

EIA Overview



*National Association of State Energy Officials (NASEO)
July 25, 2017 | Washington, DC*

*by
Shirley Neff, Senior Advisor*

EIA mission: independent statistics and analysis

- *EIA collects, analyzes, and disseminates 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*
- *By law, data, analyses, and forecasts provided by EIA are independent of approval by any other officer or employee of the U.S. Government*

The screenshot shows the EIA website homepage. At the top, there is a navigation bar with the EIA logo, "Independent Statistics & Analysis U.S. Energy Information Administration", and links for "Sources & Uses", "Topics", "Geography", "Tools", "Learn About Energy", "News", and "A-Z Index". A search bar is also present. The main banner features a large image of solar panels and a power line tower, with a text overlay: "Annual Energy Outlook 2016 Early Release with summary of Reference case projections through 2040". Below the banner, there are several sections: "What's New" with links to "AEO2016 Early Release: Summary of Two Cases" and "2012 CBECs consumption and expenditures, detailed tables, and public use microdata"; "Today in Energy" with a featured article "Future power sector carbon dioxide emissions depend on status of Clean Power Plan" and a line graph titled "U.S. energy-related carbon dioxide (CO2) emissions (1990-2040)"; and "Data Highlights" with various price and production updates like "WTI crude oil futures price", "Natural gas futures price", "Retail gasoline price", "Crude oil inventories", and "Weekly coal production".

U.S. energy-related carbon dioxide (CO₂) emissions (1990-2040)

million metric tons

| Year | Total energy-related CO ₂ emissions | Power sector CO ₂ emissions |
|------|--|--|
| 1990 | ~5,000 | ~1,500 |
| 1995 | ~5,500 | ~1,800 |
| 2000 | ~5,800 | ~2,000 |
| 2005 | ~6,000 | ~2,200 |
| 2010 | ~5,500 | ~2,000 |
| 2015 | ~5,000 | ~1,800 |
| 2020 | ~4,500 | ~1,600 |
| 2025 | ~4,000 | ~1,400 |
| 2030 | ~3,500 | ~1,200 |
| 2035 | ~3,000 | ~1,000 |
| 2040 | ~2,500 | ~800 |

Source: EIA, Annual Energy Outlook 2016

EIA's data collection system integrates all energy sectors

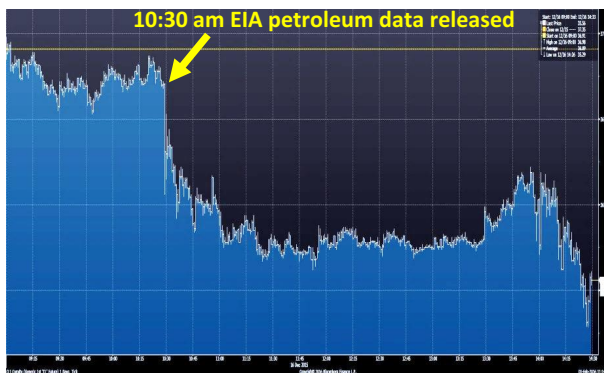


Complete list of EIA's active surveys and forms at www.eia.gov/survey/

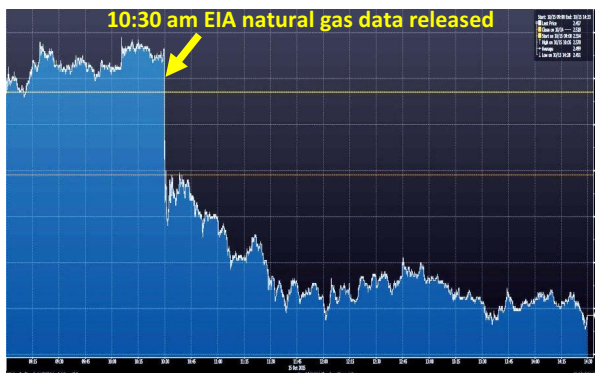
The release of EIA's oil and natural gas inventory data has an immediate impact on energy markets

Producers, consumers, utilities, regulators, investors, and analysts use a wealth of EIA energy statistics in their day-to-day activities in the global energy marketplace.

- The Weekly Natural Gas Storage Report (WNGSR) is designated as a Principal Economic Indicator.
- The Weekly Petroleum Status Report (WPSR) provides statistics on oil and petroleum product stocks, imports, and production.



Data Represent NYMEX Light, Sweet Crude Oil (WTI) Near-Month Futures Contract December 16, 2015
Source: Bloomberg Finance LP (February 1, 2016)

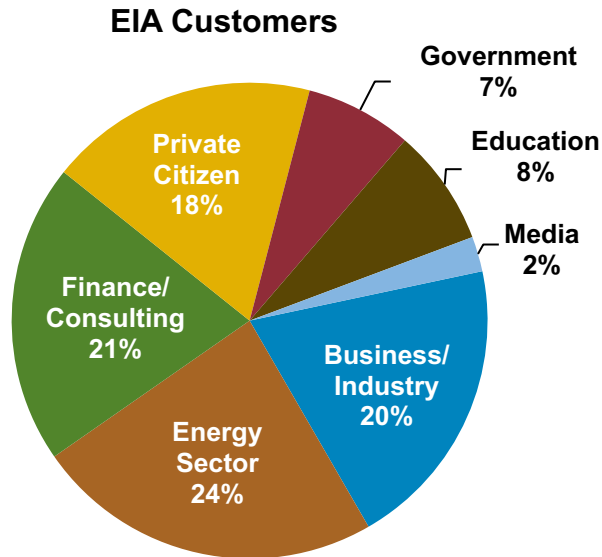


Data Represent NYMEX Henry Hub Natural Gas Near-Month Futures Contract October 15, 2015
Source: Bloomberg Finance LP (February 1, 2016)

