

Integration of Thermal Energy Storage Systems for Improved Efficiency and Flexibility of the Combined Heat and Power Plants of Medium and Small Power

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Abstract— Demand for useful heat it is the essential condition in the qualification of electricity production in high efficiency cogeneration. A solution to provide the demand for useful heat and compensation of load variations over time it is the storage of thermal energy. The paper presents the technical and economic analysis of the heat storage systems use for a cogeneration unit with ORC technology and biomass fuel.

Keywords— thermal energy storage; organic Rankine cycle (ORC); high efficiency cogeneration; biomass; support schemes

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