

EIA's winter energy disruptions resources



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Independent Statistics & Analysis
U.S. Energy Information
Administration

The nation's source of energy information

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, EIA's data, analyses, and forecasts are independent of approval by any other officer or employee of the U.S. Government.

The screenshot shows the EIA website interface. At the top, there is a navigation bar with the EIA logo, the text 'Independent Statistics & Analysis U.S. Energy Information Administration', and links for 'Sources & Uses', 'Topics', and 'Geography'. A search bar is also present. Below the navigation is a large banner image of a road with power lines, overlaid with a 'Short-Term Energy Outlook October 2019' box. The main content area is divided into several sections: 'What's New' with links to reports like 'Monthly Solar Photovoltaic Module Shipments Report'; 'Today in Energy' featuring an article on 'Northeast natural gas spot prices fall as pipelines fill' and a line chart showing 'Daily natural gas prices for select trading hubs' from April 2018 to October 2019; and 'Data Highlights' with key statistics such as 'WTI crude oil futures price' at \$53.59/barrel and 'Natural gas inventories' at 3,415 Bcf. A 'Coming Up' section lists upcoming reports like 'Natural Gas Annual'.



EIA's data collection and analytical products cover all energy sectors

Reserves, production, & trade

Crude oil
Natural gas
Natural gas liquids
Coal
Uranium

Transformation, distribution, & storage

Petroleum & biofuel refiners
& terminals
Natural gas storage & distribution
Electricity generation & distribution

End-use consumption

Commercial
Residential
Industrial
Transportation



EIA's tools provide information about winter energy disruptions

- Energy Disruptions page
- U.S. Energy Mapping System
- Winter Fuels Outlook
- This Week in Petroleum
- State Heating Oil and Propane Program
 - Winter Heating Fuels
- New England Dashboard
- Natural Gas Storage Dashboard
- Hourly Electric Grid Monitor
- State Energy Portal
- Southern California Daily Energy Report

ENERGY DISRUPTIONS

The map below is intended to help identify potential threats to energy infrastructure from significant storms and other weather events, flooding, wildfires, and earthquakes. Use the Layers/Legend panel to access all the available map layers.

Energy Infrastructure with Active Storms and Other Hazards



- ◆ Layer information and map data
- Map questions, comments and suggestions: mapping@eia.gov
- 1 U.S. Energy Mapping System
- 2 Energy Disruptions
- 3 Flood Vulnerability
- 4 State Energy Profiles
- 5 Gulf of Mexico Fact Sheet
- 6 Major Oil and Gas Plays



Resources

U.S. Energy Information Administration

- Hourly Electric Grid Monitor
- Daily Wholesale Energy Prices
- Gasoline and Diesel Fuel Update
- Weekly Petroleum Status Report
- This Week in Petroleum
- Natural Gas Weekly Update
- Winter Fuels Outlook
- Heating Oil and Propane Update
- Energy Market Alert
- Previous hurricane and significant storm reports

EIA State and Regional Dashboards and Data

- State Energy Portal
- New England Dashboard
- Southern California Daily Energy Report
- Natural Gas Storage Dashboard

EIA Regional Transportation Fuel Market Primers

- East Coast and Gulf Coast
- Midwest and Rocky Mountain
- West Coast
- Gulf of Mexico Fact Sheet

U.S. Department of Energy

- Emergency Situation Reports[†]

National Oceanic and Atmospheric Administration

- National Weather Service[†]
- National Hurricane Center[†]

Bureau of Safety and Environmental Enforcement

- Hurricane Information[†]