Analyses, Projections, and Special Reports

- *Today in Energy (daily), Natural Gas Weekly Update, This Week in Petroleum*
 - *Discussion of recent data and market conditions*
- *Short-Term Energy Outlook (monthly)*
 - *Forecasts U.S. supplies, demands, imports, stocks, and prices of energy with a horizon of 12 to 24 months*
- *Annual Energy Outlook*
 - *Presents 25- to 30-year projection and analysis of U.S. energy supply, demand, and prices*
 - *Basis for special analyses of policy proposals requested by the Administration and Congress; recent studies have examined the Clean Power Plan and relaxation of restrictions on crude oil exports*
- *International Energy Outlook*
 - *Assesses international crude, liquid fuel, and natural gas markets*

EIA information is used by a range of stakeholders



Source: 2015 Customer Satisfaction

Examples of Activities

Government

- Executive Agencies – WH, DOE, & EPA use EIA data to track energy markets and program performance and to analyze policy proposals
- Congress – policy development and agency funding
- State Governments – planning and program development

Energy Sector

- Consumers – monitor price forecasts
- Producers – track inventory statistics

Business/Industry

- Manufacturers – market research

Finance/Consulting

- Commodities Analysts – market response to supply data

Media/Education

- Journalists – cite energy statistics
- Teachers – use Energy Kids materials
- Researchers – energy forecasting and modeling

Private Citizens

- Public – research gasoline prices

Customer-focused Performance Results

- **Quality:** 90% of customers are satisfied or very satisfied with the quality of EIA information
- **Timeliness:** 95% of selected EIA recurring products meet their release date target

Guided Tour of EIA's State-Level Information

U.S. States landing page

Your state's home page

State Energy Profiles

- Maps
- Charts
- Data
- Analysis

Useful tools for exploring and understanding the data

- Ranking
- Compare
- Find
- Help

EIA Home Page (www.eia.gov)



What's New

[Financial Review: First-quarter 2016 >](#)
July 22

[Drilling Productivity Report >](#)
July 18

[Short-Term Energy Outlook >](#)
July 12

[More >](#)

Today in Energy

Posted July 25, 2016

[Hourly information on U.S. electricity supply, demand, and flows is now available >](#)

The U.S. Energy Information Administration now provides hourly electricity operating data, including actual and forecast demand, net generation, and the power flowing between electric systems. EIA's U.S. Electric System Operating Data tool provides nearly real-time demand data, plus analysis and visualizations of hourly, daily, and weekly electricity supply and demand on a national and regional level for all of the 66 electric system balancing authorities that make up the U.S. electric grid. [More >](#)

Data Highlights

[WTI crude oil futures price](#)

7/22/2016: **\$44.19/barrels**

↓ \$1.76 from week earlier

↓ \$4.26 from year earlier

[Natural gas futures price](#)

7/22/2016: **\$2.777/MMBtu**

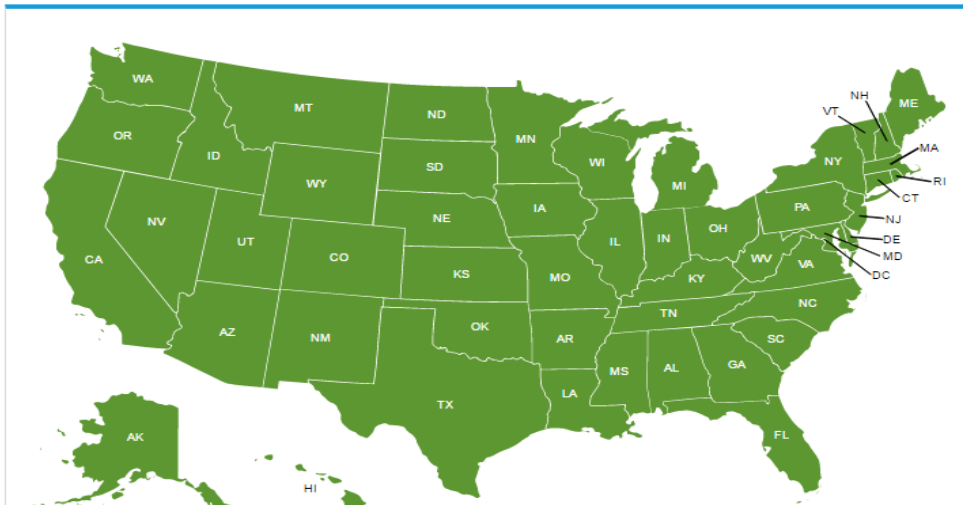
↑ \$0.021 from week earlier

↓ \$0.039 from year earlier

U.S. States Home Page (www.eia.gov/state/)

The screenshot shows the top navigation bar of the EIA website. On the left is the EIA logo with the text "Independent Statistics & Analysis U.S. Energy Information Administration". To the right are navigation links for "Sources & Uses", "Topics", and "Geography". Further right is a search bar labeled "Search eia.gov" and an "A-Z Index" link. Below the navigation bar is a banner for "U.S. STATES" featuring a small American flag and the text "State Profiles and Energy Estimates". A "CHANGE STATE/TERRITORY" dropdown menu is present. At the bottom of the banner are tabs for "OVERVIEW", "DATA", "ANALYSIS", "RANKINGS", "COMPARE", "FIND", and "? HELP".

