

Abstracts for EIA's Spring 2008 Meeting with the ASA Committee on Energy Statistics

1. The Role of A Federal Advisory Committee: A Case Study of the American Statistical Association (ASA) Committee on Energy Statistics, Calvin A. Kent, Former EIA Administrator and Dean of Lewis College of Business, Marshall University

The energy crisis of the 1970's brought about the creation of the U. S. Department of Energy, which was created by congress in 1977. As a statistical organization within the Department of Energy, the Energy Information Administration integrated the activities of more than fifty different government agencies. Recognizing the need for a central, comprehensive and unified energy data and information program, the EIA collects, evaluates, assembles, analyzes and disseminates data and information which is relevant to energy resource reserves, energy production, demand and technology, and related economic and statistical information.

To assist the organization in this effort, the EIA initiated the development of an advisory program. The American Statistics Association's (ASA) Committee on Energy Statistics was created for this purpose. The committee meets twice a year, reviews elements of EIA's data collection and analysis programs and offers advice on various aspects of EIA's work, such as matters concerning energy modeling and forecasting.

This paper reviews the history of the ASA Committee on Energy Statistics and examines its advisory role, its interactions with EIA and its effectiveness from the standpoint of its members. This discussion presents a welcome opportunity to obtain input from the committee regarding EIA's future direction.

2. Developing Future Oil Supply Projections, Glen Sweetnam, John Staub, Lauren Mayne

Recent increases in oil prices and unanticipated delays in non-OPEC oil exploration and development projects have raised concerns that global oil production may be nearing a peak. In order to improve its ability to generate long-term oil production projections, the Energy Information Administration has developed the International Petroleum Production Model (IPPM).

The IPPM is an economic model that schedules investment in new petroleum liquids production capacity for six resource types in each of five producing regions. Production from new production capacity added by the model is scheduled according to an exogenous, predetermined production profile. The resource types in the current version of the model are:

Conventional crude and lease condensate

Natural gas plant liquids (NGPL)
Extra heavy crude oil
Bitumen
Shale oil (kerogen)
Crude oil from source rocks

The regions in the current model are:

United States
Other non-OPEC
Saudi Arabia
Other Middle East OPEC
Other OPEC

The model adds new production capacity in a manner that maximizes producer surplus (net present value - NPV) of the capacity additions consistent with exogenous, pre-determined constraints. The primary constraint is that production must equal an exogenous, pre-determined consumption trajectory in each year (2008 – 2200 in the current version of the model). Other constraints are typically associated with government or national oil company decisions to restrict capacity additions to maintain a certain market share of the market (e.g. Saudi Arabia) or to address environmental concerns (e.g., Alberta oil sands). The NPV of additions are calculated using assumptions about capital (finding and development - F&D) and operating costs, tax rates, and a pre-determined oil price trajectory. The model uses exogenous assumptions of initial-in-place (IIP) quantities and ultimate recovery factors (RF) for each resource in each region. F&D costs rise as cumulative additions to production capacity approach the product of IIP and RF and decline as technology advances.

ASA Committee members will be asked to comment on the appropriateness of the proposed model structure/design for modeling future oil industry behavior and to provide suggestions as to how more accurate estimates of key parameters (e.g., regional finding and development costs) might be obtained or derived.

3. Web Customer Survey and New Web Directions, Colleen Blessing and Nicholas Johnson, NEIC

The Energy Information Administration (EIA) web site is central to accomplishing its mission, including the charge, "to promote public understanding" of energy. We have recently introduced new features and updated our home page to support this mission. The session will briefly present these changes on EIA's web site.

We reorganized the EIA home page based on usability testing results to group like information and show more of the most popular items. We added a graphical feature box to the home page to help EIA promote specific content. We placed an improved A-Z Topics feature on the home page to support new ways to look for information.

We also launched a new series aimed at educating the curious novice about energy issues. The series is called Energy in Brief and answers popular or important energy questions in a one- to two-page format online with graphs, charts and easy-to-understand text. The series will occasionally include articles to educate the public about statistical questions and misconceptions. For example, we may write about the difference between short-term fluctuations and long-term trends in energy prices.

We would appreciate feedback and suggestions from ASA members regarding the EIA home page and the Energy in Brief series to support public understanding of energy.