



## The Week In Summary

### [1] Northwest Grid Rides Out Historic Heat Wave

Historic high temperatures swaddled the Northwest in June’s final days, smashing some long-standing records, straining the grid, and causing deaths in a region accustomed to moderate summer temperatures and little need for air conditioning. Especially hard hit by the heat was Avista, which had to implement “temporary unplanned power outages” during the afternoon and evening of June 28 as temperatures tied a 105-degree record in Spokane and put a “strain on the electric system” with a new load record. *At [11], more high temperatures on the way as the heat pushes to the east.*

### [2] Fish, Drought, Water Supply Impacted by ‘Unprecedented Heat’

An unprecedented heat wave is exacerbating the region’s serious drought conditions, and forecasters say some reservoirs may start at a deficit when the new water year begins Oct. 1. The heat is also leading to concerns for this year’s run of endangered Snake River sockeye, which are just starting their journey upriver in water temperatures that could turn deadly. *At [14], it’s not over yet in the Columbia Basin.*

### [3] Good Timing, Renewables Bulked Up NW Capacity During Heat Storm

The Northwest had plenty of available capacity to meet increased demand during the recent heat storm, including an unusually healthy contribution from renewable energy, according to the Northwest Power Pool. Despite triple-digit temperatures in the Columbia Gorge, the Northwest wind fleet made significant contributions to meeting peak during the three-day event. The region also benefited from strong hydro, along with an unusual amount of solar imports from California and the Southwest. *At [12], “operating outside of the planning criteria.”*

### [4] Oregon OKs Clean Energy Bill, Sets Stage for West Coast ‘Clean’ Sweep

Oregon is on the brink of enacting one of the most aggressive clean energy standards in the country, after the Senate passed House Bill 2021 on June 25 with a 16-11 vote. The bill now heads to Gov. Kate Brown’s desk for her signature, and when that happens it will put the West Coast electric sector on track to being 100 percent clean by mid-century. *At [16], addressing clean energy, jobs, environmental justice and community renewables.*

### [5] Puget Sound Energy Cleans Up Cost Adders in All-Source RFP

Washington’s biggest utility, Puget Sound Energy, is asking for bids for up to 1,506 MW of capacity resources. The final request for proposals addressed concerns that earlier versions put renewable energy resources at a disadvantage. *At [13], PSE plans to put out a distributed energy resource RFP in early 2022.*

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

## Opinion & Perspectives

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## Price Report

Heat Demand Dictates Western Prices  
**Details on Page 6.**

## Energy Jobs Portal

Go to [www.EnergyJobsPortal.com](http://www.EnergyJobsPortal.com) for the latest in regional energy career opportunities.

## [6] Talen Energy, Montana DEQ Reach Deal on Colstrip Ash Pond Cleanup

After six months of negotiations, Talen Energy and the Montana Department of Environmental Quality tentatively agreed to a cleanup plan for Colstrip units 1 and 2 coal-ash storage ponds estimated to cost \$163 million. *Once a final deal is signed later this year, Talen has up to two years to push for changes, at [17].*

## [7] 9th Circuit Rules for Warm Springs and PGE, Citing Tribal Immunity

The 9th U.S. Circuit Court of Appeals ruled that a lawsuit against Portland General Electric and the Confederated Tribes of the Warm Springs Reservation of Oregon should have been dismissed due to tribal sovereign immunity, rather than because of a lack of Clean Water Act violations as U.S. District Judge Michael Simon found in 2018. The case, brought by the Deschutes River Alliance, alleged operations at the Pelton Round Butte hydroelectric project violated the CWA. *At [15], we “believe the case should be judged on the merits of the science,” the alliance says.*

## [8] POTOMAC: Biden Meets With Western Leaders on Fire Risks

Eight Western governors, joined by the CEOs of BPA, Portland General Electric and Edison International, met virtually on June 30 with President Joe Biden and other top officials to discuss preparedness for wildfire season, which the White House said is on track to outpace last year’s in severity. Meanwhile, Biden signed a resolution throwing out a Trump administration rule that dropped methane emissions limits on new and modified upstream oil and gas facilities, an action that reinstated regulations adopted in 2016. *NRC proposes rule to formally certify NuScale’s small modular reactor design, at [18].*

## Briefs

## [9] NW Delegation, Conservationists Join Push for Action on Columbia River Treaty

Twenty-one members of the Northwest congressional delegation sent a [letter](#) to President Joe Biden on June 29, asking his administration to update the Columbia River Treaty and keep Congress apprised of the negotiations.

The U.S. Treaty Conservation Caucus joined the effort with a June 30 [letter](#) to U.S. Secretary of State Antony Blinken, also asking for action and transparency on the treaty. This letter also requests adding a new voice for ecosystem function to the U.S. Entity—which currently comprises BPA and the U.S. Army Corps of Engineers—and that tribal ecological wisdom be considered in negotiations.

The letters come on the heels of an appeal by Sen. Patty Murray (D-Wash) and recent lobbying by the Columbia River Treaty Power Group ([CU No. 2008 \[10\]](#)). Murray asked Blinken at a Senate Appropriations Committee hearing for prompt modernization of the treaty.

The letter from Northwest lawmakers notes that federal funding to manage flood risk will be needed as soon as 2023 and 2024, and the Corps has not identified its strategies in the agreement with Canada or identified its funding needs for post-2024 flood control changes that are part of the current treaty.

“We stress the need for a top-level White House led strategy for the Treaty negotiations, as well as regular substantive updates to Members of Congress on the status of negotiations and estimated funding needs,” the letter states.

It also asks for power benefits to Canada (known as the Canadian Entitlement) to be rebalanced for equitable sharing. “We oppose any assumption or negotiation position that our ratepayers will continue to indefinitely pay the outdated and unfair Canadian Entitlement or be responsible for flood control payments that should be a federal obligation,” the letter states.

A news release from Rep. Dan Newhouse (R-Wash)—one of the lawmakers to sign the letter—says that the letter follows 12 months with no formal negotiations, and “an unacceptable lack of communication from the State Department with the region’s Members of Congress.”

In their letter, environmental groups noted limited communications from the State Department, which has held just five public events in the Northwest on negotiations. They also wrote to the negotiating team in Canada and First Nations that are participating, commending them for their regular and comprehensive engagement with citizens. [*K.C. Mehaffey*]

## [9.1] Enviro Object to Emissions Omission in NWE’s Natural Gas Plant Application

NorthWestern Energy’s application for a new 175 MW natural gas-fired power plant downplays carbon emissions and sidesteps climate change altogether, according to the environmental group Friends of 2 Rivers.

The application does not even give enough information about how NWE might run the plant to estimate potential carbon emissions, Friends of 2 Rivers’ science advisor Gary Matson said in an interview.

Matson wrote the comments the group submitted June 26 to the Montana PSC, which is considering the utility’s request for preapproval for the proposed plant and a contract with a proposed battery storage facility.

To get preapproval, the utility is not required to provide specific emissions details. Instead, it must submit a carbon emission offset plan, which it did along with the application filed in May [*2021.02.022*].

NWE proposes a one-time \$327,000 payment for carbon offsets from The Climate Trust, which operates offset and reduction projects in Montana.

The formula used to calculate the dollar amount is the result of a state law and MPSC rules. The inputs are the plant’s nameplate capacity and projected market price of electricity per megawatt-hour. The amount of greenhouse gas emissions from the plant is not considered. The offset plan’s price tag per megawatt-hour is statutorily capped at 2.5 percent of the utility’s annual revenue requirement.

NWE’s proposed offset plan would prevent emission of 21,800 tons of carbon dioxide, according to prefiled testimony by Mary Gail Sullivan, the utility’s director of environmental compliance.

A word search for “climate change” turned up one result in NorthWestern’s application and supporting exhibits—a flyer from The Climate Trust. The phrase is rarely mentioned in NWE material, except in earnings reports when discussing how climate change or related regulations could hurt the company’s bottom line.

“These people aren’t dumb,” Matson said. “They all understand climate change, but they don’t account for it in their planning.” *[D. C.]*

## **[9.2] Washington Regulators Hand Ecology Partial Win Over Water Temperature Standards**

The Washington State Pollution Control Hearings Board has indicated it will rule the state’s Department of Ecology can require the U.S. Army Corps of Engineers to adhere to water temperature standards at its four lower Columbia River and four lower Snake River dams.

In a June 28 [letter](#) to parties in *U.S. Army Corps of Engineers v. State of Washington, Department of Ecology [P20-043c]*, Board Chair Neil Wise wrote that the board will be issuing an order granting motions for partial summary judgment in favor of Ecology and four environmental groups that intervened on six of the nine issues raised by the Corps in its appeal. The letter also said PCHB will deny a motion for summary judgment by the Corps on all nine issues.

“This letter does not constitute the Board’s final decision and order on the parties’ motions, which will be issued at a later date,” the letter said in bold writing, adding that the letter is not appealable or subject to reconsideration.

In June 2020, the Corps appealed Ecology’s water quality certifications, issued when the federal agency applied for National Pollutant Discharge Elimination System permits for the eight dams as agreed to in a court settlement. The certifications imposed numerous conditions, including efforts to meet water temperature standards. Ecology said the requirements are similar to those at other hydroelectric projects in the state.

The letter indicates that PCHB agrees Ecology has the authority to impose conditions at the eight dams even if they interfere with the Corps’ ability to operate and maintain the dams for multiple purposes as authorized by Congress. Ecology can also require the Corps to undertake strategies to meet water temperature standards, meet total dissolved gas standards, deal with issues related to cooling water intake structures and unilaterally modify the certifications, the letter indicated.

Legal issues that have not been decided are scheduled for a preliminary hearing Aug. 9-17, and include conditions over best management practices and use of adaptive management; the feasibility of using environmentally acceptable lubricants; and the review and approval of a polychlorinated biphenyls management plan.

Environmental groups applauded PCHB’s letter.

“Today’s announcement is a significant step toward holding the Army Corps accountable for the heat pollution caused by its dams and reservoirs,” Columbia Riverkeeper’s Executive Director Brett VandenHeuvel said in a news release. *[K.C. M.]*

## **[9.3] Tiny Battery for Fish Tagging Developed by Pacific Northwest National Laboratory**

The Pacific Northwest National Laboratory has developed a new “super small” battery and acoustic tag to track fish so biologists can study younger fish and smaller species.

The Eel/Lamprey Acoustic Tag, or ELAT, is the size of a grain of rice but with twice as much energy as a AAA battery, according to PNNL.

The new tag was developed over the past decade in part to study Pacific lamprey, a sensitive species in the Columbia Basin that has experienced significant declines.

“Pacific lamprey are difficult to research and are, therefore, understudied,” PNNL Earth scientist Stephanie Liss said in a news release. “There’s a lot we still don’t know about them, and this tag opens the door to learning more about their behavior.”

In addition to lamprey, the tags have been tested on Chinook salmon migrating to the ocean in the Columbia River. Scientists determined that fish as small as 2.3 inches can be tagged without impacting their ability to swim. Previously, only fish larger than 3.7 inches could be tagged without affecting their mobility.

The smaller battery and tag will allow scientists to tag and study the downstream survival rates for lamprey, and smaller or younger salmon and steelhead.