U.S. Overview



Today In Energy

[Natural gas flaring in North Dakota has declined sharply since 2014](#)
Jun 13, 2016

[Hydropower conditions improve as West Coast drought eases](#)
May 20, 2016

[See all articles for this state >](#)

Household Energy Use



[See state fact sheets >](#)

Pennsylvania Page (www.eia.gov/state/?sid=PA)

PENNSYLVANIA

State Profile and Energy Estimates

CHANGE STATE/TERRITORY ▾

OVERVIEW

DATA ▾

ANALYSIS

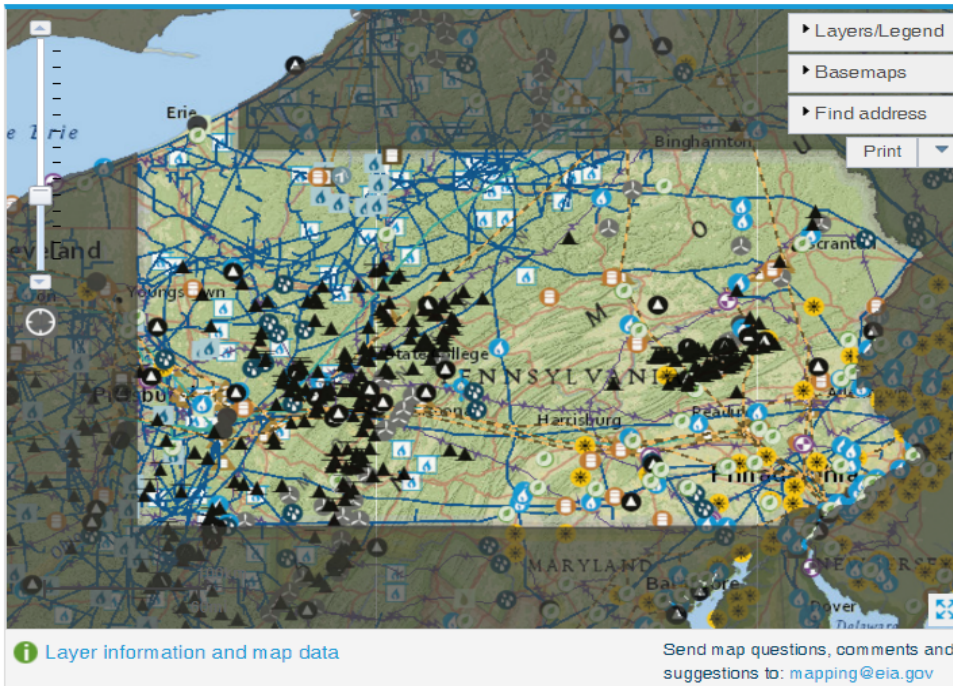
RANKINGS

COMPARE

FIND

? HELP

Profile Overview



[Print State Energy Profile \(overview, data, & analysis\)](#)

Pennsylvania, U.S. Rankings

Consumption

Total Energy per Capita 28

Expenditures

Total Energy per Capita 29

Production

Total Energy 3

Crude Oil 16

Natural Gas 2

Coal 4

Electricity 3

Prices

Natural Gas 28

Electricity 14

Environment

Carbon Dioxide Emissions 3

[See rankings for all states >](#)

Pennsylvania Page (www.eia.gov/state/?sid=PA)

QUICK FACTS

- Pennsylvania's annual gross natural gas production, primarily from the Marcellus Shale, exceeded 4 trillion cubic feet in 2014, doubling the state's 2012 production and making Pennsylvania the nation's second-largest natural gas producer.
- Pennsylvania was the fourth-largest coal-producing state in the nation in 2014 and the only state producing anthracite coal, which has a higher heat value than other kinds of coal.
- In 2015, Pennsylvania ranked second in the nation in electricity generation from nuclear power. The state obtained 37.2% of its net electricity generation from nuclear power, more than from any other source.
- Pennsylvania's Alternative Energy Portfolio Standards require 18% of electricity sold by 2021 to come from approved renewable or alternative sources, including at least 0.5% solar photovoltaic power. In 2015, renewable energy accounted for 4% of Pennsylvania's net electricity generation.
- As of 2014, 51% of Pennsylvania households used natural gas as their primary home heating fuel, while 21% depended on electricity for heat and 19% relied on fuel oil. Other heating fuels used in the state included propane, wood, and coal.

