

FEASIBILITY STUDIES AS AN IMPORTANT PART OF PLANNING FOR HYBRID RENEWABLE ENERGY SYSTEM (HRES) PROJECTS: CASE STUDY CITY OF UMHLATHUZE

MELUSI NHLEKO & FREDDIE L. INAMBAO*

Department of Mechanical Engineering, University of KwaZulu-Natal, Durban, South Africa

ABSTRACT

Electricity supply shortages in South Africa are a result of poor strategic planning in relation to energy forecasting. This unfortunately has compromised the security of supply of the country which negatively affects its economic stability. Feasibility studies may be viewed as a tedious and expensive exercise, but they are necessary to develop strategies to resolve the country's energy crises. Feasibility studies in the energy sector would enable accurate and informed procurement of hybrid renewable energy technologies. To further aid planning, Benchmarking, as suggested by the South African Local Government Association, is also a useful planning tool. Effective feasibility studies depend on the efficiency of procurement systems, adequate policies and funds being available. This paper proposes the capacitation of the planning departments in municipalities through the formation of renewable energy project teams that comprise technical, legal, finance (procurement) and project/contract management personnel in order to effectively address complex energy problems and related project issues. The details of any hybrid renewable energy system (HRES) project can be accurately outlined after a feasibility study has been conducted and concluded.

KEYWORDS: *Feasibility Studies, Hybrid Renewable Energy System (HRES) & PV-MFC Hybrid Technology*

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