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## Executive Director Industry Update –March/April 2021

*\*Articles may be edited for content\**

### What California Blackouts Reveal About U.S. Grid

*Anne C. Mulkern, E&E News reporter      Published: March 16, 2021*

California energy bosses don't want the distinction, but they're among the country's top experts in electricity blackouts.

Rolling power outages hit the Golden State last summer when electricity supplies ran short of demand in a record-shattering heat wave. Residents in recent years have also lost electric service, sometimes for days, when utilities cut power to prevent wildfires.

The emergencies have spurred California policymakers and utility executives to adopt new strategies to prevent power outages and limit their impact in the face of climate change and extreme weather. Those tools may be pivotal for other states as they look at how to avoid grid disasters like Texas' devastating blackouts last month, when more than 4 million homes and businesses lost electricity during a severe winter storm.

Even before the Texas catastrophe, Western states were scrutinizing their energy planning after a widespread heat wave triggered a surge in California's electricity demand last August. The state was forced to implement rolling blackouts, and an analysis of the causes said that among other factors, California failed to adequately plan for extreme weather events (Energywire, Jan. 14).

Several experts said the Texas crisis has added new urgency to the planning push.

California's utility regulator this month proposed new incentives and rules to ensure grid stability this summer and next year, including use of demand-response programs to cut power consumption (Energywire, March 8). Those include paying businesses and residents for reducing power when asked.

California's plan to switch to a clean energy grid also plays a role in its supply and demand issues, and it's an area other states should consider as they increase use of renewable power, Boyd said.

In 2007, the Golden State started the California Solar Initiative, a \$3.3 billion ratepayer-funded plan of subsidies that ran through 2014. It's credited with helping drive down solar panel costs.

California last year generated more than 15,000 gigawatt-hours of solar "behind the meter," or on home and business rooftops. That's enough to power about 2.4 million homes, the California Energy Commission said.

It's shifted California's peak demand time to the hours just after sunset, when people typically returned home from work before COVID-19 lockdowns. That contributed to the power gap last August, which happened heading into the evening.

## **'Record-Breaking' Ramp Up Needed For 100% Clean Grid — Report**

*Anne C. Mulkern, E&E News reporter*      *Published: March 16, 2021*

California must quickly ramp up permitting and building of solar, wind, battery storage and other technologies to meet its mandate of a 100% clean energy grid by 2045, a new analysis said.

The most populous U.S. state, which leads the nation in its renewables mandate, must hit carbon neutrality by 2045 under state law. But to get there, California will need to roughly triple the rate it's building new wind and solar facilities and add battery storage to the grid eight times faster than it is now.

On average, it said, the state may need to build up to 6 gigawatts of new renewable and storage resources annually, compared with the roughly 1 GW of utility solar and 300 megawatts of wind that have been built annually over the last 10 years.

Under a 2018 law, California's grid must use 60% renewable power by the end of this decade and reach 100% clean energy in less than 15 years. While California leads the nation in targeted clean energy adoption with that goal, some 30 states have mandates for different amounts of low-carbon power, said Ethan Elkind, director of the climate program at the University of California, Berkeley's School of Law. Moreover, the Biden administration is looking at how to get the nation to 100% clean power by 2035.

Right now, the in-state electricity grid represents just 9% of California's greenhouse gas emissions, the report said. The largest source is the transportation sector at 41% followed by the industrial sector at 21%.

California's moves can help show what's feasible on the grid, Elkind said. But tripling the level of solar and wind additions, he said, is "a tall order." Challenges include acquiring land and clearing environmental rules and government red tape.

It's also permitting transmission lines, Elkind said. The Biden administration could potentially help with that in an infrastructure bill, he added, if it provided funding for transmission lines.

Decarbonizing the grid will increase total annual electricity system costs nearly \$4.6 billion by 2045, the report said.

However, the report noted, "moving toward 100 percent clean electricity will bring social benefits, such as less air pollution and improved public health. It will also create more jobs, including those in manufacturing and installing wind turbines and solar panels, and developing new clean energy technologies."

