ENERGY INFORMATION ADMINISTRATION

EIA was created by Congress in 1977 as part of the newly established Department of Energy. Its mission is to collect, analyze, and disseminate independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment. To assure EIA's independence, the Department of Energy Organization Act specifies that EIA's data releases are not subject to approval by any U.S. government officer or employee.

Many EIA data products, such as weekly, monthly, and annual data on petroleum and natural gas supply, deal with specific industries; others contain data on all fuel types. EIA's mandatory energy supply surveys are designed and approved by EIA and collect data from energy producers, users, transporters, and certain other businesses. Data on energy consumption are collected for households, commercial buildings, manufacturing, and transportation. Analyses prepared by EIA staff cover energy economics, technology, production, prices, distribution, storage, consumption, and environmental effects. EIA also delivers near-real-time data on electric grid operations through its Hourly Electric Grid Monitor, hourly CO2 emissions estimate, and the recently launched Wholesale Electricity Market Portal.

Data collection, validation, and dissemination constitute EIA's largest operational area and require its most significant resource investments; additional resources are used to support long-term modeled energy projections, forecasts, and analyses.

EIA's forecasts and projections cover all energy types and include supply, consumption, prices, and other factors. Short-term forecasts cover one to two years; 20- to 30-year projections often serve as the basis for independent analyses prepared by EIA. EIA's data, reports, and forecasts are often used by Congress and the administration to inform their policymaking.

**The following is based on publicly available information and select information from our questionnaire.

STRENGTH OF EIA'S SUPPORT+

Autonomy: Good. EIA has the strongest professional autonomy of the federal statistical agencies and a long tradition of independence. By law, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the U.S. government.

Parent agency: Strong. EIA receives strong support from the Department of Energy (DOE) built upon respect for its professional autonomy. DOE has also consistently supported budget requests for EIA that would help it keep up with inflationary increases.

Budget/Staffing: Challenging. EIA has lost 14% in purchasing power since FY 2009, constraining its ability to keep pace with a rapidly changing energy system. While EIA staff regularly make productivity/efficiency adjustments, EIA's mission requires high expertise personnel with commensurate salary levels that have necessarily increased over time despite relatively flat nominal budgets. Tight budgets have led to difficult decisions regarding some survey programs, such as the suspension of the Periode Marketing Monthly, and a delay in starting the next Commercial Buildings Energy Consumption Survey (CBECS).

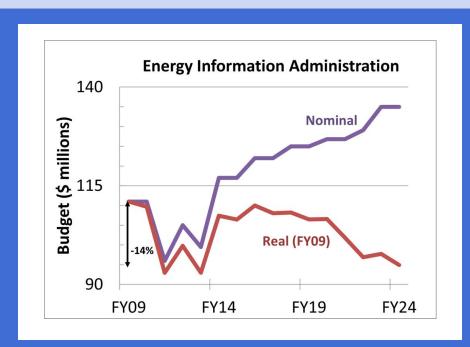
[†] See Supporting Materials F for an explanation of the support ratings.

AGENCY FAST FACTS

Budget inputs and FY24 level

1. Appropriations line: \$135 million

Funding history, inflation adjusted



Appointment of head & layers down in DOE org chart

The EIA administrator is presidentially appointed and Senate confirmed, one of three federal statistical agencies with such an appointment.

One: The EIA administrator reports to the Secretary of Energy.

Other

- → EIA conducts approximately 60 active surveys and publishes more than 400 reports each year across weekly, monthly, quarterly, and annual product lines.
- → EIA's Weekly Natural Gas Storage Report is the nation's only official Principal Federal Economic Indicator concerning energy.
- → In addition to its statistical outputs, EIA is one of only several federal statistical agencies that also conducts operations research and modeling activities to produce publicly released energy system projections and forecasts.

EIA has a strong culture of innovation as detailed in the box <u>EIA Innovations</u>. Notable recent examples include:

- Published household energy consumption data for all 50 states for the first time, along with a user-friendly dashboard to display select state-level data.
- → Launched a new dashboard that provides timely data on electricity markets from the nation's Regional Transmission Organizations and Independent System Operators.
- Implemented <u>Project BlueSky</u>, a new initiative to develop a next-generation energy system model to better represent key aspects of the energy transition in EIA's outlooks.

→ Of the 13 principal federal statistical agencies, EIA has the strongest professional autonomy protections in statute.

- → EIA receives strong support from the DOE that includes respect for its professional autonomy.
- → EIA serves a broad stakeholder community; its website averages approximately 2 million visits each month.
- → EIA also has a highly developed system for distributing information and data on specific topics, with 41 email subscription lists, 11 RSS feeds, and more than 1 million data series in EIA's API.
- → EIA consistently exceeds program performance targets for the timeliness of its product releases and customer satisfaction rating targets (based on responses from its annual web customer survey).
- → EIA supports staff development through training and career growth opportunities.