Last Updated: July 21, 2016

Today In Energy

[EIA produces new maps of the Utica Shale play](#)
May 02, 2016

[U.S. natural gas production reaches record high in 2015](#)
Apr 15, 2016

[See all articles for this state >](#)

Pennsylvania at a Glance



[Pennsylvania Energy Highlights >](#)

PA Profile Analysis (www.eia.gov/state/analysis.cfm?sid=PA)


U.S. STATES

PENNSYLVANIA

State Profile and Energy Estimates

CHANGE STATE/TERRITORY ▾

OVERVIEW DATA ▾ ANALYSIS RANKINGS COMPARE FIND ? HELP



Profile Analysis

 [Print State Energy Profile \(overview, data, & analysis\)](#)

Last Updated: July 21, 2016

Overview

Pennsylvania is a leading East Coast supplier of coal, natural gas, nuclear power, and refined petroleum products to its own industries and to the nation. The Appalachian Mountains have rich coal resources and run southwest to northeast through Pennsylvania, dividing the Ohio River valley in the west from the Susquehanna River and Delaware River valleys in the east.¹ Pennsylvania's largest metropolitan areas are Philadelphia on the Delaware River and Pittsburgh on the Ohio River.² The Marcellus Shale, the largest U.S. natural gas field, underlies about three-fifths of the state in an arc reaching from the southwest to the northeast.^{3,4}

Pennsylvania supplies coal, natural gas, electricity, and refined petroleum products to the East Coast.

Pennsylvania's temperate climate varies from the southeast, where it is influenced by the Atlantic Ocean, to cooler areas near the Great Lakes in the northwest, where weather fronts often come from Canada.⁵ Precipitation in the state is plentiful and evenly distributed throughout the year. Temperatures vary significantly among the four seasons.⁶

Pennsylvania's gross domestic product ranked sixth among the states in 2014.⁷ The state is among the top 10 consumers of coal, natural gas, petroleum products, and electricity,⁸ but its total energy consumption per capita is in the lower half of states nationwide.⁹ The industrial sector leads energy consumption in the state.¹⁰ Major energy-consuming industries include mining; steel, metals, and machinery manufacturing; chemical products; agriculture and food processing; and tourism.^{11,12,13}

Petroleum

Pennsylvania has long been the leading petroleum-refining state in the Northeast. Until 2011, the state's three largest refineries, clustered on the Delaware River around Philadelphia, represented half of the East Coast's refining capacity, supplying more than half the Northeast's ultra-low sulfur diesel (ULSD) and nearly half its heating oil and

Pennsylvania Page (www.eia.gov/state/?sid=PA)

U.S. STATES

PENNSYLVANIA

State Profile and Energy Estimates

CHANGE STATE/TERRITORY ▾

OVERVIEW **DATA ▾** ANALYSIS RANKINGS COMPARE FIND ? HELP

Profile

- State Profiles
 - Energy Indicators
 - Prices
 - Reserves & Supply
 - Distribution & Marketing
 - Consumption & Expenditures
 - Environment
- Energy estimates (SEDS)
 - 1960-2014 estimates
 - 2015 updates (release schedule)

Layers/Legend
Basemaps
Find address
Print ▾

| Pennsylvania, U.S. Rankings | |
|-----------------------------|----|
| Consumption | |
| Total Energy per Capita | 28 |
| Expenditures | |
| Total Energy per Capita | 29 |
| Production | |
| Total Energy | 3 |
| Crude Oil | 16 |
| Natural Gas | 2 |
| Coal | 4 |
| Electricity | 3 |
| Prices | |
| Natural Gas | 28 |
| Electricity | 14 |
| Environment | |

SEDS (www.eia.gov/state/seds/seds-data-complete.cfm?sid=PA)

State Energy Data System (SEDS): 1960-2014 (complete)

Released: June 29, 2016 | Next release: June 30, 2017

Comprehensive state-level estimates of energy production, consumption, prices, and expenditures by source and sector.

Estimates for 2015 and revisions for previous years by energy source will be released on the [SEDS updates](#) page starting in October 2016.

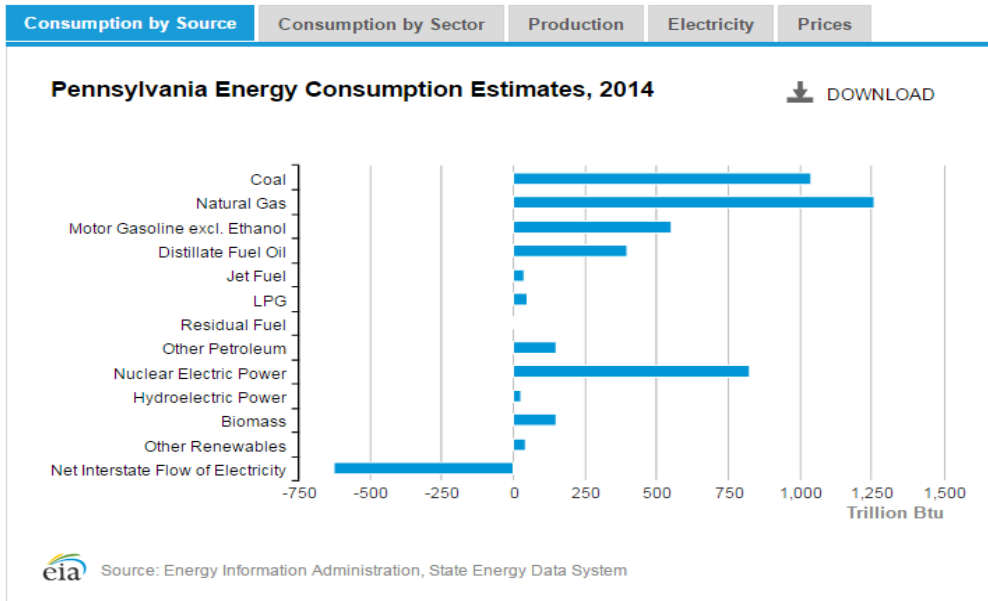
[CHANGE STATE](#) [+ EXPAND ALL](#)

