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ABSTRACT



Currently, global warming and climate change are the most widely discussed environmental issues, with emission of Carbon Dioxide by fossil fuel being the most critical cause for global warming. Thermal power plants are vastly used worldwide for electricity generation which release Carbon Dioxide to the atmosphere. Ceylon Electricity Board, the main electricity provider in Sri Lanka, mostly use thermal power for power generation. Sri Lanka Navy has naval establishments island wide, mostly in coastal areas and mainly comprised with office complexes, accommodation buildings and workshops which highly consume energy throughout the year. As a result, Sri Lanka Navy has to spend a substantial amount of annual funds for electricity. Therefore, introducing viable energy conservation options for naval establishments can be considered as a way of minimizing the electricity consumption which can extensively save funds whilst actively contributing to environmental security. This paper discusses the present status, issues and challenges with respect to energy performance of naval establishment using Sri Lanka Naval Ship Rangalla, a shore based naval establishment located in Colombo harbour premises. Primary data were gathered through questionnaire and structured interviews and both quantitative and qualitative analysis were carried out to find out best practices in terms of energy conservation. Power requirements and operational feasibilities of naval establishments have been considered in determining the most viable energy conservation options. All in all, the study could derive highly productive recommendations which would not only result Sri Lanka Navy saving on funds but also contributing to environment security.

Key Words: Electricity consumption, naval bases, buildings, low-cost, no-cost, energy conservation,

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