

What's happening in the Energy Division?

Effective July 7th is a rule revision for the method of determining whether a qualifying utility is eligible to use the no-growth compliance method under RCW 19.285.040 (2) (d) of the [Energy Independence Act](#).

Commerce held a hearing on July 30th for the establishment of the Low-Income Home Rehabilitation Revolving Loan Program.

Clean Energy Fund – Non-Profit Lender grants through the [Revolving Loan Fund](#). Applications are closed, evaluations will be from Aug 7-21 with announcements expected around September 4th.

We contracted out \$1 million in lead remediation funding for use in households with children with diagnosed blood lead levels.

Governor Inslee visited Northwest Community Action Center on July 25 to learn more about the benefits and impacts of their Weatherization Plus Health program. NBC News (local) [has a story on the visit](#) with a 1 minute video clipping featuring supportive statements by the Governor on the health benefits of Weatherization Plus Health.

On July 25th, Governor Inslee also visited Zillah Lakes Inn with Craft3 and State Energy Office staff to learn more about how our Grants to Non-Profit Lenders program generates loans for clean energy projects.

[Fuel Mix Disclosure](#): on July 6th the Data Portal opened for utilities, with data due no later than August 31st.

[Utility Resource Planning](#): the work began on June 25th, with utility reports due by September 1st.

[Greenhouse Gas Emissions Performance Standards](#) Rulemaking: there will be a second hearing on changes to the proposed rules on August 23rd, 10-11 at Commerce.

Clean Energy Fund – [Research, Development and Demonstration](#) (RD&D) grants were open for pre-applications on July 17th with a close date of August 31. [Application Guidelines](#) are on the web. Successful pre-applicants will be notified by September 11th and full-applications will be due October 2nd. Final decisions on applications will be made by November

6th with awards announced around November 15th.

Clean Energy Fund – [Grid Modernization](#) work is progressing well and we are expecting to announce the opening for applications in late September.

Clean Energy Fund – Solar Deployment is also expecting to announce their open application period in late September.

Clean Energy Fund – Electrification of Transportation program and webpage are being built and we are expecting to open for applications in January 2019.

[Energy Efficiency and Solar](#) grant work is ongoing with an estimated opening for applications in late August.

The Housing Improvements and Preservation Unit is working with the National Association for State Community Services Programs to host their [annual conference on September 17-21](#). Commerce will present Pilot Programs with work on Weatherization Plus Health.

Notice of Funding Opportunity—RD&D Program

Commerce has published a Notice of Funding Opportunity for eligible Energy Research, Development and Demonstration (RD&D) projects under the Clean Energy Fund program. Applicant's must be Washington-based entities seeking funds for clean energy projects.

Initial applications are due on **August 31, 2018**.

All documents can be found on the [Energy RD&D](https://www.commerce.wa.gov/growing-the-economy/energy/clean-energy-fund/energy-rdd-clean-energy-fund/) webpage at <https://www.commerce.wa.gov/growing-the-economy/energy/clean-energy-fund/energy-rdd-clean-energy-fund/>

Energy Efficiency and Solar Grants Funding

The Energy Division's, Energy Contracts and Programs (ECAP) Unit anticipates opening the Energy Efficiency and Solar Grants application period by the end of August. The application period will be open for a minimum of 6 weeks. A bidder's conference will be announced and held as a webinar.

As we receive questions, we will publish and update a Frequently Asked Questions document. For more information on the grants, please visit: <https://www.commerce.wa.gov/growing-the-economy/energy/energy-efficiency-and-solar-grants/>

NASCSP 2018 Annual Training Conference

The WA State Department of Commerce is proud to host the [NASCSP 2018 Annual Training Conference](#), September 17-21, 2108 in Bellevue.

Hundreds of community action workers and government staff will come to Seattle to get valuable experience from national experts working in Weatherization and Community Services Block Grant programs.

Attendees will get to meet and learn from their peers so they can return to their programs prepared and inspired to help their communities. Training will include ways to improve performance, increase accountability, and creating new ways to meet the challenges of poverty and weatherization.