In studies, the tags worked in a variety of settings, from shallow water to tailraces at hydroelectric projects. Nearly all of the fish studied retained their tags, survived and had the same growth rate as untagged fish, PNNL says.

The smaller battery with more energy lasts 30 days and provides an acoustic signal that pulses every five seconds over the length of a football field. Costs of the tag are similar to other acoustic tags, which were also originally developed by PNNL.

“This tag opens up possibilities to track movement of a variety of species and life stages that we were previously unable to study,” said Daniel Deng, PNNL fellow and mechanical engineer who led development of the new device.

PNNL says the information gained from studying lamprey and younger salmon will help support sustainable hydropower by informing future design and operations.

Work to develop the new tag was funded by the U.S. Army Corps of Engineers and the U.S. Department of Energy’s Water Power Technologies Office. PNNL’s Laboratory Directed Research and Development program funded the study on its use in Chinook salmon. *[K.C. M.]*

## **[9.4] Washington Denies Goldendale Water Quality Certification ‘Without Prejudice’**

The 1,200 MW Goldendale pumped-storage project planned for along the Columbia River in Klickitat County will have to reapply for a key water quality certification after the State of Washington denied it “without prejudice” on June 22, saying it “has not received the necessary information to have reasonable assurance that the project will meet state water quality laws.”

Project developers applied for the Section 401 certification on June 29, 2020, and under federal law a decision must be issued within a year.

The Department of Ecology says it still has questions about how the project will mitigate the loss of stream and riparian habitat in wetlands; whether groundwater will be contaminated by excavation of the project's lower pool, which is on a former aluminum smelter site; how wastewater and stormwater disposal will be conducted; and how contaminated soil from the site will be addressed.

Goldendale is being jointly developed by Copenhagen Infrastructure Partners and Rye Development ([CU No. 1979 \[9\]](#)). The project is slated to go into operation in 2028.

Colleen Keltz, Ecology spokeswoman, told Clearing Up the project developers applied for certification application "too early," given the complexity of the undertaking. **[R. A.]**

### **[9.5] Brief Mentions: News Roundup**

Sid Morrison has retired from public service, resigning June 30 from Energy Northwest's executive board, which he joined in July 2001 and had chaired since 2006. Morrison's post as an outside director of the board will be filled by Janet Herrin, whose appointment was announced in April ([CU No. 2001 \[8.5\]](#)). Before joining ENW, Morrison served in the Washington House of Representatives from 1966 to 1974 and in the Washington Senate from 1974 to 1980. As a state legislator, he chaired Washington's Joint Committee on Nuclear Energy. He represented Washington's 4th District for six terms, from 1980 to 1992. In 1993, the Washington Transportation Commission appointed him Secretary of Transportation, where he served until 2001.

**Oregon Gov. Kate Brown** on June 30 preemptively declared a state of emergency due to imminent threat of wildfires across the state. Brown's declaration authorizes the Oregon Department of Forestry and the Oregon Office of the State Fire Marshal, in coordination with the Oregon Office of Emergency Management, to utilize personnel, equipment and facilities from other state agencies in order to respond to or mitigate the effects of the wildfire emergency. The extended forecast for the state calls for continuing unseasonably high temperatures with no rain in sight, and with 19 counties already in declared drought emergencies, the threat of wildfire in Oregon is imminent, the declaration says.

An energy recovery project capable of generating up to 94 MWh per year (about 11 kW) has been installed at a booster pump station of the Skagit County PUD water system in Mount Vernon, Wash., the utility announced June 29. The generated electricity will be used to offset the grid power used by the pump station. The project employs a "smart" water and micro-hydro system developed by InPipe Energy that uses the excess pressure to generate in-line hydropower. Funding for the \$400,000 project included \$100,000 from Skagit PUD, and grants from TransAlta's Centralia Coal Transition Board (\$200,000), Puget Sound Energy's Beyond Net Zero Carbon initiative (about \$46,000) and InPipe Energy (about \$54,000). Project planning began in April.

**Holland Cohen has been appointed** to the Tacoma Public Utility Board, replacing Bryan Flint, who recently retired. Cohen owns and manages a real estate brokerage. The five-member board governs Tacoma Power, Tacoma Water and Tacoma Rail, and serves 200,000 customers in the Tacoma-Pierce County area. Members serve five-year terms without pay, and are appointed by the mayor and confirmed by Tacoma's City Council. **[C. U.]**

### **[9.6] CLARIFICATION: Pacific Direct Current Intertie Maintenance Delayed**

The previous issue's Price Report (CU No. 2010), quoted an Energy GPS report stating the Pacific Direct Current Intertie, a transmission line between the Pacific Northwest and California, was off line for maintenance. In fact, however, BPA and the Los Angeles Department of Water and Power had coordinated to delay that maintenance. We apologize for any confusion this may have caused. **[C. U.]**

### **[9.7] CORRECTION: Proposed BPA Transmission Rate Increase Is 6-8 Percent**

An article in the previous issue on BPA's draft BP-22 record of decision ([CU No. 2010 \[8\]](#)) incorrectly stated that the proposed transmission rates would be 0.5 percent less than the BP-20 rates over the two-year rate period. In fact, the rates will increase by 6 to 8 percent. We regret the error. **[C. U.]**

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# Opinion & Perspectives



## Bearing Down

### [10] Guest Opinion: Oregon Legislature Passes House Bill 2021

**SUMMARY:** When enacted later this month, Oregon's House Bill 2021 will align the state with New York for the most aggressive state clean electricity goal in the country—zero greenhouse gas emissions in the grid by 2040, says Angus Duncan, former chair of the Northwest Power and Conservation Council and president of the Bonneville Environmental Foundation. Duncan says the bill's passage owes much to the emergence of Oregon's equity and environmental justice communities as a new ally, and notes that much work still remains to turn the state's still-climbing emissions around.

House Bill 2021, Oregon's "100 Percent Clean Electricity" bill just approved by the Legislature and sent to Gov. Kate Brown's desk for signing, aligns with New York for the most aggressive state clean electricity goal in the country—zero greenhouse gas emissions in the grid by 2040. Together with commitments by California and Washington to the same outcome by 2045, it envisions a 100 percent clean West Coast before midcentury.

With President Joe Biden proposing 100 percent clean electricity by 2035, and the continuing tech gains and power cost reductions in solar, wind and storage, there's every likelihood all these state goals will be revisited and revised to still earlier dates.

HB 2021 isn't the sweeping cure-all carbon-cap bill many in Oregon have sought. In some ways it's Oregon catching up to similar standards adopted by our neighbors north (Washington) and south (California), and seven other states. A broader, economywide carbon cap was deep-sixed by Republican legislators walking out on their jobs the last two sessions to deny the Democratic majority the two-thirds quorum requirement in our constitution.

But the bill has many winning qualities that, together with other steps the state and local governments have taken, raise the national bar for state-level climate and clean energy actions and ambitions.

As important, the measure was developed prior to the session in determined stakeholder meetings that included the investor-owned electric utilities, environmental justice advocates, unions, local governments, consumer advocates and environmental organizations. It arrived in Salem with broad support, and with provisions sought and agreed to by a broad coalition of parties.

#### Elements of HB 2021: Setting an Oregon 100 Percent Clean Standard for Electricity

First the substance: The bill sets a 2040 sunset on any greenhouse gas emissions in electricity served to Oregon homes and businesses by regulated utilities and independent providers (consumer-owned utilities aren't regulated by the Oregon PUC, but their hydroelectric-based resources are already near 100 percent emissions-free).

To get earlier reductions, the bill has intermediate required targets: 90 percent clean by 2035; 80 percent by 2030. The regulated utilities must demonstrate to their regulators "continuous progress" toward decarbonizing in between those dates. OPUC is directed to authorize all the usual suspects—renewables, storage, energy efficiency, demand management, fossil plant retirements—as elements of a utility's Clean Energy Plan.

Other key elements:

- **No New Gas in Oregon**—No siting of new gas-fired generation in Oregon.
- **Managing Customer Risk**—Emissions reductions can be paused if costs spike or system reliability is threatened, but the requirements are only stayed during the event, and utilities must have an approved plan to return to the reductions pathway.
- **Community Energy**—Utilities must work with the communities they serve on local ("distributed") energy development and resilience projects, and with local governments offer "green" tariff plans to consumers. The bill authorizes \$50 million in state support for community energy projects.
- **Labor Standards**—Requires prevailing wage and benefits for any new energy project 10 MW or larger.

#### The Fruits of Collaboration

The bill is only the most recent product of a several-decades-long collaboration between environmental and ratepayer advocates and the state's two large electric utilities, Portland General Electric and PacifiCorp. These parties have the same adversarial relationships and points of friction that such groups have elsewhere in the country. But they also have a history of searching out common ground, beginning in the 1980s with agreement to begin treating electricity efficiency as an energy resource that would compete, in utility planning, with new power plants. Over the years, efficiency has become the second largest electricity "resource" in the Pacific Northwest's portfolio—behind hydroelectricity, but ahead of any fossil fuel.

This collaboration has led also to: (1) One of the first legislated renewable portfolio standards in the country, in 2007; (2) A negotiated agreement to early closure—by the end of 2020—of Oregon's only in-state coal plant, PGE's 550 MW Boardman facility; and (3) Senate Bill 1547, setting a 2030 end date for delivering any coal-generated electricity to customers, in the 2016 session.

#### Emergence of a New Ally

A key reason for this session's success has been the active collaboration of Oregon's equity and environmental justice communities. These stakeholders made serious and substantive contributions to HB 2021, especially in shaping and advocating for community energy, resilience and labor standards provisions that would not have made the cut without their increasingly skilled advocacy. They also developed the bill template we and the utilities ended up using, which was introduced on their behalf. They also

*Continued on page 5*

# Price Report

## Heat Demand Dictates Western Prices

Oppressive, unrelenting heat throughout the Western U.S. generally supported demand and bolstered energy prices between June 24 and July 1.

Conditions prompted Avista to institute rolling blackouts in the Northwest (see [11]).

Daytime power prices surged higher June 28 as searing heat intensified in the Pacific Northwest. California-Oregon Border peak power reached \$325/MWh and settled at \$55.70/MWh by July 1. The hub gained the most value week over week, adding \$16.20 in June 25 to July 1 trading.

Elsewhere in the West, daytime prices increased by roughly \$10 to \$14, with values ranging from \$51.60/MWh at South of Path 15 to \$61/MWh at Palo Verde.

California ISO demand reached 38,199 MW July 1—2,280 MW less than the June 18 high of 40,479 MW. Solar generation supplied 12,642 MW of power July 1, which was roughly a third of demand.

Total renewables on the grid peaked at 17,149 MW June 25, which was about 50 percent of the day’s total demand.

Off-peak prices diverged—Pacific Northwest nighttime power values eroded by less than \$2, but other hubs gained as much as \$8.20 in trading. SP15 nighttime power gained \$8.20 to arrive at \$46.80/MWh by July 1.

A majority of Western natural gas hubs added between a penny and as much as 44 cents, led by El Paso-Permian Basin, which rose 44 cents to end at \$3.47 by July 1. Three Pacific Northwest hubs saw values erode by between a penny and 4 cents week over week. Both PG&E CityGate and SoCal CityGate natural gas prices remained above \$4 at \$4.77/MMBtu and \$4.51/MMBtu, respectively.

