Clearing Up

Energy and Utility News for the Pacific Northwest and Western Canada

Energy NewsData, Seattle & San Francisco: February 16, 2018 • No. 1838

The Week In Summary

[1] NW Condemns Trump Call to Sell BPA Grid, Charge Market Rates for Power

Condemnations of President Donald Trump's latest call to privatize BPA's transmission assets came swiftly in the Northwest after the idea appeared in his proposed fiscal year 2019 budget released Feb. 12. But unlike last year's proposal, this one also included authority to charge market rates for power, rather than the wholesale rates now mandated by federal law. ***At [10], a "looney idea," that has "zero chance of becoming law"?***

[2] Washington Carbon Tax Bill Crawling Along; Some Energy, Climate Bills Clear Cutoff

A tweaked version of Washington Gov. Jay Inslee's proposed carbon tax received a public hearing before the Senate Ways and Means Committee Feb. 15, as it took another small step toward a possible vote on the Senate floor. Meanwhile, the Feb. 14 cutoff for most other bills to have been moved to the opposite chamber has culled the multitude of energy, climate and utilities measures that once numbered nearly 90, to a mere dozen. ***At [14], bills still in play address appliance efficiency, updated state carbon emissions targets, net metering, and transportation electrification for all the other utilities.***

[3] Oregon Cap-and-Trade Bills Passed Out of Committee

A pair of cap-and-trade bills remained alive in the second week of the 2018 Oregon legislative session, after being voted out of committee Feb. 14 along party lines. The movement of Senate Bill 1507 and House Bill 4001 was a victory for climate activists, but the measures face a long journey during the short session and stiff opposition from the state's IOUs and businesses. ***At [15], the threat of a ballot initiative hangs over the cap-and-trade debate.***

[4] Despite Low Numbers, ISAB Praises Spring Chinook Recovery Efforts

Ten years after implementation of a plan to recover spring Chinook in the upper Columbia River Basin, the species still faces a high risk of extinction, according to NOAA Fisheries' most recent evaluation. The Independent Scientific Advisory Board took an in-depth look at the region's effort to recover the fish, and found the species is facing greater challenges compared with summer Chinook in the upper Columbia, and with spring Chinook in the Snake River Basin. They presented their findings to the Northwest Power and Conservation Council Feb. 13. ***At [12], ISAB scientists have several recommendations, but also praised fish managers in the upper Columbia for their recovery work.***

Inside

Energy alphabet soup got you confused?
Click here for a list of acronyms we use.

Opinion & Perspectives

Price Report

Western Prices Swing With Weather

Details on Page 6.

Energy Jobs Portal

Go to www.EnergyJobsPortal.com for the latest in regional energy career opportunities.

[5] Cowlitz PUD GM: Fundamental Market Shifts May Send BPA Over Financial Cliff

The future for BPA and the utilities that depend on it looks bleak, Cowlitz County PUD GM Steve Kern told the Northwest Power and Conservation Council at a Feb. 14 presentation in Portland. BPA's legacy of delivering cheap hydropower could be undercut by tectonic shifts in energy markets. ***At [11], immediate action is required to prevent—or at least mitigate—the danger.***

[6] Predators Eating up to 42 Percent of Returning Spring/Summer Chinook

A study by NOAA's Northwest Fisheries Science Center shows sea lions and seals have consumed a "significant" portion of returning spring/summer Chinook over the last eight years. Since 2010, biologist Michelle Wargo Rub has captured and tagged thousands of fish near the mouth of the Columbia River and tracked them to Bonneville Dam. She presented her findings to the Northwest Power and Conservation Council Feb. 14. ***At [13], the impact of predators is related to timing of the run and several other factors.***

[7] POTOMAC: Trump Infrastructure Blueprint Calls for Faster Permitting

The Trump administration's infrastructure blueprint, released Feb. 12, calls for faster project permitting, including a "one agency, one decision" framework for environmental approvals. Meanwhile, the administration's proposed energy research cuts in its 2019 budget request face a cloudy outlook in Congress. ***FERC clears way for energy storage participation in centralized wholesale power markets, at [16].***

Briefs

[8] Ray Baum, Former Oregon PUC Commissioner and Chair, Dies at 62

Ray Baum, 62, an Oregon PUC commissioner from 2003-2011, passed away Feb. 9 due to complications from prostate cancer.

Born and raised in La Grande, Ore., Baum studied at Brigham Young University and Willamette University College of Law. He was admitted to the Oregon bar in 1983 and practiced law in La Grande.

He served in the state House of Representatives in 1988, and was named majority leader for the Republican Party in 1995, but did not seek re-election in 1996.

Rep. Greg Walden (R-Ore.), a longtime friend of Baum, noted in a statement that though Baum was the PUC's lone Republican, he was named chair of the agency by then-Gov. Ted Kulongoski, in 2010.

Baum left the OPUC to work as a policy advisor for Walden, when he was named chair of the House Energy and Commerce Committee's telecommunications subcommittee.

Baum also served as senior policy advisor for the Energy and Commerce Committee, which Walden now chairs, and most recently as its staff director.

"Ray dedicated his life to public service, first as an elected official and then as an advisor on Capitol Hill," Walden said. "Our committee, the people of Oregon, and our country are better off because of Ray's selfless service."

To honor Baum, Walden on Feb. 14 renamed the substitute amendment to the Federal Communications Commission reauthorization bill, H.R. 4986, for him, calling it "Ray Baum's Act of 2018." ***[Rick Adair]***

[8.1] Durkan Appoints Search Committee for Seattle City Light GM/CEO

Seattle Mayor Jenny Durkan has appointed a 22-member committee to help winnow candidates in a national search for a new Seattle City Light general manager/CEO, her office announced.

Durkan said the new head must ensure the utility is a "leading customer service provider" and oversee "a healthy workplace culture." Under the CEO, City Light must also be an example "for the rest of the world" in addressing climate and clean energy issues at a time when the federal administration "seems set on moving backwards," she said.

Former SCL head Larry Weis was let go by Durkan in December shortly after she took office, citing at the time "challenges" at the utility, in "everything from billing to the workplace environment," the latter including allegations of sexism and sexual harassment (CU No. 1829 [15]).

The search committee members include leaders from business, labor, nonprofit and the broader community, many with experience in clean energy and environmental justice, Durkan's Feb. 1 release said.

Serving as co-chairs are Eileen Quigley, from Clean Energy Transitions; Sharon Nelson, Washington UTC chair from 1985-1997; and Cal Shirley, who worked at Puget Sound Energy for 12 years as an executive, and at Snohomish County PUD and SCL on efficiency and renewables before that.

The other members include:

- Ash Awad, McKinstry VP
- Doreen Boehm, client of Seattle's utility discount program
- Marc Daudon, Energy Northwest executive board
- Denis Hayes, Bullitt Foundation executive director
- Nancy Hirsh, NW Energy Coalition executive director
- Steve Kovac, International Brotherhood of Electric Workers 77 business representative
- Gail Labranara, SCL review panel member
- Andrew Lofton, Seattle Housing Authority CEO
- Matt Lyons, NuCor general manager
- Jill Mackie, Vigor senior VP
- Michael Mann, Cyan Strategies senior VP
- Dennis McClerran, former EPA Region 10 administrator
- Stan Price, NW Energy Efficiency Council executive director
- Mike Radice, Greenwood Hardware owner
- Ali Rodol, former longtime SCL employee
- Chris Roe, Amazon energy procurement manager
- Sue Taoka, Craft3 executive VP
- Edwin Wanji, Sphere Solar Energy owner
- Sung Yang, Pacific Public Affairs principal

Yang also was chief of staff at City Light from 2007-2009 under then-GM/CEO Jorge Carrasco, and served as King County deputy executive from 2016-2017.

Six of these panelists—Awad, Hirsh, Lyons, Mann, Quigley and Shirley—were also on the 11-member committee that helped select Weis in 2015. Weis' nomination was announced in November 2015 (CU No. 1724 [9.1]), eight months after Carrasco announced his retirement in March 2015 (CU No. 1699 [20]). ***[R. A.]***

[8.2] Lower Columbia Fishing Policy Under Review

Washington state's policy on commercial and recreational fishing in the lower Columbia River is under review, and could be modified if adjustments are recommended.

The Washington Department of Fish and Wildlife is beginning a review of the 2013 policy, which is similar to Oregon's, and which aims to conserve salmon, create new opportunities for recreational fishing and shift commercial gillnet fishing away from the Columbia's main channel. The current policy also calls for increasing hatchery releases in the lower Columbia, reducing the number of gillnet permits and expanding alternative fishing gear used by commercial fishing outfits.

Bill Tweit, a special assistant for the agency, told *Clearing Up* that the Washington Fish and Wildlife Commission asked staff for an in-depth report on the policy's benefits to recreational fishing, and the health and sustainability of commercial fishing since the new policy was adopted.

Advisory groups for both commercial and recreational fishing will meet March 14, followed by the commission's March 15-17 meeting, to discuss how the existing policy is working, and whether adjustments should be made.

If the agency seeks to revise the policy—last revised in January 2017—the commission would consider those changes later this year, with tentative plans to meet with the Oregon Fish and Wildlife Commission in September to conclude the review and decide on revisions. ***[K.C. M.]***

[8.3] Avista Asks Washington UTC to OK Extension of EV Charger Pilot

Avista has asked for a one-year extension of its pilot electric-vehicle charger program, through June 2019, to better characterize charger performances and models, accommodate customer demand and explore pricing scenarios.

In addition, the utility said in its Feb. 1 filing, it is still in the program's installation phase, and in the early stages of demand-response experiments. With demand response, the charging level is remotely managed to meet demand; however, Avista said, progress in this area has been delayed due to communications problems.

Avista also wants to develop and implement program elements aimed at low-income, elderly and/or disadvantaged customers.

The Washington UTC approved a $3.1-million, two-year program in 2016 to allow the company to install 272 electric-vehicle charging stations in eastern Washington (CU No. 1747 [11.3]) *[UE-160082]*.

