

TERMS OF REFERENCE (TORS)

SHORT TERM INDIVIDUAL CONSULTANCY SERVICES TO CONDUCT A STUDY ON THE IMPACT OF PASSIVE ENERGY CONSERVATION MEASURES ON INDUSTRIAL BUILDINGS.

INTRODUCTION

The impact of passive energy conservation measures on industrial buildings is a subject of growing importance in today's world of industrialization and environmental consciousness. As concerns about climate change and the need for sustainable practices continue to gain traction, industries are increasingly exploring innovative ways to reduce their energy consumption and environmental footprint. Passive energy conservation measures represent a proactive and holistic approach to achieving these goals. They involve the integration of natural processes and advanced design principles to optimize energy efficiency, all without relying on active mechanical systems.

OBJECTIVE

Through this individual short-term consultancy, we seek to delve into the multifaceted significance of passive energy conservation measures in industrial buildings and highlight their potential benefits, ranging from substantial cost savings to reduced carbon emissions and enhanced operational resilience. Additionally, we need to address the challenges that may arise when implementing these measures in industrial settings, such as the need for specialized engineering and the importance of adapting strategies to specific industry requirements. By exploring the profound impact of passive energy conservation measures, we aim to shed light on their pivotal role in the sustainable evolution of industrial facilities and their contribution to a greener and more environmentally responsible future.

SCOPE OF WORK

1. Conduct an extensive review of existing literature and frameworks related to passive energy conservation measures in industrial settings from two regional and two developed countries.
2. Synthesize perspectives on energy efficiency, particularly within the context of electrical systems.
3. Develop a comprehensive conceptual framework outlining foundations for passive energy conservation measures in industrial buildings, emphasizing considerations related to electrical systems and their impact on overall energy efficiency.
4. Undertake analyses to assess the feasibility and effectiveness of various conceptual passive energy conservation measures, proposing models and frameworks for optimizing electrical systems.
5. Explore and articulate perspectives on energy efficiency theories applicable to industrial electrical systems, encompassing lighting, motors, HVAC, and related components.
6. Conduct a cost-benefit analysis focusing on the economic viability of proposed energy conservation measures.
7. Develop strategies for effectively communicating findings to diverse stakeholders, including industrial building owners, theorists, and policymakers.
8. Assess the existing regulatory framework related to energy conservation in industrial buildings, specifically focusing on aspects of electrical systems in Punjab.
9. Recommend adjustments or enhancements to the policy framework to support the implementation of passive energy conservation measures.
10. Provide an overview and emphasize the importance of passive energy conservation measures in industrial buildings, considering potential business implications.
11. Introduce key concepts and themes to be explored throughout the consultancy.
12. Examine fundamental principles of energy efficiency in the context of industrial building operations and management.

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DURATION OF THE ASSIGNMENT

The Individual Short-Term Consultant shall be engaged for a period of six (06) months in accordance with PPRA rules, 2014 (amended up to date) commencing from the execution of the Contract Agreement.

QUALIFICATION OF INDIVIDUAL CONSULTANT

Sr.	Consultancy Topic	Qualification	Experience
1	Impact of Passive Energy Conservation Measures on Industrial Buildings.	Graduate in Engineering from a reputable and HEC recognized university.	The Consultant must possess at least (02) two years of relevant experience in the related field.

GENERAL CONDITIONS

- (i) The Consultant shall begin this assignment as soon as the Contract Agreement is executed.
- (ii) The Short-Term Individual Consultant shall be supervised by the Managing Director, PEECA through the Assistant Program Manager.
- (iii) All documentation, reports shall be submitted in the English Language.
- (iv) All data, documents and reports produced by the consultant for the said Services shall be property of the PEECA. The Consultant shall not share and use this data, documents and be property for any other purpose/ job without the explicit written approval of Managing Director, PEECA.
- (v) In case the Consultant fails to fulfil the contractual obligations and violates the Contract Agreement, the Agreement shall be terminated, and the Consultant shall not be liable to make any pending claims.