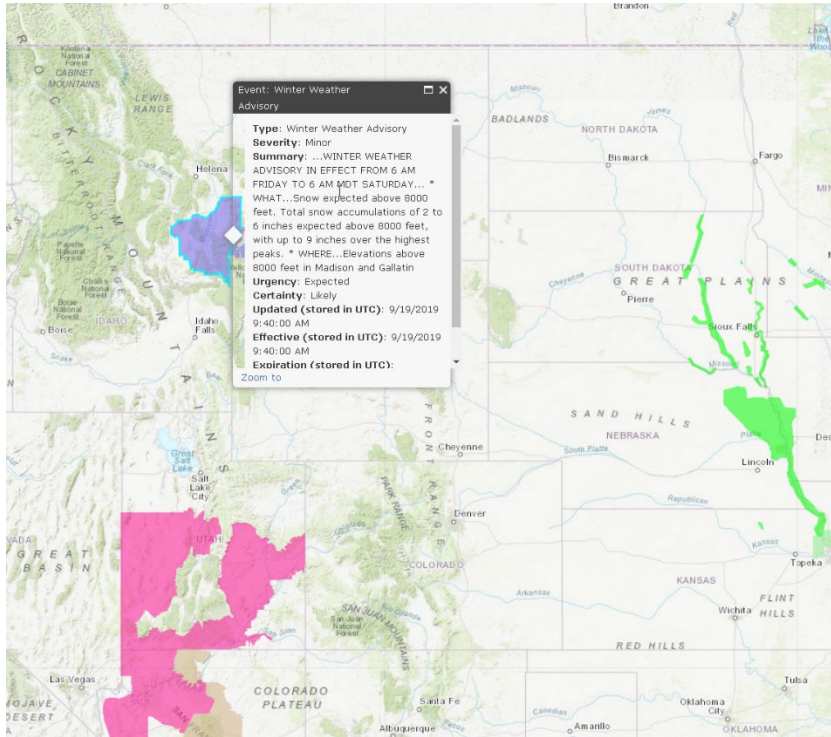
U.S. Nuclear Regulatory Commission

- Power Reactor Status Reports[†]

Today in Energy

ENERGY ANALYSIS EVERY WEEKDAY
Hurricane Irma cut power to nearly two-thirds of Florida's electricity customers

EIA's mapping layers can assess disruptions and energy infrastructure



- The disruption layers of EIA's U.S. Energy Mapping System provide real-time updates on many conditions
 - Extreme cold notices
 - Wildfires
 - Active storms, including projected paths
 - Wind force probability and wind speed
 - U.S. Geological Survey seismic data
 - Flooding
 - Warnings, watches, and advisories

EIA's *Winter Fuels Outlook* forecasts the average consumer prices and expenditures for heating fuels during the winter

Table WF01. Average Consumer Prices and Expenditures for Heating Fuels During the Winter
U.S. Energy Information Administration | Short-Term Energy Outlook - October 2019

