

Preface

The *Annual Energy Outlook 2008 (AEO2008)*, prepared by the Energy Information Administration (EIA), presents long-term projections of energy supply, demand, and prices through 2030. The projections are based on results from EIA's National Energy Modeling System (NEMS). EIA published an "early release" version of the *AEO2008* reference case in December 2007; however, the Energy Independence and Security Act of 2007 (EISA2007), which was enacted later that month, will have a major impact on energy markets, and given the year-long life of *AEO2008* and its use as a baseline for analyses of proposed policy changes, EIA decided to update the reference case to reflect the provisions of EISA2007.

The report begins with an "Overview" summarizing the *AEO2008* reference case and comparing it with the *Annual Energy Outlook 2007 (AEO2007)* reference case. The Overview also includes a section that provides a comparison between the *AEO2008* released in December and the current version. The next section, "Legislation and Regulations," discusses evolving legislation and regulatory issues, including a summary of recently enacted legislation, such as EISA2007, and provides an update on the handling of aspects of previously enacted legislation, such as the loan guarantee program set up by Title XVII of the Energy Policy Act of 2005 (EPACT2005). This section also provides a summary of State renewable fuel requirements and emissions regulations and a discussion of how selected Federal fuel taxes and tax credits are handled in *AEO2008*.

The "Issues in Focus" section includes discussion of a scenario under which electricity generation options other than natural gas are restricted and natural gas supply is limited; the competitive factors that influence imports of liquefied natural gas (LNG); and the

implications of changing the basis for measuring heating and cooling degree-days. It also discusses the implications of uncertainty in energy project costs and the basis of the world oil price and production trends in *AEO2008*.

The "Market Trends" section summarizes the projections for energy markets. The analysis in *AEO2008* focuses primarily on a reference case, low and high economic growth cases, and low and high energy price cases. Results from a number of other alternative cases are also presented, illustrating uncertainties associated with the reference case projections for energy demand, supply, and prices. Complete tables for the five primary cases are provided in Appendixes A through C. Major results from many of the alternative cases are provided in Appendix D.

AEO2008 projections are based on Federal, State, and local laws and regulations in effect on or before December 31, 2007. The potential impacts of pending or proposed legislation, regulations, and standards (and sections of existing legislation that require implementing regulations or funds that have not been appropriated) are not reflected in the projections.

In general, historical data used in the *AEO2008* projections are based on EIA's *Annual Energy Review 2006*, published in June 2007. Other historical data, taken from multiple sources, are presented for comparative purposes; documents referenced in the source notes should be consulted for official data values.

AEO2008 is published in accordance with Section 205c of the Department of Energy (DOE) Organization Act of 1977 (Public Law 95-91), which requires the EIA Administrator to prepare annual reports on trends and projections for energy use and supply.

Projections in *AEO2008* are not statements of what will happen but of what might happen, given the assumptions and methodologies used. The projections are business-as-usual trend estimates, given known technology and technological and demographic trends. *AEO2008* assumes that current laws and regulations are maintained throughout the projections. Thus, the projections provide a policy-neutral reference case that can be used to analyze policy initiatives.

Because energy markets are complex, models are simplified representations of energy production and consumption, regulations, and producer and consumer behavior. Projections are highly dependent on the data, methodologies, model structures, and assumptions used in their development. Behavioral

characteristics are indicative of real-world tendencies rather than representations of specific outcomes.

Energy market projections are subject to much uncertainty. Many of the events that shape energy markets are random and cannot be anticipated. In addition, future developments in technologies, demographics, and resources cannot be foreseen with certainty. Many key uncertainties in the *AEO2008* projections are addressed through alternative cases.

EIA has endeavored to make these projections as objective, reliable, and useful as possible; however, they should serve as an adjunct to, not a substitute for, a complete and focused analysis of public policy initiatives.

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Overview