Low-income neighborhoods that have historically suffered poor health, dirty air and other burdens "will reap the highest health benefits from clean electricity," the report added. "Half of the state's natural gas power plants are in communities that rank among the 25 percent most disadvantaged."

The plan left a placeholder for some of what will complete the green grid, including "leaving some natural gas online" and burying carbon emissions, as "that would save billions of dollars," Elkind said. "From a modeling perspective, I think that makes sense to leave that open as a placeholder."

## **Going Net Zero? Here's A Power Plant For Your Business**

*John Fialka, E&E News reporter*

*Published: March 10, 2021*

A California-based company is about to manufacture a "linear generator," a low-cost invention that will help utilities, building owners and communities reduce greenhouse gas emissions.

The device might also be able to bridge gaps in the nation's future supplies of solar- and wind-powered electricity.

The company, Mainspring Energy Inc., founded by three Stanford University researchers, has already found multiple customers. They include American Electric Power Co. (AEP), owner of the nation's largest electricity transmission system, and NextEra Energy Resources LLC, the world's largest operator of wind and solar projects.

Electric power generators have been around for over 100 years, but the Stanford inventors have created a simpler, smaller version that can make electricity from natural gas, a biogas, such as methane, and "green" hydrogen, which is split from water using renewable electricity, such as solar or wind power.

It works like a diesel generator by compressing a mixture of gas fuel and air until it reacts, but at much lower temperatures. Linear generators also use fewer moving parts to create electricity.

Among its potential uses are helping utilities replace their diesel-powered "peaker" generators with simpler machines that produce fewer emissions, and heating and cooling buildings.

The linear generator looks simple. Imagine a long, pipe-shaped device with two piston-like magnets inside copper coils. The pistons oppose each other, squeezing the air-fuel mixture in a "reaction zone" in the middle of the generator, where the fuel reacts to the compression. That springs the pistons backward, compressing more air, which pushes the pistons back for another cycle.

The movement creates electricity, which can be dispatched to limit blackouts.

Buyers would be able to reduce their emissions by shifting from burning natural gas to forms of biogas or "green hydrogen" when it becomes available.

A second group of customers requiring more modules would be what are called microgrids, or portions of cities or military bases that would use the generators to keep operating during blackouts.

Utilities could find a variety of uses for the modules. One example would be using them in substations located in areas of cities with recharging stations for electric vehicles, thus avoiding building more long-distance transmission lines.

Utilities could replace electric or natural gas-powered "peakers" — small generators used to meet high electric demand on summer days or during winter cold snaps — with generators that can use biogas or green hydrogen.

Eventually, companies aiming to reach net-zero emissions could assemble enough modules to switch their overall generation from fossil fuels, a move that could be accelerated by carbon taxes.

## **Nev. Farmers, Conservationists Balk At 'Water Banking'**

*Published: Tuesday, April 6, 2021*

Rural water users are panicking over a proposal to create a market for the sale and purchase of water rights in Nevada, unconvinced by arguments that the concept would encourage conservation.

Lawmakers yesterday weighed whether "water banking" would be preferable to prevailing water law doctrines that govern surface and groundwater rights disputes in the driest state in the U.S.

A legislative hearing about two proposals to allow water rights holders to sell their entitlements pitted state water bureaucrats against a coalition of farmers, conservationists and rural officials.

One proposal would allow for basins to create "banks" where surface and groundwater rights holders can sell or lease water they conserve. The other would create programs to manage the conserved water, allowing the state to purchase "conservation credits" or pay water rights holders to "retire" their claims.

As the West contends with a hotter and drier future, water banking is becoming an increasingly prevalent management strategy in states including Colorado and Utah.

Proponents argue that crediting people for conservation will help prevent future shortages and offer water rights holders an option beyond use, abandonment or selling.