Avista now wants an additional 210 installations, for another $1.1 million, or a total of $4.2 million.

Broken down by type of charger—or electric vehicle supply equipment, as it is termed—Avista aims to double the number of "AC Level 2" EVSE—which employ 208/240-volt chargers—at single-family homes, from 120 to 240 units; add another 75 to the planned 100 at workplaces, fleet and multifamily dwellings; and add another 15 to the 45 planned at public locations.

No additional DC fast-charging units are planned for the pilot, beyond the seven originally contemplated, although Avista will test energy-based pricing for use, rather than current pricing based on charging time. This change comes after the company noticed some units haven't been operating at full capacity, which increased the time to reach full charge beyond what was expected, as well as the cost of the refill.

Avista said 113 of the residential units have been installed, while another five are scheduled for installation.

Nearly half of the workplace, fleet and multifamily dwelling units—48 of them—have been installed, and seven are scheduled.

Nineteen of the original 45 public-location installations have been done, and another nine are planned.

Two of the seven DC fast-charging units have been installed; another three are scheduled. ***[R. A.]***

[8.4] Council Committee Recommends Pacific Lamprey Funding

The Northwest Power and Conservation Council's Fish and Wildlife Committee has recommended spending $248,204 this year on three projects to help restore Pacific lamprey.

Lamprey are considered important to the ecosystem, with important cultural value to tribes in the Columbia River Basin.

The funds would come from a cost-savings program derived from existing projects with decreased expenditures, or closed-out projects.

Pacific lamprey were once abundant throughout the Snake and Columbia rivers and their tributaries, numbering in the hundreds of thousands. The population has been drastically reduced throughout their range, from the mouth of the Columbia River to Chief Joseph and Hells Canyon dams.

The three proposed projects include improving adult passage at Prosser Dam in the lower Yakima River, funded at $40,000; translocating adult lamprey past lower Snake River dams, funded at $30,000; and enhancing the lower South Fork McKenzie River's floodplain, funded at $150,000.

The committee expects to take its funding request to the full Council next month. ***[K.C. M.]***

[8.5] BPA Proposes Deal With Idaho Over Operations at Albeni Falls Dam

BPA has proposed an agreement with the State of Idaho that would cost the federal agency nearly $24 million to mitigate for environmental damages from construction, inundation and operations at Albeni Falls Dam in northwestern Idaho.

Bill Booth, an Idaho Department of Fish and Game official as well as one of the state's members of the Northwest Power and Conservation Council, explained the draft proposal to the rest of the Council Feb. 13.

Booth said Bonneville spends about $600,000 annually to offset damages caused by operating the dam, mostly due to erosion to the shoreline on Lake Pend Oreille. Under the proposed agreement, he said, those costs would be eliminated, as funds would be put into a stewardship endowment account that would pay for continuing damage-control costs.

Chip Corsi, regional supervisor for Idaho Fish and Game, said the lake loses about 15 acres of prime wildlife habitat each year due to erosion. The state and others have been working to restore some eroded land along the Clark Fork River delta, with successful results. The agreement would resolve remaining construction and inundation settlement, while operational costs would be revisited after 30 years.

The proposed agreement is open for public comment until Feb. 23. ***[K.C. M.]***

[8.6] Major Acquisition Puts Innergex on Top in B.C. Renewables Market

Quebec-based Innergex Renewable Energy has completed a C$1.1 billion acquisition of Vancouver-based Alterra Power, which makes it British Columbia's largest independent power producer selling electricity to BC Hydro, the provincial government-owned utility.

The deal was first announced in October 2017.

The acquisition is Innergex's largest and most significant to date, with the combined company now overseeing approximately 1,200 MW of generating capacity in the province, roughly 10 percent of BC Hydro's generating capacity.

"Our acquisition of Alterra is about accelerating our growth and taking Innergex to the next level," said Michel Letellier, president and CEO of Longueuil, Quebec-based Innergex.

The company is one of the largest independent renewable energy producers in Canada, and says its net installed capacity is expected to reach more than 2,000 MW by 2020 from a resource mix of hydro, wind, solar and geothermal projects in Canada, the U.S., France and Iceland.

Its total assets currently consist of interests in 63 operating facilities, including 34 hydroelectric facilities, 24 wind farms, three solar farms and two geothermal facilities.

"By combining the Innergex and Alterra teams, and leveraging Alterra's U.S. development expertise, we can significantly expand our presence in the U.S. market as well as Canada, Latin America and Europe," Letellier added.

The Alterra purchase also gives Innergex the Vancouver firm's major run-of-river hydro projects on Toba Inlet on B.C.'s central coast, as well as the Dokie wind farm, the province's second-largest wind facility, located in northeastern B.C. near Chetwynd.

Among Alterra's U.S. assets is the 320-MW Boswell Springs wind project, which it acquired in April 2017 (CU No. 1819 [15]). The project, located in southeast Wyoming near Medicine Bow, has a 20-year power-purchase agreement with Rocky Mountain Power for all the output, structured as four 80-MW QFs. Estimated capacity factor for each averages 46 percent annually, and exceeds 50 percent from November through April, reaching nearly 70 percent in January. Construction is scheduled to begin this May, and be completed by November 2020.

BC Hydro spokeswoman Susie Rieder told *The Vancouver Sun* in an email that the utility has no issue with the ownership change. "Under the terms of these agreements any time there is an assignment of an electricity purchase agreement arising from an indirect change of control of the seller, BC Hydro's consent is required," she wrote. "We were notified of the proposed change of control, undertook due diligence and consented."

Ross Beaty, Alterra executive chairman, is joining the Innergex board of directors. ***[B. L.]***

[8.7] Brief Mentions: News Roundup

In a Feb. 15 ruling, FERC declined an energy developer's request to step into the developer's dispute with the Idaho PUC. The developer, Franklin Energy, plans to take its fight to federal court, said Peter Richardson, the attorney representing the company. Franklin Energy had asked FERC to sue the PUC in U.S. District Court for improperly implementing PURPA by limiting the developer's QF projects to two-year-long contracts (CU No. 1831 [12]). The PUC previously called the developer's legal claims "frivolous." ***[C. U.]***

CLEARING UP is a weekly report to clients of Energy NewsData, covering public utility and energy policy development, markets, litigation and resource development in the United States Pacific Northwest and Western Canada. ISSN 0738-2332. Report text section copyright date of publication, NewsData Corporation. All rights reserved; no reprinting without permission, no electronic storage or transmission without written license agreement. News clippings reproduced in CLEARING UP are copyrighted by the newspaper or magazine of original publication. **EDITORIAL OFFICES**: Mail & Express delivery: 4241 21st Avenue W, Suite 306, Seattle, WA 98199-1250. Voice: [206] 285-4848; Fax: [206] 216-4116. Email: newsdata@newsdata.com. Website: www.newsdata.com. For newsletter subscription information, call John Malinowski at [206] 285-4848, ext. 203 or johnm@newsdata.com. **MANAGEMENT AND STAFF**: Publisher & Editor-in-Chief, Mark Ohrenschall • Vice President & Controller, Mary Noe • Business Manager, Jackie Fields • Director of Information Systems, Daniel Sackett • Client Services Director, John Malinowski • CLEARING UP Editor, Steve Ernst • News Editor, Rick Adair • B.C. Correspondent, Brian Lewis • Contributing Editors, Kavya Balaraman, Leora Broydo Vestel, Dan Catchpole, Jim DiPeso, Kali Kotoski, Alan Mountjoy-Venning, Jude Noland, Linda Dailey Paulson and Mavis Scanlon • Contributing Columnists, Phil Jones, Bill Virgin • Billing & Accounts Receivable, Jennifer West McCarthy • Production Coordinator, Amber Schwanke • CLEARING UP Production Editor, Michelle Noe • Energy NewsData Founder, Cyrus Noë (1929-2017).

Opinion & Perspectives

Bearing Down

[9] Utilities Changing Tech, Cultures to Improve Customer Engagement

SUMMARY: Smartphones and smart meters mean utilities have to be smarter about how they work with their customers. It's not enough to just make sure the lights stay on and rates stay low. Technological and cultural changes are creating new challenges and opportunities for utilities' customer engagement. This is the second in a two-part column based on a November conference on utility customer engagement.

Representatives from four utilities shared their learned lessons at the "Utility-Customer Engagement: Issues and Opportunities for Value Creation" conference Nov. 17 in Portland. (Full disclosure: Energy NewsData cosponsored the conference with CJB Energy Economics.)

Gateway Drug to Demand Response

Like many utilities serving progressive cities, Portland General Electric is "trying to find new and creative ways to decarbonize our power supply for customers who have an increasing desire to help contribute to a clean energy future," said Josh Keeling, a supervisor with PGE's customer energy solutions group.

With no big industrial partners, PGE focuses a lot of its demand-response effort on working with local governments and businesses. A few years ago, the utility contracted with a "pretty vanilla aggregator program" to provide DR services for customers, he said.

Contractors can offer attractive turnkey solutions, but to get that off-the-shelf simplicity, utilities often have to give up flexibility and integration, Keeling said.

PGE found few customers were participating in its DR program. It was too cumbersome. The aggregator did not want to do the hard work to give customers greater value, and customers were scared off from taking part by virtually all-or-nothing participation requirements.

The utility tore down barriers to entry. It's better to have a company participating 20 percent than not at all, Keeling said.

PGE would offer simple solutions for customers to try, such as simply adding a smart thermostat or participating with no contract. "Having that ease of entry, that sort of gateway drug, is really important," he said.

The utility also took the program in-house, and offered more options to customers. The utility is driving DR, so it should shoulder the complexity, he said.

PGE also fine-tuned how it talks about DR with customers. The benefits of DR are not always clear to customers concerned about climate change. To many of them, that means more renewables. Explaining DR can be complicated.

Keeling said he tells them, "This is a way to do something that's good for the environment and put a little bit of money into your pocket."