Henry Hub natural gas values gained 48 cents to end at \$3.77/MMBtu July 1.

National working natural gas in storage was 2,558 Bcf as of June 25, according to U.S. Energy Information Administration estimates, which is a net increase of 76 Bcf compared with the previous week.

Southern California Gas announced several “enhancements” to its ENVOY reporting system, which were available beginning July 1. This included several new screens with hourly information, such as receipts and inventory. There is also now a graph for daily storage inventory levels, which shows storage amounts in each storage field.

In June, searing heat pushed regional average high peak energy prices higher than in 2020 (see “Price Trends,” next page).

The average peak power price for Palo Verde in June rocketed to \$1,575/MWh, a year-over-year increase of almost \$1,527. Other hubs increased by between \$88.05 and as much as \$301.30 compared with the year prior.

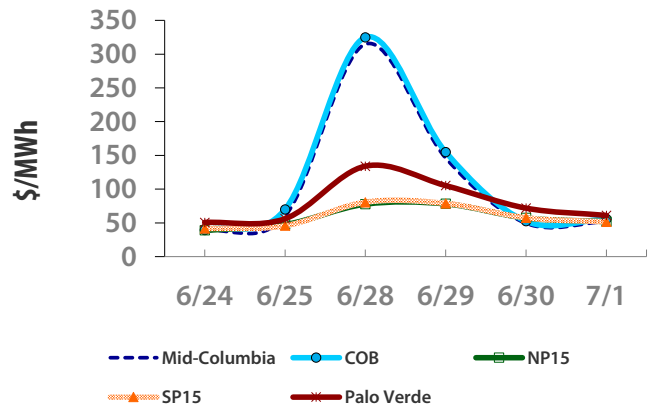
Western natural gas hub prices followed suit, with SoCal CityGate gaining the most, up \$4.52 year over year to \$6.51/MMBtu.

The high price at Henry Hub in June was \$3.74/MMBtu, \$1.97 more than the \$1.77/MMBtu recorded in 2020.

*[Linda Dailey Paulson]*

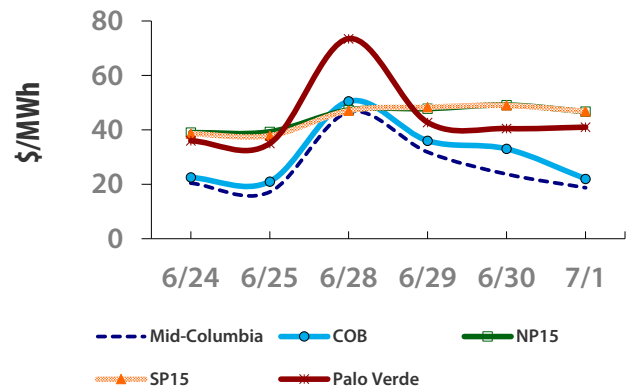
### Average Peak Power Prices

Thurs., 06/24 - Thurs., 07/01



### Average Off-Peak Prices

Thurs., 06/24 - Thurs., 07/01



### Average Natural Gas Prices (\$/MMBtu)

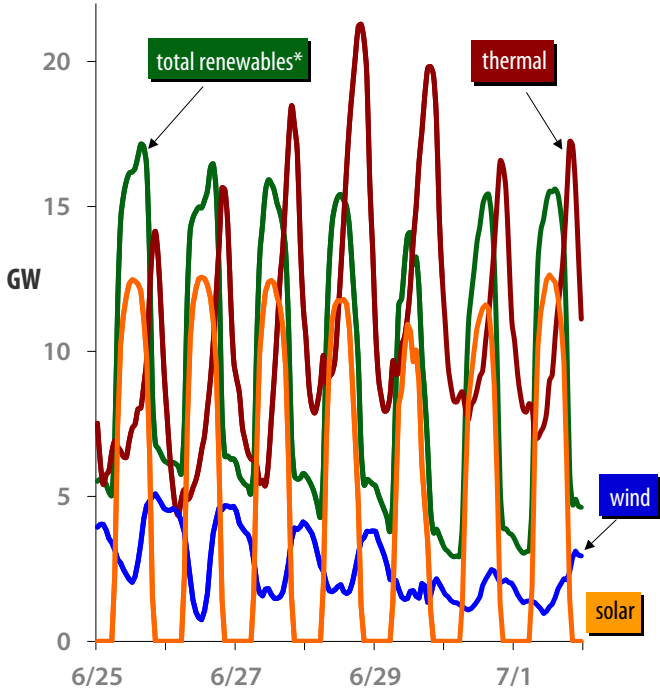
	Th. 06/24	Tues. 06/29	Th. 07/01
Henry Hub	3.29	3.74	3.77
Sumas	3.35	3.44	3.36
Alberta	2.60	3.21	2.94
Malin	3.46	3.91	3.42
Opal/Kern	3.43	3.91	3.41
Stanfield	3.40	3.80	3.38
PG&E CityGate	4.76	5.31	4.77
SoCal Border	3.85	5.52	3.99
SoCal CityGate	4.24	7.07	4.51
EP-Permian	3.03	3.72	3.47
EP-San Juan	3.17	3.89	3.48

Power/gas prices courtesy of Enerfax

## Power Gauge

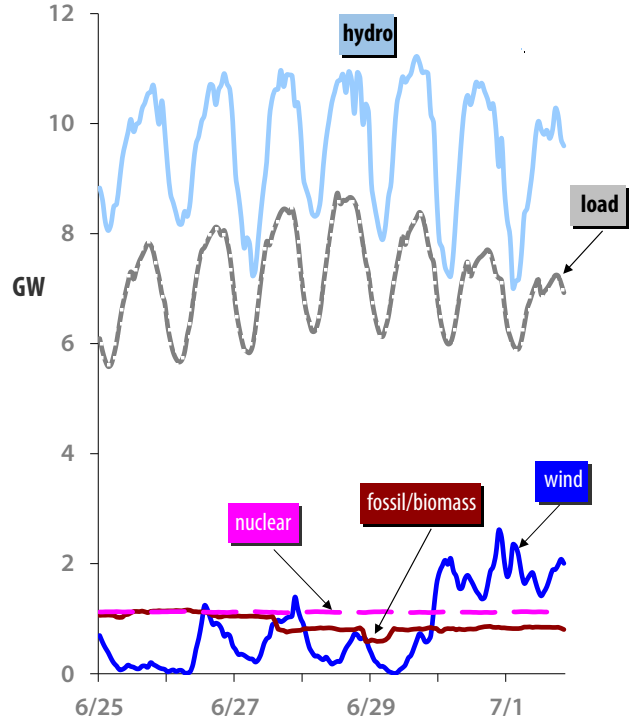
### CAISO Power Production

Rolling Average, 06/25 - 07/01  
 Peak Demand: 38.2 GW on 07/01



### BPA Loads and Resources

Rolling Average, 06/25 - 07/01

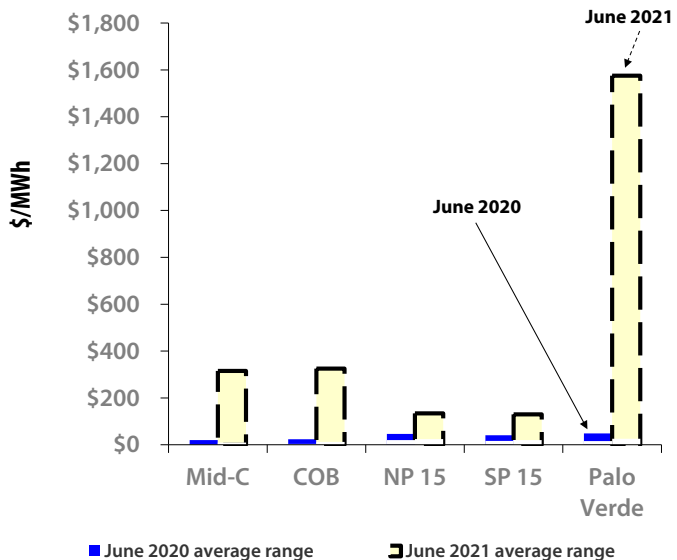


Sources: CAISO and BPA

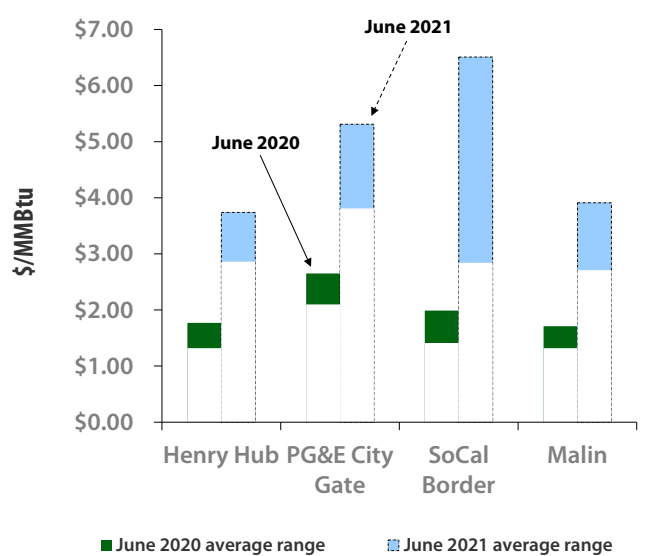
\* includes small hydro (<30 MW)

## Price Trends

### Spot Peak Power Trends



### Spot Natural Gas Trends



Source: Enerfax

moved legislation to help low-income households with home weatherization and bill-paying assistance to protect against utility service interruptions.

### Collateral Efforts Continue in Oregon

While legislative struggles often hog the limelight, there's important complementary work underway at agency and community levels to refine and press forward the state's decarbonization agenda.

- Brown's 2020 *Executive Order* stepped up the state's GHG reduction goals, included directions to every state agency with a share of the climate agenda, and required them to "prioritize and expedite (actions) that could accelerate reductions."
- Oregon's Department of Environmental Quality is developing *an administrative carbon cap* that will require emissions reductions in sectors where existing state law allows, including for transportation, natural gas and industrial emissions.
- Separately, DEQ is upping Oregon's *Transportation Clean Fuels* Standard from the current 10 percent emissions reduction goal to 25 percent below 2015 levels by 2035.
- Two state agencies are directed to set goals and pathways for Oregon's *Natural and Working Lands to increase carbon sequestration* and reduce land-based emissions

(Oregon has some of the most carbon-dense forests on the planet, already sequestering some 30 million net tons of carbon dioxide equivalent and with the potential to increase this by 30 percent to 50 percent).

- The state's land-use policies, implemented by local governments, are leveraging urban design and densities to enable *less driving and more walking/biking/transit*.
- The state's largest transit agency, serving the Portland metro area, is committed to an *all-electric bus and train fleet* and has started the transition.

Notwithstanding these efforts, Oregon's emissions reductions have stalled at a level 15 percent below their 1999 peak but the same amount above their 1990 baseline levels. As electricity emissions have declined, transportation and natural gas emissions have risen. Electrification gains are stalled by low gasoline and natural gas prices, and by gas company intransigence. Urban design in Oregon's cities, shaped by the automobile, resists rapid reconfiguration to walking, bikes and transit. Much of Oregon's carbon-dense forests are owned and intensely logged by private companies with demanding cash flow goals.

