Progress report from the DFEEQP-DMME subcommittee

March 2, 2010

Background

The following information is provided as guidance to the Energy Commission's Demand Model Methodology Evaluation (DMME) process which has been undertaken to assess and improve the models employed by the Energy Commission. There have been several calls for improved transparency from a variety of stakeholders, from the NRDC, IOUs, and other state agencies. In turn, the Energy Commission has committed itself to improving its transparency, primarily as driven in and by the DMME.

For these recommendations, transparency can be broadly defined as efforts to make it possible for interested parties to better understand, interpret, and involve greater participation in modeling efforts. This should include a process that would make the kind of information that would be helpful for all interested parties to reach meaningful interpretations and judgments about the validity and associated range of uncertainty corresponding to model assumptions, inner workings, and other relevant model performance characteristics. Ultimately, this will help ensure that parties can trust the outputs of any model employed in the Energy Commission's processes.

Recommendation Categories

There are five categories of recommendations. The first regards incremental improvements; the second, documentation of the computer model; the third is guidance for ethics standards for modelers; the fourth is an evidentiary panel hearings process; and the fifth is an independent outside expert review panel.

Incremental Improvements

As a practical matter we anticipate that it will take longer to make some improvements than others. For example, some improvements may not be workable until after the CEC completes the model methodology upgrade which is currently underway. We, therefore, also recommend incremental improvements on a "no regrets" basis, for implementation and adoption regardless of the outcome of the model methodology upgrade. These improvements additionally address parties' concerns that have been already raised with the Energy Commission.

Computer Model Documentation

In order for parties to adequately represent themselves and raise issues with a model, it must be sufficiently documented in terms of model logic¹, inputs, outputs, equations and other such materials which can aid analysis of the information.

Code of Ethics

Potentially based upon the American Evaluator's Association code that is currently contained in the California Evaluation Framework (June 2004) as may be appropriately augmented or modified to apply to professional forecasters and modelers and forecasters. Will support and reinforce the standards of analytical objectivity that are intrinsic to all professional practitioners in this field.

Establishment of an evidentiary hearing process

Potential timeframe and reference for a proposing a hearing process for model inputs, outputs, and other materials. This process would augment the existing IEPR process.

¹ Model logic in this case is meant the basic processes which link inputs to outputs.

Establishment of an independent outside expert review panel
A panel of highly qualified independent professional practitioners to provide independent validation, review, and critique of all modeling based analyses. This panel would provide the all findings and opinions of their review sand critique to all interested parties.