



CALIFORNIA ENERGY MARKETS

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BILLBOARD

Southwest: APS Seeks to Thwart Clean-Energy Ballot Initiative *Jump to [5].*

Potomac: Zinke Signals Scaled-Back Offshore Drilling Plan *Jump to [6].*

Glendale to Look at Alternatives to Grayson Refurbishment . . . *Jump to [7].*

Groups Urge Brown to Halt New Drilling Permits. *Jump to [7.1].*

Bottom Lines: Coalition Plans Solar Siting Survey in San Diego . . *Jump to [8].*

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CPUC Appoints Anne Simon New Chief ALJ *Jump to [12.1].*

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PRICE REPORT

Warmer Weather Brings Price Swings
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THE WEEK IN SUMMARY

[1] PG&E Quizzed on Safety, Executive Compensation

Pacific Gas & Electric President and Chief Operating Officer Nick Stavropoulos was questioned by ratepayer advocates on the role that safety performance plays in deciding executive compensation packages during an April 11 hearing at the California Public Utilities Commission. Representatives from The Utility Reform Network are pushing the utility to increase the role of safety performance in the process, while PG&E prefers to address the issue in its next general rate case. *At [10], discussions at the hearing and stakeholder arguments.*



The 2010 gas pipeline explosion in San Bruno killed eight, and led the CPUC to look into how PG&E prioritizes safety throughout its organization. Photo: Thomas Hawk, Flickr.com

[2] CAISO Aims to Keep Reliability-Coordinator Service Rates Low

As the California Independent System Operator moves forward with its effort to become a reliability coordinator for balancing authorities and transmission operators in the Western Interconnection, the grid operator outlined initial steps it has taken toward establishing rate design, and reiterated that its planned service costs would be at least half of those offered by Peak Reliability, the current coordinator for the West. *At [14], CAISO wants to keep rates low.*

[3] Stakeholders Split on Standardized Vehicle-Grid Integration Protocol

An interagency working group's recommendation against establishing a standardized vehicle-grid integration communications protocol is drawing mixed reactions from stakeholders. While some believe the nascent sector is not yet ready for a mandated protocol, others are concerned that as California's moves toward its zero-emission vehicle goals, the lack of one would lead to a huge burden on the grid. *At [12], the working group's recommendation and stakeholders' perspectives.*

[4] CEC Touts EPIC Funding, Approves High Desert Power Plant Water-Use Plan

The California Energy Commission awarded \$134 million in funding across 72 new projects last year through its Electric Program Investment Charge program, while also wrapping up seven projects and terminating two that had previously been awarded funding, according to the 2017 EPIC Annual Report. The agency also tackled portable-spa inefficiencies and water needs for the High Desert Power Plant during its latest business meeting. *At [13], funding energy development.*

[5] APS Seeks to Thwart Clean-Energy Ballot Initiative

Arizona Public Service, the state's largest utility, has sought ways to halt or minimize the impact of a proposed ballot initiative that would boost the state's renewable-energy standard to 50 percent by 2030. APS has proposed an alternative ballot initiative, drafted legislation to minimize financial risk to investor-owned utilities should the initiative pass, and commissioned a study to gauge effects of the initiative's passage on Arizona's economy through 2060. *At [15], assessing clean-energy scenarios.*

[6] Zinke Signals Scaled-Back Offshore Drilling Plan

Interior Secretary Ryan Zinke hinted April 11 that states with few hydrocarbon resources in coastal waters, no sub-sea production infrastructure, and strong local opposition to offshore drilling likely would be omitted from the next version of the draft 2019-2024 offshore oil and gas leasing plan, which he expects to release this fall. Meanwhile, Northwest lawmakers told Energy Secretary Rick Perry the Trump administration's proposed sale of Bonneville Power Administration transmission assets is a non-starter. *Northwest lawmakers blast federal court's spill order, at [16].*

NEWS IN BRIEF

[7] Glendale to Look at Alternatives to Grayson Refurbishment

Rather than proceeding with a \$500 million repowering of an aging natural gas plant, the Glendale City Council on April 10 voted to look at clean-energy alternatives to the project.

On a 4-1 vote after a nine-hour meeting, the council directed staff to prepare a thorough report on alternatives including solar, battery storage and energy conservation that could meet the city's needs while also serving to reduce Glendale's carbon footprint. Once staff collects the data through a request for information, it will submit a report to the council within 90 days.

City staff had recommended the council certify the final environmental impact report for the Grayson Repowering Project and adopt a resolution approving the project. The city had sought to repower the Grayson power plant, which has been experiencing more frequent unplanned and forced outages, to boost local reliability, according to background documents prepared for the meeting. Facilities at the plant were completed between 1941 and 1977, according to the city. The project, which called for rebuilding the plant's units 1-5 and Unit 8, would have increased the plant's capacity to 262 MW. The city was also facing a major air-quality retrofit of the plant mandated by

the South Coast Air Quality Management District; the repowering would have staved off the expected closure of the plant in the early 2020s.

Without the plant, the city would not have enough power to meet demand and maintain sufficient reserves on the hottest days, nor does the city have enough transmission to import needed power supplies.

More than 400 people attended the meeting to speak up for and against the project, according to news reports. *—M. S.*

[7.1] Groups Urge Brown to Lead on Climate by Halting New Oil and Gas Drilling Permits

Hundreds of clean-energy and advocacy groups have joined together to urge Gov. Jerry Brown to halt the issuance of new permits for oil and gas extraction, fossil-fuel infrastructure and petrochemical projects in California.

The groups, in an April 11 letter and on the website www.brownslastchance.com, ask Brown to "set a global precedent" by becoming the first oil-producing state to start the process to phase out fossil-fuel production, in line with climate goals from the 2015 Paris Agreement.

The effort comes as the Brown administration gears up for the Global Climate Action Summit, scheduled Sept. 12-14 in San Francisco; the group said that with the California conference approaching, Brown has the opportunity to set a new standard for global climate leadership.

"You've stated numerous times that 'time is running out' to solve the climate crisis," the letter states. "On this, we wholeheartedly agree." The letter goes on to cite California's recent devastating wildfires, as well as floods and record-setting temperatures, and notes that in addition to climate impacts, oil and gas industry practices that threaten public health and the state's natural resources disproportionately affect low-income communities.

"It is urgent that you set the state on a course to prevent further climate and community destruction," the groups said. More than 750 local, national and international groups signed the letter.

"Threatening to sabotage a climate summit aimed at mobilizing world leaders to push beyond the Paris Agreement is a curious way to fight climate change," said Evan Westrup, a spokesman for the governor, in an emailed comment. He did not respond by press time to the specific question of whether California would consider phasing out oil and gas operations in the state. *—M. S.*



Proven energy information.

BOTTOM LINES

[8] Clean Coalition Plans Solar Siting Survey in San Diego

At the end of last year, the City of San Diego had 287 MW-DC of solar-photovoltaic systems installed, putting it in second place behind Honolulu in a [new ranking](#) of top solar cities in the U.S. from the Environment California Research and Policy Center.

According to the city's 2017 [Climate Action Plan](#), San Diego sources 43 percent of its electricity from renewable sources, which places it nearly halfway to its goal of 100 percent renewable energy by 2035. Now, through a partnership with Clean Coalition and the city's participation in a federal research initiative, San Diego could have an easier time adding more commercial solar to its resource mix.

San Diego was selected by the U.S. Department of Energy's National Renewable Energy Laboratory to participate in a research collaboration designed to explore new ways solar can help improve the resiliency and reliability of the grid. Clean Coalition, a Menlo Park-based nonprofit that utilizes its technical, policy and project-management expertise to advance distributed renewable generation, on April 11 announced it will work with San Diego, as part of the NREL effort, to identify the best sites for new solar installations and to design a feed-in tariff, both of which could help maximize the benefits of locally produced solar power.

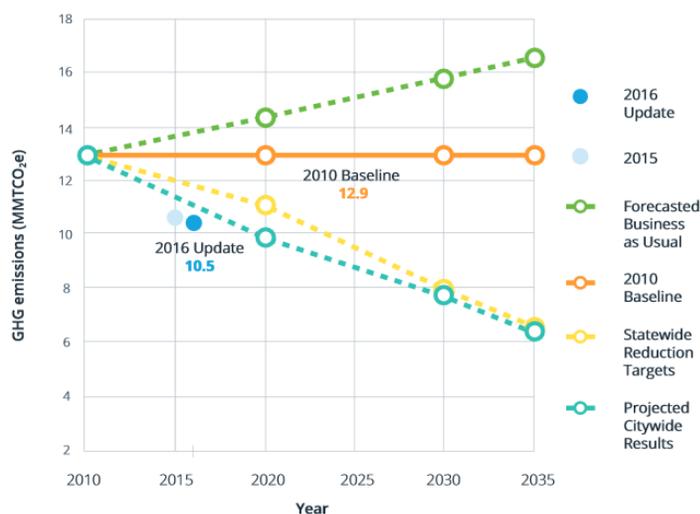
"The City of San Diego has been a leading solar city for years," said John Bernhardt, outreach director with Clean Coalition. "They see the benefits of solar, clean-energy job creation and the local economic stimulation it can bring. We very much think buying local energy is good for the local economy."