A working group in the Colorado Legislature is evaluating the concept, and the proposals under consideration in Nevada are based off policies in place in Utah and Oregon. The state's proposals were among the most anticipated bills in the Nevada Legislature this year. In his presentation to lawmakers, even Sullivan said he was skeptical about creating an account to allow the state to purchase conservation credits and told lawmakers that "it should only move forward with great caution."

In rural Nevada, where limited groundwater has long sustained industries like ranching and mining, local officials worry that creating a market for water rights will encourage their constituents to lease their water for use elsewhere. They also worry water banking would facilitate speculation from investors betting that water will become more valuable as perennial drought makes it more scarce.

Throughout the West, rural water users have been pursued by New York-based hedge fund Water Asset Management, which has reportedly purchased water rights from farmers in central Nevada's Humboldt River Basin, in Colorado's Grand Valley and in central Arizona.

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## **Agencies: Arizona Farmers Should Expect Less Water In 2022**

*By Associated Press*                      *Published April 4*  
*CASA GRANDE, Ariz. (AP)*

State officials are putting farmers in south-central Arizona on notice that the continuing drought means a "substantial cut" in deliveries of Colorado River water is expected next year.

A [joint statement](#) issued April 2 by the state Department of Water Resources and the [Central Arizona Project](#) said an expected shortage declaration "will result in a substantial cut to Arizona's share of the river, with reductions falling largely to central Arizona agricultural users."

The Central Arizona Project is an aqueduct system that delivers Colorado River water to users in central Arizona and southern Arizona, including farmers, cities and tribes.

A shortage declaration would prompt the additional reduction to take effect under 2019 drought contingency plan hashed out by the seven states in the river's basin — Arizona, California, Colorado, Nevada, New Mexico, Utah and Wyoming — to lessen the effects.

The statement said the current thinking is that Arizona would be expected to reduce its use of river water by a total of 512,000 acre-feet in 2022, up from 192,000 acre-feet currently, but that supplies for cities and tribes are not expected to be affected.

## **Buildings As Batteries? DOE Eyes Fix For Renewable Grid**

*Miranda Willson, E&E News reporter*                      *Published: March 22, 2021*

As intermittent renewable energy increases in the United States, energy storage is set to play an increasingly important role in ensuring grid reliability.

But batteries that back up renewable electricity often are made using finite metals that can be expensive to mine, and can typically only store energy for a few hours.

With that in mind, researchers at the National Renewable Energy Laboratory say they have reached a breakthrough to boost a flexible energy storage system that doesn't rely on mined metals and could retain energy for more than 24 hours. The system could enable buildings to function like batteries, storing energy in various materials incorporated into the walls, where it could later be tapped without using electricity.

The team created a framework to evaluate the effectiveness of "phase-change" materials for thermal energy storage, a low-cost, energy-efficient option for storing energy for heating and cooling that could be beneficial for a renewables-dominated electric grid, said Jason Woods, a senior research engineer at NREL.

Phase-change materials release energy when they change states, such as from a solid to a liquid, according to the study outlining the research last month in *Nature Energy*. Water is the most obvious example, but systems could also be based on hydrocarbons such as butane or other alkanes, which change phases at different temperatures than water, said Woods, the lead author on the paper.

These materials could potentially be coupled with a heating, ventilating and air conditioning system to "buffer" the temperature in a building, Woods said. That buffering would allow the temperature to remain relatively constant without pulling more electricity from the grid.

The team's framework is similar to how researchers measure the energy and power of batteries. It assesses how much thermal energy different materials can store, and how quickly those materials can discharge the energy. There's typically a trade-off between the two — substances that store the most energy are less able to release the energy quickly. With the new framework, the process of heating and cooling buildings could be much cheaper and ready for a renewables-dominated grid, the researchers said.

In addition to offering a cheaper and more sustainable alternative to batteries, thermal energy storage could enable demand response, a method for shifting electricity use during peak times in order to keep supply and demand in check, researchers say. With phase change materials, grid operators could predict when the energy would be released from a given material, for instance, and time the release to align with peak demand.