Talk to customers about how DR can fit with their sustainability goals, a common metric at most companies nowadays, he said.

"Did you know that you get a LEED point for participating in DR? Most building owners don't," he said. "But if you talk to them about that, that's really valuable, especially [for] the ones that are aggressive. They are pleading and scraping for every little LEED point."

Customers Want Choices, Not Call Centers

For utilities, everything comes back to the customer. Without them, utilities don't exist, said Curt Kirkeby, a technology strategist for Avista Utilities.

At the beginning of the decade, his utility had a clunky, imprecise framework for working with customers to improve their energy consumption. A few years ago, Avista overhauled its approach to make it fundamentally more flexible and creative, Kirkeby said.

The utility adopted design-thinking methodology—a solutions-focused approach to tackling problems. Design thinking prioritizes brainstorming and synthesizing potential solutions ahead of strictly defining the problem, which can limit creativity. Potential solutions are then tested and tossed if they don't work.

Adopting that approach, Avista set up its Innovation Station, a 25-member internal team that meets every other Friday to serve as a clearinghouse vetting potential projects, and as a sounding board for ideas.

Dedicated teams work to solve specific issues, such as improving electric vehicle infrastructure, Kirkeby said.

Text or Twitter?

For years, the Sacramento Municipal Utility District reached out to customers about energy efficiency and other programs the same way it always had: direct mailers, inserts, newsletters and so on.

A 2 percent response was good news for the utility, said Scott Martin, SMUD's director of resource and new business strategies.

And then the utility realized customers were using outside vendors offering similar and sometimes competing programs, he said.

SMUD had been doing mass marketing, and was missing the target. The utility had to communicate the right message to the right person using the right channel—the way they choose to interact with it, Martin said.

Doing the basic utility things—keeping the lights on and rates low—is not enough. Utilities have to meet customers' expectations or they will go to other options, he said. "You've really got to be involved with the customer at a more emotional level in meeting their expectations," in addition to doing the basics.

Look at how Amazon does very personal marketing, he said.

SMUD started to segment customers into more clearly defined categories meant to give greater insight into their preferences, personalities and priorities.

This approach yielded customer categories with names such as plugged-in families, rural reducers and thermostat turners. Cross-referencing the customer classes by program participation, such as appliance rebates or load

Continued on page 7

Price Report

Western Prices Swing With Weather

This winter in the West has seemed more like spring in some areas, but what few drastic temperature changes there have been have contributed to energy price swings. With colder weather on the way, more price volatility is expected the week of Feb. 19.

The latest price swings were seen at the Southern California CityGate hub. Natural gas prices at the hub gained $1.59 to $4.24/MMBtu between Feb. 8 and 13 before shedding 66 cents to close Feb. 15 at $3.58/MMBtu.

The increase "was tied to a weather change over the weekend that caught people off-guard on Monday morning," said Jeff Richter of EnergyGPS.

"We saw temperatures go colder and intra-day sendouts shift straight up," which he said forced more natural gas out of storage and sent markets "a hefty signal" in a short period. "With Tuesday and Wednesday, sendouts were expected to be above 3.0 Bcf and import capacity around 2.8 Bcf, but only 2.6 Bcf was flowing, SoCal CityGate was off to the races."

Warmer temperatures have temporarily stifled demand but "more volatility is expected next week," Richter said.

An Arctic weather system should bring below-normal temperatures to the greater Los Angeles area starting Feb. 20, while Portland and Seattle should see the coldest temperatures of the winter to date.

California ISO grid demand reached 28,818 MW Feb. 12, which was the week's high. Northwest Power Pool demand reached 62,443 MW the following day.

CAISO demand is forecast to hover around 29,800 MW Feb. 20 and 21.

Meanwhile, working national natural gas in storage was 1,884 Bcf as of Feb. 9, according to EIA estimates. This is a net decrease of 194 Bcf compared to the previous week.

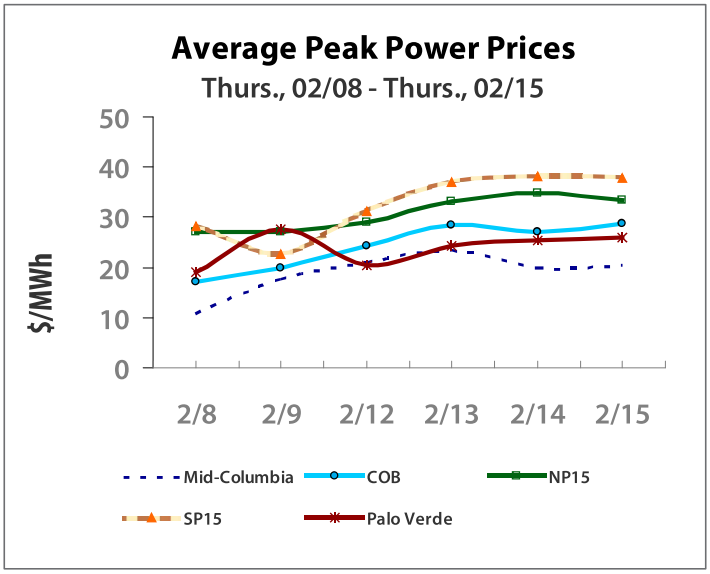
Henry Hub natural gas spot prices fell 22 cents in Feb. 8 to 15 trading, ending at $2.49/MMBtu.

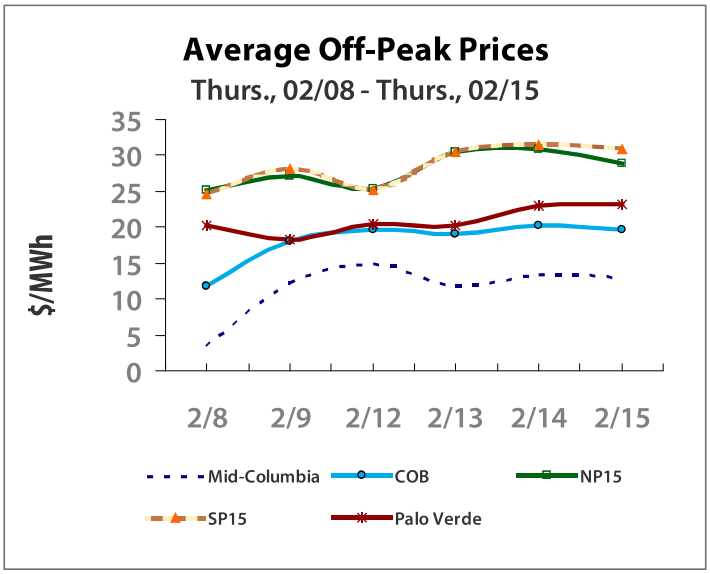
Western natural gas generally gained value in trading with prices up between 2 cents to as much as 93 cents in trading. El Paso-Permian, however, shed three cents to $2.06/MMBtu; Southern California Border lost a penny to $2.30/MMBtu.

Western average power prices reversed course with hubs adding between $6.25 and as much as $11.75. California-Oregon Border gained the most value, up $11.75 to end at $28.75/MWh.

Likewise, off-peak power values increased by between $3 and almost $10. Prices traded in a range from $12.90/MWh at Mid-Columbia to $30.95/MWh at South of Path 15.

California's statewide snowpack has a 4.3-inch snow-water equivalent, which is 20 percent of the Feb. 15 average, according to the state's Department of Water Resources. ***[Linda Dailey Paulson]***