There are still heavy lifts ahead. But all involved in the enactment of HB 2021 should take a bow, on behalf of a global clean energy transition that just got a bit easier. *[Angus Duncan]*

## Supply & Demand

### [11] Northwest Grid Rides Out Historic Heat Wave • from [1]

Historic high temperatures swaddled the Northwest in June's final days, smashing some long-standing records, straining the grid, and causing deaths in a region accustomed to moderate summer temperatures and little need for air conditioning.

Portland reached 116 F on June 27, breaking the all-time temperature records of 112 set the day before, and 108 on the previous day. Salem, Ore., also recorded the highest temperature in its history on June 27, 112.

Seattle smashed its all-time record, first when it hit 104 on June 27 and then 108 the next day. It also had its first-ever three-day back-to-back triple-digit highs, with June 26 reaching 102 degrees.

The heat extended into British Columbia as well, with Lytton on June 29 seeing 121 F, Canada's highest-ever recorded temperature. The town was destroyed the next day by a fast-moving wildfire.

With water supply and snowpack above average in spring, utilities that rely on hydropower were well-positioned going into summer to handle supply issues from the anticipated increase of load from running fans and air conditioners. The main worry was whether the grid was up to the task.

In the run-up to the severe heat, which started June 26, utilities requested that customers conserve power to help avoid the need for rolling blackouts to keep the grid on line.

BPA and its partners were in good shape to muster resources for the heat. This included the agency

restricting planned maintenance on its transmission system from June 28 through June 29; the 1,207 MW Columbia Generating Station returning to service after its 25th refueling; and spill for fish on the lower Columbia and Snake rivers transitioning from spring to summer operations, which increased federal hydropower generation from those facilities.

In addition, the Bureau of Reclamation was on target to refill the Grand Coulee reservoir in early July, freeing up the remaining water flow to pass through the system for power and nonpower uses.

"Even with streamflows below average levels, we are in a good position to serve our customers over this very hot weekend," said Suzanne Cooper, BPA senior VP of power services, in a statement. "I want to thank our partners at the Bureau of Reclamation and the U.S. Army Corps of Engineers for the work and coordination they provide at the region's 31 federal dams to ensure reliable operations."

Despite the lower-than-average water year, there is plenty of water behind Grand Coulee Dam and some snowpack left in the Canadian Rockies, BPA said. Unlike 2015 and 2001, years with a similar volume of water, the shape of this year's runoff has been slower with snow gradually melting above Grand Coulee.

BPA spokesman Doug Johnson told Clearing Up that the Tri-Cities area of Washington was the only place where the agency came close to having to shed load. That was avoided by monitoring the temperatures of transformers, control houses and other equipment across its system, and taking actions such as flushing radiators and watering equipment to bring temperatures down when they approached dangerous levels.



“Thanks to these efforts and electricity reduction measures taken by retail customers in the area, electrical service was available throughout the heat wave,” Johnson said.

**Especially hard hit** by the heat was Avista, which had to implement “temporary unplanned power outages” during the afternoon and evening of June 28 as temperatures tied a 105-degree record in Spokane and put a “strain on the electric system” the utility said in a statement.

That strain included a new load record of about 2,300 MW that beat the previous record of 2,241 MW set in August 2018, spokeswoman Casey Fielder told Clearing Up.

The earliest outages were unplanned because events transpired quickly, triggered by constraints on the distribution system due to the heat and high load as people ran air conditioners and fans.

**‘While we plan for the summer weather, the electric system experienced a new peak demand.’**

load to accommodate increased usage in some areas and postponed some routine work to ensure the system was available.

By 8 p.m. on June 28, about 5,700 Avista customers in parts of Spokane were without power, down from around 8,200 earlier in the day.

Over the course of the week, the number of protective outages Avista employed in the Spokane and Lewiston, Idaho, areas decreased due to the efforts to reduce the strain on the electric system. It dropped from a high of 24,000 customers on June 28 to 8,660 on June 29. On June 30, Spokane had no protective outages while Lewiston had 603. No outages were called July 1, and monitoring is continuing in some areas of Spokane and Lewiston at higher risk of being impacted.

“While we plan for the summer weather, the electric system experienced a new peak demand, and the strain of the high temperatures impacted the system in a way that required us to proactively turn off power for some customers,” said Dennis Vermillion, Avista president and CEO, in a statement. “This happened faster than anticipated.”

The fast pace of that first day meant Avista was unable to alert customers in a timely manner, a situation it sought to address in the following days.

**Puget Sound Energy** spokesman Andrew Padula told Clearing Up the utility’s system “held up through the extreme heat though we saw some localized outages,” adding, “The majority of the outages were a result of tree limbs coming into contact with our wires and heat-related equipment failure.”

The temperatures were 30 to 40 degrees above normal, and resulted in about seven times the volume of work orders “as we would see on a typical June day,” Padula said.

**PacifiCorp** customers in Oregon experienced some outages on June 27 and 28, but all were restored by late on the second day. The largest of these was on June 27

in areas surrounding Medford and Talent, affecting more than 30,000 customers. The cause of the outage in both cases was equipment failure.

Scattered minor outages were also seen in Portland General Electric territory in Multnomah, Washington and Clackamas counties.

**Deaths in the region due to the heat** numbered in the hundreds. The toll in Oregon alone reached 79, the Oregon state medical examiner’s office said July 1, with most occurring in Multnomah County.

In Canada, B.C. Chief Coroner Lisa Lapointe said in a statement that her office received reports of at least 486 “sudden and unexpected deaths” between June 25 and 30. Normally, she said about 165 people would die from all causes in the province over a five-day period.

The province had seen only three heat-related deaths in the past three to five years before this heat wave. “This, frankly, took many of us off guard,” she said.

In Washington’s King County, 13 people have been reported dead from hyperthermia, or dangerous overheating, the county medical examiner’s office said on June 30.

And the heat is not over. Six Western states remain under heat alerts as of July 1, with extreme temperatures likely to continue from eastern Washington and Oregon to Montana and south into Nevada and Northern California.

The most extreme heat will be centered over eastern sections of Washington and Idaho where temperatures of 110 degrees and higher are possible again, the National Weather Service said. *[Rick Adair]*

## [12] Good Timing, Renewables Bulked Up NW Capacity During Heat Storm • from [3]

The Northwest had plenty of available capacity to meet increased demand during the recent heat storm, including an unusually healthy contribution from renewable energy, according to the Northwest Power Pool.

But the extreme temperatures pushed distribution and transmission networks beyond their optimal operating limits as heat continued well into the evenings.

“The load shapes were different than anything we’ve ever seen,” Greg Park, systems operational manager at the Northwest Power Pool, told Clearing Up. “We don’t plan to operate the system in conditions like we saw—100 degrees in Seattle and 115 in Portland—that’s outside our planning criteria.”

The Northwest Power Pool’s geographic footprint touches eight states and two Canadian provinces and has historic peak load of 83 GW. During the heat storm, demand peaked at nearly 82 GW, Park said.

The NWPP had 4,000 MW surplus of generation available through its contingency reserve program during the peak of the three-day storm, Frank Afranji, president of NWPP, told Clearing Up.

“In essence, we were really able to alleviate any concerns about not meeting load within our footprint,” Afranji said.

NWPP did not activate its energy emergency plan, something it hasn’t done since the drought of 2000, but the operations committee met each morning to discuss forecasts and coordinate in the event some generation went off line. The committee was especially focused on

Oregon and Washington where combined peak loads reached 24 GW, Park said.

And while there was plenty of power to meet demand, several utilities did access the NWPP’s Interim Resource Adequacy sharing program, which started last summer.

Park wouldn’t say how much energy was shared through the resource adequacy program, but said it “worked well.”

“It’s a matching service, so we just match utilities with a deficit with those with a surplus. And it worked well,” he said.

Regional grid operators benefited from a couple of anomalies and good timing during the heat storm, Park said.

First, there is still an ample amount of snowmelt running off the mountains, so the region had plenty of hydropower at its disposal. That may not have been the case had the “heat dome” settled over the region in August, Park said.

Second, the region benefited from plenty of renewable energy, both generated from within the NWPP’s footprint, and surplus power imported from California and the Desert Southwest, where temperatures remained relatively normal.

Despite temperatures in the Columbia Gorge reaching 115 F in some places, the Northwest wind fleet continued to make solid contributions to peak demand through the three-day event.

At the peak of the heat on June 26 at 2 p.m., the region was generating 12 GW of renewables; roughly 8,000 MW of wind and 4,000 MW of solar out of southern Utah and Nevada, Park said.

The next day, wind contributed 5,500 MW during peak load and 3,500 MW during peak on June 28.

“We had really good wind and really good solar,” Park said. “The wind really showed up during this event. That’s not something we count on.”

**Other metro areas around the West**—Las Vegas, Los Angeles, San Francisco, Denver and Salt Lake City—weren’t impacted by the heat storm; only Seattle, Portland and Vancouver, B.C., so resources were able to be moved around the Western Interconnect, allowing the NWPP to import about 3,000 MW of renewable energy into its footprint from California and the Desert Southwest.

“That’s really unique for this time of the year,” Park said. “Generally, in June we still have a large amount of hydro runoff, so we are a net exporter. We rarely see any net imports this time of year, which tells me that the market was very liquid in the Southwest.” *[Steve Ernst]*

### [13] Puget Sound Energy Addresses Bias Concerns in Final RFP • from [5]

Puget Sound Energy issued an all-resource generation [request for proposals](#) June 30, after making several significant but limited changes required by state regulators *[UE-210220]*.

The RFP aims to move the utility’s decarbonization efforts along, but also is intended to plug a big hole in its portfolio later this decade after PSE cuts coal from its portfolio and trims its short-term market buys.

By 2027, PSE estimates it will need 1,506 MW of capacity resources during its winter peak and 1,699 GWh of generation.

Needs	2022	2023	2024	2025	2026	2027
2021 Draft IRP Need	230	350	306	257	369	527
Reduced Market Need		185	372	574	776	979
Total Resource Need	230	165	66	317	1145	1506
Net Hydro Capacity Additions	101	106	71	71	71	
Adjusted Total Resource Need	331	271	5	246	1074	1506
Estimated Glide Path		300	300	300	300	306

\* Capacity need figures in Table 2 above may be revised to take into account resources sought through the targeted DER RFP when finalized and approved.

**PSE cumulative capacity need by year. Source: Puget Sound Energy**

A June 14 order by the Washington UTC on the draft RFP directed PSE to remove a cost adder tagged onto power purchase agreement bids, add the social cost of greenhouse gases for any emitting resources and hold public workshops to consider adjusting the effective load carrying capacity values used in scoring bids.

The “scale, significance and urgency of [PSE’s] need is clear,” the commissioners state in the order.

Washington’s Clean Energy Transformation Act is driving that need for renewables generation, which PSE expects to increase from 210 GWh in 2024 to nearly 1,100 GWh in 2025 as the utility removes coal resources from its portfolio, according to the RFP filing.