According to Clean Coalition, the potential for commercial solar in San Diego is largely untapped, as it is in many cities around the country. As more cities adopt clean-energy and greenhouse-gas-reduction goals, it will be important that all potential for developing solar and other renewables at the local level is explored.

San Diego was selected as one of nine teams to join this first round of the NREL research effort, dubbed the [Solar Energy Innovation Network](#). The San Diego project is analyzing the potential for distributed solar on municipal property and citywide, and developing a template for solar and storage proposals that could help support the city's procurement of resources to boost resiliency.

As part of its work with the city, Clean Coalition plans to conduct a solar siting survey in San Diego to identify the technical potential for commercial solar deployments of 1 MW or larger within the city. While it could be a few months before results of the survey are in, Bernhardt expects the survey could turn up hundreds of sites with the potential to host hundreds of megawatts of new solar within the city limits.

San Diego's Citywide GHG Emissions Inventory



Clean Coalition's solar siting survey, by identifying sites suitable for 1 MW or larger PV systems, could help San Diego meet its climate goals. *Source: City of San Diego*

The survey will focus on the solar potential of underutilized space within the built environment, with a specific focus on rooftops, parking lots and parking structures, Bernhardt said.

To conduct the survey, in-house engineers at Clean Coalition will do an aerial scan of San Diego's roughly 325 square miles of land. Each potential site is then passed through a variety of screens, including one to evaluate rooftop clutter—skylights and other infrastructure that may impede a solar installation.

The sites will also undergo an integration capacity analysis to evaluate the capacity of the local grid to accommodate this generation, Bernhardt explained. This part of the survey is enabled by investor-owned utilities having mapped out their distribution grids as part of the California Public Utilities Commission's distribution resources plan proceeding [R14-08-013]. The mapping effort was undertaken in part to identify sites where distributed resources could easily interconnect without the need for significant system upgrades.

Through the mapping project, the utilities have quantified the ability of their distribution grids to handle new solar generation; the solar siting surveys not only map the rooftop clutter, but also include this interconnection data as an overlay on the maps, Bernhardt said.

Clean Coalition has completed four major solar siting surveys and about a dozen smaller surveys, according to the group. The major surveys include work done for East Bay Community Energy, the soon-to-launch community choice aggregation program in Alameda County; Peninsula Advanced Energy Community; and Southern California Edison, when it was deploying its Preferred Resources Pilot program in the wake of the abrupt closure of the San Onofre

Continued on page 5

WESTERN PRICE SURVEY

[9] Warmer Weather Brings Price Swings

Summer-like Southern California heat triggered energy price swings throughout the week as residents attempted to cool off.

Temperatures climbed to a record-breaking 95 degrees in Long Beach April 9, while Los Angeles reached 94 degrees.

California Independent System Operator grid demand peaked at 30,177 MW April 9, which should be the week's high. Thermal generation that same day peaked at 15,771 MW, while solar generation reached 10,263 MW.

Renewables on the CAISO grid reached 15,190 MW April 11, supplying roughly 54 percent of demand.

The warmer California temperatures supported higher natural gas prices, according to U.S. Energy Information Administration analysts, and also drove a 4 percent increase in the amount of natural gas consumed for power generation during the agency's report week.

Working natural gas in storage was 1,335 Bcf as of April 6, according to EIA estimates. This is a net decrease of 19 Bcf compared with the previous week.

This is the fourth time since 2010 that a national net withdrawal from natural gas storage has been reported in April, according to the EIA. The natural gas storage refill season traditionally begins April 1.

Storage levels are now 35.2 percent less than a year ago and 21.9 percent less than the five-year average.

Henry Hub natural gas spot prices shed 7 cents, ending at \$2.71/MMBtu in April 5 to 12 trading.

Western natural gas prices varied, with Southern California CityGate jumping \$1.14 to \$3.83/MMBtu, while Alberta gas dropped 87 cents to end at 70 cents/MMBtu.

Meanwhile, Western peak power values generally moved lower in trading. Mid-Columbia posted the greatest loss, down \$9.85 to \$14.95/MWh. Palo Verde proved the exception, adding 30 cents to \$22.30/MWh.

Pacific Northwest nighttime power values dipped below the \$10 mark April 9 with ample wind and hydro production. By week's end, Mid-C lost \$9.85, to end at \$10.65/MWh. In contrast, North and South of Path 15 off-peak prices gained a couple of dollars in trading. Prices ranged from \$10.65/MWh to \$26.45/MWh by April 12.

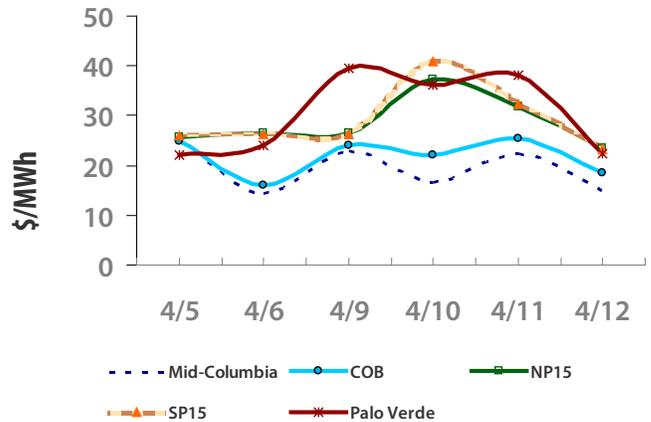
The California snow-water equivalent decreased 4.2 inches by April 12, according to the California Department of Water Resources' weekly bulletin. The state's overall snowpack is now at 41 percent of the average.

In the week ahead, CAISO forecasts demand will barely surpass 27,000 MW. Active weather systems should cool the Bay Area starting April 16, with warmer conditions the following day and light rains April 18. By April 19, Southern California may expect below-normal temperatures and gusty winds.

-Linda Dailey Paulson

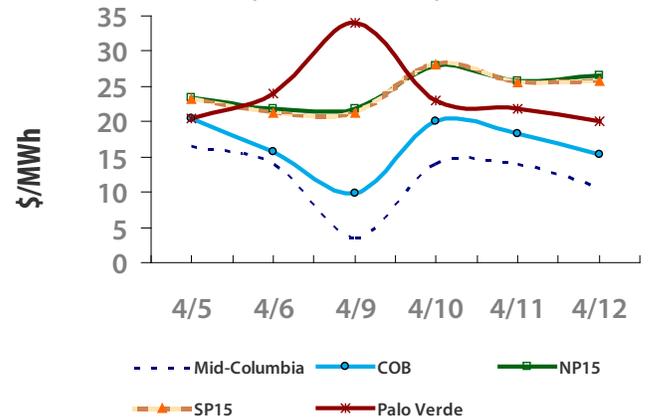
Average Peak Power Prices

Thurs., 04/05 - Thurs., 04/12



Average Off-Peak Prices

Thurs., 04/05 - Thurs., 04/12

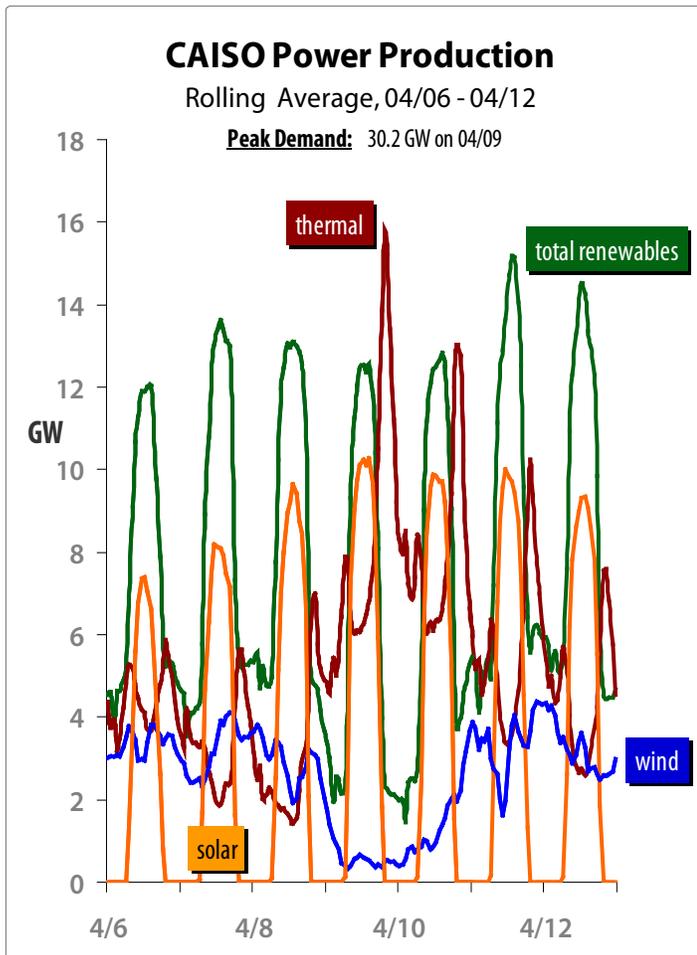


Average Natural Gas Prices (\$/MMBtu)