New Staff in the Energy Division

Brooke Harris is our new Housing Improvements and Preservation Innovation and Program Development Manager. She comes has more than 20 years' experience administering housing rehabilitation programs for local



governments. Brooke developed a housing program for the city of San Ramon, California that won

national recognition as a best practice model and a state award for promoting social equity and environmental justice. Brooke contracted with Neighborhood Works as a reviewer evaluating and ranking urban revitalization grant applications and making recommendations for foreclosure intervention and loss mitigation counseling.

Seth Kolodziejski is our new Housing Improvements and Preservation Policy and Contracts Section Manager. Seth is comes from the Washington State University Energy Program where he has been administering Washing-



ton's renewable energy system incentive programs. Seth has an extensive background in weatherization, building science, and energy conservation programs both as a contractor and administrator. He recently graduated with a Masters of Public Administration from Evergreen State College, where his research focus was on residential battery storage in the Washington marketplace and conducting an internal efficiency analysis of the Utilities and Transportation Commission.

Current staff member **Rachel Revisky** is now the Housing Improvements and Preservation Data



and Performance Manager.

Geographic Eligibility of Renewable Resources under the Washington Renewable Portfolio Standard

By Glenn Blackmon, Ph.D.

Washington's Energy Independence Act (EIA) requires that electric utilities over a certain size use renewable resources for a portion of the energy that they deliver to their retail customers. The EIA provides flexibility to utilities in the renewable resources that they can use to meet this requirement. However, like every other state renewable portfolio standard (RPS), the EIA also includes limitations on eligibility. Not just any renewable resource is eligible under the EIA. This article explains the geographic limits on renewable resource eligibility under the EIA.

The basic standard for geographic eligibility is that the renewable resource must be from a generating facility in the Pacific Northwest. So what is the "Pacific Northwest"? Is Montana in or out? Does it include British Columbia? Can a utility use a wind resource in Wyoming or a geothermal resource in Nevada?

Commerce staff get questions like this frequently, and it seems that the volume of questions is going up over time as more companies get into the business of providing renewable energy to utilities and consumers.

The "Pacific Northwest" definition: A complex mix of hydrology, history, and state boundaries

Anyone who looks up the geographic eligibility definition in the EIA statute ([Chapter 19.285 RCW](#)) will discover the answer is not in state law. When the EIA was created, it used a geographic definition borrowed from a [1980 federal law](#) that established the Pacific Northwest Electric Power and

Conservation Planning Council.

This federal definition is a complicated mixture of political boundaries, hydrologic boundaries, and legacy service areas of various rural electric cooperatives. Here is the full definition in federal law:

"Pacific Northwest", "region", or "regional" means—

(A) the area consisting of the States of Oregon, Washington, and Idaho, the portion of the State of Montana west of the Continental Divide, and such portions of the States of Nevada, Utah, and Wyoming as are within the Columbia River drainage basin; and

(B) any contiguous areas, not in excess of seventy-five air miles from the area referred to in subparagraph (A), which are a part of the service area of a rural electric cooperative customer served by the Administrator on December 5, 1980, which has a distribution system from which it serves both within and without such region.

The most obvious part of this definition is where it refers to specific political boundaries: The entire states of Washington, Oregon, and Idaho are eligible. Any renewable generating unit anywhere in those states meets the geographic eligibility standard. Also, the definition rules out any project in Canada, since only states or portions of states are included.

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Geographic Eligibility of Renewable Resources ~ continued from previous page

From there, the definition gets considerably more complicated. It relies on the physical boundaries of the Columbia River drainage basin, which includes both the Columbia River itself and all of the streams that directly or indirectly flow into it. This boundary would be complicated enough, but it is then expanded by the “contiguous areas” provision. This provision adds the areas where any rural electric cooperative was serving customers back in 1980, as long as that area is not any further than 75 miles from the river-based boundary.

The EIA geographic boundary includes only small portions of Wyoming, Nevada, Utah, and California

The EIA geographic definition is so complicated that few people would ever understand it. It specifically mentions seven states, and that makes the eligible area seem broader than it really is.