CETA requires utilities to eliminate coal-fired resources from their portfolios by the end of 2025. For PSE, that means cutting 750 MW of capacity. The law further mandates that utilities are carbon-neutral by 2030 with at least 80 percent of retail electric sales from noncarbon-emitting resources and 100 percent by 2045.

**The legislation also requires** utilities consider the social costs of GHG emissions when pricing out new resources. While PSE’s draft RFP did not mention these social costs, the final version says it will be applied to carbon-emitting resources in the long-term capacity expansion model.

In earlier versions, PSE said it would add a minimum rate of return to proposed PPAs when scoring bids. Renewable Northwest, the NW Energy Coalition, and the Northwest and Intermountain Power Producers Coalition objected to the cost adder, saying it skewed the analysis against PPAs and in favor of utility-owned resources.

**CETA included language** allowing IOUs to earn a profit on PPAs rather than simply pass through the cost to consumers if approved by WUTC. However, the intent was to remove the financial incentive for a utility to build its own resource rather than buy from a third-party producer, the groups said in submitted comments.

“It would therefore be entirely inconsistent with the intent and purpose of the statute, as well as the third-party producer and competitive procurement, to attach a cost adder to PPAs that disfavor third-party owned projects vis-a-vis utility-owned projects,” NW Energy Coalition policy director Lauren McCloy told commissioners.

PSE’s argument that the adder would not hurt PPA bids, “fails to reflect basic arithmetic,” NIPPC said in its comments.

The commissioners were persuaded by the group’s argument and directed PSE to remove the adder from bid evaluations.

“The Commission has not established norms and expectations regarding possible rates of return on PPAs

and finds that the inclusion of these possible costs in the RFP bid evaluation is overly presumptive of future Commission decisions,” they said in the order.

**WUTC also ordered PSE** to hold workshops to address concerns raised by several groups that the effective load carrying capacity values used in bid evaluations would unfairly hurt certain resources.

The preferred portfolio in PSE’s integrated resource plan filed April 1 includes nearly 1,900 MW of renewable energy—1,500 MW of wind and 398 MW of solar—and 1,402 MW of distributed energy resources by 2031 [UE-200304].

It also reduces the utility’s reliance on short-term market purchases at the Mid-Columbia trading hub. Concern about market volatility and supply has led the utility to propose cutting its reliance on short-term market buys from 1,500 MW now to 500 MW by 2027.

**The company filed** its IRP and draft RFP at the same time.

PSE wants renewable resources available by the end of 2025 to coincide with its loss of coal-fired capacity. The RFP says it will consider bids for capacity resources available as late as the end of 2026 so long as they

include a firm power source to bridge the gap.

Bids are due Sept. 1. PSE plans to pare down submissions in spring of 2022. Quantitative scores, including resource costs, count for 70 percent of a bid’s evaluation, with the remainder based on qualitative metrics, according to the final RFP document.

The company plans to issue the draft of a separate RFP for distributed energy resources by mid-November, and file the final version in early 2022. By then, PSE plans to develop a virtual power plant platform to simulate a decentralized network of generating resources that can be centrally dispatched.

Earlier this year, PSE put out a request for information to better understand DER options in its service territory, which includes more than 1 million customers and covers much of western Washington.

The preferred portfolio included acquiring 29 MW in demand response, 80 MW of distributed solar and 25 MW of distributed battery storage systems between 2022 and 2025. The utility says it could alter the amounts after its first plan for implementing CETA is filed with the commission in October. [Dan Catchpole]

## Environment



### Fish

#### [14] Heat Exacerbates Drought, Prompts Worry for Salmon • from [2]

As numerous locations in the Northwest broke all-time records for high temperatures between June 26 and June 30, climatologists warned of worsening drought and a shrinking water supply from added demands.

In the Columbia Basin—where the heat wave continues—fish managers and hydroelectric dam operators are working to prevent a repeat of 2015, when an estimated 250,000 adult sockeye salmon perished in the warm waters of the Columbia River.

Preventive measures being taken include releases of cooler water from the Clearwater River at Dworshak Dam; trapping and hauling adult salmon at Lower Granite Dam on the Snake River; flow augmentation in the upper Snake, Payette and Boise systems; and close monitoring of water temperatures and fish passage counts at lower Snake and Columbia river dams to see if sockeye or Chinook are holding back due to warm water.

The Oregon Department of Fish and Wildlife also implemented emergency regulations on July 1, and closed fishing for salmon, steelhead, sturgeon and trout from 2 p.m. until one hour before sunrise in several other rivers and streams to help them survive.

“We generally don’t experience this sort of heat,” Oregon State Climatologist Larry O’Neill said at a June 28 drought webinar hosted by NOAA’s National Integrated Drought Information System.

O’Neill said the heat wave itself is “unprecedented,” and while the high-pressure pattern is similar to other Pacific Northwest heat waves, “the high-pressure center

is much more intense than it has been in the historical data record,” he said.

A July 1 [update](#) by NIDIS noted Portland exceeded all-time high temperature records for three consecutive days, hitting 108 F on June 26, 112 on June 27 and 116 on June 28.

Seattle-Tacoma International Airport had a two-day record-breaking streak of 104 on June 27 followed by 108 on June 28.

The highest recorded temperature in the two states was 118 on June 28 at The Dalles, Wash., and Hermiston, Ore.

**According to NOAA’s** Northwest River Forecast Center, the average temperature departure from normal for June 1 through June 30 was more than 6 degrees above average almost everywhere in the Columbia Basin and western Washington and Oregon, except for far coastal areas and two basins in British Columbia, which were between 1 and 6 degrees above average. “This week, high temperatures ranged from 20 to 30 degrees above normal, breaking multiple records,” the [U.S. Drought Monitor](#) reported on July 1.

Before the heat wave hit, the region was already suffering from significant drought. O’Neill said Washington, Oregon and Idaho experienced their second-driest spring—March, April and May—since 1895. Many rivers were already recording below-average streamflows, especially in central Idaho and much of western Oregon and Washington. Nineteen counties in Oregon and at least 10 counties in Idaho have declared drought emergencies, and a lack of rain has left extremely dry soil conditions.

“It’s definitely going to worsen drought conditions across the Northwest,” Troy Lindquist, senior hydrologist for the National Weather Service in Boise, said at the June 28 webinar.

He noted that many reservoirs are underfilled, and heavy irrigation demand is drawing down some reservoirs sooner than usual. Hydrologists are expecting well-below carry-over going into the next water year, he said.

**Low river flows** and high air temperatures also lead to significant increases in river temperatures, impacting salmon survival and migration. Salmon and steelhead begin to experience difficulties and sometimes stall their migration when river temperatures reach 68 F.

“We’ve avoided high-temperature impacts until now,” U.S. Army Corps of Engineers representative Chris Peery said at a June 30 Columbia River Technical Management Team meeting. However, he noted, as water temperatures continue to rise, sockeye salmon, summer Chinook and other migrating adults could face challenges.

The team discussed multiple efforts to help salmon and steelhead as they migrate through increasingly warm water in the Snake and Columbia rivers.

Sockeye salmon are just beginning their journey, with the majority migrating up the Columbia River to lakes in the Okanogan and Wenatchee river watersheds, and to B.C.

Only the Snake River sockeye heading to Stanley Basin lakes are listed as endangered under the Endangered Species Act. To help them complete the journey, the Idaho Department of Fish and Game implemented an emergency trap-and-haul [plan](#) to prevent the kinds of losses seen six years ago, when an estimated 95 percent of Snake River sockeye died in the river between Bonneville and Lower Granite dams. “The frequency of these events is expected to increase, with an 80 percent decline in adult migratory survival projected to occur by the 2040s under current climate projection scenarios,” the plan states.

Jonathan Ebel, who represents Idaho on the TMT, said crews from NOAA Fisheries and Idaho plan to trap sockeye at Lower Granite Dam from July 6 through July 23, enabling them to transport half of the adult sockeye from the upper-most Snake River federal dam to spawning locations. The contingency plan says that transporting sockeye to their higher elevations is a valuable tool under emergency situations, but involves a tradeoff with the long-term goal of restoring a healthy, self-sustaining population that can migrate from the ocean to spawning grounds.

Ebel said his agency does not plan to trap sockeye at Ice Harbor Dam—the first they encounter on the Snake River. The plan notes that a significant portion of sockeye trapped at the Snake River’s lowest dam are strays from the Columbia River.

“Our strategy is to do everything necessary to get them to Granite,” Ebel told fellow TMT members. He said that they’re more prepared than they were in 2015, and this year, they’re starting the trap-and-haul program significantly earlier. Idaho and NOAA crews will adapt plans as necessary, he added. “We’ll get through this, and if we need help, we’ll let other entities in the basin know,” he said.

Claire McGrath, representing NOAA Fisheries on TMT, said that sockeye began migrating later this year compared to other years, but adult passage at the dams has picked up. As of June 30, about 95,400 sockeye were counted passing Bonneville Dam, with 124 of them reaching Ice Harbor, the lower-most Snake River dam, and just 12 continuing past Lower Granite Dam.



Howard Prairie Reservoir in June.

*Photo: Oregon Department of Fish and Wildlife*

McGrath said river flows in the Columbia River are higher than they were in 2015, but the extended heat wave will likely push the Columbia’s water temperatures to levels reached in 2015.

“We’ll just hope anything we can do for temperature management will keep those fish moving through the Columbia River and lower Snake River,” she said.

**Water temperatures** in the Snake River—where flows are considerably lower than the Columbia River—are already a concern, prompting the Corps to begin flow augmentation from Dworshak Dam earlier than normal.

Corps representative Jon Roberts told TMT members that in the Lewiston region forecasters expected some relief by July 1, but temperatures were still expected to exceed 100 F, and only begin to dissipate on July 6. Snake River temperature gauges at Anatone, Wash., and Orofino, Idaho, were already at 74. “We’ll see those continue to climb with at least another two days of intense heat,” he said.

Roberts said he expects to see the surface water in the forebay reach 80 as the heat wave continues. But, he said, he’s focused on temperatures from 15 to 20 meters below the surface, where pumps pull water to cool the fish ladders and encourage salmon to continue the journey. “It’s important to keep that in the cooler range, so the ladder differential doesn’t get too far.”

The Corps plans to continue spilling water at Dworshak through July 9, and attempt to maintain the tailwater temperature at Lower Granite Dam at 68, he said. “We’ll continue to evaluate that every day, and make a reduction as soon as we can” to save the cooler water for later in the summer, he added.

**A June 30 water supply forecast** by the Northwest River Forecast Center shows the Snake River at American Falls Dam is predicted to have 34 percent of its average April-through-August water supply, and 57 percent at Lower Granite Dam. The Columbia River is faring better, but is still significantly below normal, with the forecast predicting 64 percent of normal supply at Grand Coulee Dam and 63 percent at The Dalles Dam.

Even when the heat wave eases, forecasters say above-average temperatures and below-average precipitation are predicted to continue through the summer. *[K.C. Mehaffey]*

## [15] Niners: Sovereignty Warrants Dismissal of Warm Springs, PGE Lawsuit • from [7]

The 9th U.S. Circuit Court of Appeals ruled that as a co-owner of the Pelton Round Butte hydroelectric project, the Confederated Tribes of the Warm Springs Reservation of Oregon must be included in a lawsuit against Portland General Electric over water quality in the Deschutes River, but cannot be sued under provisions in the Clean Water Act.