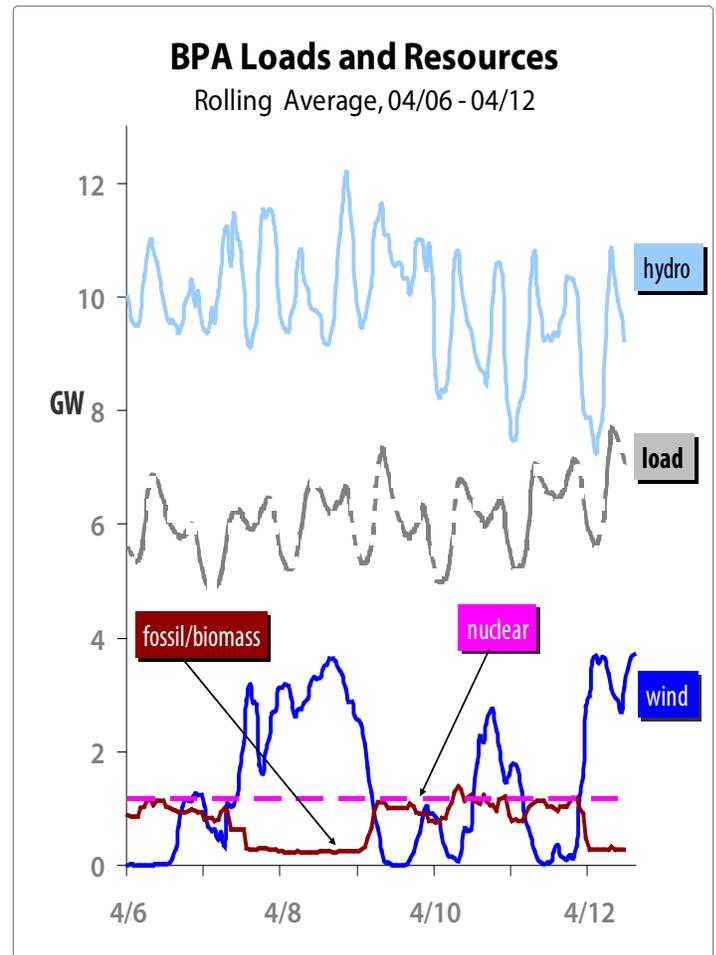
	Th., 04/05	Tue., 04/10	Th., 04/12
Henry Hub	2.78	2.69	2.71
Sumas	2.06	2.10	2.11
Alberta	1.57	0.98	0.70
Malin	2.23	2.08	2.17
Opal/Kern	2.19	2.07	2.14
Stanfield	2.11	2.13	2.10
PG&E CityGate	2.59	2.67	2.70
SoCal Border	2.19	2.41	2.19
SoCal CityGate	2.68	3.83	3.82
EP-Permian	1.99	1.49	1.62
EP-San Juan	2.00	1.85	2.01

Power/gas prices courtesy Enerfax

POWER GAUGE



Source: BPA & CAISO



Continued from page 3

Nuclear Generating Station. The Alameda County survey, which included the whole county except the City of Alameda, covered more than 720 square miles.

In conjunction with the San Diego solar survey, Clean Coalition will also design a feed-in tariff to help streamline interconnection, Bernhardt said. The coalition **designed** a feed-in tariff for East Bay Community Energy that includes

recommendations for how to initiate and then expand a FIT program.

The solar siting survey is something that Clean Coalition can replicate for other cities or entities, although the interconnection data would be limited to areas served by utilities that have undertaken a distribution-grid mapping process.

“Being able to understand what sort of contribution local renewable generation [can make] is something that is increasingly valuable to entities,” Bernhardt said. **—Mavis Scanlon**

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REGULATION STATUS

[10] PG&E Quizzed on Safety, Executive Compensation (from [1])

Nick Stavropoulos, president and chief operating officer of Pacific Gas & Electric, was grilled about the hefty compensation packages afforded to top utility executives at an April 11 hearing at the California Public Utilities Commission.

Ratepayer advocates questioned Stavropoulos on the extent to which the utility's safety performance affected the multimillion-dollar stock options offered to PG&E's top brass.

He was also quizzed on the potential development of utility safety metrics, as well as the tradeoffs that PG&E makes between ensuring safety and a higher bottom line.

"[T]hat's a decision that we all face," Stavropoulos said at the hearing, adding, "But one thing I can tell you is that since I've been working in the company, we've never, ever sacrificed on safety."

The hearing was conducted as part of the CPUC's ongoing investigation into PG&E's prioritization of safety within its organizational structure, launched in 2015 in the aftermath of the San Bruno natural gas transmission line explosion [I15-08-019]. CPUC President Michael Picker, who was present at the hearing, said the commission had concluded that merely levying fines on the utility was not enough to shape people's behavior around safety.

Accordingly, the commission instructed PG&E to bring in an external consultant, NorthStar Consulting Group, to audit its practices and policies. NorthStar's report, which was submitted to the commission in May 2017, found the utility lacked a comprehensive safety strategy, and listed a series of recommendations. Among them were suggestions regarding executive compensation, including analyzing the extent to which safety is considered while estimating the long-term incentive plan, under which directors are awarded stock-based compensation, and the short-term incentive plan, an annual cash incentive. Specifically, NorthStar recommended increasing the weight provided to safety under the LTIP and re-evaluating portions of the STIP based on a separate recommendation to create a company-wide safety plan.

While PG&E agreed to comply with a "vast majority" of the recommendations, the utility stated in testimony filed with the commission in January that it intended to discuss compensation-related recommendations during its next general rate case. According to PG&E's proxy statement, top executives decided not to accept STIP bonuses for 2017, but LTIP stock awards ranged from \$1 million to \$6.5 million, with Stavropoulos being awarded an estimated \$4.25 million (see CEM No. 1481 [8]).

Ratepayer advocates with The Utility Reform Network opposed delaying compensation-related discussions until the next GRC.

"While TURN agrees that the dollar amounts of executive compensation and how they relate to rates should be discussed in the GRC, the structure and design of executive incentive compensation as it relates to safety performance can and should be addressed in this proceeding," David Cheng, staff attorney at TURN, stated in testimony submitted to the commission in February.

TURN also recommended that PG&E increase the weight allotted to safety in the LTIP. While it initially accounted for 5 percent on the LTIP, PG&E increased that figure to 10 percent in February. Representatives from TURN are suggesting that be further increased to 50 percent, a suggestion the utility rejected in rebuttal testimony, saying it was "unsupported by any evidence."

At the evidentiary hearing, Cheng asked Stavropoulos why the company is opposed to this increase. The PG&E executive referred the issue to the company's compensation committee, pointing out that they believed tying shareholder returns to the performance of the company is an indicator of safety culture. He did not offer his own opinion, stating that he would "have to understand all the consequences associated with it" first.

Cheng also referred to NorthStar's analysis of former PG&E CEO Anthony Earley's 2015 compensation. Despite the weight included in the STIP and LTIP, only 11 percent of Earley's compensation was safety-related.

"Earlier, you stated that executives could be faced with decisions where they have to trade off safety and earnings. When you're setting the [total shareholder return] to be five times the weight of safety performance, aren't you sending a signal to executives that TSR is more important than safety?" he asked.

Stavropoulos responded that he did not agree with NorthStar's analysis.

In 2017, PG&E's equipment caused nine fatalities and five serious injuries. But on being asked how this affected his own LTIP, Stavropoulos said that the figures actually represented progress.

"The board has looked at our overall performance here. So we've gone from 2014, [with] over 50 serious injuries and fatalities, and you can see how we've had a massive improvement in that space," he said, adding that these figures may include incidents like cars hitting electric poles, drowning deaths at hydroelectric facilities, and individuals who may come into contact with wires.

"We've put in all kinds of measures to address this," he said, adding, "but I look at these data and I see a massive improvement." —Kavya Balaraman

'Since I've been working in the company, we've never, ever sacrificed on safety.'