| | | |
|---------------------------|------------|--------------|
| ▶ Consumption | All states | Pennsylvania |
| ▶ Prices and expenditures | All states | Pennsylvania |
| ▶ Production | All states | Pennsylvania |
| ▶ Data files | All states | Pennsylvania |

For additional information see:

- [About SEDS](#)
- [Notes and documentation](#)
- [Data and methodology changes](#)
- [Codes and descriptions](#)

Pennsylvania Page (www.eia.gov/state/?sid=PA)



MORE DATA & ANALYSIS IN PENNSYLVANIA

by Source

- Petroleum
- Natural Gas
- Electricity
- Coal
- Renewable & Alternative Fuels
- Nuclear
- Environment
- Total Energy

Summary Reports

- Household Energy Use
- State Electricity Summary
- State Renewable Electricity Statistics
- State Nuclear Summary
- Natural Gas Summary Statistics



Household Energy Use Fact Sheet

U.S. Energy Mapping System



Choose your energy view...

Reference

- Record of Updates
- Notes & Sources

Other Resources

- Pennsylvania Public Utility Commission
- Pennsylvania Public Utility Commission, Energy Assistance Programs

Ranking (www.eia.gov/state/rankings/?sid=PA#/series/51)

U.S. STATES


PENNSYLVANIA

State Profile and Energy Estimates

CHANGE STATE/TERRITORY ▾

OVERVIEW DATA ▾ ANALYSIS

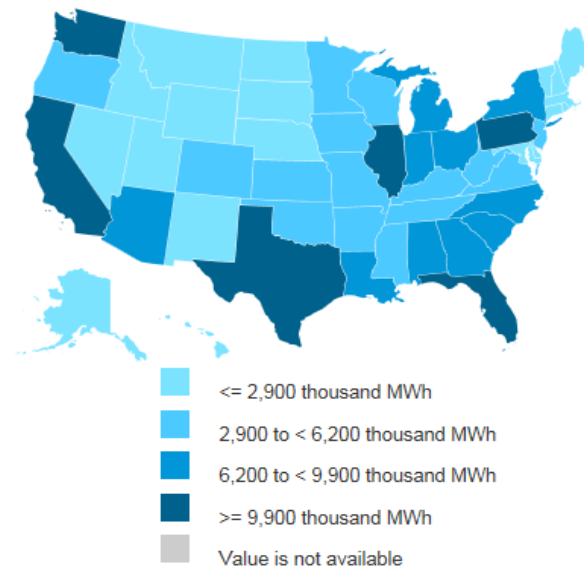
RANKINGS COMPARE FIND ? HELP



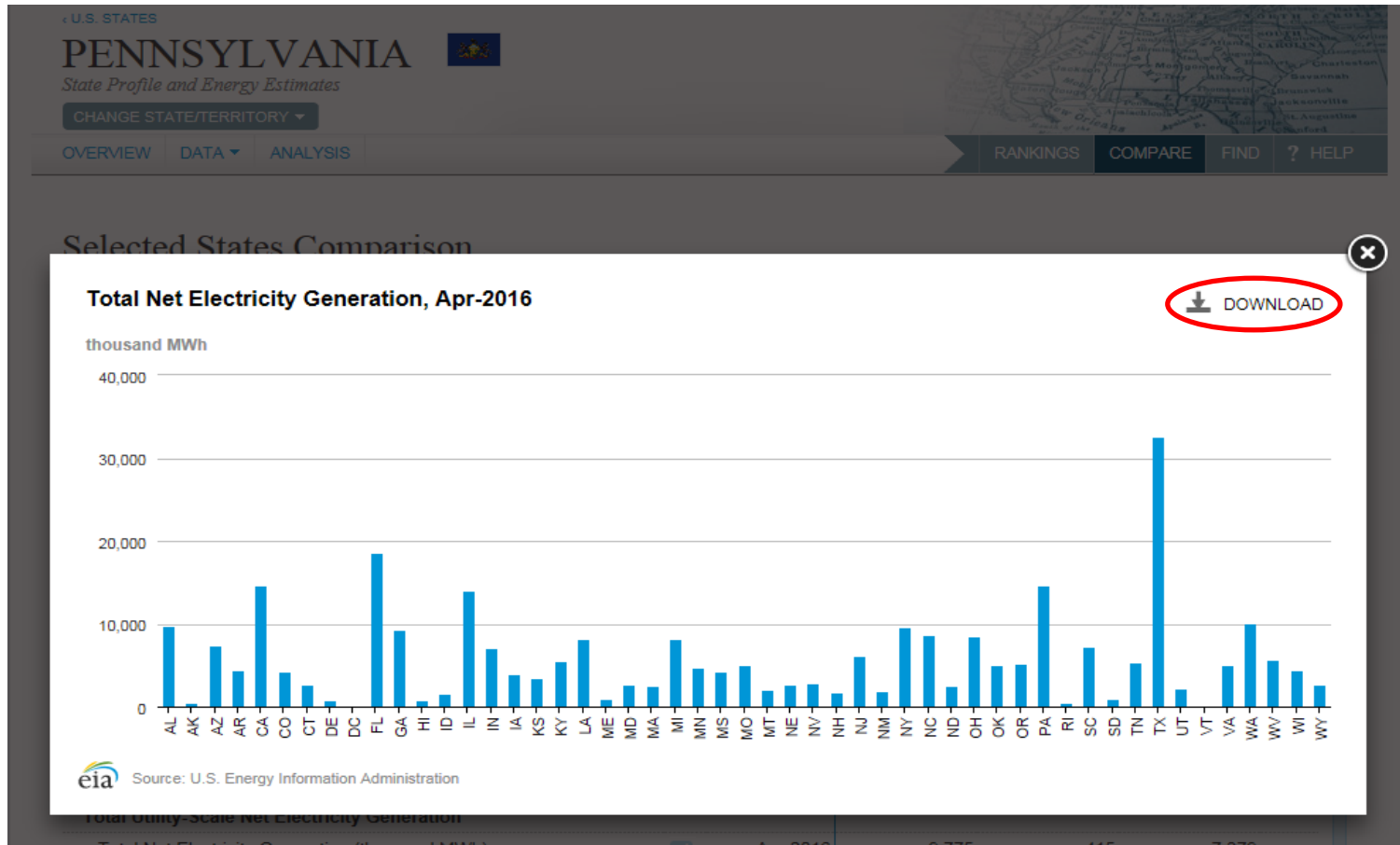
Rankings: Total Net Electricity Generation, April 2016 (thousand MWh)

[Download Table Data as CSV](#)

| Rank | State | Total Net Electricity Generation (thousand MWh) |