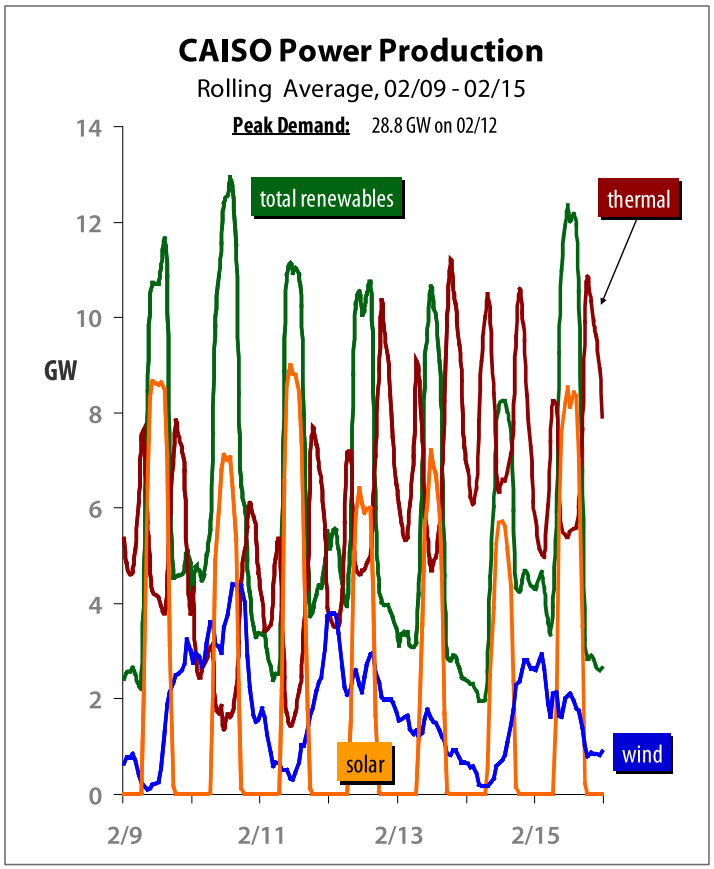


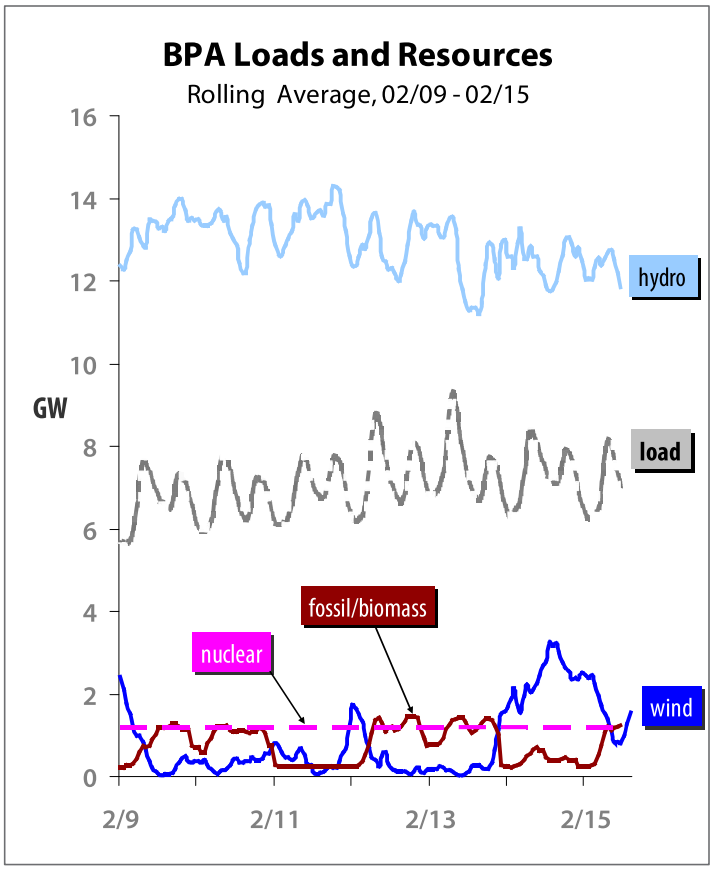
Average Natural Gas Prices ($/MMBtu)

	Th., 02/08	Tue., 02/13	Th., 02/15
Henry Hub	2.71	2.57	2.49
Sumas	2.30	2.27	1.91
Alberta	1.60	1.52	1.62
Malin	2.23	2.39	2.33
Opal/Kern	2.21	2.34	2.31
Stanfield	1.94	2.31	2.29
PG&E CityGate	2.54	2.75	2.82
SoCal Border	2.31	2.49	2.30
SoCal CityGate	2.65	4.24	3.58
EP-Permian	2.09	2.16	2.06
EP-San Juan	2.11	2.28	2.19

Power/gas prices courtesy of *Enerfax*

Power Gauge





Sources: CAISO and BPA

Continued from page 5

management, revealed when customer segments were participating at rates lower than expected.

SMUD used that data to send the right message to the right customer groups using the right channel.

In the past, the utility "may have been engaging these people in completely the wrong way," Martin said. "Maybe we were sending a text message to somebody when all they did was participate on Twitter."

The different approach is already paying off in higher participation rates for SMUD.

Don't Call Us, We'll Call You—or Text or Email

In the wake of a vicious storm in 2015, Puget Sound Energy's customer service and response operations were overwhelmed by a cascade of calls. PSE realized it needed a solution—and it was not to hire more call-center operators, said David Mills, senior vice president for energy operations at PSE.

Instead, the utility set its goal as going from about 2 million to zero calls. Mills was tapped to tackle the Herculean task. He was not from customer service, IT, or the distribution and retail sides—the groups that would be affected most by the fundamental shifts required to reach the goal.

"I was Switzerland," he said.

"This is important, because throughout this project and especially at the beginning, we're breaking stuff. And breaking stuff, people take it personal," Mills said.

The vast majority of calls fall into one of five categories:

- I need you to explain my bill;
- I want to pay my bill;
- I'm having a service interruption;
- I have a planned service event; or
- I need financial assistance.

The region left $7.5 million in financial assistance on the table last year, Mills said.

That is not for lack of need. Rather, getting the help often requires several telephone calls, which can be lengthy. While many people think of poor people as loafing around day after day, the reality for many Americans living in poverty is that being poor is a full-time job. They might not have time to spend on the phone with a utility to get financial assistance, Mills said.

PSE reviewed its engagement challenges from customers' perspectives, and split them into four categories: customer interface, integrated work management, data analytics and data management.

The utility is developing a robust mobile app to meet customers where they spend more and more time. Mills shared an early look at the app in development. It will let customers address many issues that now often need a phone call to resolve. Ratepayers will be able to explore their energy use, report an outage, pay bills and more.

Utilities' cultural focus on reliability has made the industry risk-averse.

"We're not really good at taking on risk," Mills said. "We'll obliterate risk to kill innovation, because we think it's safer."

PSE is trying to undo that mentality, especially around customer engagement. Mills said Puget has one-and-a-half floors full of employees working on these challenges.

Their efforts are already showing positive returns. Where PSE customers in the past took to Twitter and other social media platforms to criticize the utility's handling of an outage, they now are sending thanks.

During two recent outages, one customer posted on Twitter, "I have gotten an email almost instantly telling me PSE was aware of the problem, were working on it and an estimated time of restoration, and another just as soon as the power came back on."

"Good job, PSE! Thanks for taking the steps," the user said in the post. ***[Dan Catchpole]***

Supply & Demand

[10] NW Condemns Trump Call to Sell BPA Grid, Charge Market Rates for Power • *from [1]*

Condemnations of President Donald Trump's latest call to privatize BPA's transmission assets came swiftly in the Northwest after the idea appeared in his proposed fiscal year 2019 budget released Feb. 12.

But there was more for the region to criticize this time, because the proposal would also authorize Bonneville and other power marketing administrations to charge market rates for their power, rather than the wholesale rates currently mandated by federal law.

A bipartisan group of 13 House members from Montana, Oregon and Washington who saw an advanced copy of the budget wrote to Mick Mulvaney, director of the Office of Management and Budget, urging him "to exclude any provision that would adversely affect the rates or operations" of BPA.

Also, they said in a Feb. 9 letter, if market rates were imposed, "Northwest public power utilities would see no value in continued BPA service. The consequence would be to leave the federal government holding non-economic assets, as well as a financial responsibility for fish mitigation costs that approach $1 billion per year."

The entire BPA system 'is fully paid for by the users of the system.'

They noted that the entire BPA system—both capital investment and operation and maintenance—"is fully paid for by the users of the system, and that divesting these assets to the highest bidder, or changing the rate structure, will merely jeopardize the consistent revenue that BPA sends to the Treasury each year."

Signatories included House Energy and Commerce Committee Chairman Greg Walden (R-Ore.).

Sen. Ron Wyden (D-Ore.) said Feb. 12 in a statement "Oregonians raised hell last year when Trump tried to raise bills for Pacific Northwesterners by selling off Bonneville Power, and yet his administration is back at it again."

Sen. Maria Cantwell (D-Wash.), ranking Democrat on the Senate Energy and Natural Resources Committee, vowed to work with "all my Pacific Northwest colleagues to stop this bad idea in its tracks."

Scott Corwin, head of the Public Power Council, praised the region's lawmakers for pushing back against the proposal. "We really appreciate their leadership," he said.

In a statement, PPC said charging of market rates by PMAs would conflict with BPA's statutes and with power sales contracts with utilities, which don't expire until 2028.

After the previous Trump budget proposal, the Northwest Power and Conservation Council estimated the impact of selling Bonneville's grid as a 20-40 percent increase in electricity rates, effectively adding $20-$40 to the $94 monthly bill of an average residential customer.

In a Feb. 12 blog post, Council spokesman John Harrison noted that there have been efforts as far back as 1986 to change how BPA sells power and transmission, ranging "from selling the power marketing authorities to selling power at market rates to changing Bonneville's debt structure and the way it pays off its debt to the federal Treasury."

Harrison added that all these previous attempts have been "defeated in Congress."

In email comments, Portland-based economist Robert McCullough said additional impacts of the administration's proposal to sell BPA's transmission assets would be market power, anti-competitive behavior and poor service to rural locations," adding, "Politicians, industry groups, and ratepayers are correct to criticize this proposal."

McCullough also observed that the price the budget placed on BPA transmission assets has increased approximately 5 percent, from $4.9 billion last year (CU No. 1801 [16]), to $5.2 billion this year. "The unexplained detail would seemingly represent ongoing discussions with an undisclosed buyer," he wrote.

Credit rating agencies have taken a similarly dim view of the proposal, with Moody's saying the grid sale would be "credit negative . . . because it would reduce transmission related revenue, a stable revenue source and weaken federal government support, key considerations that support their respective ratings."

Standard and Poor's noted the proposal is "unlikely to lead to near-term changes" to their rating of Energy Northwest debt that BPA pays as operating expenses of its electric system, and that because the U.S. government's balance sheet includes BPA's Treasury debt, the rating

agency believes that "the executive branch views divestment as a vehicle for reducing federal debt, even if this will not lower federal deficit spending because the enterprise's operations support the debt."

The budget proposal also took aim at the transmission assets and power rates of other PMAs—Southwestern Power Administration and Western Area Power Administration—as well as the Tennessee Valley Authority's transmission assets.

Sen. Lamar Alexander (R-Tenn.), who chairs the Senate Appropriations Committee's energy and water panel, dismissed the proposed sale of TVA's grid as a "looney idea," adding "it has zero chance of becoming law."***[Rick Adair]***

[11] PUD GM: Market Trends Could Send BPA Over Financial Cliff • *from [5]*

Cowlitz County PUD and other utilities in the region that depend on BPA face a fast-approaching financial cliff, Cowlitz GM Steve Kern warned the Northwest Power and Conservation Council at its Feb. 14 meeting in Portland.

"I felt compelled to come here to really talk to you today about what I see as a financial cliff that's coming that I hope you are aware of, and it's going to be a dramatic cliff," Kern said.

Key market trends are working against Bonneville, he said. After decades of delivering steady, cheap hydropower, BPA faces a future in which customers could abandon it for cheaper alternatives.

An influx of excess wind and solar power from California and around the Northwest has driven down secondary market prices, a critical source of revenue for BPA in the past. Natural gas prices are low and projected to stay low, putting more downward pressure on the market price.