[11] Edison Applies to Establish WEMA

Southern California Edison is seeking California Public Utilities Commission authorization to establish a new Wildfire Expense Memorandum Account to track wildfire-related costs, including costs for new wildfire insurance and costs related to last year's Thomas Fire.

In an April 3 [application](#) [A18-04-001], Edison sought approval of the account to track direct and indirect costs resulting from wildfires, including any payments to satisfy wildfire claims; the costs of insurance, deductibles and other insurance expenses; outside legal assistance to help the utility defend itself against lawsuits; and other related costs.

A [concurrently filed motion](#) asks the commission to make the WEMA account effective as of the date of the filing.

"It is imperative that SCE establish a WEMA now, as it is in the process of renewing its wildfire insurance for 2018-2019 and anticipates the cost of this additional insurance may substantially exceed the amount currently authorized in rates or requested in SCE's pending 2018 General Rate Case for insurance costs," Edison said in the application.

Edison's application follows a similar application last July by Pacific Gas & Electric [A17-07-011] and comes as utilities, regulators and lawmakers wrestle over how best to deal with increased fire risk in California and wildfire insurance costs that have skyrocketed in recent years. Utilities are also fighting the state's doctrine of inverse condemnation, in which utilities may be held liable for fire-related costs if their equipment is found to have sparked a fire, even if they did nothing wrong (see *CEM* Nos. 1473 [11] and 1477 [14]).

Noting the increased wildfire risk investor-owned utilities face, Edison said the insurance it maintains may be insufficient to cover the costs of claims and its defense against lawsuits arising from wildfires that occurred last year.

As of earlier this month, Edison faces 40 lawsuits as a result of the Thomas Fire—one of several wind-driven wildfires in Southern California in December that impacted Edison's service territory—and the utility expects more suits could be filed stemming from deadly mudslides in January that followed the wildfire. The mudslides resulted in 21 fatalities.

The Thomas Fire, the largest wildfire in California history, destroyed more than 280,000 acres and more than 1,000 structures and resulted in two fatalities. Although the cause is still under investigation, Edison said it believes its facilities are being looked at as a possible cause of the fire.

Edison's roughly \$1 billion in wildfire-specific insurance coverage for the period ending May 31, and its additional \$300 million in wildfire coverage for this year, may not be sufficient to cover all potential damages stemming from last year's fires, Edison said.

Earlier this year, Edison applied to recover in its 2018 GRC \$108 million of the \$121 million cost of replenishing a \$300 million wildfire insurance policy following last year's fires (see *CEM* No. 1479 [10]).

Thomas Fire By the Numbers

Number of people evacuated	100,000+
Fatalities	2
Acres destroyed	281,893
Structures destroyed	1,063
Structures damaged	280
Lawsuits filed against Edison in wake of Thomas and other December SoCal fires	40
Edison's 2017 capital expenditures to restore service in areas impacted by the December fires	\$35 million

Source: Southern California Edison, Santa Barbara County

In noting the longer-duration fire season California faces and the higher risk of catastrophic fires, Edison cited data from the California Department of Forestry and Fire Protection showing that in 2017, California saw 7,117 fires that burned 505,956 acres. That is up from 5,143 fires in 2015 that burned about 307,598 acres.

"To the extent SCE's facilities are found to be the cause of any such future wildfires, SCE could face substantial additional costs, including strict liability costs arising from the application of inverse condemnation," the utility said.

Edison proposed a schedule for the proceeding culminating in a final CPUC decision in August.

—Mavis Scanlon

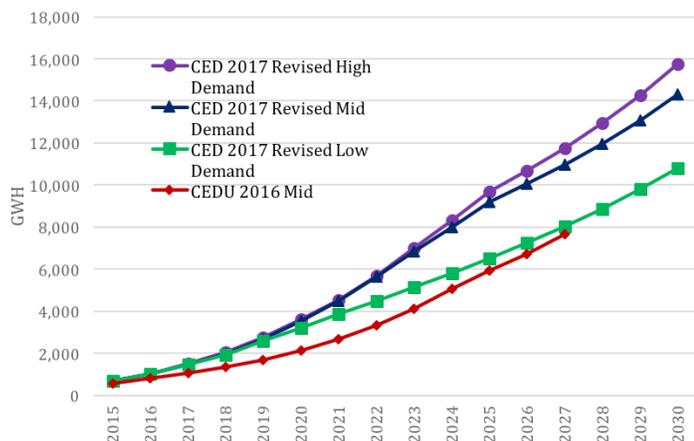
[12] Stakeholders Split on Standardized VGI Protocol (from [3])

Stakeholders remain conflicted over an inter-agency working group's recommendation that California not establish a standardized vehicle-grid integration communication protocol.

The recommendation was made by a group of representatives from the California Public Utilities Commission, the California Energy Commission, the California Air Resources Board, the California Independent System Operator and the Governor's Office of Business and Economic Development, after nine months of deliberation. The working group was convened against the backdrop of increasing electric load related to electric-vehicle needs. California's target to have 250,000 charging stations set up by 2025 and 5 million zero-emission vehicles on the road by 2030 is a critical component of the state's long-term climate goals.

But these ambitious transportation-electrification goals could have a serious impact on the grid. The working-group representatives were therefore tasked with looking into combinations of communication pathways through which vehicles might be encouraged to charge during off-peak hours and absorb excess renewable energy, converting them to grid assets that reduce wholesale energy prices and utility distribution maintenance requirements, rather than a drain on resources. This, they suggested in a late-February [report](#), would allow for more flexibility, and

Statewide Light-Duty Electric Vehicle Electricity Consumption



Statewide light-duty electric-vehicle energy consumption is projected to increase as California moves toward its zero-emission vehicle goals. Source: CEC

they urged investor-owned utilities to consider this as they prepare to file future applications for transportation-electrification projects [R13-11-007].

“Markets, protocols, and technology are rapidly developing, and at this time we do not want to preclude any protocols or use cases that can deliver VGI value,” the report stated.

The recommendation has drawn mixed reactions from stakeholders. While some view it as a welcome decision given the nascent stage of the VGI sector, others are concerned that a standardized communications protocol is essential to propel the state toward its transportation-electrification goals.

Tesla Inc. is among stakeholders that support the recommendation. Francesca Wahl, senior policy associate with Tesla, said in comments submitted to the CPUC on April 4 that it’s important to better understand the advantages of VGI before standardizing protocols. Disagreeing with the assessment of other automobile manufacturers, including Volkswagen, Audi and Porsche, she said the state’s momentum in transportation electrification will continue without the creation of a specific communications protocol. On the other hand, she acknowledged that such a protocol might be more significant in the future.

“At higher levels of EV deployment, it will become increasingly important to ensure charging is aligned with grid needs. It will therefore be necessary to continue the discussions of the VGI working group and evaluate the most effective mechanisms for integrating solutions that benefit customers and the grid,” Wahl stated.

In joint comments, Pacific Gas & Electric, San Diego Gas & Electric, Southern California Edison and 10 other parties, including Toyota Motor North

‘At this time we do not want to preclude any protocols or use cases that can deliver VGI value.’

America, also agreed with this viewpoint. The state does not have adequate data or understanding to mandate a specific kind of communications protocol, they said, adding that it would make more sense to focus on defining valuable VGI services and studying business models for them.

“A lack of clearly-articulated value, and enabling market mechanisms, are the two most important barriers to broad, accelerated implementation of VGI, and not a lack of a mandated protocol between the [electrical vehicle service equipment] and EV,” they stated.

General Motors and ChargePoint also agreed with the report.

Other stakeholders, however, remained critical of the working group’s recommendation. The Natural Resources Defense Council stated that a standardized communications protocol would “jump-start” the VGI sector, adding that California’s progress in this arena will also have impacts across the entire country. The organization criticized the nine-month time frame provided to the working group to come up with a solution, noting “it is understandable that a protocol was not selected by consensus.” In comparison, Europe and Japan both have protocols that were refined over a four- to six-year period, they added.

The NRDC also suggested the agencies recruit an independent expert on EV communication protocols to steer the working group.

Greenlots, an EV charging-services provider, argued that VGI development will be hindered without a uniform communications protocol. If automakers were to utilize their own methods, EVSE manufacturers would be saddled with increasing hardware and software costs. Moreover, the company stated, a standardized system would lead to more reasonable costs for IOU development of communications protocols, thereby leading to better allocation of ratepayer dollars.

“The market and the international community is already moving on this issue. Inaction at this point is likely to prove costly for California and detrimental to EV adoption and the growth of the broader market,” Greenlots stated. —*Kavya Balaraman*

[12.1] CPUC Appoints New Chief ALJ

The California Public Utilities Commission has appointed Anne Simon its new chief administrative law judge.

