ABSTRACT

An Energy Planning Methodology and Model For The Caribbean

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Co-ordinated and integrated energy planning is vital to the Caribbean. This is so because of the link between energy and economic development, the over-dependence on oil exhibited by Caribbean countries and the scarcity of hard foreign currency.

A brief review of the situation in the Caribbean reveals a general absence of an easily implementable methodology/model and appropriate institutional framework which can facilitate integrated and co-ordinated energy planning.

This development project focuses on providing an appropriate energy planning methodology and model for use in the Caribbean.

The Reference Energy System (RES), an energy balance framework and network modelling methodology is identified and established as being appropriate to assist in energy planning in the Caribbean.

Using the Microsoft EXCEL computer spreadsheet package an easy to use energy planning model called Caribbean Reference Energy System Spreadsheet (CRESS) Model is developed. Detailed description of the model's development and operation is presented. Its use has been briefly demonstrated for Jamaica.

The RES methodology can be implemented immediately via the CRESS model to give useful results for countries of the region. Further, the model provides a guide for data gathering in the long term, and its scope may be increased *pari passu* with this data increase. Because of its simple and transparent characteristics, the model can also serve as a training tool in the use of energy planning models.