|------|--------------|---|
| 1 | Texas | 32,641 |
| 2 | Florida | 18,585 |
| 3 | Pennsylvania | 14,658 |
| 4 | California | 14,591 |
| 5 | Illinois | 13,978 |
| 6 | Washington | 10,107 |
| 7 | Alabama | 9,775 |
| 8 | New York | 9,571 |



Compare (www.eia.gov/state/compare/?sid=PA#?selected=AL-AK-...)



Find (www.eia.gov/state/search/?sid=PA#?1=97&2=219&5=121&r=false)

U.S. STATES


PENNSYLVANIA

State Profile and Energy Estimates

CHANGE STATE/TERRITORY ▾

OVERVIEW DATA ▾ ANALYSIS RANKINGS COMPARE FIND ? HELP

Find State Information

Filters RESET 

State: Pennsylvania ▾ Fuel / Energy Source: Shale & Tight Gas ▾ Energy Activity / Indicator: Production and Processing ▾

Sector / End Use: ▾ Subject: ▾

Advanced Filters [\(Show\)](#)

13 Results found for: [Go to Top](#)

Pennsylvania | Shale & Tight Gas | Production and Processing

Show Referring Reports

| Title ▾ | Data Frequency | Data | Time Series | Ranks | Analysis | Maps | Charts |
|---|----------------|------|-------------|-------|----------|------|--------|
| Analysis Summary - Pennsylvania released: May 21, 2015 | | | | | A | | |
| Marcellus, Utica provide 85% of U.S. shale gas production growth since start of 2012 released: December 29, 2015 | | | | | A | | C |
| Shale gas provides largest share of U.S. natural gas production in 2013 released: November 25, 2014 | | | | | A | | C |
| Shale Gas Proved Reserves released: November 23, 2015 | Annual | D | T | | | | C |
| Shale Gas Production released: November 23, 2015 | Annual | D | T | | | | C |

