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Performance Tracking of Thermal Plant Systems of Kuwait and Impact on the Environment

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Abstract : Purpose: This research seeks to take a holistic strategic evaluation of the thermal power plants in Kuwait at both policy and technical level in order to allow a systematic retrofitting program. The new world order in energy generation and consumption demand that sources of energy can safeguard the use of natural resources and generate minimal impacts on the environment. For Kuwait, the energy used per capita is mainly associated with desalination plants. The overall impact of thermal power plant installations manifests indisposed of seawater and the health of marine life. Design/methodology/approach: The research adopts a case study based evaluation of performance data and documents of thermal plant installations in Kuwait. Findings: Research findings on the performance of existing thermal plants demand policy benchmarking with internationally acceptable standards in order to create clarity on decisions regarding demolition, retrofitting, or renewal. Research implications: This research has the potential to strategically inform and influence the piecemeal changes to power plants, including the replacement of power generation equipment, considering the varied technologies for thermal plants. Originality/value: This research provides evidence based data that can be useful for influencing operational efficiency after a holistic evaluation of existing capacity in comparison with future demands.

Keywords : energy, Kuwait, performance, stainability, tracking, thermal plant
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