

## *“Missed it by this much...”*

There was once a show known as “Get Smart.” It was something of an Austin Powers before Austin Powers spoofed the spy genre of James Bond fame. One of the great tag lines from Maxwell Smart – the bumbling spy – was to hold his thumb and index finger about an inch apart and say “missed it by this much” when something went wrong. In this case, however, I use the phrase to note how California and the rest of the West seemed to have averted disaster this summer despite wildfires that cut some transmission interties, extremely low hydropower levels, tariff fights between CAISO and the surrounding states that threatened wheeling contracts and an explosion on a natural gas pipeline supplying the Desert SW and Southern California. Despite all this, no blackouts.

Congratulations to all involved. Because if there is one thing we are learning about the West is that all the stakeholders are in this together. CAISO seems to have worked well with its neighboring balancing areas. The CPUC, CAISO and the Governor’s office all broke speed records in procuring every last megawatt no matter what the source. Natural Gas ran hard, and batteries became a player in the energy market. Most importantly for the Governor, this was all done in the shadow of a recall ballot.

So, now that we’ve gotten that out of the way, what next? Can we expect for things to return to normal? Not likely. Many things are happening this year. For starters, the Northwest Power Pool (NWPP) effort to establish a Resource Adequacy (RA) program looks to be taking off in its initial phase. It may now incorporate every part of the West with the exception of California. Still in its formative stages, it could become the platform for an RTO outside of California if the political class in Sacramento can’t sort out the CAISO governance to the satisfaction of the Western states and other interested parties.

CAISO is restarting its effort to establish a Day-Ahead market with the EIM entities as an “incremental” (there is that word again) step toward an RTO... again if they can change their governance. We’ll see how this progresses and WPTF will be a very interested party.

But, keeping with California, there is still an election for the Governor next year. Yes, after over \$300 million dollars on the recall, we still have our regularly scheduled gubernatorial election. Thus, while the rest of us will be working on several fronts on changes to the Western power markets, Sacramento will be treading water – except for appointing a new President of the CPUC. Any candidates?

Scott Miller

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## *Save the Date*

Check the WPTF website for all the details.

### **2022 Winter General Meeting**

Park Hyatt Aviara

February 23-25, 2022

Registration opens in October 2021

### **2022 Summer General Meeting**

The Resort at Coeur d’Alene, Idaho

August 24-26, 2022

Registration opens in April 2022

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# WIDER WEST COMMITTEE (2WC)

*Caitlin Liotiris*

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*Caitlin Liotiris coordinates WPTF's [Wider West Committee \(2WC\)](#), which engages on market, policy, reliability and technical developments in the "wider West," generally outside of California. The 2WC is active in advocating for broader western energy markets, especially the EIM and other regional market expansion opportunities. The 2WC also follows important developments at Peak Reliability and the Western Electricity Coordinating Council. Caitlin has over a decade of experience in energy issues in the West and has spent most of those years actively engaged on market development efforts across the Western Interconnection footprint, including a major role in developing the policies for implementing the EIM. She is skilled in understanding and distilling the interaction of energy policy and energy market dynamics. In addition to her work with WPTF, Caitlin has worked on various energy policy and market related issues throughout the county. Caitlin is currently a member of Peak Reliability's Member Advisory Committee (MAC) and has also co-authored various reports exploring the benefits of proposed transmission facilities in the West.*

## **NWPP's RA Program Progresses, Though Some Concerns Remain**

The NWPP RA Program continues to be a key development to watch in the West, drawing broad stakeholder engagement and interest from potential participants. The proposed program development continues to advance, with the end of Phase 2B marked by announcement of the Southwest Power Pool (SPP) being selected as the Program Operator, the release of the [Detailed Design](#) document, and the initiation of Phase 3A. This newest phase is the "non-binding" portion of the proposed forward-showing RA program and NWPP is seeing broad interest from load serving entities in participating in this portion of the program. As of the drafting of this article, the names of entities that have signed up for the non-binding portion of the program are not yet publicly available. But, indications from NWPP leadership are that there is very broad interest in participation. Interested parties include not only those that have been involved so far but also new entities across the Western Interconnection, including the southwest. Thus, the non-binding portion of this RA program has the potential to cover nearly the entire Western Interconnection outside of the California Independent System Operator (CAISO) and Alberta. To reflect the regional interest and potential broad footprint, the program was recently renamed the Western Resource Adequacy

Program (WRAP).