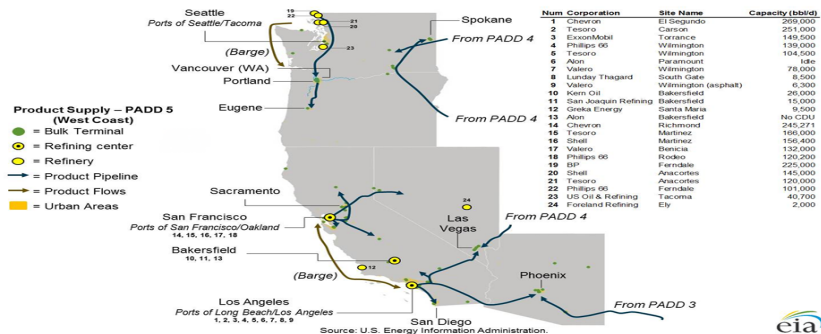
Fuel / Region	Winter of							Forecast	
	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	% Change
Natural Gas									
Northeast									
Consumption (Mcf**)	64.7	71.7	72.3	57.4	61.5	65.2	66.8	65.0	-2.6
Price (\$/mcf)	11.71	11.52	10.80	10.18	10.70	11.37	11.70	10.95	-6.4
Expenditures (\$)	757	826	780	584	659	742	781	712	-8.8
Midwest									
Consumption (Mcf)	73.5	84.2	79.1	63.6	64.8	73.9	77.0	72.6	-5.6
Price (\$/mcf)	8.34	8.68	8.54	7.55	8.28	7.84	7.83	8.42	7.5
Expenditures (\$)	614	731	676	480	536	579	603	611	1.5
South									
Consumption (Mcf)	46.6	52.7	50.9	40.3	37.9	45.6	46.0	45.8	-0.5
Price (\$/mcf)	10.67	10.71	10.75	10.72	12.04	11.27	10.69	11.20	4.8
Expenditures (\$)	497	564	547	432	457	513	492	513	4.3
West									
Consumption (Mcf)	47.5	45.2	40.1	44.7	45.6	43.8	48.8	46.6	-4.4
Price (\$/mcf)	9.13	9.96	10.71	9.92	10.68	10.24	10.26	10.56	2.9
Expenditures (\$)	433	450	430	443	487	448	501	492	-1.7
U.S. Average									
Consumption (Mcf)	58.4	63.9	60.7	51.8	52.9	57.6	60.2	57.8	-3.9
Price (\$/mcf)	9.71	9.95	9.89	9.28	10.06	9.82	9.76	10.03	2.8
Expenditures (\$)	567	636	600	481	533	565	588	580	-1.3
Heating Oil									
U.S. Average									
Consumption (gallons)	493.0	547.5	548.2	436.6	468.2	495.4	512.0	497.8	-2.8
Price (\$/gallon)	3.87	3.87	3.04	2.06	2.41	2.78	3.07	3.02	-1.7
Expenditures (\$)	1,910	2,121	1,668	900	1,128	1,376	1,570	1,501	-4.4
Electricity									
Northeast									
Consumption (kWh****)	8,299	8,879	8,927	7,705	8,050	8,344	8,480	8,333	-1.7
Price (\$/kwh)	0.152	0.163	0.168	0.164	0.165	0.169	0.169	0.167	-1.1
Expenditures (\$)	1,264	1,448	1,501	1,263	1,324	1,406	1,431	1,391	-2.8
Midwest									
Consumption (kWh)	10,344	11,363	10,816	9,365	9,479	10,381	10,716	10,253	-4.3
Price (\$/kwh)	0.111	0.112	0.118	0.122	0.124	0.124	0.123	0.125	1.7

- EIA's Winter Fuels Outlook highlights:

- Availability and pricing for the four principals heating fuels
 1. Propane
 2. Heating oil
 3. Natural gas
 4. Electricity
- Data relevant to each region available through an interactive map
- Links to resources for each state
- Current week and three-month weather forecasts from NOAA
- Every graph can be downloaded as an image or as a spreadsheet
- Updated estimates of key energy processes such as demand, production, and storage based on *Short-Term Energy Outlook* data

EIA's petroleum analysis can highlight market adjustments following supply disruptions

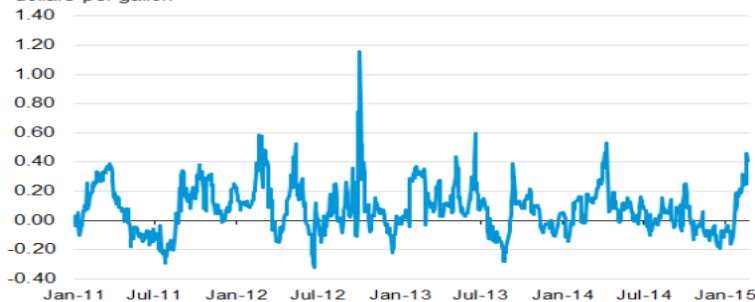
Figure 1. West Coast petroleum product supply map



• *This Week in Petroleum* analyses focus on many types of disruptions:

