

This is a working document prepared by the Energy Information Administration (EIA) in order to solicit advice and comment on statistical matter from the American Statistical Association Committee on Energy Statistics. This topic will be discussed at EIA's spring 2006, meeting with the Committee to be held April 6 and 7, 2006.

## **How Can Modeling Suggest Data Needs?**

Nancy Kirkendall

At EIA's fall 2005, meeting with the ASA Committee on Energy Statistics, Margot Anderson, Director of the Energy Markets and Use Office in EIA presented her ideas about developing performance measures for evaluating the accuracy of forecasts from EIA's short term forecasting system. In reviewing the Committees comments, I saw that a number of Committee members recommended that EIA needs to have a better feedback system between our models and our data collections.

The purpose of this session is to solicit your ideas about how we might do that.

### **Summary of relevant committee comments**

Tom Rutherford said "the main reason for having a model and paying attention to what the model does and how it forecasts is to have a better handle on what data are important to be collecting". We need to answer the question "what data do we need to generate a good forecast". Providing this data will support both EIA forecasting, and public forecasting, and helps to assure that EIA is providing the most relevant data possible.

Moshe Feder said, "I suggest EIA look at the prediction errors both temporally and spatially and see if there is anything that we are missing, and that could contribute to finding out which you need to augment your model."

Randy Sitter: "Think about missing data as well as model metrics."

Mark Bernstein: "Some things that are missing in the models (are) futures and options and trader behavior and things like that which affect the markets in very unpredictable ways . . . Seems like these have been having more impact on gasoline prices than ever before."