The WRAP has made significant progress in developing a proposed governance structure, outlining the requirements of the forward-showing program, and developing an Operational Program. This "Ops Program" is necessary in the absence of an organized market to ensure program participants can share RA resources when they are potentially short. All of these elements are explained in the Detailed Design document, on which NWPP recently accepted stakeholder comments. NWPP received ten sets of comments – including from [WPTF](#) – that highlighted a number of areas of concern with the proposed design.

Several commenters raised concerns that centered around the proposed governance structure for WRAP. Some load serving entities served by the Bonneville Power Administration (BPA) believe that the proposed design will force them into the WRAP, but does not provide them an appropriate and sufficient role in the governance and oversight of the program. Others were apprehensive about the proposed passive role of the independent Board and sought a more proactive role for the Board in overseeing WRAP. The Detailed Design document includes a very proactive and powerful RA Participants Committee (RAPC) made up of a variety of different types of load serving entities. The RAPC would review potential program changes and, if approved

by RAPC and not appealed to the Board, the changes would be “deemed approved” by the Board. WPTF pointed out the criticality of the appeal process and the importance of giving the Board the right to appeal proposed program changes to help provide independent oversight. And several commenters sought a more proactive Board, which would need to approve all proposals, to ensure full independent oversight over the program. Given that there is an outstanding question of whether the program could eventually navigate a pathway to becoming an RTO, some commenters also pointed out that the “load centric” governance structure proposed for WRAP would not be sufficient for a future RTO. The concern is that an RTO inherently has a broader range of market participants with interests extending beyond the load-centric focus of the WRAP and the RAPC.

Additionally, there is significant uncertainty on the exact role of states in the governance of WRAP. While those designing WRAP have clearly recognized the importance of providing a meaningful role for states, including through the creation of a Committee of State Representatives (COSR), there is not yet a clear picture on the precise role of state representatives. Likewise there is ambiguity on how WRAP will align and interact with state proceedings (such as Integrated Resource Plans) and state

jurisdiction over RA. While states have generally sought a strong and active role for COSR in the oversight of WRAP, some state representatives have raised concerns (see, for instance, the Utah Office of Consumer Service [comments](#)) about how all states can be adequately represented given the diversity of individual state interests and priorities.

Another area of concern raised by WPTF, the [Northwest & Intermountain Power Producers Coalition \(NIPPC\)](#) and others, is the proposed requirement for WRAP participants to demonstrate that 75% of their RA obligation can be delivered on firm or conditional firm transmission, as part of the Forward Showing program which takes place seven months in advance. WPTF requested additional review of the proposed requirement, its necessity and impacts. Such a requirement may have unintended consequences including potentially excluding a number of market providers from the program or undermining some of the existing mechanisms that help prevent the exercise of transmission market power. These concerns are particularly acute for transmission service across the BPA system, where firm transmission service months in advance is scarce, but in real-time the transmission along the same paths can nearly always be procured. WPTF will continue to explore these issues and potential solutions with the NWPP and with other stakeholders.

In comments, WPTF sought additional clarity on the development of variable energy resource zones, which will likely affect future renewable development. These zones will be crucial in the determination of a resource’s capacity contribution under WRAP. WPTF’s comments also expressed concern that the “hold back” requirement for the future Ops Program may cause liquidity issues and have price implications (especially during shortage conditions) in the broader market. Additionally, there will be RA seams/alignment issues to be addressed, as the WRAP and the RA paradigm in California would have significant differences and potential misalignments.

Despite concerns raised by various commenters, the development of the program is an important step in ensuring reliability in the West under a changing energy system. Encouragingly, there is significant momentum around the program, and utilities see this as one more incremental step towards greater regional coordination, potentially culminating in an RTO down the line. WPTF’s Wider West Committee (2WC) will be actively working with NWPP representatives and participating in the stakeholder process, which is expected to ramp up soon, to help address remaining concerns and arrive at an improved governance structure and design for WRAP. The WRAP is a critical step for the West and we look forward to continuing to engage in its development.