- Refinery outages
- Crude and petroleum product pipeline leaks
- Chokepoints
- Shipping/transit issues
- Petroleum by rail incidents
- Supply chain issues
- Quality/grade mismatches
- Geopolitical incidents

Figure 2. LA CARBOB minus front month NYH RBOB dollars per gallon

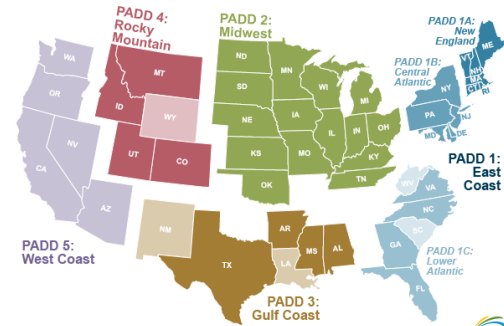


Source: U.S. Energy Information Administration, based on Thomson Reuters.

The State Heating Oil and Propane Program (SHOPP) offers weekly status reports during the heating season

- SHOPP is a joint effort between state energy offices and EIA to collect and publish weekly residential heating oil and propane prices each winter
- As part of the weekly Winter Propane Market Update, EIA publishes detailed propane inventories each week along with SHOPP price data and other information relevant to propane market
- In addition to helping consumers, these data help federal and state agencies respond quickly to shortages or other supply disruptions

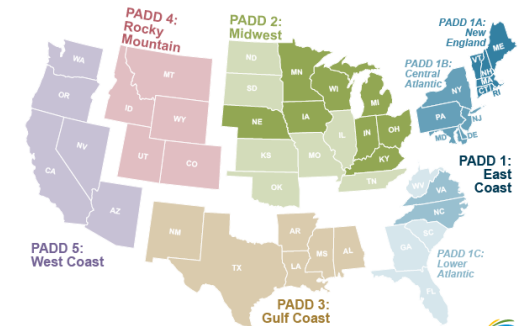
Petroleum Administration for Defense Districts
Winter Heating Fuels Survey — PADD 1, 2, 3, and 4 represented States



PROPANE

PADD 1: East Coast PADD 1A: New England PADD 1B: Central Atlantic PADD 1C: Lower Atlantic Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	PADD 2: Midwest Illinois Indiana Iowa Kansas Kentucky Michigan Minnesota Missouri Nebraska North Dakota Ohio Oklahoma South Dakota Tennessee Wisconsin	PADD 3: Gulf Coast Alabama Arkansas Mississippi Texas	PADD 4: Rocky Mountain Colorado Idaho Montana Utah
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Petroleum Administration for Defense Districts
Winter Heating Fuels Survey — PADD 1 and 2 represented States



HEATING OIL

PADD 1: East Coast PADD 1A: New England PADD 1B: Central Atlantic PADD 1C: Lower Atlantic Connecticut Maine Massachusetts New Hampshire Rhode Island Vermont	PADD 2: Midwest Indiana Iowa Kentucky Michigan Minnesota Nebraska North Dakota Ohio Oklahoma South Dakota Tennessee Wisconsin	PADD 1B: Central Atlantic Delaware District of Columbia Maryland New Jersey New York Pennsylvania	PADD 1C: Lower Atlantic North Carolina Virginia
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The New England Dashboard provides information about winter natural gas and electricity peak constraints

NEW ENGLAND DASHBOARD

Last daily update: August 13, 2019 10:02 AM | Next daily update: August 14, 2019 10:00 AM (unless otherwise noted) | Commentary last updated: August 2, 2019 |