This misunderstanding is most common for Wyoming, Nevada, Utah, and California. These states are mentioned in the definition, but the actual eligible area is actually very small. For example, in California, it is just the area in the extreme northeast corner of the state, where [Surprise Valley Electrification Corp.](#) is the local utility. Most of those

four states are outside the EIA’s geographic eligibility boundary.

BPA’s customer map is our best guide to geographic area

The most complicated portions of the Pacific Northwest definition are connected to the service areas of the utility customers of the Bonneville Power Administration (BPA). Therefore Commerce has found that BPA’s map of its customer service areas provides the best guide in figuring out whether a particular spot on the ground is inside or outside the official “Pacific Northwest” area. BPA’s team of cartographers (or geographic information system specialists) has produced a map that outlines the service area. A snapshot is shown here, but the best way to use the map is [online](#), using the zoom feature to examine specific locations. (Select the “BPA Service Area” layer and unselect anything else.)

Users should keep in mind the [legal disclaimers](#) that come with the BPA customer map, but it provides the best available information on what’s in and what’s out under the Washington EIA.

Even this complicated “Pacific Northwest” definition has exceptions

Continued on next page.

BPA Customer Map



Geographic Eligibility of Renewable Resources ~ continued from previous page

A further challenge in sorting out geographic eligibility is that in some cases, the “Pacific Northwest” boundary does not actually matter. These exceptions are:

Hydroelectric facilities in pipes and canals –

The geographic eligibility of these projects is restricted to facilities in Washington.

Multi-state utilities – A utility that operates in states other than Washington may use renewable resources in another state where it has customers. For example, PacifiCorp has used wind energy from Wyoming projects that are located outside the Pacific Northwest boundary. This provision does not apply to hydro facilities, and the utility must own or have a long-term purchased power contract for the renewable resource.

Power delivered into Washington on a real-time basis – The geographic boundary does not apply if the electricity is “delivered into Washington state on a real-time basis without shaping, storage, or integration services.” This provision does not apply to hydro facilities.

The real-time delivery exception is pretty arcane, and the EIA statute does not define any of the terms used there. However, Commerce issued an [advisory opinion](#) in 2016 that ties this provision to the techniques electric utilities use to manage the electric power transmission system. It provides an approach that a project owner and a Washington utility could use to qualify an out-of-region resource under the EIA. A [recent study](#) by BPA and its partners concluded that by using this approach, developers could likely build wind projects in eastern Montana and eligible real-time deliveries of the electricity into Washington that would be eligible under the Washington EIA.

A more straightforward definition would be helpful

The BPA map is a helpful resource, but even better would be a less complicated definition. The definition is opaque to the companies that develop new renewable energy projects, and even the staff at

Washington utilities often need help in figuring out what is eligible and what is not. It is too easy to reach an incorrect conclusion about whether a resource in California, Utah, Nevada, Wyoming, or Montana is eligible.

It also is hard to see any public purpose being served by having such a complex geographic boundary. The limit on geographic eligibility is meant to support the development of renewable resource that are reasonably close to Washington’s customers. That purpose could be served with a simple boundary based on state lines. For example, the geographic eligibility boundary could include the entire states of Washington, Oregon, Idaho, and Montana. This would remove the small slices of Nevada, Utah, California, and Wyoming while adding the eastern side of Montana. □

Events Coming Soon

[Electrification 2018](#)—Long Beach CA, Aug 20-23

[2018 Energy Exchange and Better Buildings Summit](#)—Cleveland OH, Aug 21-23

NASCSP 2018 Annual Training Conference, Bellevue WA, Sept 17-21

[2018 Washington State Solar Summit](#)—Bellevue WA, Oct 19

[The R&D 100 Conference](#)—Orlando FL, Nov 15-16



Energy Headlines

Electrification

[Leading the charge: Inslee promotes an electric transportation future](#)

[Grant awarded to WWU professor researching fuel from light energy](#)