# CALIFORNIA INDEPENDENT SYSTEM OPERATOR (CAISO) COMMITTEE

*Carrie Bentley*

*Carrie Bentley is the co-founder and CEO of Gridwell Consulting and has over a decade experience in the energy industry across the ISO/RTO markets. Ms. Bentley currently provides analysis and strategic support on “all things California ISO,” including transmission, interconnection, capacity, storage assets, and the energy markets. Prior to becoming a consultant, Ms. Bentley most recently had been acting as a lead market design and regulatory policy developer at the CAISO, leading design and stakeholder initiatives in critical areas such as flexible ramping, resource adequacy, and renewable integration. Prior to the CAISO, Ms. Bentley was a consultant for GDS Associates, an engineering and economics consulting firm where she specialized in power supply contracting, natural gas hedging, and energy market design for a large range of clients in ERCOT, PJM, MISO, and SPP.*

## **Help Wanted**

It’s a good time to be in our line of work if you’re a motivated young professional. The energy industry is only becoming more relevant as federal, state, and local governments increasingly focus on energy infrastructure and its role in climate change. Nowhere is this truer than in the West. Renewable and carbon control mandates layered onto a complex system of bilateral and networked energy markets mean that engineers, economists, lawyers, and regulatory experts are in high demand. While this is great for energy professionals, this has been hard on companies seeking these skills.

The CAISO has an unprecedented 26 posted jobs available. A CAISO representative confirmed, that “[t]he current opportunities at the CAISO stem partly from a recent internal restructuring of the organization, expansion in some areas, natural attrition, and the overall national employment picture. The CAISO has historically had very low turnover, but the economic and public health uncertainties of the past year and a half have pushed that to near industry averages this year.” They also noted that they “have stepped up efforts to connect both nationally and internationally with top candidates in their fields” and were seeing high engagement particularly from engineers.

I am less optimistic about these roles being filled quickly given the aforementioned high competition in our industry right now. Unlike

many companies entering a post-Covid world, the CAISO seems to be maintaining its preference for in-person employees and a uniform prohibition on part-time employment. There are no part-time job postings and when one clicks the “Employees can work remotely” button on CAISO’s careers page, every single posted job disappears. This is too bad because telework is an easy and effective way to improve productivity and a range of other economic and social indicators like worker well-being, gender equality, lower emissions, etc.<sup>1</sup> And in my experience, employees are just as productive per salary dollar working 25-30 hours a week compared to 40 hours; especially working parents who have the get-in, work hard, get-out mentality.

Something that may help lower the burden of finding technical energy professionals is another employment trend I’ve been seeing across tech and energy: replacing technical managers with people managers. Other companies are seeing large benefits in productivity by starting with good leadership. This means hiring managers and directors who are laser focused on retaining and promoting top employees – regardless of their race, gender, sexual preference, background, or years in the industry.

<sup>1</sup><https://www.oecd.org/coronavirus/policy-responses/productivity-gains-from-teleworking-in-the-post-covid-19-era-a5d52e99/> .

You may be wondering why I'm so concerned with CAISO having a full and productive work force. It is because there is enormous amount of work to be done.

#### **Supercluster 14**

The CAISO's popularity and corresponding interconnection backlog is unprecedented since moving to the Cluster approach. CAISO has revolutionized their process several times to accommodate high interconnection demand and will need to do so once more to accommodate Supercluster 14. This past April, the CAISO received 373 new interconnection requests effectively doubling its interconnection queue and bringing queue capacity from 63 GW to 178 GW. As a result, the CAISO announced that interconnection reports will be delayed, adding year to an already two-and-a-half-year process. The CAISO also noted that they tried to enlist help, but found that any potential subcontractors or consultants that could have accelerated this timeline were already engaged by developers. If only there was a way to broaden the pool of applicants...