Some researchers say that demand response or flexibility could reduce the need for natural gas plants or long-duration energy storage facilities and help stave off planned outages and blackouts. Last December, for example, California regulators released an analysis that found that demand flexibility tools could save about \$1 billion in costs annually as the state transitions to 100% clean electricity, mostly by cutting down the need for new utility-scale batteries (Energywire, Dec. 14, 2020).

Thermal energy storage won't be a cure-all for the challenges that could arise with all-renewables power grids, Woods cautioned. Compared with batteries that store energy for virtually all uses, these systems are able to provide power only for heating, cooling, refrigeration and select appliances that rely on thermal energy.

Nonetheless, phase-change materials are cheaper and longer-lasting than batteries, which today may degrade within five or 10 years, Woods said. They also have the potential to retain energy for up to a few days, and could significantly reduce carbon emissions from the buildings sector, he said.

## **More Than 374,000 MW of New Generation Capacity Under Development In U.S., APPA Reports**

April 7, 2021      Paul Ciampoli

More than 374,000 megawatts of new generation capacity is under development in the U.S., with 100,047 MW that is under construction or permitted and 274,309 MW that is proposed or pending application, according to a new report from the American Public Power Association (APPA).

The report, "America's Electricity Generation Capacity: 2021 Update," notes that the overall capacity mix continues to shift toward natural gas, solar, and wind.

Over the past five years, these three resources have been the dominant sources of new generating capacity in the U.S. Wind and solar especially are the primary sources for new capacity brought online over the past year and slated for development over the next several years.

Solar accounts for 36% of the new generating capacity under construction or permitted, and wind and natural gas account for most of the remaining capacity in these categories, the report said.

Natural gas, solar, and wind projects account for nearly 97% of all capacity under construction.

New wind capacity topped 10,000 MW in 2020 for the first time and when combined with solar capacity, these sources are expected to exceed 30,000 MW in additions in 2021.

As has been the trend in the past few years, coal-fired resources account for more than half of planned retirements announced in the next few years.

## **BMW Expects At Least Half of Sales To Be Electric Cars By 2030**

By Nick Carey, Riham Alkousaa

(Reuters) - BMW expects at least half of its sales to be zero emission vehicles by 2030, setting a more conservative target than some rivals in the race to embrace cleaner driving.

Volkswagen has said it expects 70% of European sales at its core VW brand to be electric by 2030 and this week unveiled ambitious plans to expand in electric driving - including building half a dozen battery cell plants in Europe - sending its shares sharply higher.

BMW said around 90% of its market categories would have fully-electric models available by 2023 and the electric BMW i4 would be launched three months ahead of schedule this year.

The carmaker said its MINI brand would be fully electric “by the early 2030s” and electric models would account for at least 50% of group deliveries by 2030.

When asked if BMW could set a date for ending sales of internal combustion engines, as some rivals have, Chief Technology Officer Frank Weber said: “it’s not us who decides on the end of the internal combustion engine, but it’s the markets.”

In an industry chasing electric carmaker Tesla and facing tightening CO2 emissions standards in Europe and China, some automakers have promised a faster shift in technology, despite the huge costs and manufacturing changes involved.

Sweden’s Volvo said this month its lineup would be fully electric by 2030, and Ford said in February its lineup in Europe would be too.

Sales of electric and plug-in hybrid cars in the European Union almost trebled to over 1 million vehicles in 2020 and accounted for more than 10% of overall sales, taking zero-emission models from niche products into the mainstream.

