Feasibility Study of PV and GSHP System with RETScreen®

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ABSTRACT

The Department of Natural Resources (NRCan) of the Government of Canada operates the RETScreen® International Clean Energy Decision Support Centre in Varennes, Quebec. The Centre is built on the success of the RETScreen software, an easy-to-use tool for analyzing the technical and financial viability of potential Clean Energy (CE) projects. Since its first release in 1998, RETScreen software has been downloaded by over 53,000 users in some 200 countries and has established itself as the most widely used CE software in the world.

The Centre's objective is to promote the deployment of clean energy systems by building the capacity of planners, decision-makers and industry to implement more projects successfully. This is primarily driven by the government's concern over climate change and other detrimental effects of conventional energy sources.

Korea is well on the road to benefiting from Canada's experience in this regard: a network of RETScreen trainers already exists in Korea since train-the-trainer workshops on RETScreen have been held in conjunction with the Korean Solar Energy Society (KSES) conference in Seoul in 2003 and the ISES Asia-Pacific conference in Gwangju in 2004. Also, significant knowledge transfer about RETScreen has already occurred between Canada and Korean organizations such as KSES and the Korean Institute for Energy Research (KIER).

This paper provides an overview and update of RETScreen International as well as the associated products and services. Two practical examples of existing projects are used to illustrate how RETScreen can help in the implementation of RE technologies. This information and experience is presented as an example for consideration in Korea.