#### **Remedial Action Schemes and Renewable Curtailment**

Recently, the CAISO abruptly cancelled their stakeholder initiative to review planning standards for remedial action schemes (RAS) and implied that the 2019 implementation of the generator contingency and RAS modeling

initiative "is a work in progress," i.e., is producing less than optimal outcomes. The workload for this analysis is expected to run into 2022 and stakeholders continue to be left in dark. Our strong suspicion is that the current implementation of RAS schemes both masks transmission needs and is contributing to renewable curtailment. But, without the transparency that an analysis and stakeholder initiative would provide, there is very little stakeholders can do to react to these "less than optimal" outcomes.

#### **'Round and 'Round the Rugged Rock the Ragged Rascal Ran**

After a hiatus, we are back to talking about enhancing the day-ahead market (Day-Ahead Market Enhancements "DAME") and extending it across the west (EDAM). The DAME initiative produced a draft straw paper on par with the previous three drafts, and is completely focused on solutions to unarticulated and unanalyzed problems. Specifically, the paper proposes two new day-ahead flexibility products in the Integrated Forward Market (IFM) and in the Residual Unit Commitment (RUC) runs. Confusingly, rather than continuing with the demand curve requirement from the previous draft, the CAISO has decided to do the opposite of what the rest of the ISOs across the country are doing – they propose setting a fixed requirement. Just kidding, it's not really confusing.

The design is being formulated this way because the CAISO

policy group doesn't have the staff, expertise, or direction to keep up on ISO best-practices and what other markets are doing. But the CAISO does have a Market Surveillance Committee, who reviewed this design and pointed this out the flaw, so there is some hope yet. WPTF remains supportive of the initiative, despite the frustrating stakeholder process. We hope for more with EDAM. The CAISO has historically poured its best resources into EIM and likely EDAM will be the same. There is a meeting to re-engage with stakeholders and start discussions (again). You can register [here](#) to attend the virtual meeting on October 13, 2021.

#### **Slice-of-Day, RA, All Day**

The CAISO has notably been absent from the CPUC's reform of the system Resource Adequacy requirement. This is unfortunate because the CAISO ultimately must administer the system RA requirement and enforce a must-offer obligation. The complexity of what is being proposed by the CPUC is significant and it is unclear how it will overlap with the CAISO's flexible and local requirements, outage rules, and availability assessment payments and penalties. Unfortunately, the top three CAISO policy experts in the space have left over the last two years and it doesn't seem like the CAISO has been able to hire subject matter expert replacements. In my mind, this should be at the top of the CAISO's hiring list.



# CPUC COMMITTEE

*Greg Klatt*

*Greg Klatt coordinates the [CPUC Committee](#). Greg is a practicing attorney with over 20 years of energy industry experience. His practice focuses on state and federal regulation of the electric power and natural gas industries. He has represented clients in numerous ratemaking and rulemaking proceedings before the CPUC. He regularly advises energy companies regarding regulatory requirements applicable to their product and service offerings. He represents marketers and retailers in CPUC licensing, compliance and enforcement matters. He also commonly acts as regulatory counsel in energy-related transactional matters, including procurement contracting, resource development projects, repower projects, major asset acquisitions and related financing arrangements.*

*Greg received his J.D. from UC Berkeley's School of Law (Boalt Hall). He graduated magna cum laude with a B.A. in History from the University of San Francisco and is a lifetime member of the Alpha Sigma Nu honor society.*

## **Help Wanted: Largely Thankless Job**

To no fanfare and only minor surprise, CPUC President Marybel Batjer announced on September 28 that she is leaving the commission at the end of the year. Rumors that Batjer was going to resign after September's recall election—assuming Gov. Gavin Newsom survived the recall, which he did—had been circulating for months.

Batjer was appointed by Newsom in July 2019. She replaced Michael Picker, who had been appointed by Gov. Jerry Brown in January 2014. (Picker announced his retirement in May 2019—more than seven months before his term ended—to make room for a Newsom appointee.) In December 2020, Newsom reappointed Batjer to a six-year term as CPUC president, with that term scheduled to end on January 1, 2027.