[“Electrification of Everything” Would Spike U-S Electricity Use, but Lower Final Energy Consumption](#)

[Global EV Outlook 2018](#)

Renewables

[Will lower cost renewables and natural gas accelerate PacifiCorp’s generation transition?](#)

[Liquid metal battery could lower cost of storing renewable energy](#)

[Renewable Standards Help Drive Energy and Economic Development](#)

[New Resource Shows Challenges and Advances in Renewable Energy Integration](#)

[The \\$3 Billion Plan to Turn Hoover Dam Into a Giant Battery](#)

Solar

[State board Oks Kittitas County solar farm; final decision up to Inslee](#)

[Designing a ‘solar tarp,’ a foldable, packable way to generate power from the sun](#)

[Solar Farms Could Heat Up Economy in the Yakima Valley](#)

Energy Efficiency & Health

[Gov. Inslee stops in Toppenish to learn about link between energy efficiency and healthGov.](#)

[Inslee visits the Yakima Valley to speak about the community’s health](#)

Waste Energy

[Department of Defense Explores Waste-to-Energy](#)

Other

[Puget Sound Energy looks elsewhere for Power as Pollution](#)

[Test Failure Idles most of Montana Coal Plant](#)

[Microsoft wants to add 72 generators at Quincy Data Center](#)

[Phi Suea House’s Better Energy Storage System](#)

[Governor visits Zillah Inn](#)

[“Cleanwashing: How States Count Polluting Energy Sources as Renewable”](#)

[Rural Households Spend Much More of Their Income on Energy Bills than Others](#)

[The Global Energy System is Becoming More Electric, But Not Fast Enough](#)

[Appliance standards create jobs — in every US state](#)

Videos

[Rural Energy Burden](#)



Energy Price Overview



River & Snow Pack Report

Observed July stream flow
at The Dalles: 78% of average.

Observed July precipitation
above The Dalles: 16% of average.

Est. 2018 Final runoff at The Dalles (Jan.—August):

119.5 million acre-feet
118% of normal

Estimated regional snow-pack: n/a

Federal hydropower generation in June:

7,826 aMW
5-year average: 7,750 aMW.

Reservoir content (Libby, Hungry Horse, Grand Coulee, Dworshak) in June:

89.1%
5-year average: 90.2%.

Petroleum: In July, crude oil prices increased about 6% relative to the June average. The increase was variously attributed to rising demand, which is typical during the summer months. Production problems in a couple of other nations also might be a factor. The average West Texas Intermediate price for June was \$71.0 per barrel.

Transportation Fuels: Transportation fuel prices at the national level declined slightly during July, as fuel inventories crept up, but showed signs of stability at the end of the month.

The national average gasoline price is about 50 cents per gallon higher than last year at this time. National gasoline and diesel at the end of July were \$2.85 and \$3.23 per gallon respectively.

Washington state average gasoline price for the same period (relative to the last week of May) decreased by 3 cents, to \$3.40 per gallon, while diesel increased 4 cents to \$3.55 per gallon.

Natural Gas: The average Henry Hub natural gas price for July increased slightly to \$2.82 per MMBtu.