*Additional reporting by Riham Alkousaa and Christina Amann. Editing by Maria Sheahan and Mark Potter*

# California Opens Rulemaking On Provider Of Last Resort, As Customers Move Away From Utilities

Published March 19, 2021

Kavya [Balaraman@kavya\\_balaraman](mailto:Balaraman@kavya_balaraman)

## Dive Brief:

- The California Public Utilities Commission (CPUC) opened a rulemaking Thursday to implement a provider of last resort (POLR) framework for the state, to ensure customers will receive electricity even if their power provider goes under or isn't able to continue service.
- Investor-owned utilities in the state currently serve as the POLR in each of their service territories. But in a second phase of the new rulemaking, regulators intend to focus on other entities that could take on that role.
- Creating a distinct POLR framework could be critical in a situation where a load-serving entity is suddenly unable to provide power to its customers. "What we're basically trying to do as a state is shore up the safety net of consumer protections that hopefully we will never have to need," said Michael Colvin, director of regulatory and legislative affairs at the Environmental Defense Fund.

## Dive Insight:

A POLR, essentially a utility or entity that is obliged to serve all customers, isn't specific to the electric sector — telecommunications carriers of last resort, for instance, have existed since the 1990s. In California, the concept has become especially relevant since the state restructured its electricity markets and transitioned away from vertically-integrated utilities that controlled generation, transmission and distribution, to a more competitive landscape .

Now, a host of other entities — like community choice aggregators (CCAs) and direct access providers, can provide customers with electricity. Moreover, customers have increasingly been turning to distributed solar and storage resources. As a result, a large chunk of load in the state is no longer in the hands of investor-owned utilities.

The question regulators are trying to grapple with now is what happens if a load-serving entity is suddenly unable to provide service to customers, for example, if it abruptly declares bankruptcy, Colvin explained. Earlier, it was automatically assumed that utilities would pick up the slack. But as more and more customers migrate to other entities, it isn't guaranteed that utilities will have enough power on standby to absorb a lot of customers very quickly.

The need to protect non-utility customers from rate volatility was highlighted by the recent blackouts in Texas, the commission noted in its order. Texas has one of the most established POLR frameworks in the country, but when wholesale energy prices surged during the winter storm last month, some retail providers urged customers to switch to other providers in anticipation of high pass-through charges, the regulators pointed out.

In 2019, California lawmakers passed legislation that agreed that the state's utilities are currently POLRs in their service territories, but also instructed regulators to create a framework for other entities to take on this role. The new rulemaking will focus on how regulators can manage reliability, emissions targets and cost allocation if there is an unplanned customer migration from load-serving entities to their POLRs.

The CPUC will conduct it in two phases — the first will look into managing a transition to the current POLRs, the utilities. The second will craft requirements and an application process for other entities to be designated POLR. This could include establishing minimum standards for entities who say they want to take on that role, or limits on how many customers can fall under one POLR, Colvin said.

The California Community Choice Association (CalCCA) welcomes the discussion around improving the POLR process and "believes policies should be updated to reflect the reality of today's electricity market in California, one in which CCAs serve the vast majority of customers in their service territories", the group said in an emailed statement.

A key concern for EDF, meanwhile, is ensuring that an unplanned shift to a POLR doesn't result in increased greenhouse gas emissions. Regulators could create rules as part of this proceeding to guard against that possibility, Colvin said.

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## California's Last Nuclear Plant Is Poised To Shut Down. What Happens Next?

Published March 23, 2021

Kavya Balaraman@kavya\_balaraman

As California's last nuclear facility — the 2.2 GW Diablo Canyon power plant — approaches its scheduled retirement date, some energy experts worry that the state hasn't fully prepared for what comes next.

The Diablo Canyon plant is located on California's Central Coast and produces some 18,000 GWh of electricity annually — almost 10% of the state's energy portfolio. Since the closure of the San Onofre Nuclear Generating Station eight years ago, it has been the sole operational nuclear power facility in California. In 2018, regulators allowed Pacific Gas & Electric (PG&E) to close down the plant's two reactors when their licenses expire in 2024 and 2025. But as those dates draw nearer, experts are questioning what it will mean for California's reliability and greenhouse gas (GHG) emission goals.

The Diablo Canyon nuclear plant came online in 1985 and has been the target of numerous protests over its lifespan, especially after the discovery of a nearby earthquake fault. But the plant has also played a key role in ensuring the reliability of California's electric grid.