At the same time, the agency faces increasing spills over dams and more spending on fish and wildlife mitigation and recovery. Its customers also have to meet higher RPS mandates.

Based on Bonneville's own projections, the wholesale rate in 2028, when many utilities' long-term contracts with BPA expire, will be $42.68/MWh, while market rates are forecast between the low $20 per megawatt-hour and the low $30s/MWh, Kern said.

In 2028, "from my board's position today, there's no way Cowlitz PUD is going to sign up for 90 percent of its power from Bonneville," he said.

Large industrial customers in Cowlitz are at a competitive disadvantage due to lower power market prices now, he said.

With his decades of experience in the industry, Kern has known times when BPA rates were above market prices. The difference then, he said, was the market price had been pushed down by short-term causes, and it subsequently rose.

"This is a fundamental shift in technology and the supply-demand equation that we have never seen," Kern said. "This is the cliff that I worry about. Because in 2028, who is going to sign up for power with Bonneville 100 percent at the levels that they have today if we see those power prices."

If Cowlitz and other utilities cut back their contracts with the BPA, that will only force Bonneville to sell more power at discounted rates on the secondary market. And that will simply drive rates higher for BPA customers, he said. "That's almost kind of a death spiral."

BPA holds a high level of debt, and "the power business line is really out of cash," Kern said.

It needs to pay down debt and increase its cash, but that will mean more pressure to raise rates, he said.

The situation demands immediate action, he said.

To help with the situation, Kern recommended:

- Fish and wildlife spending be closely evaluated to maximize effectiveness and trimmed where it can be;
- BPA cut operating expenses and challenge any increases; and
- Use additional hedging and innovative power-supply agreements to improve management of BPA's portfolio.

Given the circumstances, Kern said he expects a rate increase later this year, in the form of a cost recovery adjustment clause implemented when reserves run too low.

"I'd put my career on the line here to tell you that most likely Bonneville will have to trigger a [cost recovery adjustment clause] effective Oct. 1," he said. "I will be surprised if they don't."

BPA itself last month, during its Quarterly Business Review, set the chance of a CRAC in fiscal year 2019 at 72 percent (CU No. 1836 [17]). ***[Dan Catchpole]***

Environment

Fish

[12] ISAB Offers Guidance for Upper Columbia Spring Chinook • *from [4]*

Prompted by the slow recovery of naturally spawning spring Chinook salmon in the upper Columbia River Basin, the Independent Scientific Advisory Board conducted a 10-month review of recovery efforts in the Wenatchee, Entiat and Methow rivers.

The ISAB provided numerous recommendations in a 246-page report, released Feb. 9 and shared at the Feb. 13 Northwest Power and Conservation Council meeting.

Two ISAB members—Stan Gregory, professor emeritus of fisheries at Oregon State University, and Steve Schroder, retired fisheries consultant and research scientist at the Washington Department of Fish and Wildlife—offered to the Council an overview of their work. And while the ISAB report included several recommendations for fish managers in the upper Columbia, the scientists also commended the fish managers' efforts, methods and cooperation with the ISAB during the review.

Part of the report, and the discussion before the Council, focused on the extra challenges that upper Columbia spring Chinook salmon face compared with summer Chinook in the same region and with spring Chinook returning to the Snake River Basin.

The review was initiated by the ISAB's Administrative Oversight Panel, which asked the board to evaluate habitat assessment, research and monitoring, and prioritization and coordination of recovery actions fish managers have taken for these spring Chinook, listed as endangered in 1999. The scientists met with tribes, state and federal agencies, PUDs and local groups involved in salmon recovery.

Gregory told the Council that measuring the success of spring Chinook returning to the upper Columbia against those returning to the Snake River can be seen as an apples-to-apples comparison, "but if they're apples, they're different-sized apples." He noted that the upper Columbia area includes three subbasins totaling 2.3 million acres, compared with 26 subbasins covering 28 million acres in the Snake River drainage. Additionally, the Snake River is a rain-dominated basin, compared with largely snow or rain-on-snow precipitation in the upper Columbia.

'If they're apples, they're different-sized apples.'

According to the review, the Snake River populations are also more abundant, leading to their threatened status, compared with the more dire endangered listing for upper Columbia springs. With fewer numbers, an adverse event—such as a year when a high percentage of adults are taken by predators in the lower Columbia River—can pose an even greater risk for the upper Columbia populations than for the Snake populations, the report said. As an example, the review noted, in years when returning spring Chinook are low, their chances of finding mates on the spawning grounds are reduced.

Gregory told the Council that, adjusting for size differences, most measures of abundance and productivity of spring Chinook, their habitat, their in-river survival and their smolt-to-adult ratios in the two regions are similar.

Schroder told the Council they also compared spring Chinook with summer Chinook in the upper Columbia. According to the review, summer Chinook have not always been predominant compared with springs in the upper Columbia. Yet from 1988 to 2016, an average of 1,241 natural origin spring Chinook returned to the Wenatchee, Entiat and Methow subbasins, while natural origin summer Chinook returned at an average of 12,572 per year.

Schroder said summer Chinook appear to have numerous survival advantages, largely due to the timing of their migration, both upstream and downstream. As juveniles, spring Chinook often miss out on voluntary spills at Columbia River dams, which generally come after most springs have headed downstream.

Spring Chinook also spend more time in rivers and streams, leaving them more prone to predation. As adults, they're more likely to encounter rougher waters, and spend more time in the lower Columbia River—more than a month—making them more vulnerable to predators. And as spawners, they contend with summer Chinooks, which show up in the streams later, and can "superimpose" their own redds on top of the springs' redds.

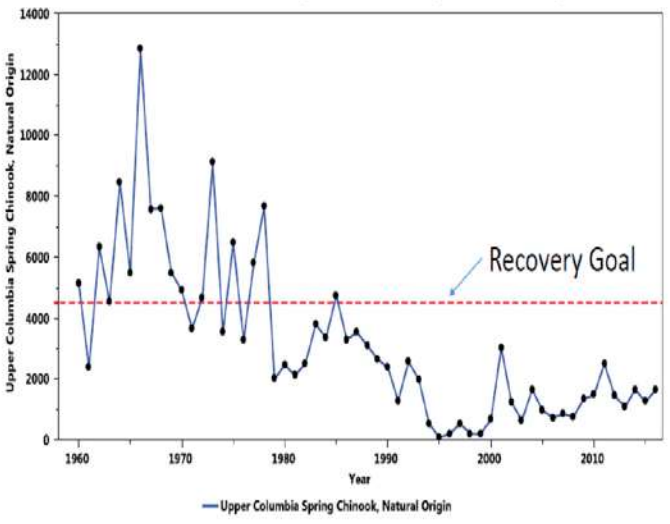
Finally, Schroder said, because they're so scarce, not many spring Chinook are used for hatchery broodstock, leaving the wild fish more prone to domestication from stray hatchery fish.

Listed as endangered in 1999, spring Chinook include three distinct populations in the upper Columbia—the Wenatchee, the Entiat and the Methow—as well as an extinct population in the Okanogan River. In 2007, the Upper Columbia Salmon Recovery Board and the National Marine Fisheries Service (now NOAA Fisheries) developed a recovery plan for both spring Chinook salmon and steelhead. Its goal is to "secure long-term persistence of viable populations of naturally produced spring Chinook and steelhead distributed across their native range."

According to the ISAB report, recovery must include viable numbers of fish, a low risk of extinction, fish distributed across their habitat and genetic diversity. Although major recovery after 10 years would be unlikely, the review said, the slow recovery after more than 300 habitat projects raises questions about the lack of improvements.

The review noted that by the time these fish were listed as endangered—and even before construction of some of the major dams on the Columbia River—upper Columbia runs had already declined greatly due to "overfishing, mining, logging, grazing, agriculture, water withdrawal, and growth of towns along the river." In addition, the construction of Grand Coulee Dam in 1939 "has compressed 1,140 miles of river used for anadromous migration to less than 677 miles."

A long history of hatcheries in the region contributed to the decline, the review said. Fish managers at the time collected some broodstock from the lower Columbia River, and those stocks were mixed with upriver stocks. "The history of human decimation of salmon populations, mixing of stocks, and hatchery practices likely weakened or homogenized the prehistoric adaptation of Chinook salmon to the local physical, environmental, and biological characteristics of the [upper Columbia River] basins," the review noted. It said that recent DNA study analyzing DNA from prehistoric and contemporary Chinook salmon



Abundance of natural origin spring Chinook salmon in the upper Columbia River from 1960-2016. *Courtesy ISAB*

found a greater loss of genetic diversity in upper Columbia stocks compared with those in the Snake River.

Gregory said the upper Columbia models are useful for ranking projects, but suggested that fish managers could better coordinate their efforts to develop a more cohesive process.

Recommendations in their review included providing an analysis on cost-effectiveness of proposed projects to determine priorities; giving high priority to projects that restore key ecological processes and resiliency to climate change; and developing a research, monitoring and evaluation plan that encompasses impacts of habitat, hatcheries, harvest and hydroelectric operations in spring Chinook throughout their life cycle.

Gregory added, "We do see the upper Columbia River program as a very strong program. They're using scientifically sound approaches," he said.

Fish managers were also eager to provide information, and to learn from the ISAB's review. "We see that as a sign of a very healthy program," he said. ***[K.C. Mehaffey]***

[13] Biologist: Sea Lions, Seals Eat More Salmon Than Thought • *from [6]*

Sea lions and seals below Bonneville Dam are consuming far more salmon than previously thought as the fish swim back to their spawning grounds.

An ongoing study by NOAA's Northwest Fisheries Science Center suggests that each year since 2010, these carnivorous mammals are eating between 11 and 42 percent of the spring/summer Chinook run in the 145-mile stretch of river from the Pacific Ocean to Bonneville Dam, NWFSC fisheries biologist Michelle Wargo Rub told the Northwest Power and Conservation Council Feb. 14.