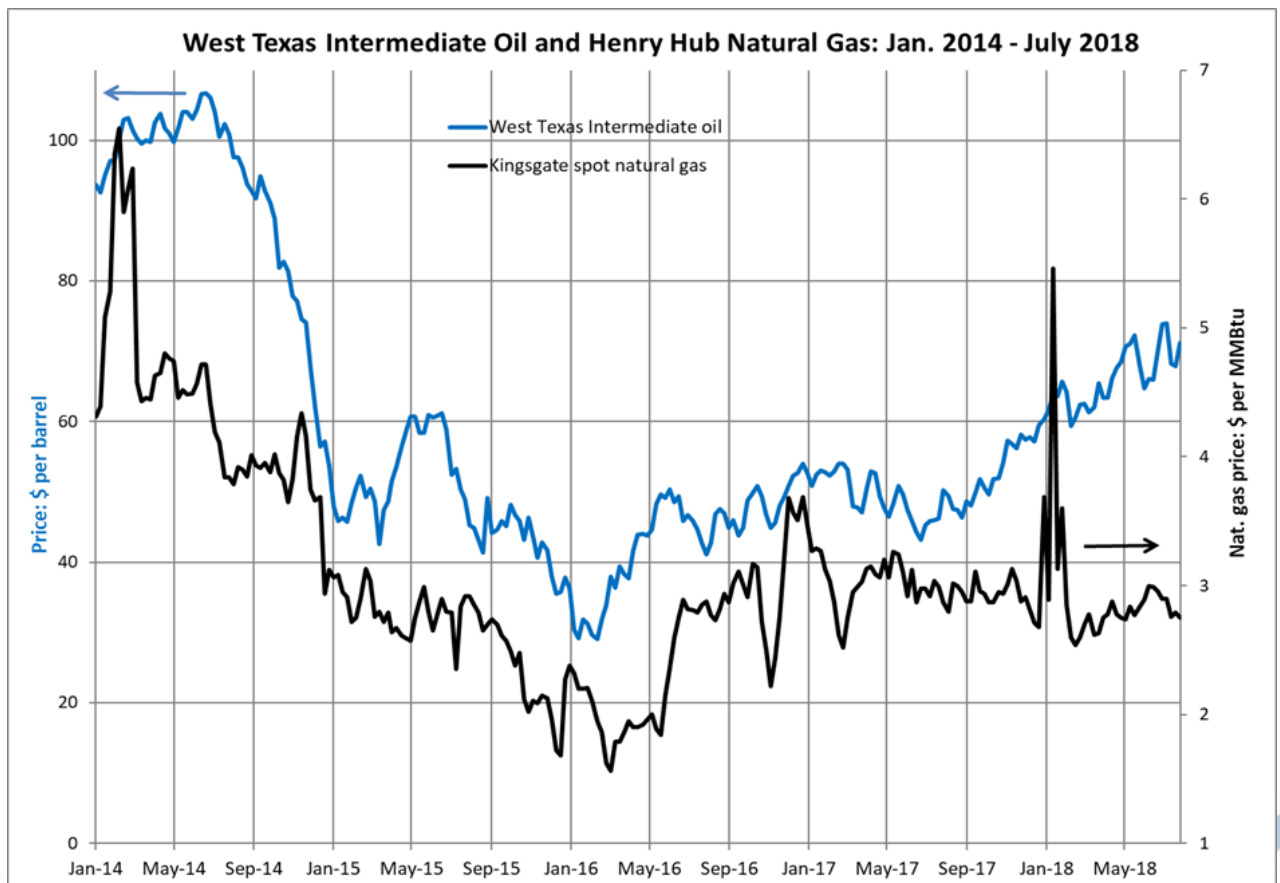
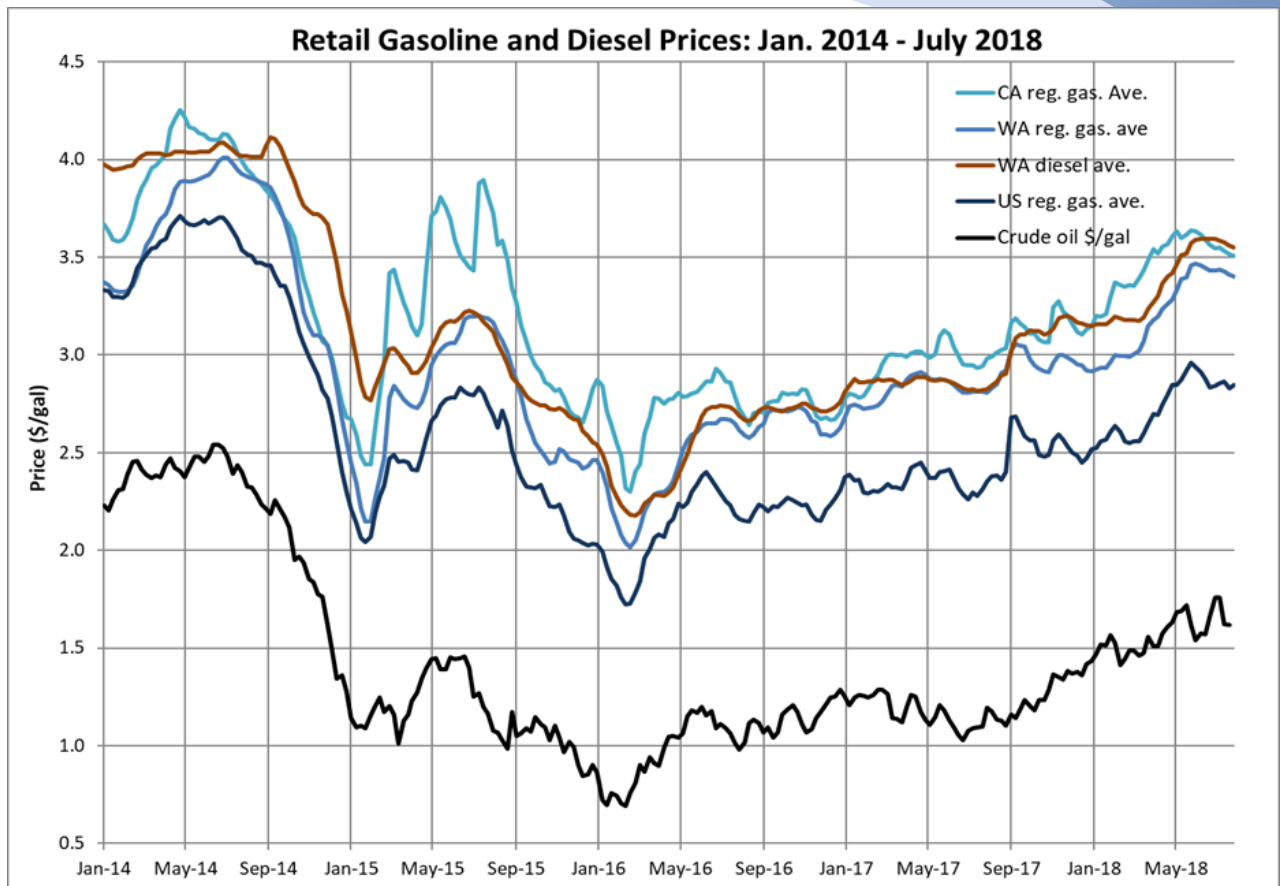
Locally, the average natural gas spot price at the Sumas hub, relative to the previous month, increased 42 cents for July and