ARCHIVED REPORTS

OVERVIEW

ELECTRICITY

NATURAL GAS

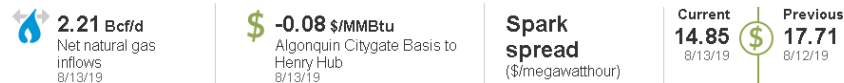
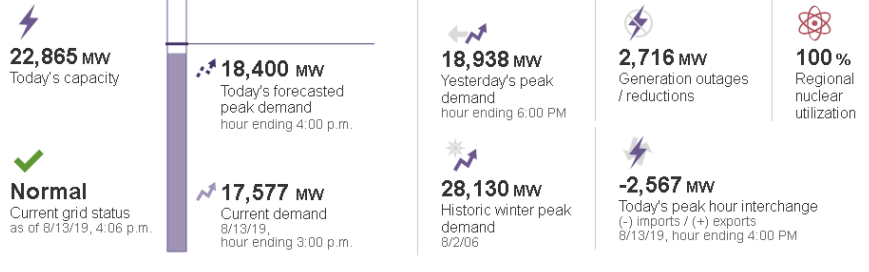
PETROLEUM

COMMENTARY

Print dashboards

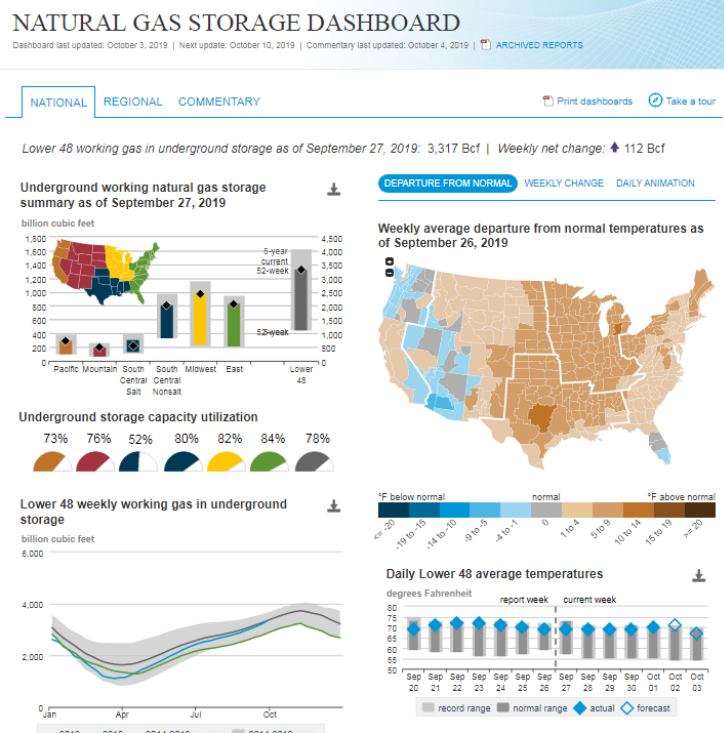
Take a Tour

8/13/19 Capacity status, megawatts (MW)



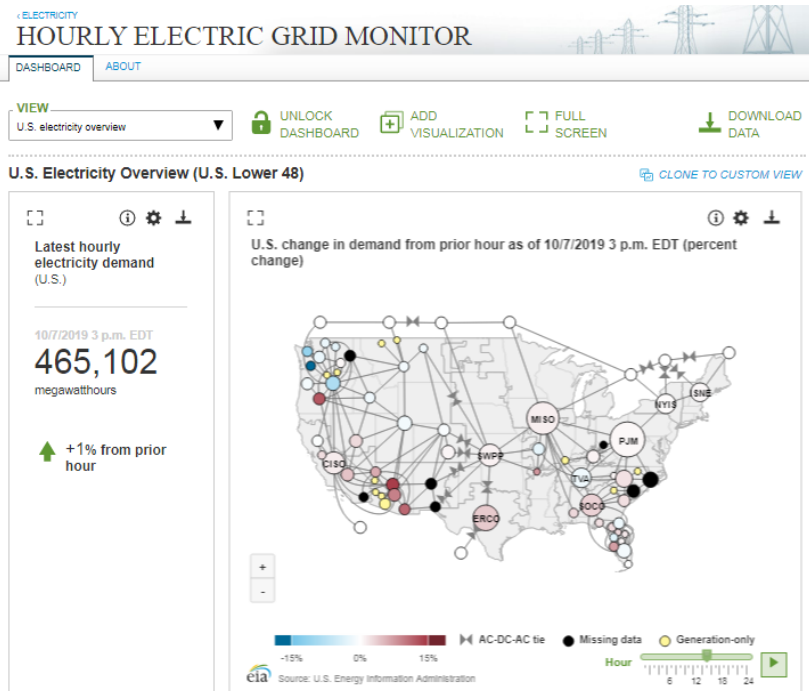
- The New England Dashboard
 - Integrates electricity, natural gas, and petroleum information
 - Helps identify constraints such as the market response to the peak demand periods during the 2017–18 bomb-cyclone event
 - Covers prices, stocks, demand, imports, fuel mix, weather, transportation and operations
 - Draws upon multiple sources of information, including some real-time data