That translates to between 20,000 and 35,000 Chinook salmon in most of the study years, although losses jumped to more than 100,000 salmon in the high-percentage-loss years of 2014 and 2015.

The losses, and percentages, vary depending on water temperature and timing of the run, flow levels, the spill at Bonneville Dam, and abundance of smelt, among other factors, Rub told the Council. "As much as we're understanding more, the picture's becoming a little more complicated," she said.

Her updated report comes as governors of Oregon, Washington and Idaho are urging Congress to support proposed bipartisan legislation that could help reduce sea lion predation.

State agencies do have some ability to control California sea lions. In 2016, NOAA Fisheries agreed to allow the three states to continue killing these mammals seen preying on salmon, and that do not respond to efforts to scare them away with hazing. The proposed new legislation would give local agencies the ability to act more quickly.

In her presentation to the Council, Rub said her study's primary goal was to see if seals and sea lions were significantly impacting salmon returns. At the time, she said, there were concerns over increasing numbers of pinnipeds below Bonneville Dam. Since then, she said, "The population basically exploded." NOAA Fisheries reported in January that California sea lions have "fully rebounded," and now number around 250,000 animals. Steller sea lions and harbor seals also dine on returning salmon and steelhead.

To determine their impact on returning salmon, Rub captured, marked and released thousands of fish near the mouth of the Columbia, tracking them as they move upriver to spawn. NOAA Fisheries contracts with commercial tangle-net fishermen in the spring, who catch adult Chinook near Astoria, Ore., during a 25- to 30-day period after Chinook return. Those fish are then pit-tagged, unless already tagged, and returned to the river.

After calculating survival of fish that make it past Bonneville Dam, Rub can determine how many fish died below Bonneville Dam. Once losses from harvest and handling are subtracted, she ends up with "unexplained mortality." Rub said she's confident most of the loss is due to predation.

Those spring/summer Chinook losses ranged from a low of 11 percent of the returning run in 2010, to highs of 43 percent in 2014 and 37 percent in 2015. But although sea lions have continued to come up the Columbia River over the last two years, predator mortality dropped off to 14 percent in 2016, and to 24 percent in 2017. Rub said 2014 and 2015 may have been unusual years, as California sea lions were driven north in search of food due to warm ocean conditions, and a lack of food off the coast of California.

"The relationship between survival and sea lions is complicated. It's not just the absolute number of sea lions" in the Columbia that causes an increase in salmon losses in that stretch of river, she said. The timing of the Chinook run also has a strong connection with predation losses, as some runs arrive after California sea lions have left the area. Fish populations that arrive in the lower river early are "likely receiving the brunt of the predation," she said.

Other factors, too, either contribute or detract from predator success, she said. Data so far suggests that spill over Bonneville Dam helps Chinook survival from sea lions—perhaps because the increased turbulence allows more fish to escape predators—although she hopes to conduct more research to determine why.

A good smelt season hurts chances of survival, she said, which is counter to initial assumptions that more smelt would help, by offering predators an alternative food source. "But if you look at the timing, [smelt] often arrive

Courtesy Oregon Department of Fish and Wildlife.

before the spring run," she said. Scientists realized that a good smelt season tends to draw sea lions into the river, and they continue to feed on Chinook when they arrive.

Rub said her study, for the past two years, has used radio telemetry to determine where the returning fish are being killed. In 2016, she said, 48 percent of the losses were in the tailrace at Bonneville Dam, where large numbers of California sea lions congregate. Many of the remaining losses were in the estuary, and few were lost in the middle portion of the lower river. In 2017, sea lions appeared to shift their position; only 25 percent of Chinook mortality occurred directly below Bonneville, she said, with most occurring in the estuary.

Rub said in future years, she hopes to use radio telemetry to help determine survival and loss in Columbia River tributaries, and strengthen the correlation between other variables that impact salmon losses from the estuaries to Bonneville Dam.

Idaho Council member Bill Booth commended Rub for her work. He said until now, NOAA Fisheries believed predators below Bonneville killed only 3 to 5 percent of returning fish. "Those low numbers were kind of considered insignificant by some," he said, adding, "Now we have this data that shows it's more like 20 to 30 percent, which is very significant." ***[K.C. Mehaffey]***

Clearing It Up

[14] Washington Carbon Tax Bill Takes Baby Step; A Dozen Others Clear Cutoff • *from [2]*

A tweaked version of Washington Gov. Jay Inslee's proposed carbon tax, Senate Bill 6203, received a public hearing before the Senate Ways and Means Committee Feb. 15, as it took another small step toward a possible vote on the Senate floor.

Meanwhile, the Feb. 14 cutoff for most other bills to have been moved to the opposite chamber culled the multitude of energy, climate and utilities measures that once numbered nearly 90, to a mere dozen.

The carbon tax bill originally proposed a $20 per metric ton of carbon tax starting July 1, 2019, which would grow without end at 3.5 percent annually, plus inflation, starting Jan. 1, 2020.

The Senate's energy committee on Feb. 1 changed the rate to $10 per metric ton starting July 1, 2019, and beginning two years later, it would increase the tax by $2 every year until it hit a $30 cap in 2030.

The version heard by the Senate Ways and Means Committee tweaks this further, setting the starting rate at $12 per metric ton, with a $1.80 annual increase starting July 1, 2021, until it hits the $30 cap, also in 2030.

Sen. Mark Schoesler (R-Ritzville), the Senate Republican leader and an opponent of the measure, pressed the committee staff intensely on details of the bill and its fiscal impacts, complaining that the substitute bill under consideration had just been given to the committee a short time earlier.

He also pressed for more detail from Clifford Traisman, a lobbyist for Washington Conservation Voters, Washington Environmental Council, and Environmental Priorities Coalition—the groups that would help field a carbon-tax initiative this November if they decide to move forward with it.

Schoesler asked Traisman "how high do you think [the tax] needs to be" to accomplish the groups' goals. Traisman said he didn't want to "put myself on the spot," but said his groups had supported Inslee's $20/Mt tax with its steep annual increase, and would have preferred a more "rapid, more aggressive" acceleration of the tax over time in the substitute bills.

"So you can see how much this bill has been a compromise and a working with all sides," he said.

While many comments made during the hearing echoed those made during the Senate energy committee's hearing—including general support from utilities, some because they preferred it to what might come out of an initiative process—the Ways and Means panel also heard from a BPA official on the how the bill might interact with the agency's process.

"This is the type of policy that gives the electricity industry a price signal to purchase and/or develop more carbon-free power," Liz Klumpp, BPA western Washington liaison, told the committee.

"The bill also permits natural-gas generators to provide power during critical power needs, such as Western winter peaks in the early morning or early evening, when it's dark," she said.

"In short, this gives the transmission operators time to work with policymakers, and we believe we can continue to operate effectively with this kind of policy," she concluded.

The committee has not yet set a date for executive action on the bill, if indeed any will be taken. After that it might go to the Senate floor for a possible vote, but Schoesler suggested it should also make a stop at the Senate Transportation Committee first, since it has impacts on gasoline prices, and would also provide funding for transportation projects.

Bills that cleared their chambers of origin include House Bill 1144, which amends the state's greenhouse gas emission limits originally passed in 2008.

It passed along party lines, 50-48.

Under the 2008 limits, greenhouse gas emissions must be reduced to 1990 levels by 2020, to 25 percent below 1990 levels by 2035, and to 50 percent below 1990 levels by 2050.

Under HB 1144, the 2035 target would be lowered to 50 percent below 1990 emissions levels, the 2050 target would be lowered to 80 percent below 1990 levels, and an intermediate target of 19 percent below 1990 levels would be added for 2025.

"Climate change poses an existential threat to our forests, our farms, our oceans, and our future," bill author Rep. Joe Fitzgibbon (D-West Seattle) said in comments.

"We're already seeing the impacts of it in our state," Fitzgibbon said. "But we can fight back. We can reduce our emissions and our contribution to this global problem."

HB 1233, authored by Rep. Jeff Morris (D-Mount Vernon), was passed by all but two members

of the House. The measure pertains to the role distributed energy will play in meeting utility resource goals. It requires a review of distributed generation resource planning, as well as reports every four years assessing changes in utility use of such technology.

Morris, who chairs the Technology and Economic Development Committee, managed to get his appliance energy efficiency bill, HB 2327, over the line after having unsuccessfully tried in recent sessions.

The measure passed on a nearly party-line vote of 53-45, with three Republicans crossing the aisle. It would establish enhanced efficiency standards for appliances ranging from portable air conditioners and compressors to faucets and toilets.

If enacted, the bill is estimated to reduce electricity consumption by more than 1,000 GWh, reduce water consumption by over 9 billion gallons annually, and reduce carbon emissions by the equivalent of removing 65,000 cars from the road. It would also save households and businesses more than $206 million annually on utility bills.

Many of the standards are tied to those in California. Morris has stated that Washington needs to update its standards so as not to be shut out of the California market.

Yet another Morris bill, HB 2839, would adopt "alternative forms of regulation" that "enable efficient use of the electrical or natural gas system and utility operations," according to the bill. It passed by a vote of 64-34.

Morris said in a statement the bill is also designed to change regulations regarding how utilities are paid for delivering on innovation and outcomes customers want, instead of how much electricity they sell consumers.

The bill also uses a "greenhouse gas adder" of $40 per metric ton of such gases emitted, to recognize that reduced carbon dioxide is an outcome customers want. The adders would be required for use in integrated resource planning, but only after a carbon tax is passed in the state.

"This is a revolutionary change in how energy regulation, and energy production planning, will take place going forward," Morris said. "We give utilities and gas companies some room through alternative regulations to catch up to new technology, as well as an incentive to cut greenhouse gas emissions."

SB 6081, passed in the Senate on a 28-19 vote, expands existing net-metering laws. Introduced by Sen. Guy Palumbo (D-Maltby), the measure would increase the amount utilities must reserve for net metering from 0.5 percent of their 1996 peak demand to 4 percent, and would require unused kilowatt-hour credits at the end of the year from that aggregate pool to be used to assist low-income residential utility customers.