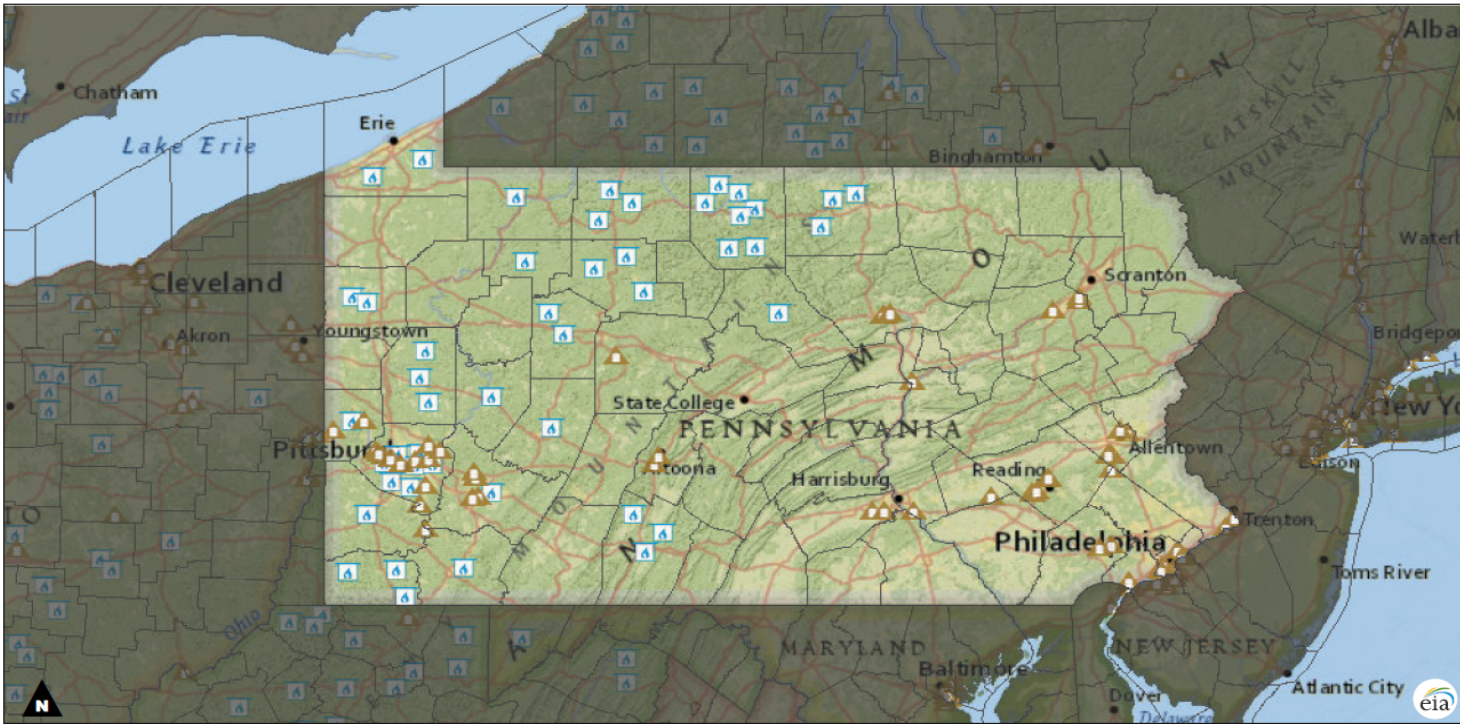
Help (e.g., at www.eia.gov/state/?sid=PA)

The screenshot shows the EIA website's state profile for Pennsylvania. The page includes a navigation bar with 'Sources & Uses', 'Topics', and 'Geography' menus. A search bar is present with the text 'Search eia.gov'. The main content area is titled 'PENNSYLVANIA State Profile and Energy Estimates' and features a 'CHANGE STATE/TERRITORY' dropdown menu. Below this are tabs for 'OVERVIEW', 'DATA', and 'ANALYSIS'. A 'HELP' link is circled in red in the navigation bar. The page displays a map of Pennsylvania with various energy-related icons, a 'Profile Overview' section, and a 'Pennsylvania, U.S. Rankings' table. A video player is embedded in the map area. Callout boxes provide instructions on how to use these features.

Callout Boxes:

- Click here to change the state or territory.
- Concise summary of each state's energy picture including resources, consumption, production, and product movements.
- State rankings for consumption, prices, and production with supporting charts and maps.
- Quickly find detailed state information from throughout the EIA website.
- Interactive energy map, Quick Facts, charts, summary statistics, and more.
- Profile of important EIA data with links to underlying source data.
- Side-by-side state profile data with interactive charts.
- Interactive energy map:
 - Zoom in for more detail.
 - Hover over an icon for additional information.
 - Use layers to control which information is mapped.
- Play the short video to learn how to use this tool. Click anywhere else to close these help tips.
- Click on a link to see how this state compares with all other states (interactive chart and map).
- Related articles from Today in Energy.

Petroleum Terminals and Underground Natural Gas Storage in Pennsylvania



Credits: State Layers : ; layer0 : Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

- State Mask
- County Boundary
- ▲ Petroleum Product Terminal
- Ⓩ Natural Gas Underground Storage (z)

0 12.5 25 50 Miles



EIA Contacts (www.eia.gov/about/contact/state.cfm)

CONTACT US

State Energy Experts

| | | |
|--|--------------|--|
| Electricity Detailed Data | | |
| Jonathan DeVilbiss | 202-586-2992 | jonathan.devilbiss@eia.gov |
| Energy Consumption by State | | |
| Yvonne L. Taylor | 202-586-1455 | yvonne.taylor@eia.gov |
| Energy Expenditures by State | | |
| Yvonne L. Taylor | 202-586-1455 | yvonne.taylor@eia.gov |
| Energy Production by State | | |
| Yvonne L. Taylor | 202-586-1455 | yvonne.taylor@eia.gov |
| Fuel Oil and Kerosene Sales | | |
| Dan Walzer | 202-586-3511 | daniel.walzer@eia.gov |
| Petroleum Prime Supplier Sales | | |
| Maureen Klein | 202-586-8013 | maureen.klein@eia.gov |
| State Electricity Profiles | | |
| Marc Harnish | 202-586-5309 | marc.harnish@eia.gov |
| State Heating Oil and Propane Program | | |
| Marcela Rourk | 202-586-4412 | marcela.rourk@eia.gov |
| State Energy Data Systems (SEDS) | | |
| Yvonne L. Taylor | 202-586-1455 | yvonne.taylor@eia.gov |
| Glendon Haynes | 202-586-3540 | glendon.haynes@eia.gov |
| State Energy Profiles | | |
| Allen P. McFarland | 202-287-5153 | allen.mcfarland@eia.gov |
| State Renewable Portfolio Standards | | |
| Cara Marcy | 202-586-9224 | cara.marcy@eia.gov |

