

Preface

The *Annual Energy Outlook 2009* (*AEO2009*), prepared by the Energy Information Administration (EIA), presents long-term projections of energy supply, demand, and prices through 2030, based on results from EIA's National Energy Modeling System (NEMS). EIA published an "early release" version of the *AEO2009* reference case in December 2008.

The report begins with an "Executive Summary" that highlights key aspects of the projections. It is followed by a "Legislation and Regulations" section that discusses evolving legislation and regulatory issues, including a summary of recently enacted legislation, such as the Energy Improvement and Extension Act of 2008 (EIEA2008). The next section, "Issues in Focus," contains discussions of selected topics, including: the impacts of limitations on access to oil and natural gas resources on the Federal Outer Continental Shelf (OCS); the implications of uncertainty about capital costs for new electricity generating plants; and the result of extending the Federal renewable production tax credit (PTC). It also discusses the relationship between natural gas and oil prices and the basis of the world oil price and production trends in *AEO2009*.

The "Market Trends" section summarizes the projections for energy markets. The analysis in *AEO2009* focuses primarily on a reference case, low and high economic growth cases, and low and high oil price cases. Results from a number of other alternative cases also are 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.

AEO2009 projections are based on Federal, State, and local laws and regulations in effect as of November 2008. 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.

AEO2009 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 *AEO2009* 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. *AEO2009* assumes that current laws and regulations are maintained throughout the projections. Thus, the projections provide a policy-neutral baseline 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 *AEO2009* 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.