SB 6187, also from Palumbo, would authorize municipal utilities and PUDs to adopt electrification plans, and implement incentive programs for cost-effective plans using rate revenues, with a cap on increased ratepayer costs of 0.0025 percent, the same cap in place for IOU electrification programs

The next legislative cutoffs are Feb. 23, when all bills must be reported out of policy committees; Feb. 26, when all bills must be on the chamber floor for consideration; March 2, the last day to vote on bills except for reconciling versions and budget bills; and March 8, the short, 60-session's last scheduled day. ***[Rick Adair]***

[15] Oregon Cap-and-Trade Bills Clear First Legislative Hurdle • *from [3]*

A pair of companion cap-and-trade bills—one in the Senate, the other in the House—remained alive in the second week of the 2018 Oregon legislative session, after being voted out of committee Feb. 14 on a party-line votes.

The bills call for creating a cap-and-trade program that would include companies that emit more than 25,000 metric tons per year of carbon. Starting in 2021, the Oregon Environmental Quality Commission would set a cap on total emissions statewide. Roughly 100 companies in the state would then buy allowances annually to cover their emissions. Revenue from the allowance auctions would be invested in clean-energy programs that reduce or mitigate emissions.

Under both bills, emissions would drop 20 percent from 1990 levels by 2025, 45 percent from 1990 levels by 2035, and 80 percent below 1990 levels by 2050.

Movement of Senate Bill 1507 and House Bill 4001 from their respective committees of origin to their respective rules committees was a victory for climate activists, but the bills still have a long legislative journey ahead with very little time to finish. The session is scheduled to end March 11.

About 500 climate activists rallied at the capitol Feb. 12 in support of the "Clean Energy Jobs" bills, which are staunchly opposed by the state's investor-owned utilities and most public-power utilities, along with a litany of business organizations.

In earlier testimony, during a joint House-Senate hearing on Feb. 7 (CU No. 1837 [15]), both Portland General Electric and PacifiCorp said they were concerned the bills weren't accounting for work already done to address emissions, notably the "Clean Electricity, Coal Transition" legislation that eliminates the cost of imported coal-fired generation from Oregon rates in 2030 and increases the state's RPS to 50 percent by 2040. That bill passed in the 2016 short session after an initiative campaign placed the question of banning importing coal-fired generation on the ballot.

Moderate Senate Democrats question whether this short session is the venue to debate such a sweeping measure, and Republicans in both chambers either oppose it or want to take it up again during the 2019 full session.

In the rules committee, each bill will continue to be amended in hopes of gaining support from the state's IOUs, which so far, are not satisfied with the most recent batch of amendments.

The House bill mirrors more closely California's cap-and-trade program, while the Senate bill tries to harmonize the bill with the "Clean Electricity, Coal Transition" by giving utilities free allowances for coal emissions.

The Senate Committee added several amendments to the bill before sending it to the Rules Committee. No changes were made to the House bill.

"The amendments [to SB 1507] don't address questions we still have around the bills, including how all customers would be protected from effectively paying twice for emissions reductions that already are set to occur through existing policy and initiatives," PacifiCorp said in a statement emailed to *Clearing Up*.

A spokesman for PGE said via email "the amendments don't address the concerns we've raised with the bill" (CU No. 1837 [15]).

Meredith Connolly, Oregon director of Climate Solutions, told *Clearing Up* that the investments utilities have already made in lowering emissions means they'd face less costs under a carbon pricing regime.

Connolly said that according to the IOUs' integrated resource plans, they have been projecting a price on carbon for the past decade. "They have always been expecting it," she said.

"If utilities are indeed ready to start to get under their proportionate share of the state's [greenhouse gas] emissions goals, which they are not doing or planning to, according the IRP planning, this will help accelerate decarbonization and provide them with an investment opportunity," she said.

The central question for legislators, so far, has been the bill's ultimate cost. During a debate in the Senate Committee on Environment and Natural Resources on Feb. 12, legislators thought costs would be between $400 million and $700 million annually. A final price tag won't be available until the bill goes to the Ways and Means Committee.

Sen. Alan Olsen, R-Canby, and vice-chair of the Energy and Natural Resources Committee, called the bill a "Tax and Job Loss" bill that was not fully vetted in energy policy committee.

"There are many unanswered questions on revenue impacts, the real costs to Oregonians, and legal issues. This legislative process is an injustice to all Oregonians, as they will be the ones to pay higher prices for everything, while actual decreases in CO2 'will be minuscule', according to the Oregon Director of Environmental Quality," Olsen said in a statement.

Sen. Cliff Bentz, R-Ontario, said during the Senate's public work session on Feb. 12 that it was "incumbent upon us to explain to the people of Oregon how much this piece of legislation will probably cost them."

"It's one thing to refer to an auction and the magic of the market, and I appreciate that, but it doesn't go very far," he said. "I've heard estimates or guesses as high as $700 million and as low as $400 million. What do I tell folks when it comes to explaining how much this is going to cost them?"

Sen. Michael Dembrow, D-Portland, chair of the committee and sponsor of the bill, told Bentz that he thought costs would be closer to $400 million annually.

With the cap-and-trade legislation facing headwinds, rumors that environmental groups could launch a ballot initiative as early as next week aimed at forcing the state into a cap-and-trade program grew louder around Salem.

A lobbyist familiar with the bills, who asked not to be identified, said the issue for the state's IOUs may be to decide if the current bills represent the best deal they can get, or if they want to spend money to fight a ballot initiative.

Connolly told *Clearing Up* before the bills were moved out of committee, that "everything is on the table," (CU No. 1837 [15]), but declined to say if a initiative was imminent.

"For the next few weeks we are focused on the Legislature," she said. "We think the policy has been worked on for years and it's ready to go." ***[Steve Ernst]***

[16] POTOMAC: Trump Infrastructure Blueprint Calls for Faster Permitting • *from [7]*

The Trump administration's infrastructure blueprint, released Feb. 12, calls for faster project permitting, including a "one agency, one decision" framework for environmental approvals.

For energy projects, the administration proposed amending the Federal Power Act to require federal agencies to participate, upon request, in FERC preparation of project environmental reviews for licensing proceedings, which the plan says would encourage early resolution of environmental issues. The plan adds agencies would still be free to file comments in FERC project dockets.

The blueprint proposed making hydroelectric project construction eligible for financing with private activity bonds, which are tax-exempt instruments state and local governments can issue to fund private projects with public benefits. The blueprint also proposed a statutory change authorizing the U.S. Army Corps of Engineers to contract out operations and maintenance at hydropower facilities.

The blueprint, which would need congressional approval for proposed statutory changes, drew congressional reactions that fell largely along partisan lines. Rep. Greg Walden (R-Ore.), chairman of the House Energy & Commerce Committee, joined three of his subcommittee chairmen in saying "President Trump hit the nail on the head."

They cited committee-approved energy infrastructure bills that have passed the House, including legislation to streamline pipeline and hydropower permitting.

Rep. Peter DeFazio (D-Ore.), ranking Democrat on the House Transportation and Infrastructure Committee, denounced the blueprint as a "scam."

"This is not a real infrastructure plan—it is simply another scam, an attempt to sell our nation's infrastructure and create windfall profit for Wall Street while rolling back environmental protections," DeFazio said.

The $1.5 trillion blueprint calls for most funding to come from state, local and private sources. It would provide $100 billion in federal "incentive" grants to match new revenue from states and localities, $50 billion in rural infrastructure grants, and $50 billion in other funding, including $6 billion to expand the types of projects eligible for financing through private activity bonds.

The blueprint's permit streamlining proposals include a call for a 21-month deadline for completion of National Environmental Policy Act reviews and a three-month deadline for agencies to decide on permits after NEPA studies are completed. In addition, the blueprint proposes one NEPA review overseen by a lead agency.

In addition, the blueprint proposes creating an Interior Department public lands infrastructure fund, to be filled with half of royalty and other income from increased energy production on federal lands and offshore waters, up to $18 billion.

The administration called for giving the Interior Department authority to permit gas pipelines to cross National Park Service lands. Currently, congressional approval is required.

Cloudy Outlook for Trump DOE Budget

Deep reductions in energy research proposed in the Trump administration's 2019 budget request face a cloudy outlook in Congress.

Sen. Lamar Alexander (R-Tenn.), chairman of the Senate Appropriations Committee's energy and water subcommittee, made clear Congress would have the last word on funding levels.

In response to the 2019 request the administration sent to Congress on Feb. 12, Alexander said "the president may suggest a budget, but under the Constitution, Congress sets spending priorities and passes appropriations bills," adding he will give high priority to funding for national laboratories.

Alexander's subcommittee drafted a 2018 energy and water bill with significantly higher funds for energy research and development compared to the administration's 2018 budget request. The bill was reported out by the full committee last July. A budget agreement signed into law by Trump Feb. 9, which raised caps on domestic and defense spending, cleared the way for Congress to finish work on fiscal year 2018 appropriations.

For the Department of Energy, the administration's 2019 budget request included funding cuts similar to proposals last year that drew fire from lawmakers, including:

- Cutting energy efficiency and renewables research funding by nearly two-thirds below the FY 2017 level, to $696 million;
- Reducing nuclear energy R&D 31 percent, from $816 million in 2017 to $757 million;
- Terminating the Advanced Research Projects Agency-Energy (ARPA-E); and
- Ending the Low-Income Home Energy Assistance Program.

The Senate Appropriations Committee's 2018 energy and water appropriations bill, however, would budget nearly $1.94 billion for efficiency and renewables and $917 million for nuclear R&D. The bill would boost funding for ARPA-E by 8 percent.