averaged \$2.19 per MMBtu.

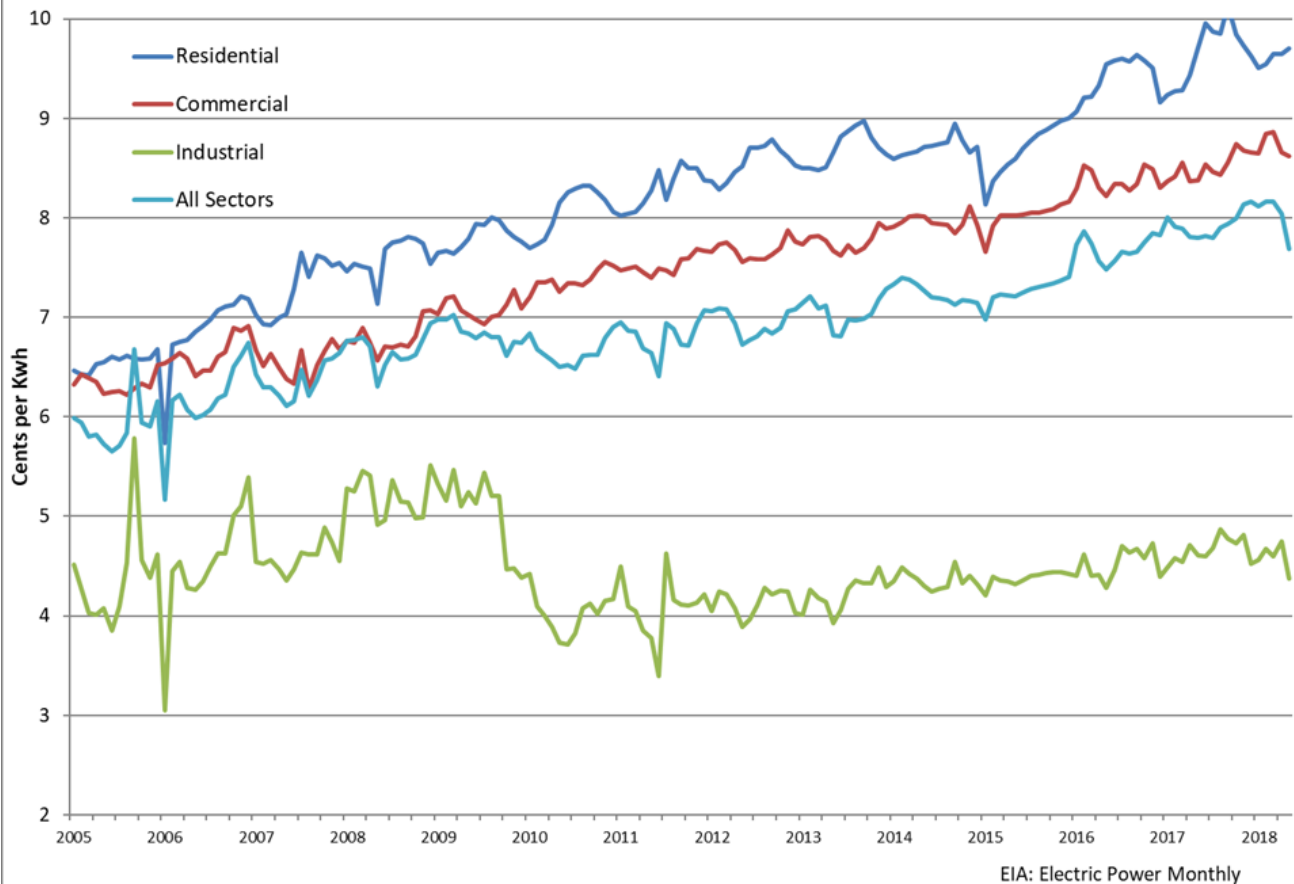
National gas storage levels increased 35 Bcf last week and are at 2,308 Bcf: about 23% below the 5-year natural gas storage average for this time of the year.

Gas storage in the Pacific region was 20% below the 5-year average. High electricity demand has resulted in a higher burn rate of natural gas in the electric sector which has reduced the amount of gas available for storage injections.

Electricity: Northwest hydropower generation declined substantially from June but remained just above average for July compared to the 5-year average for the month. However, strong regional demand and the temporary shutdown of Colstrip units 3 & 4 for emission related reasons conspired to push electricity prices up for the month. The Mid-Columbia spot (peak) market price was up sharply and averaged just over \$71 per MWh during July compared to \$18.1 per MWh in June and \$31.8 per MWh in July 2017. The current forecast 2018 river runoff is at 118% of normal and reservoir levels are slightly below normal for this time of year: see River and Snowpack report.