The Natural Gas Storage Dashboard shows Lower 48 states and regional storage activity and key market fundamentals



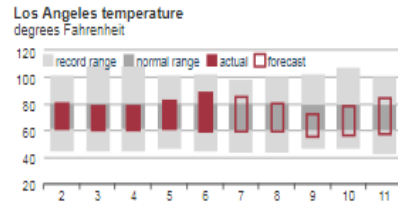
- The dashboard is built around data provided in the *Weekly Natural Gas Storage Report*, EIA's only Principal Federal Economic Indicator
- The dashboard summarizes how changes in weather, consumption, and other market data affect national and regional inventory levels
- The dashboard combines interactive visualizations, one-click access to data downloads, and context-setting commentary

EIA's Hourly Electric Grid Monitor can help analyze hurricane effects on regional load



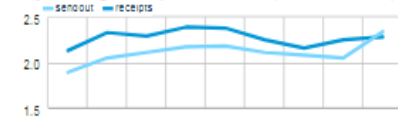
- The Hourly Electric Grid Monitor provides daily and near real-time electricity information and visualizations for 67 balancing authorities
- Key Hourly Electric Grid Monitor data includes actual/forecast load, net generation by energy source, and net interchange between balancing authorities
- EIA's Hourly Electric Grid Monitor data is helpful in examining disruptions that affect electricity supply and demand such as cold snaps, storms, fires, and outages

EIA's Southern California Daily Energy Report can assess interrelated energy market fundamentals in Southern California

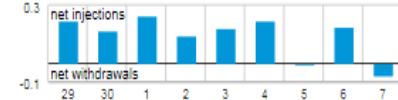


Southern California Gas (SoCalGas)

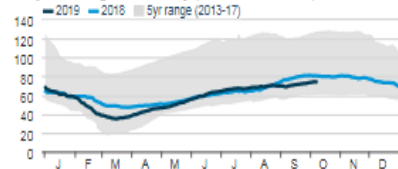
Daily natural gas receipts and sendout (billion cubic feet)



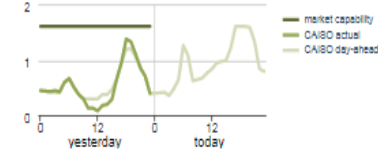
Daily net inventory change (billion cubic feet)



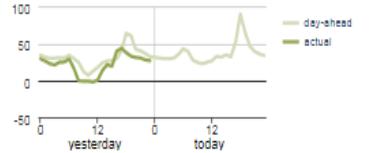
Daily natural gas inventory (billion cubic feet)



Pacific DC Intertie electricity flows to CAISO (GWh)

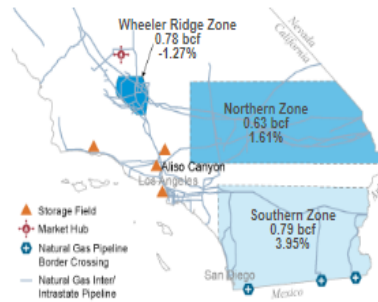


SP-15 locational marginal price (\$/MWh)