“We hold that the CWA did not abrogate the Tribe’s immunity and that the suit should have been dismissed,” Judge William Fletcher wrote in the June 24 opinion.

Sovereign immunity bars lawsuits against Native American tribes unless the tribe or Congress has waived that right. In a June 2018 decision in *Deschutes River Alliance v. Portland General Electric et al.* [16-1644], U.S. District Judge Michael Simon concluded that Congress abrogated tribal immunity through language in the Clean Water Act (CU No. 1856 [8]).

The three-judge appeals panel disagreed and remanded the case back to U.S. District Court in Oregon with instructions to vacate Simon’s judgment—which dismissed the case for failing to show Clean Water Act violations—and to instead dismiss the suit for failing to include the Warm Springs tribe as a party.

In its appeal [18-35867], the alliance sought to overturn Simon’s August 2018 ruling that found neither PGE nor the tribe were violating the terms of their water quality certification as they worked to achieve water quality and fish passage measures.

PGE and the tribe filed separate cross-appeals [18-35932, 18-35933] in the 9th Circuit challenging



Warm Springs, Ore.

Photo: ryan harvey/Flickr

Simon’s earlier ruling that the tribe does not have sovereign immunity and can be compelled to join the case as a defendant (CU No. 1974 [10.4]).

Several tribes and tribal organizations joined the cross-appeal as friends of the court to defend tribal sovereign immunity, including the National Congress of American Indians, Crow Tribe of Indians, Confederated Salish and Kootenai Tribes, Fort Belknap Indian Community and Navajo Nation. “This significant issue implicates the very basis of federal Indian law,” the tribes wrote in their amicus brief.

Because the case should have been dismissed, the 9th Circuit judges said they did not reach the question raised by the alliance on appeal—whether PGE and the tribe are violating the Clean Water Act through the operations of its selective water withdrawal facility at Round Butte Dam. The facility draws water from both the surface and bottom of Lake Billy Chinook in an effort to both meet downstream

water quality standards and aid in fish passage.

The alliance argued that the project is repeatedly violating water quality standards for temperature, pH and dissolved oxygen.

“We are unhappy with this decision and believe the case should be judged on the merits of the science,” the alliance wrote in an email to its members. “The Clean Water Act continues to be violated at the expense of the lower Deschutes River. We are continuing to explore and act on options to protect the river so important to us all,” it said.

**DRA filed the lawsuit** against Portland General Electric in 2016, and PGE argued that the tribe is a necessary party in the case, but could not be sued under sovereign immunity. But Simon concluded, “Congress made a clear and unequivocal waiver of tribal sovereign immunity” for lawsuits under the Clean Water Act.

The 9th Circuit panel ruled that the language of the act does not clearly abrogate tribal immunity. Although the act defines both tribes and states as persons, “[I]t does not follow that unconsenting Indian tribes and States are subject to citizen suits under the CWA.”

The judges concluded that including “an Indian tribe” in its definition does not clearly indicate that Congress intended tribes to be subjected to unconsented lawsuits. And, the judges note, neither tribes nor tribal immunity are mentioned in the Clean Water Act’s citizen-suit provision. “An intention to abrogate tribal sovereign immunity must be ‘unmistakably clear,’” the judges wrote.

According to the 9th Circuit ruling, PGE initially received a 50-year license in 1951 for the Pelton Round Butte hydroelectric project, which includes three dams on the Deschutes River. In 2001, PGE and the Warm Springs tribe reached a settlement and jointly applied to FERC for a new license after initially filing competing applications. FERC approved the settlement in 2005 and issued a new license that incorporated most provisions of the settlement, including the Oregon Department of Environmental Quality’s water quality certification and a fish passage plan.

Both the certification and settlement rely on a selective water withdrawal facility at Round Butte Dam, which was completed in 2009, and prompted the issues raised by the alliance. [K.C. Mehaffey]

**‘This significant issue implicates the very basis of federal Indian law!’**

# Clearing It Up

## [16] Oregon OKs Clean Energy Bill, Sets Stage for West Coast 'Clean' Sweep • from [4]

Oregon is on the brink of enacting one of the most aggressive clean energy standards in the country, after the Senate passed House Bill 2021 on June 25 with a 16-11 vote.

The bill now heads to Gov. Kate Brown for her signature, and when that happens, Oregon will be just the eighth state in the country to commit to 100 percent clean or renewable energy, joining Washington, California, Hawaii, New Mexico, New York, Maine and Virginia.

Oregon's bill has the fastest timeline in the country for reaching that goal.

When the final step in California and Washington's clean energy goals are reached in 2045, electricity all up and down the West Coast will be 100 percent clean.

The Senate vote came as a heat wave began to take hold of the region, pushing temperatures to historic levels for three consecutive days.

**HB 2021** requires Portland General Electric, PacifiCorp and Electric Service Suppliers to reduce their greenhouse gas emissions to 80 percent below baseline levels by 2030, to 90 percent below by 2035 and to 100 percent below by 2040.

The bill also prohibits construction or expansion of fossil-fueled power plants and establishes a \$50 million Community Renewable Investment Fund to be managed by the Oregon Department of Energy that will invest in small, community renewable energy projects around the state.

"This common-sense approach to invest in small scale and community-based projects is the right move to protect our environment" Sen. Lee Beyer (D-Springfield), who chairs the Senate Committee on Energy and Environment and co-carried the bill on the Senate floor, said in a prepared statement.

Under the measure, PGE and PacifiCorp must file a clean energy plan, "based on or included in" an integrated resource plan filing, no earlier than Jan. 1, 2022, and no later than 180 days after the IRP is filed with the Oregon PUC.

"To address our climate crisis, we need to shift to cleaner and cleaner electricity," Sen. Michael Dembrow (D-Portland), who also co-carried the bill, said in a prepared statement. "House Bill 2021 will serve to enhance Oregon's resilience and makes targeted, necessary investments as we recover from overlapping and ongoing crises."

The utilities could pause meeting the GHG targets for reliability issues or if the needed investments become an economic hardship for customers. The utilities are already reducing their GHG levels based on current state policy and company goals.

Each utility must also form a Community Benefits and Impacts Advisory Group made up of "representatives of environmental justice communities and low-income ratepayers" or other affected entities within the utility's service territory.

The advisory group of each utility will file a biennial report with the Oregon PUC that highlights "opportunities to increase contracting with businesses owned by women, veterans or Black, Indigenous, or People of Color."

The reports will also discuss collaboration with environmental justice communities, compliance with the clean energy targets and "social, economic, or environmental justice co-benefits that result from the electric company's investments, contracts or internal practices."

The bill requires contractors and subcontractors working on new projects of 10 MW or larger, or a repowering project of at least 80 MW, to employ apprentices, women-owned businesses, veterans and minorities. The measure says "at least 15 percent of total work hours" must be performed by apprentices and sets an "aspirational target" of 15 percent total work hours for women, minorities, veterans and people with disabilities.

**Meredith Connelly**, director of Climate Solutions in Oregon, said in a blog post that "going forward, all major renewable energy projects built in Oregon will be creating good, family wage jobs and benefits for the workers making our clean energy future possible.

"The bill has the strongest labor and apprenticeship provisions ever included in a 100 percent clean law. HB 2021 also contains a \$50 million investment for community-based renewable energy projects to ensure marginalized and frontline communities throughout the state benefit from the clean energy transition."

The bill also acknowledges the need for an organized wholesale market in the region, saying that "existing and future electricity markets will play a critical role in transforming the electric sector" as well as "enabling load serving entities to reduce costs and serve load reliably by accessing resource and load diversity."

"Acknowledging the inherently regional and multistate nature of electricity markets, the State of Oregon should coordinate and collaborate with other states to achieve the goal of aligning accounting methodologies where possible while also ensuring market rules do not undermine state policy objectives," the bill says.

Sources familiar with the bill say it started to take shape last summer during a statewide listening tour for the failed HB 2020, which would have created the nation's second cap-and-trade carbon emission market, but failed when Senate Republicans denied a quorum by leaving the state to prevent Democrats from using their slim majority to pass the bill.

While the bill faced little resistance in either chamber—the House passed the bill along a largely party-line vote on June 24 and Republicans didn't flee the Capitol this time—but still some Republican Senators questioned the wisdom of the bill that they say will increase electricity costs.

"Hiking Oregonians' energy costs during an economic recovery is one of the dumbest ideas I have ever heard of," Sen. Fred Girod (R-Stayton) said in a prepared statement. "This bill just adds insult to injury to the countless Oregonians who have endured massive hardship over the last year and a half."

While HB 2021 addresses future emissions, it doesn't take any existing natural gas-fired power plants off line.

PGE currently has over 1,800 MW of natural gas-fired power in its generating portfolio, with three of the five power plants coming on line after 2007.

“HB 2021 does not call for the removal of gas plants from service; rather, to meet the 2040 emissions goals, these gas plants will need to be addressed in some way—whether that is by implementing carbon capture, a carbon-free fuel source, or replacement with non-emitting resources,” Andrea Platt, spokeswoman for PGE, told Clearing Up via email.

A [study](#) released July 2 by Renewable Northwest, Grid Lab and the Clean Energy Transition Institute finds those natural gas power plants can stay on line as a capacity resource through 2045.

The study, which examines pathways to 100 percent clean energy, says Oregon can meet the 2035 emissions goals by eliminating coal-fired generation, which is scheduled to happen in 2035, and also electrifying transportation and buildings. It also assumes “the Western grid operates as a single balancing area.”

The study also shows 20 GW of offshore wind being built between 2035 and 2050, much of which can be exported around the Western Interconnection. It also shows a need for 3.4 GW of new transmission capacity to be built into Idaho between 2030 and 2050, with 6 GW of new capacity into California needed in the final decade of decarbonization.

“Such investments, while further out in the future, are critical to enable successful decarbonization,” the study says.

**Both PGE and PacifiCorp** have been working to decarbonize their generating portfolios.

In November 2020, PGE announced a goal of reducing GHG emissions in its portfolio by 80 percent by 2030, and set an aspirational goal for zero greenhouse gas emissions in its generating portfolio by 2040. The utility has been adding solar and wind projects to its portfolio, along with contracts for hydroelectricity, and will release a request for proposals later this year for 150 aMW of renewable energy and 150 MW of dispatchable, non-emitting resources.

In 2020, PacifiCorp released one of the largest RFPs for renewables in the industry and this month announced a final shortlist of 3,250 MW of wind, solar and battery ([CU No. 2009 \[12\]](#)).

**Nikita Daryanani**, climate and energy policy manager at the Coalition of Communities of Color in Portland, said Oregonians in every part of the state will benefit from more clean energy, good quality jobs, community ownership of disaster-resistant solar projects and less air pollution.

“100 Percent Clean Energy for All is an exciting, ambitious, and achievable policy grounded in justice for communities who have been historically harmed the most by our energy systems,” she said.

HB 2021 is the latest in a series of bills passed over the last 14 years aimed at decarbonizing the state’s electricity sector.