Simon has served as acting chief ALJ since August of last year. She replaces former Chief ALJ Karen Clopton, who was abruptly dismissed from the agency in September following claims of insubordination and discourteous treatment of employees (see *CEM* No. 1455 [10]).

Welcoming Simon to the role, CPUC President Michael Picker said, “She has a steady and strong leadership style, and brings a wealth of experience to the Administrative Law Judge Division.”

Simon has worked at the commission as an ALJ since 2002, prior to which she worked for Communities for a Better Environment and the UC Berkeley School of Law.



CPUC President Michael Picker swears in Anne Simon as the agency's new chief administrative law judge. Photo: CPUC

The appointment is effective as of April 12, the commission announced. As chief ALJ, Simon's responsibilities include handling dispute resolutions, conducting hearings, and preparing proposals and agendas for commissioners. —*K. B.*

[13] CEC Touts EPIC Funding, Approves High Desert Plant Water-Use Plan

(from [4])

The California Energy Commission awarded \$134 million in funding across 72 new projects last year through its popular Electric Program Investment Charge initiative, while also wrapping up seven projects and terminating two that had previously been awarded funding.

The CEC at an April 11 voting meeting adopted the 2017 [EPIC Annual Report](#), which highlights how the agency has utilized resources to support research that helps the state meet its energy and greenhouse-gas-reduction goals.

CEC Chair Robert Weisenmiller said the EPIC initiative has turned into a “real home run” when it comes to producing results and adequately vetting projects that are deemed to warrant funding.

“This program is something that we can be proud of, and one that the Legislature and California Public Utilities Commission can see and understand that the money we spend is effectively used,” he said.

The EPIC program has funded a total of 270 projects to the tune of \$530.6 million between 2012, when the program got underway through the end of last year. Nearly 32 percent of all EPIC funds for technology demonstration and deployment projects have gone to finding energy solutions for disadvantaged communities.

EPIC funding in 2017 was primarily pooled into clean-energy companies or early-stage clean-energy concepts that are deemed to have future commercial viability. These projects include those that help vehicle-grid integration, improve air quality, manage tree mortality, and convert food waste into energy.

The seven completed projects include a study that examines energy-efficiency adoption and savings

across socioeconomic and ethnic groups, aiming to determine why consumers are failing to adopt seemingly cost-effective investments. The data collected from that study showed that energy savings were higher for low-income homes in the “hot” areas of Southern California Edison's Quality Installation Program than for high-income homes, but that low-income homes participated less frequently in energy-saving activities. With energy savings being influenced by climate, the report urged that investor-owned utility incentive funds for efficiency be eliminated from temperate areas.

“These findings can pave the way for improved incentive program design that targets highest value projects and provides more effective incentive amounts,” the report said.

A study on cultural factors in the energy use patterns of multifamily housing showed that energy-efficiency upgrades and retrofits yielded mixed results. The project examined load profiles that also correlated with demographic and cultural factors, such as race and ethnicity. While the analysis showed that no single demographic or cultural factor can explain load differences, the majority of inefficiencies were caused by occupants, after a building retrofit, not using energy-efficient plug-in products.

A study that examined how to improve short-term wind-power forecasting in the Tehachapi Wind Resource Area found that improved measurement technology reduced forecast errors by 13.5 percent. Improving the accuracy of short-term wind ramps can reduce grid-operation costs by an estimated \$28 million to \$100 million in the Western Electricity Coordinating Council area, assuming 14 to 24 percent wind penetration, according to the report.

EPIC funding helped UCLA design a low-cost, 74 kW pilot high-temperature hybrid compressed-air energy storage system that can store grid-level energy and release it when needed to meet peak demand. The study found that the technology can reduce the cost of storage to about \$100/kWh with 85 percent efficiency, compared with batteries. The research resulted in two U.S. patents, but further study is needed to develop a prototype capable of meeting a pilot-scale demonstration.

Other completed projects included a study that examined low-carbon energy scenarios by 2050; public-health research concerning emerging technologies such as photovoltaic solar, concentrated solar, small hydropower and energy storage systems; and how to reduce GHG emissions from groundwater-pumping operations and storage for hydropower through water-banking projects.

The two terminated projects, a \$1.3 million bioenergy grant awarded to Interra Energy Inc. and \$400,000 awarded to the College of San Mateo, were canceled due to either major technological issues or subcontractors dropping out.

Heather Bird, a CEC specialist who presented the EPIC report to the commission, explained that ongoing projects are moving toward focusing on grid challenges and the need for flexibility and resilience to address power disruptions.

Some of those projects include furthering microgrid development and research, creating high penetration of solar distributed energy resources, and creating low-cost alternative batteries suitable for grid applications.

Commissioner David Hochschild called the EPIC initiative the “crown jewel” of the CEC’s operations that foster innovative technology to help meet California’s ambitious GHG-reduction goals.

“When you have the White House calling for massive cuts in research and development, we need to continue to keep funding levels high and intensify outreach to get more candidates into the program,” he said.

At its business meeting, the CEC also adopted updated energy-efficiency standards for portable electric spas that could save consumers \$45 million annually. The standards, effective on June 1, will add \$100 to \$230 to the initial cost of a unit but will save consumers much more over the lifetime of a product. The primary focus of the standards is to enhance the energy efficiency of spa covers and electricity use during warming-up periods.

A new EPIC funding grant of nearly \$10 million was given to the Sonoma Clean Power Authority to help adopt energy-efficiency upgrades that support fire-recovery efforts in Sonoma and Mendocino counties. The grant also aims at helping the agency create a development strategy that includes customer demonstrations to help overcome market barriers to doubling the efficiency of existing buildings by 2030.

Commissioner Andrew McAllister said that with SCPA being a community choice aggregation entity, it should be able to operate autonomously and achieve results quickly.

“This is a significant amount of money, and we are expecting some big things from SCPA,” he said. “We are putting a lot of pressure on the local government and we need to make it easy for people to do the right thing, especially after fire-related issues.”

The CEC also approved a committee’s recommended decision granting a petition to amend the final decision for the High Desert Power Plant, an 830 MW water-cooled, natural gas-fired plant located in San Bernardino County [97-AFC-01C].

The approval, which will drought-proof the power plant, creates new standards for the use of water for the plant’s cooling needs, including making permanent HDPP’s use of a technique called percolation for banking water from the California State Water Project. The decision also imposes penalties if the plant fails to meet or exceeds its mandated use of recycled water.

Percolation is a hydrologic process used for groundwater recharge that moves water downward from the surface zone to groundwater and aquifer zones.

The plant, which has been operational since 2003, filed a petition in 2015 seeking to amend a 2014 decision that allowed it to bank percolated groundwater.

According to the petition, HDPP’s proposed loading sequence for water usage requires it to use primarily recycled water for its cooling operations. But that water can be blended with SWP water,

High Desert Power Project By the Numbers

Location	Victorville, San Bernardino County
Capacity	830 MW
Cooling	Blowdown treatment system
Turbines	3 combined-cycle gas, 1 steam
Fuel	Natural gas
Water used	3,300-4,000 acre-feet annually
Owner	Middle River Power LLC

Source: CEC, Constellation Energy Group

banked SWP water, or adjudicated percolated groundwater from the Mojave Basin to ensure the plant can weather drought conditions.

Illinois-based private-equity firm Middle River Power LLC acquired the project in 2016 from Tenaska Capital Management. Middle River Power is an affiliate of New York-based Avenue Capital Group, a global investment firm that focuses on distressed debt assets.

The California Department of Fish and Wildlife said the decision shifts the burden of studying environmental impacts of the HDPP’s water usage in the Mojave Basin onto the CDFW, rather than the energy commission. CDFW representatives also claimed that indirect use of groundwater from the Mojave River Basin has not been adequately studied to understand resource impacts.

“We have had record drought levels that have led to concerns across the state,” said Commissioner Janea Scott in defending the decision. “And we need to have our energy system resilient to drought while protecting the environment and our energy supply.” —*Kali Kotoski*

[13.1] CEC Approves a Number of Projects for Natural Gas

The California Energy Commission at its April 11 business meeting approved a number of grants for natural gas infrastructure research, microgrids and a biomethane project.

The items include:

- A \$550,000 grant to UC Irvine to analyze natural gas samples collected from major gas basins in the U.S. in order to develop a methodology to enable identification of the basin of origin by examining the samples’ chemical and isotopic composition. The research aims to support life-cycle accounting of methane emissions related to the natural gas supply chain.
- A \$1 million grant to UC Berkeley to enhance its Cal-Adapt platform through the integration of new research results, including California’s Fourth Climate Change Assessment. The grant will add custom tools tailored to the specific needs of natural gas stakeholders and will provide actionable information on energy infrastructure and climate-related vulnerabilities.
- A \$200,000 grant to Eagle Rock Analytics to improve the gas sector’s resilience to climate

change through continued development of Cal-Adapt, an interactive web-based platform for exploring climate-related risks in California.