Washington State Electricity Rates by Sector: Jan. 2005 - May 2018



Energy Price Summary, July 2018	Current	Month Ago	Year Ago
Monthly Range at Mid-C (Peak: \$ per MWh)	19.8-250	-1-24	18-95
Average Mid C price (Peak hours \$ MWh, current month)	71.0	18.1	31.8
Electricity WA Ave. Retail: May (cents/kWh)	7.69	8.04	7.80
Natural gas Kingsgate spot price (next day: \$ per million BTU)	2.19	2.25	2.35
Natural gas Sumas futures price (next month \$ per million BTU)	2.33	2.00	2.53
Natural gas Sumas monthly average: May (\$ per million BTU)	1.58	2.00	2.63
Natural gas H.H. futures (NYMEX next month: \$ per million BTU)	2.82	2.95	2.96
E85 (national average: \$ per gallon gasoline)	2.83	2.89	2.32
Ethanol (CBT next month contract: \$ per gallon)	1.46	1.42	1.55
Corn (CBT next month contract: \$ per bushel)	3.86	3.52	3.85
Petroleum, West Texas Intermediate futures (\$ per barrel)	71.0	66.7	46.7
Seattle gasoline price (\$ per gallon, last week of the month)	3.47	3.50	2.87
Gasoline futures (NYMEX next month: \$ per gallon)	2.10	2.10	1.56
State diesel price (\$ per gallon, last week of the month)	3.55	3.59	2.83
Heating oil futures (NYMEX next month: \$ per gallon)	2.14	2.16	1.52
U.S. residential propane price report (\$ per gallon)	2.14	2.16	1.65
Clean Cities: Alternative Fuel Price Report, April 2018	Current qtr US avg	Current qtr west coast	Last qtr avg west coast
Ethanol E85 (\$ per gas gallon equiv.)	2.87	3.52	3.29
Biodiesel B20 (\$ per diesel gallon equiv.)	2.93	3.08	3.07
Biodiesel B99-100 (\$ per diesel gallon equiv.)	3.81	3.93	3.97
Compressed Natural Gas (\$ per gas gallon equiv.)	2.18	2.48	2.45
Propane (\$ per gas gallon equiv.)	3.88	4.21	4.06

U.S. Energy Information Administration

- [Annual Energy Outlook 2018](#)
- [Electric Power Monthly](#)
- [Monthly Biodiesel Production Report](#)
- [Monthly Crude Oil and Natural Gas Production](#)
- [Monthly Energy Review](#)
- [Monthly Solar Photovoltaic Module Shipments](#)
- [Natural Gas Monthly](#)
- [Petroleum Marketing Monthly](#)
- [Petroleum Supply Monthly](#)
- [Short-term Energy Outlook](#)
- [State Carbon Dioxide Emissions](#)
- [This Week in Petroleum](#)
- [U.S. Wind Turbine Database](#)

Federal Funding Opportunities

[EPA-OAR-OTAQ-18-04](#) for Tribal projects that achieve significant reductions in diesel emissions and diesel emissions exposure, particularly from fleets located in areas designated as having poor air quality. Proposals are due September 6, 2018.

[DE-FOA-0001825 Buildings Energy Efficiency Frontiers & Innovation Technologies \(BENEFIT\) - 2018](#) - Applications due August 23, 2018

[DE-FOA-0001956 Machine Learning for Geothermal Energy](#) Concept papers due August 23, 2018

[DE-FOA-0001886 RFI: Expanding Hydropower and Pumped Storage's Contribution to Grid Resiliency and Reliability](#)

[DE-FOA-0001924 Advanced Wind R&D to Reduce Costs and Environmental Impacts](#) Concept papers due August 15

[DE-FOA-0001952 Support Grants for Participation in ARPA-E Grid Optimization \(GO\) Competition Challenge 1](#) Submission deadline, Sept 7, 2018

[DE-FOA-0001965 Request for Information on H2@scale \(Hydrogen at scale\): Determining opportunities to facilitate wide-scale hydrogen adoption for energy security and economic growth](#) Submission deadline, October 31, 2018

[Tribal Energy Loan Guarantee Program](#)
#89303018RLP000005 First part submission due date: Sept. 19, 2018

[DE-FOA-0001963: RFI: National Offshore Wind Energy R&D Test Facilities](#)

Regional Power Flow		
Intertie	Average power flow	Direction
California (AC+DC)	5,423 mw	export to California
Canada (BC)	1,078 mw	export to Canada
Total	4,345 mw	export

River Data		
Data for Nov. 7	Outflow (kcfs)	Ave. outflow for last 10 years (kcfs)
(Snake) Lower Granite	35.9	35.7
(Columbia) The Dalles	127.8	158.5