The 2019 request said the administration seeks to focus energy R&D on "early-stage" research, citing "energy storage solutions beyond batteries" and advanced nuclear technologies, including small modular reactors. The Senate Appropriations Committee's bill report for its 2018 budget bill said the early-stage focus "will not adequately deliver innovative energy technologies, practices, and information to American consumers and companies."

The House's version of the 2018 bill is closer to the administration's proposals, including zero funding for ARPA-E, but it would appropriate $1.1 billion for efficiency and renewables research and $969 million for nuclear.

In the 2019 request, the administration dropped last year's proposal to kill Energy Star, but proposed charging fees to finance the program.

In a related announcement, DOE on Feb. 14 established an Office of Cybersecurity, Energy Security, and Emergency Response, focusing on protecting energy infrastructure from cyber and physical threats, and natural disasters. The 2019 budget request called for splitting DOE's Office of Electricity Reliability and Deliverability into two offices, one focused on grid stability, the other on cybersecurity.

The National Association of Regulatory Utility Commissioners praised DOE for establishing the cyber office.

FERC Clears Way for Storage in Centralized Markets

FERC approved a rule on Feb. 15 clearing the way for energy storage resources to buy and sell energy, capacity and ancillary services in centralized wholesale power markets.

The rule requires independent system operators, including California ISO, and regional transmission organizations to revise their tariffs to establish a "participation model" recognizing the "physical and operational characteristics" of storage resources. The model must allow for storage resources to set market clearing prices as both buyers and sellers, FERC said.

The rule directs markets to set minimum size requirements no larger than 100 kW.

Commissioner Cheryl LaFleur likened storage to a "Swiss army knife" capable of serving a range of energy market needs.

EEI, NRDC Jointly Back Efficiency, Grid Upgrades

A national utility group and a leading environmental organization issued a joint statement on Feb. 14 supporting accelerated development of energy efficiency, renewable resources, grid modernization and electrified transportation.

Edison Electric Institute, the national trade group for investor-owned utilities, and the Natural Resources Defense Council issued the unusual joint statement at a meeting of the National Association of Regulatory Utility Commissioners.

The statement called for continued support of state and federal efficiency standards for buildings, lighting and appliances, and funding for the Low-Income Home Energy Assistance Program. The Trump administration has proposed zeroing out LIHEAP in its fiscal year 2019 budget request, a proposal likely to encounter strong opposition from lawmakers representing cold-weather states.

On grid upgrades, the statement supported "new approaches" for grid planning, including evaluating "a full portfolio of cost-effective solutions to help meet system needs."

In the statement, EEI and the NRDC also backed "rate design and regulatory reforms that accommodate rapid technology change and evolving customer expectations," while acknowledging "one size will not fit all in the search for solutions."

DOE IG Audit Slams Summit Power Project

A Department of Energy inspector general's report released Feb. 8 spotlighted what it called questionable costs and lax DOE oversight in connection with federal support for a Summit Power Group subsidiary's coal gasification project.

In the report, Assistant Inspector General Sarah Nelson said the Texas Clean Energy Project charged $2.5 million in "potentially unallowable" costs to the project, including lobbying and travel expenses. Among the travel expenses, the report said, were consultant charges for alcoholic beverages, first-class air travel, limousine service and meal catering.

In addition, the report said DOE approved $38 million in reimbursements and cost-share expenses without receiving adequate documentation.

DOE committed $450 million for the project, proposed by Summit Texas Clean Energy LLC, a subsidiary of

Seattle-based Summit Power Group. Summit planned a 400-MW integrated gasification combined-cycle plant, including 90 percent carbon dioxide capture for enhanced oil recovery.

In response to an earlier IG report, DOE pulled its funding in 2016. Summit Texas Clean Energy filed for bankruptcy last October, and the LLC and its parent company sued DOE in the U.S. Court of Federal Claims.

EPA Enforcement Memo Draws Fire

An EPA guidance memo indicating the agency would not "second-guess" utility emissions projections in connection with New Source Review permitting drew fire Feb. 14 at a House subcommittee hearing.

Georgetown University law professor Emily Hammond said EPA Administrator Scott Pruitt's guidance, issued Dec. 7, would "wholly abdicate" enforcement of the Clean Air Act's New Source Review provision, which addresses pre-construction analysis for permitting of new and modified fossil-fueled power plants and other industrial facilities. Under New Source Review, facilities making "major modifications" resulting in "significant" emissions increases can be required to install up-to-date pollution controls.

Hammond testified at a hearing of the House Energy and Commerce Committee's Energy Subcommittee.

In the Dec. 7 memo, EPA said it "does not intend to substitute its judgment for that of the owner or operator by 'second-guessing' the owner's or operator's emissions projections."

John Walke, the NRDC's clean air director, testified the memo would encourage industrial facilities to lowball emissions estimates in their New Source Review analyses, leading to increased emissions. He also said the memo threatens to strip states of delegated authority to administer New Source Review if they don't adhere to the guidance.

Other witnesses at the hearing said New Source Review's complexity discourages plants from making upgrades that would improve energy efficiency. Jeffrey Holmstead, who was EPA's air quality chief from 2001 to 2005, said under current NSR practice, power plants running with greater energy efficiency are considered likely to run longer hours, thereby increasing emissions and triggering NSR.

"If you have followed this convoluted reasoning, I think you will be outraged by it," Holmstead said.

Committee Chairman Greg Walden (R-Ore.) said New Source Review nearly derailed a proposed data center expansion in Prineville, Ore., over an issue involving potential emissions from backup generation.

Energy Permitting Reform Backed

Electric and gas industry officials asked Congress to pass legislation to speed permitting of transmission and pipeline projects, in testimony at a Feb. 8 hearing the Senate Energy and Natural Resources Committee held on energy infrastructure.

Officials from Edison Electric Institute and Interstate Natural Gas Association of America supported legislation requiring federal resource management agencies to adhere to permit review timelines and strengthening FERC's lead role for pipeline permitting.

Donald Santa, the gas association's CEO, urged Congress to pass legislation requiring federal agencies to decide on pipeline permit authorizations 90 days after FERC has finished environmental reviews. The House last July 19 passed HR 2910 setting the deadline, but the Senate has not acted on the bill.

Philip Moeller, EEI's executive vice president, also called on FERC to revise its "discounted cash flow" methodology, which he said yields return on equity estimates inadequate to attract sufficient capital for transmission projects. "The commission has to deal with this," Moeller said.

Another impediment to transmission projects, Moeller added, is "pancaked" complaints in transmission rate cases. An EEI paper said low interest rates have resulted in consumer advocates, states and transmission customers challenging returns on equity in rate cases, with new complaints filed before existing complaints have been resolved.

Both Santa and Moeller are former FERC commissioners.

BLM Proposes Replacing Venting, Flaring Rule

The BLM on Feb. 12 proposed replacing the rule significantly limiting venting and flaring emissions from oil and gas wells on federal and tribal lands.

The agency said the rule, finalized in 2016 shortly before then-President Barack Obama left office, added "regulatory burdens that unnecessarily encumber energy production" and duplicated state regulations. BLM said the replacement rule would resemble regulations the 2016 rule superseded.

In addition, the BLM said it is seeking comments on ways to "incentivize" capture, reinjection or reuse of vented gas.

Last Dec. 8, the BLM approved a delay until next Jan. 27 of the rule's requirements covering waste minimization planning, gas capture, well completion and well maintenance. The attorneys general of California and New Mexico filed suit against the delay in the U.S. District Court for Northern California.

Panel OKs Ceiling Fans Standards Bill

The House Energy and Commerce Committee on Feb. 14 reported out legislation, HR 3477, to harmonize effective dates for ceiling fan and fan lighting kit energy-efficiency standards.

The bill would set the effective date for both standards at Jan. 21, 2020, the current effective date for the fan standard. Today, the lighting kit standard is due to take effect Jan. 7, 2019.

House Passes Nuclear Research Bill

The House on Feb. 13 passed legislation, HR 4378, directing the Department of Energy to develop a research reactor producing fast neutrons.

Rep. Lamar Smith (R-Texas), chairman of the House Science Committee, said the reactor would enable scientists to study materials and fuels for fast reactors. The bill approves $1.99 billion in fiscal years 2018 through 2025 to develop the reactor.

The House passed the bill by voice vote.

Advanced Nuclear Touted for Rescuing Industry

Advanced nuclear reactors, including NuScale Power's small modular designs, promise to revive the domestic

nuclear power industry, but the U.S. is at risk of falling behind other countries in technology development, witnesses told a House subcommittee hearing Feb. 6.

Victor McCree, the NRC's executive director of operations, told the House Energy and Commerce Committee's Energy Subcommittee that the NRC's review of Portland-based NuScale's small modular reactor (SMR) design is "on schedule" toward a decision by September 2020.

Utah Associated Municipal Power Systems has indicated interest in seeking an operating license for a plant using small modular reactors, McCree said.

Ed McGinnis, the Department of Energy's principal deputy assistant secretary for nuclear energy, said SMRs offer flexibility advantages that have drawn interest from utility customers in the U.S. and overseas. DOE is researching "hybrid generation" pairing SMR plants with renewable generation, which he said could provide potential load-following benefits.

SMRs could find markets in countries "whose grids are too small to handle" plants with 1 GW capacity or larger, "or don't have the capital to finance" larger nuclear plants, McGinnis said.

McGinnis also said testing will begin this year on "accident-tolerant" fuels with "better cladding" providing greater heat tolerance. He said if the tests prove out the technology, commercial plants could begin using the fuels by 2025.

While the private sector is researching designs that could revive the U.S. nuclear industry and serve export markets, federal licensing and export control processes are too slow, Ashley Finan, policy director of the Nuclear Innovation Alliance, told the subcommittee. Russia, China and India are developing light-water reactor alternatives, she noted.

Utilities are interested in nuclear reactor designs that are "simpler and cheaper to build and operate," but the current NRC reactor licensing process forces developers to bear "enormous front-loaded investments," Finan said. She called for a "staged" licensing process offering "clear and early feedback" to developers. ***[Jim DiPeso]***