practical value to the discussion. The review also appropriately acknowledges limitations in the available Saudi mega-project performance data and avoids presenting unverified energy savings as established results.

However, certain aspects of the manuscript affect its overall clarity and presentation. The limitations section contains substantial repetition, including repeated statements and an incomplete concluding sentence. Some formatting and reference-list inconsistencies are also noticeable. Overall, the manuscript has good technical relevance, academic value, and practical significance for sustainable infrastructure development. It is suitable for publication after minor revision.