When PG&E first filed for permission to retire the plant, the utility also outlined a plan to partially replace it with three tranches of carbon-free resources — a combination of 2,000 GWh of energy efficiency, 2,000 GWh of carbon-free energy, and a voluntary 55% renewables commitment.

The California Public Utilities Commission (CPUC), however, declined to authorize that plan, instead shifting the question of how to replace Diablo Canyon to the agency's integrated resource planning proceeding. The regulators said in a 2018 decision that they intended to ensure the plant's closure didn't lead to an increase of greenhouse gases, but "it is not clear based on the limited record in this proceeding what level of GHG-free procurement (if any) may be needed to offset the retirement of Diablo Canyon."

More recently — and especially in the wake of the rolling blackouts that occurred in California last August — some stakeholders are taking a closer look at how Diablo Canyon's retirement will affect electric reliability in the state. Last October, the California Independent System Operator

(CAISO) warned in a filing that the system will hit a "critical inflection point" after the nuclear plant retires, with resource needs that are much higher than initially anticipated to ensure reliability.

CAISO has been modeling for a potential loss of Diablo Canyon since before its retirement was proposed, spokesperson Anne Gonzales said in an emailed statement. In its 2018-2019 transmission plan, the system operator recommended transmission upgrades to address reliability issues from the plant's closure — two dynamic reactive devices in the central and northern PG&E bulk system, both of which are currently being installed, Gonzales added.

California has a robust renewable energy portfolio, but that raises questions of effective capacity versus installed capacity, Richard said. Moreover, Diablo Canyon will be retired against the backdrop of the electrification of California's transportation system, which is likely to increase electricity demand.

Without careful planning, California will be forced to rely on short-term procurements after the nuclear plant is shuttered, scrambling around to add a little power here and there, said Smutny-Jones. Meanwhile, a group of gas-fired plants that were initially supposed to go offline at the end of 2020, before being extended for reliability reasons, might have to stay online until there are adequate resources to replace them.

Diablo Canyon's retirement could also jeopardize California's GHG emission goals. California enacted legislation in 2018 that requires state regulators to prevent the plant's closure from leading to an increase in emissions. But without enough planning, natural gas power plants could step in to fill the gap, leading to a potential 15.5 million metric tons of additional GHG emissions between now and the end of the decade, according to a report from UCS — roughly equivalent to the impact of 306,000 gasoline passenger vehicles during the same period.

The location of the Diablo Canyon plant could also provide opportunities for resources to replace it. Since the facility is such a major generating asset, there are massive transmission configurations coming out of it, with feeder lines traveling north and south, said Michael Colvin, director of regulatory and legislative affairs at the Environmental Defense Fund.

As a result, it has served as a sort of major junction for moving power around the state. Once the facility retires, California will have additional headroom on those lines and could potentially site new generation, like offshore wind, nearby.

## **California Authorizes Summer Reliability Fixes Despite Concerns Over Backup Diesel Generation**

*Published March 26, 2021    Kavya Balaraman@kavya balaraman*

### **Dive Brief:**

- Regulators in California authorized a suite of demand and supply-side strategies to prevent blackouts during the summer months at a meeting on Thursday, despite concerns that the plan would include back-up diesel generation.
- The proposal unanimously approved by the California Public Utilities Commission (CPUC) would implement an emergency load reduction program to encourage customers to reduce their usage during grid emergencies. But the pilot will also compensate customers if they do so using fossil fuel resources like diesel back-up generators.

- Regulators, however, say that the program is a last-resort measure. "We've developed a number of programs and proposals, some we hope to never have to use," CPUC President Marybel Batjer said at the meeting. "However, we have tried to plan to have options for the most difficult scenarios, if they happen to arise."

### **Dive Insight:**

California energy agencies have been moving quickly this year to prepare the grid for the summer months, after a heatwave last year forced the state's system operator to initiate rolling blackouts. In February, regulators instructed utilities to contract additional capacity for this summer; that decision resulted in around 565 MW of incremental capacity, according to Batjer, but environmental groups have raised concerns that, contrary to California's climate goals, it also opened the door for fossil fuel generation.