- A \$549,500 grant to InfraTerra Inc. to test and identify non-invasive and cost-effective technologies for a survey of the structural integrity of Sacramento-San Joaquin Delta levees that protect natural gas infrastructure.
- A \$6 million grant to Lawrence Berkeley National Laboratory to conduct a comprehensive field study identifying and mitigating methane emissions in the southern San Joaquin Valley. The research will result in the advanced understanding of methane emissions while validating cost-effective new technologies.
- A \$1.1 million grant to Berkeley Lab to develop a holistic community action plan in the San Joaquin Valley to achieve air-quality improvements through energy-efficiency measures in the residential building and transportation sectors.
- A \$1.1 million grant to UC Irvine to develop and evaluate urban energy scenarios that will inform the development of microgrids while improving air quality, reducing greenhouse-gas emissions and improving community resilience to adverse events.

- A \$1.1 million grant to UC Berkeley to advance engagement with communities in developing its Sustainable Energy and Localized Futures Models in California's San Joaquin Valley. The grant will focus on critical urban-agricultural interface zones.
- A \$3 million loan to the City of Tulare to install a single-axis photovoltaic system totaling 2.41 MW at its wastewater treatment plant. Over 17 years, the project is expected to save the city approximately \$7.6 million in utility costs and 82,223 MWh of electricity. The total project cost is estimated to be \$5 million. The simple payback period on the 1 percent interest loan is 6.7 years.
- A \$3.05 million grant to California Bioenergy LLC's Kern Dairy Cluster Biomethane Upgrading Facility to design, build and operate a centralized biomethane facility that aims to produce 500,000 diesel gallons-equivalent of renewable gas annually. The fuel will be used for heavy-duty compressed natural gas trucks and buses. —K. K.

REGIONAL ROUNDUP

[14] CAISO Aims to Keep Reliability-Coordinator Service Rates Low

(from [2])

In pursuit of its aim to become a reliability coordinator for balancing authorities and transmission operators in the Western Interconnection by the third quarter of 2019, the California Independent System Operator reiterated that its planned service costs would be at least half of those offered by Peak Reliability, the current coordinator for the West.

CAISO held its first stakeholder meeting April 12 following the issuance of a [straw proposal](#) outlining the initial steps toward establishing rate design, terms and conditions for its reliability-coordinator services (see *CEM* No. 1482 [13]).

CAISO first announced in early January that it would depart from Peak Reliability, setting the stage for direct competition between the two entities as each jostles to become the center of a cohesive Western energy market.

Ryan Seghesio, CAISO vice president, chief financial officer and treasurer, made clear that the grid operator was not trying to reinvent the wheel, and walked stakeholders through the grid operator's process for determining its projected low service rates.

To operate reliability-coordinator services, CAISO has developed a reliability-coordinator funding requirement—a combination of an annual operating budget and an annual adjustment scheme—that amounts to approximately \$11.8 million, or 6 percent of CAISO's total 2018 revenue requirement, explained Seghesio. CAISO's total revenue requirement for 2018 is expected to be \$197.2 million.

Tacking a 2 percent operating-budget reserve charge on the \$11.8 million brings the total funding for reliability-coordinator services to \$12 million. The operating-budget reserve scheme, which will be in place annually to eventually pool 10 percent of the reliability-coordinator operating budget, is meant to soften any potential impacts from regulatory fines or penalties.

"This 6 percent of the revenue requirement will be filed in our tariff each year for the rate-setting mechanism," said Seghesio.

Given the \$12 million needed to fund reliability-coordinator services, CAISO will divide that number by forecast load volume to determine rates per megawatt-hour.

A load volume of 450 TWh would lead to a rate nearing 3 cents/MWh, while a volume of 550 TWh would be slightly above 2 cents/MWh.

"Peak has about a 6-cent rate and we would have around a 2-cent rate," said Seghesio. "While the rates will be dependent on the overall footprint of our reliability-coordinator services, we stand by the notion that we must remain 50 percent lower than Peak."

He also explained that the 6 percent formula for the reliability-coordinator funding requirement ensures that service rates would stay static for 2019 and 2020, and that it would also mitigate surprises down the road, as the Federal Energy Regulatory Commission has applied a total revenue-requirement cap of \$202 million on CAISO operations. The cap is updated every three years and wouldn't be adjusted until after 2020.

"We don't expect to see a lot of changes in our FERC-approved cap, which means that we can keep our rate design low," Seghesio added.

CAISO Director of Regional Integration Phil Pettingill said the grid operator plans to start executing agreements with balancing authorities and transmission operators after October, and will start offering services to entities within CAISO's balancing authority next May. When asked by stakeholders how many entities had signed a letter of intent with CAISO, Pettingill said that information was currently confidential, as entities had to sign a nondisclosure agreement.

"What I can say is that we have letters of intent with most of the load in the Western Interconnection," he said. "So while we are talking to everybody, I want to make it clear that these letters are not binding."

Seghesio added that because 2019 will be a transition year for reliability-coordinator services, CAISO will be taking on the majority of the costs, which should provide an incentive for entrance.

Stakeholder concerns over CAISO's proposal centered primarily around monthly payment-settlement processes. Under the proposal, entities using RC services would have 10 business days to pay an invoice before incurring a \$1,000 fine. If the payment is not received within 15 days, CAISO would notify customers that there could be a potential rate adjustment. After 20 business days, CAISO would have the right to suspend services and adjust rates to absorb payment default and loss of billable MWh load volumes.

Some stakeholders argued that the process should be more flexible, or should operate on an annual payment basis rather than a monthly basis.

"Having a monthly payment helps spread out cash flow, but this payment strategy is something we are willing to debate," said Seghesio.

As for onboarding customers, Craig Williams, CAISO's lead client trainer, explained that a proposed staggered integration of customers would allow for a smooth entrance.

"We are going to have small and large customers, and we want to make the process similar to what you are already used to," he said. —*Kali Kotoski*

[14.1] PG&E to Sell Kern Power Plant

Pacific Gas & Electric is looking to sell parts of its Kern Power Plant property in Bakersfield for commercial redevelopment in late 2018 or early 2019.

The utility is currently in the process of fencing off the substation and property with transmission



This 2013 photo of PG&E's Kern Power Plant shows the partially dismantled plant. Photo: David Seibold, Flickr.com

lines, which will be upgraded between 2020 and 2024 for reliability purposes. The remaining 46 acres of the property has been remediated and will be sold for commercial use, PG&E spokeswoman Katie Allen said in a statement, in a manner that ensures "the best interests of the safety of the community."

The 180 MW Kern Power Plant was built in 1948 and operated by PG&E until 1985; the utility retired the facility in 1994. PG&E began demolishing the plant in 2011, but the process has been plagued with controversy. In 2012, a worker employed by Cleveland Wrecking Co., the demolition firm contracted by PG&E, sustained fatal injuries as he took apart a fuel-oil tank at the plant.

Further investigation by the California Public Utilities Commission revealed that PG&E had not conducted adequate contractor oversight in a manner that would ensure worker safety. Following the incident, PG&E adopted new minimum requirements for its contractors and subcontractors.

In 2013, as the plant's boilers were being imploded with explosives, onlookers situated a quarter-mile away were showered with shrapnel, leaving five people injured. The CPUC determined PG&E's subcontractor had not done its due diligence in planning the explosion.

Allen said the company doesn't have a buyer yet. —*K. B.*

SOUTHWEST

[15] APS-Commissioned Study Suggests Dramatic Impact If Initiative Passes

(from [5])

Supporters of [Clean Energy for a Healthy Arizona](#), a proposed ballot initiative that would boost the state's renewable-energy standard to 50 percent by 2030, are still seeking the signatures needed to get the proposal on the November ballot. But Arizona Public Service, the state's largest utility, has been playing defense by proposing an alternative ballot initiative, drafting legislation to minimize financial risk to investor-owned utilities should the measure pass (see *CEM* No. 1481 [15]), and commissioning a study to gauge effects of the initiative's passage on Arizona's economy through 2060.

The study, by Timothy James, research professor and senior sustainability scientist at the [Seidman Research Institute at Arizona State University](#), incorporated a so-called Regional Economic Model, or REMI, to forecast the future of Arizona's economy under two scenarios: one in which the CEHA initiative passes and the other a "counterfactual business as usual" scenario in which APS and other large investor-owned utilities expand renewable-energy production more slowly. The institute is a fiscally autonomous unit "akin to a private sector consulting firm run by academics" that offers contract research and fee-based consulting services, according to Anthony Evans, a colleague of James and project manager for the study.