The original renewables portfolio standard was adopted in 2007 and strengthened in 2016 with passage of Senate Bill 1547, which increased that standard to 50 percent renewables by 2040 and committed PacifiCorp and PGE to stop billing Oregon customers for the cost of coal in 2030 and 2035.

In 2008, PGE and environmental and consumer groups negotiated closure of the Boardman coal-fired power plant that went off line in 2020. Also, in 2020, Brown signed

an executive order stepping up the state’s GHG reduction goals by directing state agencies to lower their emissions.

“Make no mistake: a 100-percent clean, affordable, and reliable electric system is the foundation for Oregon’s future,” Bob Jenks, executive director of Oregon Citizens’ Utility Board, said in a prepared statement.

“Passage of HB 2021 is a really big deal because the legislation offers Oregon a clear and achievable roadmap for cleaning up its electric sector while ensuring affordability for customers and reliability for the system,” Jenks added. [*Steve Ernst*]

## [17] Talen Energy, Montana DEQ Reach Deal on Colstrip Ash Pond Cleanup • from [6]

The Montana Department of Environmental Quality and Talen Energy have reached a handshake agreement for cleaning up 6.7 million cubic yards of toxic coal ash in the storage ponds of Colstrip units 1 and 2.

The deal is nonbinding, but Talen and DEQ have pledged to sign a final agreement later this year based on terms announced June 29.

After six months of negotiations, the two sides settled on a \$163 million cleanup bond to cover costs of the remedial plan DEQ picked in November 2020 ([CU No. 1981 \[18\]](#)). At the time, [Talen](#) objected to the department’s \$285 million cost estimate. In its objection, the Pennsylvania-based company said the state had picked an unnecessarily expensive and invasive option.

The DEQ rejected Talen’s counteroffer of \$157 million, but agreed to a \$163 million bond based on new information provided by the independent power producer, department spokeswoman Moira Davin told Clearing Up.

The new information included the size of trucks that would haul away the toxic material and the design of the well system used to dewater the ash for dry storage, she said.

The poisonous sludge will be moved to lined ponds to be built above the water table near the plant site, DEQ ruled in November.

Once a final agreement is signed, Talen would have two years to study another cleanup option and ask DEQ to amend the plan based on new technologies, regulatory changes or other developments.

Significant proposed changes would undergo a public review. In the meantime, the company must start design work for the cleanup, according to the department. It could be four years before any physical work begins, according to DEQ.

Talen Energy did not respond to Clearing Up’s request for comment.

DEQ will review cleanup costs each year and adjust as needed, according to the department.

Burning coal produces ash with toxic levels of boron, sulfates, selenium and heavy metals, including arsenic, chromium, lead and mercury. Ash from Colstrip units 1 and 2 has been stored in nine unlined ponds since the plant first fired up in the mid-1970s. Every day for more than 30 years, the ponds have been leaking the equivalent of an Olympic-sized swimming pool’s worth of contaminated water into the ground, according to lawsuits filed over more than a decade.

In 2008, the power plant’s owners agreed to pay \$25 million to settle a lawsuit filed by 55 Colstrip

residents claiming the ponds had contaminated a local aquifer.

Cleaning up the power plant's toxic legacy is covered by an [administrative order of consent](#), an enforcement action DEQ agreed to with Talen's predecessor PPL Montana in 2012 (CU No. 1432 [13]). The process splits remediation into three areas: the plant complex, the wastewater ponds for units 1 and 2, and the ponds for still-operating units 3 and 4.

**Talen and Puget Sound Energy own** units 1 and 2, which were retired in early 2020. Units 3 and 4 are owned by Talen and five utilities—Avista, PacifiCorp, Portland General Electric, Puget Sound Energy and NorthWestern Energy. Talen operates the plant for the group. Talen and NorthWestern want to keep Colstrip burning for years to come, while the four other owners want to get out in the next few years. The two groups are locked in litigation stemming from their different timelines ([CU No. 2003 \[13\]](#)).

The final costs for cleanup and decommissioning have been a major stumbling block when it comes to determining Colstrip's future ([CU No. 1932 \[10\]](#)). DEQ estimates the costs could be as much as \$700 million.

*[Dan Catchpole]*

## [18] POTOMAC: Biden Meets With Western Leaders on Fire Risks • from [8]

Eight Western governors, joined by the CEOs of BPA, Portland General Electric and Edison International, met virtually on June 30 with President Joe Biden, Vice President Kamala Harris and Cabinet secretaries on preparedness for the wildfire season, which the White House said is on track to outpace last year's in severity.

The White House readout of the meeting said Biden and the three CEOs talked about reducing the likelihood of the power system sparking wildfires and about deploying "innovative new technologies to improve extreme heat management and wildfire prevention."

BPA Administrator and CEO John Hairston noted that dry conditions are affecting reservoirs in different ways, with low storage in parts of California and the Southwest, but with Columbia Basin storage at 90 percent of average.

"The thing we all share is the bulk electric transmission system, which allows the region to share resources," Hairston said. "This is why it is so important that we manage risk to transmission lines from wildfires. It's key that land management agencies, for example, expand agreements with utilities to take actions to reduce wildfire risk and respond to fire damage."

The Forest Service in 2020 finalized a rule to streamline permitting for routine and emergency tree trimming within power line corridors and on abutting lands in national forests. According to Forest Service figures, there are more than 3,000 transmission and distribution lines operating in national forests under special-use permits.

Also at the meeting, Energy Secretary Jennifer Granholm "noted the work being done to support reliable power generation during extreme weather events and prevent structural energy infrastructure failures that have the potential to ignite wildfires," the White House said.

Biden announced measures to boost federal spending on wildfire response, including increasing wildland

firefighters' pay to \$15 per hour, offering retention bonuses for fire crews, and extending hiring of temporary firefighters in response to longer fire seasons.

### Biden Signs Resolution Tossing Methane Rule

Biden signed a resolution into law on June 30 killing a 2020 Environmental Protection Agency rule that dropped methane limits for new and modified upstream oil and natural gas facilities.

Biden signed Senate Joint Resolution 14, a resolution under the Congressional Review Act to throw out the 2020 rule.

Biden's action reinstated a rule the Obama administration adopted in 2016. In signing the measure, Biden called it "an important first step of cutting methane pollution," and pointed to the proposed bipartisan infrastructure package's inclusion of \$16 billion to cap orphaned oil and gas wells.

Rep. Frank Pallone (D-N.J.), chairman of the House Energy and Commerce Committee, said Biden's signing of the resolution "is the most significant climate legislation enacted so far this Congress."

For new and modified facilities, the 2020 rule eliminated methane and volatile organic compound standards for transmission and storage facilities and discarded methane limits for production and processing facilities.

### NRC Proposes NuScale Certification

The Nuclear Regulatory Commission on July 1 proposed a rule to formally certify NuScale's small modular reactor design.

The commission opened a 60-day comment period on the proposal, which if approved would clear the way for NRC licensing of power plants using Portland-based NuScale's design for its 50 MW small modular light-water reactor. Under NuScale's design, up to 12 reactors could be housed in a single reactor building, providing up to 600 MW of capacity.

NuScale's design is the first small modular reactor design to be considered for approval in the U.S. On Aug. 28, the NRC completed a safety evaluation report for the design, concluding that its passive safety features relying on gravity and convection would ensure the plant would shut down in an emergency.

The commission, however, said three design issues remain unresolved, including the design of shielding walls between reactor modules and steam gallery areas; the potential for leakage from the combustible-gas monitoring system; and the ability of steam-generator tubes to maintain their integrity during "density wave oscillations" in the secondary fluid system.

The commission said plant license applicants would have to provide design information to address those issues.

Potential projects using the NuScale design are moving forward. NuScale and Grant County PUD of Washington state signed an agreement May 26 to explore developing an SMR plant.

In January, NuScale received an order from Utah Associated Municipal Power Systems to prepare a plant license application in connection with the proposed Carbon Free Power Project at Idaho National Laboratory. The Utah group has contracted with Fluor Corp. and



NuScale to carry out planning and cost-estimate work for the proposed project.

### **Biden Pushes Infrastructure Bill**

Biden urged Congress on June 29 to pass infrastructure legislation reflecting an agreement he reached with a bipartisan group of senators.

Meanwhile, the House on July 1 approved a \$715 billion surface transportation and water bill, HR 3684, that includes \$4 billion for electric vehicle charging facilities. The House passed the legislation on a mostly party-line vote of 221-201.

In his June 29 speech in Wisconsin, Biden said the \$973 billion infrastructure package, which includes \$73 billion for grid projects, “will put Americans to work building transmission lines—the largest investment in clean energy transmission in American history.”

“The majority of the nation’s grid is aging,” Biden said. “Some components are over a century old. And 70 percent of transmission and distribution lines are into the second half of their life spans.”

Biden on June 26 walked back a statement he made two days before that he would not sign the bill unless Congress also passes a separate bill funding his health, education and tax-reform proposals.

In a statement, Biden said, “The bottom line is this: I gave my word to support the infrastructure plan, and that’s what I intend to do. I intend to pursue the passage of that plan, which Democrats and Republicans agreed to on [June 24], with vigor.”

Biden acknowledged that his statement at a press conference that he would refuse to sign the infrastructure bill if Congress doesn’t pass the other bill “understandably upset some Republicans, who do not see the two plans as linked.”

Biden said he will still push for passage of the other bill through filibuster-exempt budget reconciliation rules. He said he will ask Senate Majority Leader Charles Schumer (D-N.Y.) to schedule the infrastructure package and reconciliation bill for floor action in the Senate. House Speaker Nancy Pelosi (D-Calif.) has said she will not schedule a floor vote on the bipartisan package until the Senate passes it and the reconciliation bill.

Senate Minority Leader Mitch McConnell (R-Ky.) on June 28 called on Biden to press Democratic congressional leaders not to “hold a bipartisan bill hostage over a separate and partisan process.”

The infrastructure package is supported by 21 senators, including 11 Republicans.

White House press secretary Jen Psaki on June 28 said that “in terms of vote counting, I will leave that to leaders in Congress.”

Biden added that “some other Democrats have said they might oppose the infrastructure plan because it omits items they think are important; that is a mistake, in my view.”

In addition to \$73 billion for grid upgrades, the bipartisan package includes \$7.5 billion for EV charging stations and \$7.5 billion for electrifying buses and ferries.

The package would cost \$973 billion over five years, including \$579 billion in new spending above baseline levels. Over eight years, the package cost would total \$1.2 trillion, including new and baseline spending, according to White House figures.

### **Court Declines to Hear Coal Terminal Case**

The Supreme Court on June 28 declined to hear Montana and Wyoming’s suit against Washington in connection with the state Department of Ecology’s denial of a permit for the proposed Millennium Bulk coal export terminal on the Columbia River.

The court did not give a reason for its decision, but noted that Justices Samuel Alito and Clarence Thomas supported hearing the case.

Wyoming and Montana asked justices in 2020 to hear their challenge to Washington’s 2017 denial of a Clean Water Act certificate for the terminal. Under the U.S. Constitution, the Supreme Court has original jurisdiction over legal disputes between states. The two states argued that Washington’s denial of the certificate interfered with interstate commerce.

The Justice Department filed a brief with the high court on May 26 arguing that the bankruptcy of Millennium’s parent company, Lighthouse Resources, made the case moot. Lighthouse filed for Chapter 11 bankruptcy on Dec. 3.

