

Memorandum

To: Roy Thilly and Tia Nelson, Global Warming Task Force Co-Chairs
Eric Callisto, PSC and Mary Schlaefer, DNR

CC: Technical Advisory Group Members

From: Kris Krause and George Edgar, TAG Co-Chairs

Date: August 16, 2007

Re: Recommendation on a Modeling Consultant

The Technical Advisory Group (TAG) recommends that the consulting firm of ICF International be hired by the State of Wisconsin to perform modeling analyses to develop a reference case and evaluate greenhouse gas emission reduction policies for the Governor's Task Force on Global Warming. The objective of the work would be to model a reference case and alternative policy scenarios to evaluate their impacts on reducing greenhouse gas emissions and on the state's economy.

ICF International is uniquely qualified to perform this work for the Task Force. The TAG considered five criteria in reaching this conclusion.

The multi-sector analysis features of the modeling approach. The ENERGY 2020 model that ICF uses is an integrated North American economy, energy and emissions model. It will be linked to the Regional Economic Model, Inc.'s (REMI) macroeconomic model, that will be provided and run by the Wisconsin Department of Transportation's modeling group. This approach allows ICF to model scenarios that include policies from multiple sectors (such as transportation, electric generation and energy conservation/efficiency) and their interactive effects. In addition, these scenarios can be run iteratively with the REMI macroeconomic model to model the economic impacts of the policies and to capture feedback effects.

Comparability of the model—how does it compare to models being used elsewhere in the U.S.? The ENERGY 2020 differs from other modeling approaches in that its multi-sector coverage allows interactions between sectors to be modeled. This feature sets it apart from others and, in the opinion of the TAG and advice received from the World Resources Institute, Inc, is extremely advantageous. The ENERGY 2020 model has recently been applied in two neighboring states, Illinois and Michigan. The REMI macroeconomic model is widely used for policy analysis purposes across the country.

Model transparency and understandability. All assumptions and inputs will be documented.

Ease with which the modeling effort could be rolled into a regional modeling effort. The ENERGY 2020 and the REMI models can be scalable to regional and national levels.

Energy Efficiency modeling. The model follows an empirical approach to decision-making, rather than a rational decision-making approach which assumes an efficient market operating on the production possibility frontier. The ENERGY 2020 model considers price and non-price factors and thus captures the impacts of energy efficiency policies.