→ EIA's commitment to transparency, data sharing, timeliness, and web resources is exemplary. As a testament, the agency maintains such webpages as Products, Services, and Tools, Reports and Products, Guide for Stakeholders, Data Tools, Apps, and Maps, What's New, and Open Data. According to its Customer and Stakeholder Engagement at EIA page, EIA:

- works with external stakeholders such as Congress, federal and state government, industry, associations and nonprofits, and the media.
- regularly schedules meetings with outside organizations.
- uses its Independent Expert Review Program to seek technical reviews of its data and analytical work from outside subject matter experts as a way to guarantee high-quality products for customers and data users.
- responds to an average of 5,000 customer inquiries per year through its Information Center.
- created "user" or "audience" personas to guide the development of its web products.

Recent successes

Agency strengths

Agency strengths

- administers at least one agency-wide customer survey each year for the past 18 years.
- does one-on-one user testing to give EIA web product developers a chance to see real users moving through content and applications while articulating the choices they are making.

Agency threats/ vulnerabilities

→ No threats or vulnerabilities were identified.

Agency challenges

- → The dynamic nature of the energy system transition presents multiple challenges to EIA's program. While the agency strives to deliver its core information program and expand coverage where feasible, relatively flat budgets with decreased purchasing power have led EIA to make difficult choices, such as suspending or delaying key surveys, and scaling-down development efforts related to a next-generation energy modeling system.
- → EIA is sometimes legislated by Congress to provide reports or data products that do not come with funding to do so, further taxing its abilities to fulfill its Evidence Act requirements. For example, in the 2021 <u>Bipartisan Infrastructure Law</u> (also referred to as the Infrastructure Investment and Jobs Act–IIJA), EIA is required to add and enhance data products on the bulk power system, electricity grids, energy use, and energy modeling, as well as to submit various reports to Congress.

With additional resources, EIA could pursue such initiatives as the following:

- > Expand near-real-time electric grid operations data, including new information on regional emissions and EV integration.
- Improve tracking for energy-related greenhouse gas emissions.
- Expand energy consumption data to track and report on short-term shifts in energy consumption patterns.
- → Leverage the Standard Application Process infrastructure to improve data accessibility for researchers.

Agency opportunities

- Retool long-term modeling capabilities to more fully address the transitional nature of the energy sector, including potential decarbonization pathways.
- Improve analysis of international energy issues, trends, and events.
- Enhance EIA's short-term forecasts.
- Maintain and enhance cybersecurity capabilities.
- Modernize EIA's IT infrastructure to support new data accessibility initiatives.
- Begin work on the 2026 Commercial Buildings Energy Consumption Survey (CBECS) to provide current information on energy consumption, expenditures, and end uses.
- Incorporate U.S. energy reserves into the Natural Capital and Environmental-Economic Statistics project.

Agency-specific recommendations

In addition to the all-agency recommendations in the body of the report, we recommend that:

→ The Department of Energy continues its strong support of EIA's mission.

EIA INNOVATIONS

EIA has implemented many innovations and improvements to its data products over the past several years.

EIA has provided **new data products** and reports including:

- the Wholesale Electricity Market Portal and Hourly Electric Grid Monitor data tool;
- the State Energy Portal;
- the U.S. Biodiesel Plant Production Capacity Report;
- the liquids pipeline projects database;
- play production data in shale gas and tight oil reports;
- monthly and yearly plant-level oil stocks at electric power plants;
- Battery Storage in the United States: An Update on Market Trends report;
- the U.S. Energy Atlas;
- supplemental reports to the Short-Term Energy Outlook (STEO) discussing effects of Covid-19 pandemic on global oil consumption in 2020;
- Monthly Biofuels Capacity and Feedstocks Update report;
- a dataset estimating hourly carbon dioxide emissions from electricity generation in the contiguous United States; and
- an expanded report on direct federal financial interventions and subsidies in energy markets

Additionally, EIA has made **improvements to the data quality** of existing products and reports including providing more **granular and timely** information. Examples include:

forecasts to the STEO for wholesale electricity prices at hubs in eleven electricity supply regions in the contiguous U.S. and average peak-period wholesale electricity prices for each STEO electricity supply region;

- added forecasts for biodiesel, renewable diesel, and other biofuels to the STEO;
- added detailed geographical information to the U.S. Energy Mapping System;
- added weekly estimates of U.S. crude oil storage capacity utilization to the Weekly Petroleum Status Report (WPSR);
- added state-level biodiesel production and consumption estimates to the State Energy Data System (SEDS);
- expanded information on usage factors for utilityscale storage generators in the Electric Power Monthly;
- analyzed the effects of Russia's full-scale invasion of Ukraine for multiple data products;
- added data on crude oil and natural gas resource development and electric-generating capacity changes to the Monthly Energy Review (MER);
- added inventories of hydrocarbon gas liquids (HGLs) to the Petroleum Supply Monthly and Monthly Bulk Terminal Report;
- annual crude oil surplus capacity estimates for non-OPEC countries while extending estimates for current OPEC members back to 1970;
- developed a new imputation methodology to deliver updates to the International Energy Statistics (IES) database a full year sooner than the previous approach;
- added electric vehicle (EV) data to the Monthly Energy Review;
- implemented a new methodology for converting electric power generation data from noncombustible renewable sources in key EIA publications; and
- released new household energy consumption and expenditure data, including data for all 50 states for the first time.