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Benefits of Cool Thermal Storage in Thailand

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Abstract

The use of thermal storage on a large to provide a cool reservoir for use in peak periods is an attractive financial option for large hotels, hospitals or office blocks. This enables the refrigeration plant to operate more effectively and to be completely or partially shut down during peak periods when the demand can be met in full or in part from the cool store. In this paper an overview is given of the power generation capacity and costing structure in Thailand and a typical load profile is presented to illustrate the advantages to be gained by shifting plant operation to off-peak periods. Specific load calculations have been utilized to demonstrate the cost savings possible by incorporation of such a cool thermal storage system into a traditional refrigeration and air conditioning plant for a major hotel complex.