In their response to the brief, Montana and Wyoming argued that foreign markets want coal produced in their states. “And Montana and Wyoming still have no other export option, besides an already overburdened Canadian port,” they said.

### **Justices Uphold Pipeline Eminent Domain Authority**

The Supreme Court on June 29 upheld the authority of gas pipeline developers under the Natural Gas Act to acquire state-owned land through eminent domain for interstate projects that have received a FERC certificate.

In a 5-4 decision, justices overturned a 2019 ruling of the U.S. Court of Appeals for the 3rd Circuit that PennEast did not have authority to condemn land in New Jersey for a 116-mile gas line. The appeals court ruled in a suit brought by the state of New Jersey to block PennEast from acquiring a right of way over state-owned land for the pipeline, which FERC approved in 2018.

Chief Justice John Roberts was joined by Justices Samuel Alito, Stephen Breyer, Brett Kavanaugh and Sonia Sotomayor in reversing the appeals court. Justices Amy Coney Barrett, Neil Gorsuch, Elena Kagan and Clarence Thomas dissented.

Writing for the majority, Roberts rejected New Jersey’s argument that the Constitution’s 11th Amendment bars pipeline certificate holders from suing states in federal court.

Roberts said that when states entered the union, they consented implicitly to eminent domain suits filed against them by the federal government or by private parties to which federal law delegated such power.

In her dissent, Barrett dismissed the majority’s argument, which she said “has no textual, structural or historical support.”

The court decision was hailed by the Interstate Natural Gas Association of America, a pipeline trade group.

“In order to continue to harness the benefits of natural gas to achieve our energy and climate goals, we need a predictable regulatory framework that allows improvements and additions to our country’s interstate natural gas transmission infrastructure,” Amy Andryszak, CEO of the group, said in a statement.

### House Panel Moves EPA, Interior Funding Bill

Fiscal year 2022 funding legislation for the Department of the Interior and EPA was reported out July 1 by the House Appropriations Committee.

The panel approved \$15.6 billion in discretionary appropriations for Interior, \$240 million below Biden's budget request. The legislation includes \$80 million for sage grouse conservation and \$120 million for an "energy community revitalization program" to clean up orphaned oil and gas wells and abandoned hard-rock mines.

For EPA, the subcommittee approved \$11.34 billion, \$110.8 million above Biden's request.

### IRS Extends Tax-Credit Safe Harbor

The Internal Revenue Service on June 29 extended a "safe harbor" for renewable-energy projects to maintain their eligibility for production and investment tax credits.

The IRS action means that projects on which work started in calendar years 2016 to 2019 would be eligible for credits if they are placed in service after six years. For projects on which work began in 2020, projects could claim credits if they are placed in service by the end of 2025.

In May 2020, the Treasury Department approved a one-year extension of the safe harbor after the pandemic resulted in industrywide delays in project component supply chains.

The IRS notice also clarifies that developers can show compliance with requirements to maintain progress on projects under the "continuous effort" standard, regardless of whether they have begun construction, either through physical work or by incurring at least 5 percent of the project's cost.

Gregory Wetstone, CEO of the American Council on Renewable Energy, said the IRS notice "is a welcome development and will go a long way toward ensuring these important clean energy projects get done."

### Clark Cautions Against Mandating RTOs/ISOs

A former FERC member on June 29 cautioned lawmakers against passing legislation that would force utilities to join organized wholesale power markets.

Tony Clark, who served on FERC from 2012 to 2016, spoke at a hearing of the House Energy and Commerce Committee's Energy Subcommittee, which took testimony on the Clean Future Act, a sweeping climate policy package backed by the committee's Democrats. One of the bill's transmission provisions would require utilities, within two years, to join a regional transmission organization or put their transmission assets under an independent system operator's control.

"My concern would be a federal mandate that you have to have one particular market model, like an RTO or an ISO, which has traditionally not worked in the Pacific Northwest," Clark said.

Nine former FERC members on June 2 called on the commission to expand organized wholesale markets into all regions of the U.S.

Clark also raised concerns about the bill's backstop transmission siting provision, under which FERC could override a state utility commission's rejection of a line proposed within a high-priority transmission corridor designated by the Department of Energy.

Clark said the provision is "much, much broader" than the backstop siting authority included in the Energy Policy Act of 2005, which a 2009 federal appeals court ruling narrowed. Rep. Scott Peters (D-Calif.) has introduced legislation, HR 1514, that in effect would undo the appeals court's decision.

Under the Clean Future Act, Clark noted, any proposed line could be subject to backstop siting authority if it improved integration of renewable resources. In his written testimony, he said the provision "effectively tells states and localities, 'You can site a transmission line for renewables, within a small, federally designated corridor, any way you want . . . as long as the answer is yes.'"

Rob Gramlich, president of Grid Strategies, testified in favor of a "bright line" separating projects subject to state or federal siting authority, suggesting that a proposed interstate line rated at 1,000 MW or higher would be subject to FERC permitting. "Keep it surgical and targeted," he said.

Gramlich also called for revising corridor-designation policy to give FERC control over both designation and permitting of projects within a corridor. Under the 2005 law, DOE is responsible for corridor designation in areas of high congestion, while FERC has backstop permitting authority.

Gramlich said the jurisdictional split results in extended review under the National Environmental Policy Act—"a few years of NEPA at one place and a few more years of NEPA at another place."

In other testimony, Patricia Hoffman, acting assistant secretary for DOE's Office of Electricity, said the Biden administration has not taken a position on the Clean Future Act's transmission provisions or on Peters' bill.

In response to questions from Peters, Hoffman said that "DOE feels we can do a lot with the existing authority that we currently have" to spur transmission development, including loan guarantees and the Western Area Power Administration's \$3.25 billion revolving loan program.

### Senators Introduce Nuclear Credits Bill

Five Democratic senators, including two committee chairmen, introduced legislation on June 25 making nuclear power plants eligible for production tax credits of 1.5 cents/kWh.

Sen. Tom Carper (D-Del.), who chairs the Senate Environment and Public Works Committee, said that "in recent years, too many of these plants have prematurely shut down due to market forces, and additional closures pose a growing threat to our efforts to cut greenhouse gas emissions from the power sector."

Sen. Joe Manchin (D-W.Va.), another bill sponsor and chairman of the Energy and Natural Resources Committee, noted in an April 20 letter to Biden that the number of U.S. nuclear plants has fallen from 104 to 94 in the past two decades. He added that about 5.1 GW of nuclear capacity is due to go off line this year.

Under the legislation, the credit would phase out if market revenues reach 2.5 cents/kWh, if GHG emissions fall 50 percent from 2020 levels, or after 10 years.

Other bill sponsors include Sens. Cory Booker (D-N.J.), Ben Cardin (D-Md.) and Sheldon Whitehouse (D-R.I.). The bill has drawn support from nuclear technology companies, trade groups and labor unions.



Glen Canyon Dam and Lake Powell in Arizona.

*Photo: Joshua Sukoff/Unsplash*

### **Cantwell Floats Dam-Improvement Incentive Bill**

Sens. Maria Cantwell (D-Wash.) and Lisa Murkowski (R-Alaska) on June 24 introduced legislation authorizing a 30-percent investment tax credit for hydropower dam investments.

The credit could be claimed for safety upgrades, fish passage and other environmental measures, and investments enabling a project to support grid resilience, including provision of black start capability, voltage support and spinning reserves.

The legislation, S. 2306, also would authorize a 30-percent credit for removing, with owners' consent, obsolete river obstructions, including nonpowered dams or nonfederal hydropower dams that block fish passage, pose safety hazards or inhibit economic development. The bill includes a direct-pay option for claiming the credit.

The CEOs of the National Hydropower Association and American Rivers released statements supporting S. 2306.

### **IEA Calls Hydropower 'Forgotten Giant'**

Hydropower is the "forgotten giant of clean electricity," the International Energy Agency's head said June 30 as the agency released a report calling on governments to clear obstacles to hydropower development.

IEA Executive Director Fatih Birol said hydropower "needs to be put squarely back on the energy and climate agenda if countries are serious about meeting their net-zero goals." He said hydro's "capabilities for providing flexibility and storage for electricity systems are also unmatched, making it a natural enabler for integrating greater amounts of wind and solar power."

To meet net-zero goals by 2050, according to IEA, hydro generation would have to double from today's level. Hydro generation totaled nearly 4.5 million GWh globally in 2020, according to IEA figures. About half of economically viable hydropower potential worldwide is untapped, the report says.

Under current policies, Birol said, hydropower growth globally "is set to slow this decade." Net additions between 2021 and 2030 are projected to fall 23 percent below growth in the previous decade, IEA said.

The report calls for market policies that recognize "the full value of hydropower's benefits for power system and electricity security," including long-term capacity,

low-carbon power, fast ramp rates and ancillary services. IEA noted that the California ISO and other organized power markets in the U.S. do not offer payments for long-term capacity.

Pumped-storage capacity is projected to grow 7 percent to 9,000 GWh globally by 2030, but the report notes that "developing a business case for pumped storage plants remains very challenging" because of the projects' capital intensity. Pumped storage "is still the most cost-effective long-term electricity storage option," the report says.

IEA recommended "contracts that value long-term storage" for pumped storage in energy-only markets.

Replacements, upgrades and additions of turbines at hydro projects in the U.S. and other developed countries are expected to account for nearly 45 percent of capacity additions expected in this decade.

"Projected spending on existing plants is not enough to meet the global hydropower fleet's modernization needs," the report says, noting that by 2030, more than 20 percent of generating units worldwide are expected to be more than 55 years old and almost 40 percent at least 40 years old.

Modernizing all aging plants worldwide would cost an estimated \$300 billion between now and 2030, "more than double the amount we currently expect to be spent on this," the report says.

### **House Passes Two Science Research Bills**

The House passed two bills on June 28 to boost funding for scientific research, including legislation, HR 3593, that authorizes \$8.8 billion in fiscal year 2022 for DOE's Office of Science, up 25.7 percent from this year's level, and rising to \$11.1 billion by FY 2026.

In a floor statement, Rep. Eddie Bernice Johnson (D-Texas), chairwoman of the House Science, Space, and Technology Committee, said the legislation "authorizes research to advance the next generation of clean-energy technologies." The committee said the funding would support research into energy storage, solar, hydrogen, critical materials, nuclear fusion energy, carbon removal and bioenergy technologies.

The House passed HR 3593 by a vote of 351-68. In addition, it passed HR 2225, which authorizes nearly \$72.6 billion for the National Science Foundation in fiscal years 2022 through 2026.

Biden praised the passage of the bills, saying he was "heartened" to see bipartisan support for research funding.

The Senate on June 8 passed a \$200-billion-plus technology research and education bill, S. 1260, boosting federal research and development spending on "focus areas," including advanced energy.

The Senate bill would authorize \$16.9 billion for DOE research into technologies such as energy storage, grid modernization and carbon capture, according to Sen. Maria Cantwell (D-Wash.), chair of the Senate Commerce Committee.

"My administration looks forward to continuing to work with the House and the Senate in producing a final bill I can sign," Biden said. *[Jim DiPeso]*