If the initiative passes, it could result in the early retirement of the [Palo Verde Nuclear Generating Station](#) in 2025. Palo Verde's operating license, renewed by the U.S. Nuclear Regulatory Commission in 2011, expires in 2045. Palo Verde supplies about 35 percent of Arizona's electricity.

"There's just no reason to trust an APS 'study' based on a set of secret assumptions," said Pita Juarez, communications director for the CEHA campaign. "This ballot measure doesn't have anything to do with Palo Verde. If Palo Verde closes, it'll be because APS closes it."

James, the principal investigator on the study, was out of the country and could not be reached for comment, but Evans, a senior research fellow at the Seidman Institute, explained in an email that "without significant advances in renewable energy storage technology (and we cannot state with any certainty if or when that will happen), it is reasonable to assume that most of the state's non-renewable electricity generation post-CEHA [would] have to come from natural gas."

Natural gas plants can quickly and easily respond to electricity demand when solar and wind power are unavailable, thus making them more valuable in a CEHA scenario and potentially compromising the usefulness of nuclear generation.

APS' most recent integrated resource plan was not acknowledged by the Arizona Corporation Commission, the state's regulatory body for investor-owned utilities (see *CEM* No. 1480 [19]), with commissioners citing overreliance on fossil fuels, particularly natural gas, as part of the basis for the decision.

The study estimates a loss of some "\$36.8 billion in Gross State Product (GSP) between now and 2060 as a result of enforced changes in APS' operations and capital investments" under the CEHA scenario, as well as significant job losses in the broader community and loss of personal disposable income. The Seidman Institute, which does not engage in traditional academic research or publish in academic journals, said the study was reviewed in-house rather than peer-reviewed, and the modeling approach was shared with an external economist, according to Evans.

In contrast, another ASU professor, Wesley Herche, associate director of research at the ASU Global Security Initiative and a senior sustainability scientist at the Global Institute of Sustainability, cited his own [research](#) in determining a relationship between the aggressiveness of a state's renewables portfolio standard and rate increases. Herche's research found "no correlation at all" with higher electricity rates in 32 states that incorporated renewables standards from 2005 to 2012. Many of the states that achieved their renewables standards in Herche's peer-reviewed study, published in the scientific journal [Renewable & Sustainable Energy Reviews](#), actually saw a rate decrease.

Another recent [study](#), by the Union of Concerned Scientists, determined that if New Mexico, Arizona's neighbor to the east, put in place a 50 percent renewable-energy standard by 2030, "renewable energy,

not gas, [would be] the state's lowest-cost long-term solution." The study referred to a future dominated by wind and solar, which would create "several thousand jobs in construction, operations, and maintenance." It concluded that a higher renewables standard for New Mexico would ultimately lower most monthly electric bills below 2016 rates.

APS has stated that it stands by ACC Commissioner Andy Tobin's recently introduced [Energy Modernization Plan](#) (see *CEM* No. 1473 [16]), with its goal of 80 percent "clean" energy, including nuclear and renewables, by 2050. The utility also supports the battery-storage and electric-vehicle infrastructure elements of Tobin's plan, and appreciates that it "recognizes the critical role emission-free nuclear energy plays in any serious plan for clean Arizona energy."

—*Abigail Sawyer*

POTOMAC

[16] Zinke Hints at Scaled-Back Offshore Drilling Plan (from [6])

Interior Secretary Ryan Zinke hinted April 11 that states with few hydrocarbon resources in coastal waters, no sub-sea production infrastructure, and strong local opposition to offshore drilling likely would be left out of the next version of the draft 2019-2024 offshore oil and gas leasing plan, which he expects to release this fall.

Responding to questions from Rep. Derek Kilmer (D-Wash.) at a hearing of the House Appropriations Committee's Interior subcommittee, Zinke said "there is little or no resource of oil and gas off the coasts of Oregon or Washington. There is no infrastructure to support an oil and gas industry off the coasts of Oregon or Washington, and there is, I would say, passionate opposition to do so."

Zinke made similar comments March 13 at a hearing of the Senate Energy and Natural Resources Committee, at which he said that "off the coast of Oregon, Washington, most of California, there are no known resources of any weight."

Zinke also acknowledged that states opposed to offshore oil and gas drilling could block production by rejecting permits for pipelines and other support facilities on seabed lands under state control.

Zinke made a verbal slip responding to Rep. Chellie Pingree's (D-Maine) questions about his January statement that he would not propose drilling off Florida's coast. "There will be no new oil and gas platforms off Oregon," he said.

He also told Pingree, who asked for her state's waters to be left out of the plan, "I'm sure Maine is going to be very happy with the draft proposal."

Interior's initial draft leasing plan proposed 47 potential lease sales, including six off California and one sale off Washington and Oregon.

Zinke said the oil and gas industry is more interested in developing onshore plays than resources offshore.

Lawmakers Hammer BPA Asset-Sale Proposal

Northwest lawmakers told Energy Secretary Rick Perry at two congressional hearings that the Trump administration's proposal to sell Bonneville Power Administration transmission assets is a non-starter.

At an April 12 hearing of the House Energy and Commerce Committee's Energy Subcommittee, Rep. Greg Walden (R-Ore.) said the proposal "has been roundly rejected by virtually every member of the Pacific Northwest congressional delegation."

Walden, the full committee's chairman, asked Perry: "Can you assure me that the Department of Energy will leave Bonneville alone unless Congress provides explicit authorization?" Smiling, Perry replied, "Yes sir."

Sen. Jeff Merkley (D-Ore.) on April 11 told Perry that Northwest lawmakers would "lay down on the tracks" to block the proposal.

At a hearing of the Senate Appropriations Committee's Energy and Water Subcommittee, Perry did not offer a rationale for the asset-sale proposal, saying only that "it's a concept that's laid on the table for conversation."

Merkley replied: "It's the most horrific idea we've heard in the Northwest ever and take it off the table. If you don't have a detailed description of how you're going to do it and defend it, then don't keep delivering the same bad idea up here to Capitol Hill."

The administration included the Bonneville asset-sale proposal in its fiscal year 2019 budget request. The proposed sale also was in the administration's 2018 request, but Congress dismissed the idea out of hand.

Northwest Lawmakers Blast Spill Order

Northwest lawmakers on April 12 said increased spill ordered at the eight lower Columbia and Snake river dams threatens to increase power costs and risks regional power reliability.

At a hearing of the House Natural Resources Committee's Water and Power Subcommittee, Rep. Dan Newhouse (R-Wash.) criticized what he called U.S. District Judge Michael Simon's "reckless anti-science decision" ordering increased spill through mid-June. Increased spill began April 3, BPA Administrator Elliot Mainzer told the subcommittee, the day after Simon's January order was upheld by the 9th U.S. Circuit Court of Appeals.

Mainzer said he agreed with Rep. Greg Gianforte (R-Mont.) that the extra spill could increase power-generation costs, harm fish and threaten reliability. In his testimony, Mainzer said the increased spill would cost an estimated \$40 million.

In response to a question from Newhouse, Timothy Petty, the Interior Department's assistant secretary for water and science, said Interior supports HR 3144, which would require the Federal Columbia

River Power System to operate according to the 2014 Biological Opinion. The full committee reported out the bill April 11.

Becerra, CARB Sue Over Air-Toxics Policy Change

California Attorney General Xavier Becerra and the California Air Resources Board on April 9 sued over the Environmental Protection Agency's withdrawal of a 1995 policy on classifying sources of hazardous air pollutants.

The suit, filed in the U.S. Court of Appeals for the D.C. Circuit, seeks the court's review of EPA's unwinding of the "once-in, always-in" policy, which had specified that industrial plants classified as "major" hazardous air-pollutant sources remain within that classification even if they reduce emissions to the lower "area" classification.

Under Clean Air Act standards, plants emitting 10 tons per year of one hazardous air pollutant, or 25 tons per year of more than one pollutant, are "major" sources, while smaller emitters are classed as "area" sources. Control requirements differ depending on the classification, according to EPA. A total of 187 hazardous air pollutants, including mercury, are subject to regulation under the Clean Air Act.

At a Jan. 30 hearing of the Senate Environment and Public Works Committee, EPA Administrator Scott Pruitt said the agency's action "rewards investment in conduct."

Grijalva Calls for Navajo Coal Plant Transition Plan

Rep. Raul Grijalva (D-Ariz.) on April 12 said planning should get underway to prepare tribes for an economic transition if and when the coal-fired Navajo Generating Station closes.

Speaking at a hearing of the House Natural Resources Committee's Energy and Mineral Resources Subcommittee, Grijalva said "this market trend, the shift to natural gas and renewables, is ongoing and continuing." He said requiring the Central Arizona Project to continue buying 25 percent of the plant's output would be a "band-aid," but wouldn't be a viable economic solution for keeping the plant competitive with natural gas-fired generation.