Southern California natural gas infrastructure

Total receipts: 2.20 bcf change from previous day: 1.38%

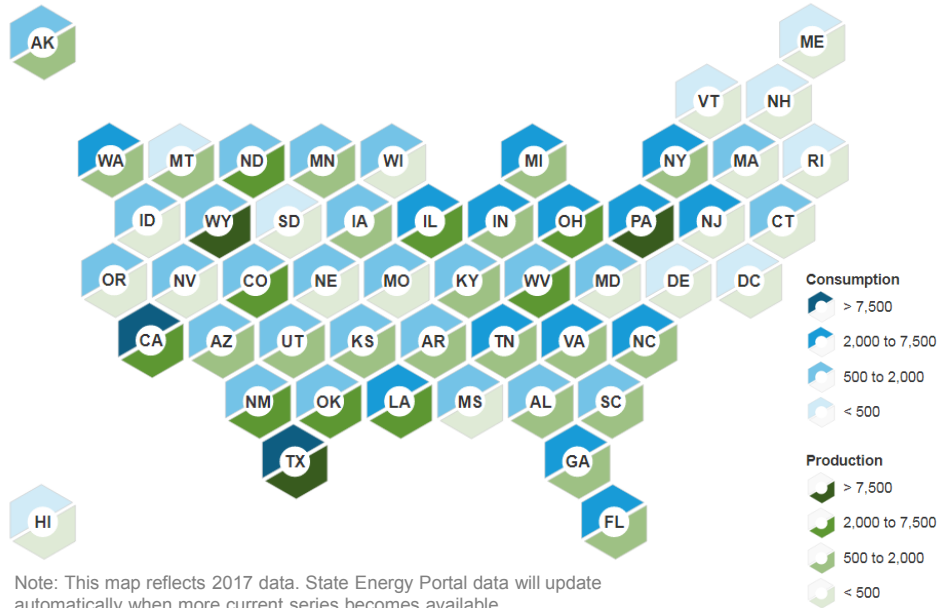


- EIA's *Southern California Daily Energy Report* highlights how changes in temperatures can influence
 - Natural gas demand relative to supplies
 - Natural gas storage activity and stocks
 - Regional natural gas and electricity imports
 - Wholesale natural gas and electricity prices
 - Electricity loads

EIA's State Energy Portal provides the overall energy context for your state

Total energy production and consumption by state

trillion British thermal units (tBtu)



Note: This map reflects 2017 data. State Energy Portal data will update automatically when more current series becomes available.

Source: U.S. Energy Information Administration, [State Energy Portal \(beta\)](#)

Use the State Energy Portal to

- Access more than 1,700 state- and regional-level data series
- Create-your-own interactive dashboards from more than 150 customizable charts and maps
- Review data applicable to energy disruptions on a pre-curated resiliency and reliability dashboard
- Embed charts that update automatically to your own website

For more information

- [U.S. Energy Information Administration](#)
- [Energy Disruptions page](#)
- [U.S. Energy Mapping System](#)
- [Winter Fuels Outlook](#)
- [This Week in Petroleum](#)
- [State Heating Oil and Propane Program](#)
- [Winter Heating Fuels](#)
- [New England Dashboard](#)
- [Natural Gas Storage Dashboard](#)
- [Hourly Electric Grid Monitor](#)
- [State Energy Portal](#)
- [Southern California Daily Energy Report](#)

A complete set of links to recently introduced EIA tools can also be found at <https://www.eia.gov/tools/>

Contact Us

- [Marcela Bradbury](#), Petroleum Marketing and Downstream Natural Gas Team
- [Hannah Breul](#), Petroleum Markets Analysis Team Lead
- [Chris Peterson](#), Senior Market Analyst
- Map questions, comments and suggestions: mapping@eia.gov