The most recent decision is more focused on demand-side measures including the state's new emergency load reduction program, which regulators view as "a layer of insurance" over the additional measures being taken to support the grid. But the inclusion of "prohibited resources" — like back-up diesel generation — in that program has worried some, since it would essentially compensate customers who remove themselves from the grid and turn to resources like diesel generators during emergencies.

The CPUC this week modified its initial proposal in response to some of these concerns, by preventing prohibited resources — which also include gasoline, propane and liquefied petroleum gas — from being compensated during "test" events. The agency also said it would take another look at modifying the program to minimize diesel use in 2023 through 2025. In the meantime, utilities are required to collect data on the kinds and capacity of back-up generators that are pitching in during emergencies.

However, the commission opted not to exclude diesel generators from the program at this point, although commissioners said they too had concerns about the air quality and climate change-related implications.

Concerns have also been raised about the supply-side measures in the decision, including directing utilities to procure up to 1,500 MW of resources for 2021 and 2022. The initial version of the proposal allowed utilities to look into redeveloping or repowering existing fossil fuel generation but after parties protested this, regulators reversed course.

But this does not eliminate the possibility of using fossil fuels to fill that 1,500 MW goal, said Adenike Adeyeye, senior analyst and Western states energy manager at UCS.

## **California Eyes Nevada Power**

*By Jeffrey Meehan Pahrump Valley Times March 26, 2021*

Gridliance, an independent electric transmission company with assets in southwestern Nevada, is working to interconnect with California's grid to deliver power generated by renewables in the Silver State.

Gridliance has proposed to develop its Silverado Renewables Connection plan to the California Public Utilities Commission, as the Golden State works to source new, low-cost renewable energy generation to meet its climate change goals.

The public utilities commission in California identified more than 2,000 megawatts of renewable generation in southwestern Nevada. The California Independent System Operator, which Valley Electric Association Inc. had joined in 2013, will now launch a study of the CPUC plan and the transmission capacity needed to deliver power from Nevada.

The CPUC identified the 2,000 megawatts in Nevada as part of its Integrated Resource Plan.

CAISO is pegged to study the CPUC's plan this year during its transmission planning cycle, according to Gridliance. CAISO is expected to finalize its recommendations in March 2022.

Gridliance acquired a 164-mile 230 kilovolt transmission system, which stretches across Nye and Clark counties, in 2017 for just over \$200 million from Valley Electric.

The project in southwestern Nevada is being backed by organizations in both states.

According to Gridliance's release, "Renewable energy developers are eagerly awaiting the opportunity to meet California's growing demand for clean energy. There are 3,100 megawatts of active renewable energy generator interconnection requests to GridLiance's transmission system in southwestern Nevada, which the CPUC has identified as being important to the state achieving its goals to reduce carbon emissions."

Others in the energy sector also noted the importance of gaining the renewable energy Nevada has to offer.

For more information about Silverado Renewables Connection, go to [silveradorenewables.com](http://silveradorenewables.com)

## Weekly Fuel Price Watch

**Published** April 13, 2021

**Author** Staff Writers

### Weekly Fuel Price Watch

#### Natural Gas Spot Market (Henry Hub)



April 6: \$2.44 per million Btu

One month ago: \$2.72 per million Btu

One year ago: \$1.64 per million Btu

#### U.S. Crude Oil Spot Prices (West Texas Intermediate)



April 5: \$58.73 per barrel

One month ago: \$59.70 per barrel

One year ago: \$23.54 per barrel

## On-Highway Diesel Prices



April 12: \$3.13 per gallon

One month ago: \$3.19 per gallon

One year ago: \$2.50 per gallon

## Retail Gasoline Prices (Regular)



April 12: \$2.94 per gallon

One month ago: \$2.85 per gallon

One year ago: \$1.85 per gallon