Grijalva is the full committee's ranking Democrat.

In 2016, the Central Arizona Project released a study estimating it would have saved a net \$26.5 million in pumping power-purchase costs if the 2,250 MW Navajo plant had closed on Jan. 1 of that year and CAP had purchased energy from the wholesale market. Last year, CAP said it could no longer afford to buy power from NGS.

Seth Schwartz, president of Energy Ventures Analysis, criticized the CAP study, arguing in testimony to the subcommittee that gas and electricity prices were unusually low in 2016. Schwartz's company was retained by coal producer Peabody Energy, owner of the Kayenta coal mine that supplies the Navajo plant. Peabody is fighting plant closure, scheduled to occur at the end of 2019. Plant owners, led by NGS operator Salt River Project, in 2017 said the plant was no longer economically competitive.

**'It's the most
horrific idea
we've heard in the
Northwest ever.'**

Peabody is seeking a buyer in an effort to keep the plant open after 2019. George Bilicic, an investment banker with Lazard Freres & Co., told lawmakers potential investors might be willing to buy NGS power for three to five years. Bilicic added that requiring CAP to buy a percentage of its power from NGS would sweeten a potential deal. Peabody Energy retained Bilicic's company to find potential plant buyers.

In response to questions from Rep. Darren Soto (D-Fla.), Schwartz said the plant could "technically" be converted to gas, but added it is "highly unlikely it would be economical to do so."

Witnesses from the Navajo and Hopi nations' governments told the subcommittee that closure of the plant would be economically devastating for their tribes.

Nicole Horseherder, testifying for To Nizhoni Ani, a group opposing coal mining on Navajo and Hopi lands, said efforts to keep the plant open "are not based in any credible economic reality."

Perry: Coal/Nuclear Emergency Order 'An Option'

Energy Secretary Perry on April 12 said invoking the Federal Power Act's emergency 202 (c) clause to order payments to coal and nuclear plants is "an option" for protecting grid resilience, but he did not go further on how DOE plans to respond to FirstEnergy Solutions' request for the order.

In response to questions from Rep. Michael Doyle (D-Pa.) at a hearing of the House Energy and Commerce Committee's Energy Subcommittee, Perry said "202 (c) is an option. I'd like to work with you and other members of Congress on any options to get the results we need." Perry said "having a very broad portfolio" of generation is necessary for national security.

Pressed by Rep. David McKinley (R-W.Va.) on when DOE would decide, Perry said he is "expediting" a decision.

President Donald Trump said in a West Virginia speech April 5 that "we'll be looking at" FirstEnergy's request.

FirstEnergy, which has filed for Chapter 11 bankruptcy, asked DOE to order the PJM Interconnection to compensate its coal and nuclear plants for "the full benefits they provide to energy markets and the public at large, including fuel security and diversity." FirstEnergy plans to close three nuclear plants in its system by 2021.

In a March 30 letter to Perry, PJM General Counsel Vincent Duane said "there is no immediate threat to system reliability," and urged Perry to "refrain from taking unnecessary, extraordinary, and precedential immediate action" while PJM analyzes the request under its tariff.

In an April 11 letter to Energy and Commerce Committee Chairman Greg Walden (R-Ore.), the Nuclear Energy Institute said "a 202 (c) remedy" could serve as a "bridge" to "longer-term reforms" supporting nuclear plants, such as expanded production and investment tax credits.

FirstEnergy's request has drawn strong opposition from natural gas producers and marketers.

Senate Confirms Wheeler as EPA No. 2

The Senate on April 12 confirmed President Trump's nomination of Andrew Wheeler to serve as EPA's deputy administrator, the agency's No. 2 position.

The Senate confirmed Wheeler on a largely party-line vote of 53-45. Democrats Heidi Heitkamp of North Dakota, Joe Donnelly of Indiana and Joe Manchin of West Virginia joined Republicans in voting to confirm.

Wheeler, a former chief counsel to Sen. James Inhofe (R-Okla.), has worked as an energy attorney for the law firm Faegre Baker Daniels, where he lobbied for coal producer Murray Energy.

Pruitt Taking More Heat on Ethics

The chairman of the House Oversight and Government Reform Committee on April 11 asked EPA Administrator Pruitt to turn over additional documents in connection with Pruitt's leasing of a condo from lobbyists and his first-class flights for agency travel.

The request, sent to Pruitt by Rep. Trey Gowdy (R-S.C.), was the latest development surrounding

'Stop acting like a chucklehead.'

Pruitt's alleged ethics lapses, including rental of a Washington, D.C. condo connected to an energy lobbyist at a below-market rate and

using a provision of the Safe Drinking Water Act to give pay raises to two close aides.

Meanwhile, Sens. Tom Carper (D-Del.), ranking Democrat on the Environment and Public Works Committee, and Sheldon Whitehouse (D-R.I.) on April 10 asked Committee Chairman John Barrasso (R-Wyo.) to hold a hearing on what they called excessive spending on Pruitt's security. Barrasso rejected the request.

Speaking rhetorically to Pruitt, Sen. John Kennedy (R-La.) said April 8 on CBS' "Face the Nation," "To the extent you are, stop acting like a chucklehead. Stop the unforced errors. Stop leading with your chin. If you don't need to fly first class, don't."

Kennedy said Pruitt's future is up to President Trump, who April 7 tweeted, "Scott is doing a great job!"

Trump Orders EPA to Speed Air Approvals

President Trump on April 12 ordered EPA to speed up approval of state air-pollution control plans and New Source Review preconstruction permits.

Trump signed a memo directing EPA to try to finalize approval in one year of state plans for meeting ambient air-pollution control standards.

In addition, the memo ordered EPA to seek approval of New Source Review permits within one year of receiving complete applications. New Source Review permits are required under the Clean Air Act for new industrial facilities and plants making major modifications that could increase emissions.

EPA Administrator Pruitt said the memo is aimed at "reducing regulatory burdens for domestic manufacturing."

The memo also directed EPA to consider the impact of air pollution from foreign sources on state and local agencies' ability to comply with ambient air standards. Seyed Sadredin, head of the San Joaquin Valley Air Pollution Control District, praised the provision.

Sen. Tom Carper (D-Del.), ranking Democrat on the Senate Environment and Public Works Committee, called the memo a "shortsighted decision" made "without any public comment or public health analysis."

Agencies Agree to Speed Project Approvals

Eight Cabinet-level federal agencies, including the Energy and Interior departments, signed a "one federal decision" memo April 9 to speed federal approvals of infrastructure projects.

Signatories included the Federal Energy Regulatory Commission, EPA and U.S. Army Corps of Engineers.

Under the memo, one agency will take the lead in moving proposed projects through federal environmental reviews and permit consideration. A White House announcement said the memo is designed to ensure federal permitting processes are completed in two years.

"Federal agencies will conduct their review processes at the same time, rather than sequentially, which has led to unnecessary delays," the announcement said.

The memo carries out President Trump's 2017 executive order establishing the "one federal decision" policy.

States Differ on EPA 'Cooperative Federalism'

State officials on April 10 argued different sides of the issue on whether EPA under President Trump is working more cooperatively with states or hindering their efforts to meet state air-quality goals.

The officials testified at a hearing of the Senate Environment and Public Works Committee's Clean Air and Nuclear Safety Subcommittee.

Matthew Rodriguez, secretary of the California Environmental Protection Agency, said it is "deeply disappointing" that the administration plans to propose rolling back vehicle greenhouse-gas emissions standards the state and federal governments adopted jointly in 2012. The federal EPA cited flagging demand for electric cars in supporting the impending proposal.

Pushing back against EPA Administrator Pruitt's charge that California is seeking to "dictate national standards," Rodriguez said the Clean Air Act authorizes the state, subject to EPA waiver, to adopt its own rules "given its recognized technical expertise and its unique experience with automobile pollution."

Nancy Vehr, air-quality administrator for Wyoming's Department of Environmental Quality, said that under Pruitt, "we found that the working relationship has improved. EPA is listening to the state's concern and is interested in developing flexible solutions that meet Wyoming's unique characteristics."

In written testimony, Vehr said EPA imposed a federal regional haze plan on the state "that came with a much higher price tag and no added visibility benefit as compared to the state's plan," which EPA rejected in 2014.

DOE to Negotiate on Two Efficiency Standards

The Department of Energy on April 11 said it plans to establish a panel to negotiate energy-efficiency standards and test procedures for variable refrigerant flow multi-split air conditioners and heat pumps.

DOE is seeking panel membership nominations by April 26.

VRF systems feature individually controllable air handlers for zoned heating and cooling. *—Jim DiPeso*