U.S. Energy Information Administration

1000 Independence Ave, SW
Washington, DC 20585

For Energy Data & Statistics
24-hour automated information line:
202-586-8800
infoctr@eia.gov

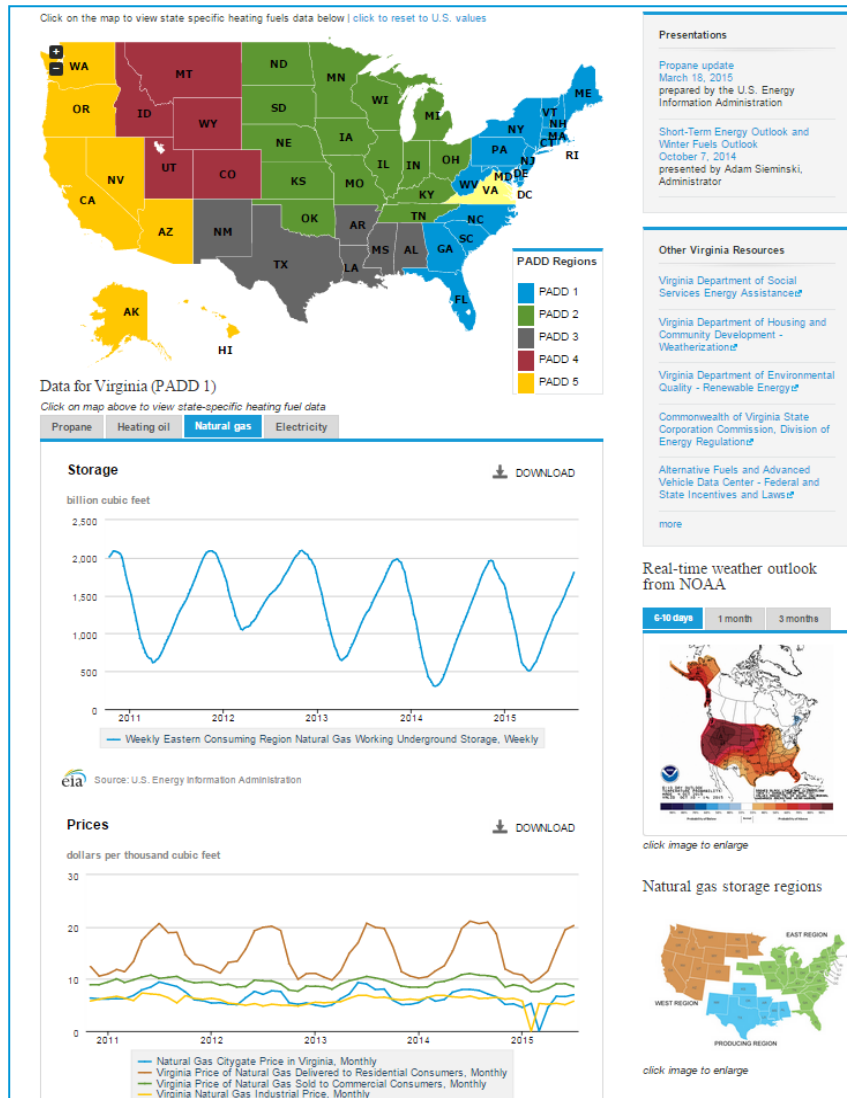
Website Technical Inquiries
wmaster@eia.gov

Coming for a visit?

The closest [Metrorail](#) stops are Smithsonian or L'Enfant Plaza.

(If driving, limited metered parking is available, but finding a space is difficult.)

Winter Heating Fuels Webpage



www.eia.gov/special/heatingfuels

- Availability and pricing for the four principals heating fuels
 1. propane
 2. heating oil
 3. natural gas
 4. electricity
- Data relevant to each state available through clickable map
- Links to resources for each state
- Current week and 3-month weather forecasts from NOAA
- Every graph can be downloaded as an image or as a spreadsheet

For more information

U.S. Energy Information Administration home page | www.eia.gov

Winter Heating Fuels | www.eia.gov/special/heatingfuels

Short-Term Energy Outlook | www.eia.gov/steo

Annual Energy Outlook | www.eia.gov/aeo

Monthly Energy Review | www.eia.gov/mer

Today in Energy | www.eia.gov/todayinenergy

State Energy Portal | www.eia.gov/state

For more information

Write to: states@eia.gov

Visit: State Energy Portal | <http://www.eia.gov/state/>

Contact: Allen.McFarland@eia.gov State Energy Profiles Program Manager

Yvonne.Taylor@eia.gov State Energy Data System Program Manager

Barbara.Fichman@eia.gov Integrated Energy Statistics Team Leader

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