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Key Energy Management Practices and Literacy of Hei Administrators

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Abstract

Colleges and universities use 8% of the total energy consumed by Chinese. To overcome this issue, higher education institutes must improve their energy management practices. Energy literacy can facilitate behavioral changes to energy management. Summary of Findings: 1. The energy management practice is evident. 2. The energy literacy of the respondents is evident. 3. Energy management practice and energy literacy are significantly and strongly correlated.

Keywords

Energy management practice , energy literacy , HEIS, administrators.

1. Introduction

The global rate of electricity utilization continues to rise. This cost of electricity consumption drives costs of products and services. Furthermore, it has a big impact to the worsening climate and environmental conditions[1].

Educational institutions around the globe have a significant share in the power consumption. Colleges and universities use 8% of the total energy consumed by Chinese. To overcome this issue, higher education institutes must improve their energy management practices.

One of the concepts that is very relevant to energy management is energy literacy[2].Energy literacy can facilitate behavioral changes to energy management[3]. This is the reason why this study will also look into that aspect among HEI administrators.

2. Statement of the Problem

2.1 What is extent of energy management practice of administrators in HEIS ?

2.2 What is the level of energy literacy of the administrators in terms of the following domains: cognitive , affective, behavior?

2.3 Is there a significant relationship between energy management practice and energy literacy?

2.4 What enhancements to energy management can be proposed based on the study?

3. Significance of the Study

HEIs. Enhance the energy management of the school.

School Administrators. Enlighten the administrators on the status of their energy management.

Community. Improve the environmental performance of the school; the reduction of carbon emissions

Teachers. Energy savings can be used to improve the welfare of teachers.

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4. Energy Management Practices

This pertains to the school administrators' set of actions geared towards energy performance based on the elements of ISO 50001.

a. Management responsibility; This pertains to school administrators' communication and demonstration of their commitment to energy management.

b. Energy policy; This is the school administrators' formulation or recognition of the school's energy policy.

c. Energy planning; This is the laying out of goals, objectives and plans for energy management by the school administrators.

d. Implementation and operation; This is the school administrators' actions to carry out the energy management plan.

e. Checking; This pertains to administrators'monitoring and auditing of the energy performance of the school.

f. Management review. This is the evaluation of the energy performance by the school administrators.

5. Energy Literacy

This is the measure of the school administrators' understanding of energy and the ability to translate it to energy saving actions.

In assessing energy literacy, we must consider:

a. The dimensions of cognitive

This is the part of energy literacy that covers the knowledge of energy and including its financial aspect.

b. Affective

This the part of the energy literacy that measures attitude and sensibility to energy issues like economic and environmental impacts.

c. Behavior domains

The behavior domain is made of intention, involvement and action towards energy conservation .

6. Research Design

In the study, the energy management practices of the school administrators and their energy literacy will be described quantitatively through survey. The assessed management practices and energy literacy will then be correlated.

The study will be conducted in Gui Yang City in China. The following schools will be the research locale: Guizhou University, Guizhou Minzu University, and Guizhou Normal University[4].

The respondents of the study will be the administrators of the said HEIs. This will include the department chairpersons, the college deans, and directors of both academic and non-academic offices.

7. Summary of Findings

7.1 The energy management practice is evident. All the aspects of energy management:energy policy, energy planning, implementation and operation, checking/monitoring, and management review are all evident.

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7.2 The energy literacy of the respondents is evident. All its domains:cognitive, affective, and behavior are all evident.

7.3 Energy management practice and energy literacy are significantly and strongly correlated. The significant correlations are also observed between the different domains of energy management practice and energy literacy.

8. Conclusions

8.1The school administrators have adequate capability to support energy management at school. The interrelated processes of an energy management system are evidently practiced by the administrators.

8.2 The school administrators are well informed about energy related matters. It shows in their favorable attitude, and behavior toward energy conservation.

8.3 The energy literacy of the administrators has the potential to impact their energy management practices positively. It is also likely that practicing energy management will enhance their energy literacy.

9. Recommendations

9.1 The level of energy management practice of the administrators can still be enhanced. This will strengthen the energy management system of the school. Trainings on energy management must be conducted for the administrators especially those who have official administrative functions in energy management.

9.2 The administrators have evident energy literacy. They should be given opportunities to provide inputs to the energy management in the school.

It will promote coordination between the energy managers and the academic leaders in the school.

10. Proposed Program

The program will tackle the whole cyclic process of energy management from policy to management review. These are:

integrating energy policy to the operations of all offices in the school, identifying applicable legal standards for the energy use of the school, conducting appropriate training to energy management personnel, reporting and updating on energy management activities, forecasting energy performance in the next cycle of energy management[5].

The results of the study have also shown that energy literacy is highly correlated to energy management practice. recognizing such correlation, the training program will also feature energy literacy.

11. General Objective

The program aims to further enhance the energy management capabilities of school administrators.

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