Given Batjer's lack of subject-matter expertise and her prior stint as head of the state's Government Operations Agency (GOA),<sup>1</sup> I have always thought she was brought in as more of a fixer/reformer than anything. She has served competently in that role, presiding over PG&E's extrication from bankruptcy, creation of the CPUC's Wildfire Safety Division and the vetting of the electric utilities' inaugural wildfire mitigation plans, and implementation of various bureaucratic reforms. And the CPUC's relationship and coordination with the CAISO has improved dramatically during her

term. At the same time, however, Batjer came under heavy fire—unfairly, in my view—for her perceived softness toward the utilities (on safety and other issues), as well as her perceived lack of sufficient zeal with respect to environmental matters.

If Newsom picks the next president from among the CPUC's current commissioners, the most obvious choice to replace Batjer is Darcie Houck. Houck was just appointed by Newsom in February. Prior to that, she served as chief counsel to the California Energy Commission and as an administrative law judge at the CPUC. In her years in private practice, Houck represented Native American tribes in matters involving energy, natural resources, land claims, and water rights. And she is a member of the [Association of Women in Water, Energy, and Environment](#).

Some have speculated, and it is entirely possible, that Newsom appointed Houck in anticipation of Batjer's resignation. In any event, I expect Houck would continue the reform efforts initiated under Batjer's presidency. I also expect a President Houck would steer a largely centrist course as the Commission continues to work on resolving thorny reliability problems and implementation of the state's decarbonization goals.

<sup>1</sup> The GOA is responsible for administering state operations in the areas of procurement, information technology, and human resources. Its mission is "to improve management and accountability of government programs, increase efficiency, and promote better and more coordinated operational decisions."

On the other hand, now that Newsom has survived a recall election, he may want—or may feel compelled—to shape the CPUC more to the liking of his progressive supporters. In that case, Newsom will likely appoint someone with a very strong activist résumé.

In either case, I would not be surprised if Batjer’s final acts as CPUC president include somber votes in support of proposed decisions that will be unpopular among some of Newsom’s supporters. Among those may be, for example, decisions in the Integrated Resource Planning and Emergency Reliability proceedings that require, or at least allow, the electric utilities and other load serving entities to procure incremental natural gas-fired generation capacity. That is, Batjer may be the voluntary fall guy for some much-needed, hardnosed decisions aimed at keeping the lights on while California transitions to a green energy utopia.

### **RA Workshop Merry-Go-Round**

Speaking of reliability – in June I reported that the CPUC was taking up a proposed decision (PD) on various proposals for restructuring the RA program, and that the PD selected PG&E’s proposal to establish RA requirements for multiple slices of the day on some sort of seasonal basis. Details about PG&E’s proposals were scant, as the proposal itself was more of an outline than a

comprehensive reform package.

That did not deter the Commission from directing stakeholders to forge ahead. The final decision (D.21-07-014), which was approved by unanimous vote on July 15, directs the parties to develop a “final restructuring proposal” based on the aforesaid “slice-of-day” approach. To that end, the decision ordered the parties to hold a minimum of five workshops “over the next approximately six months” to work out the details, with a workshop report to be filed with the Commission in February 2022.

Per the decision, the workshops will cover the following topics:

- Structural Elements
- Resource Counting
- Need Determination and Allocation
- Hedging Component
- Unforced Capacity (UCAP) and Multi-Year Requirements

Two half-day workshops have been scheduled for the first three topics, followed by a half-day workshop to recap the discussion to date and identify any areas of consensus. There will also be half-day workshops on the topics covered by the last two bullet points.

I am less than sanguine about the likelihood of the parties hashing out a “final restructuring proposal” in time for the report due in February. It took the parties over

a month to agree on a workshop schedule and the scope of each workshop. And the first workshop was not held until September 22, more than two months into the “approximately six months” allowed for the parties to present a final proposal.

The first workshop was mostly taken up by PG&E’s presentation of its still threadbare proposal (although, to PG&E’s credit, they did a decent job of describing the issues and some of the tradeoffs that parties will need to tackle and otherwise resolve). I hope against hope that the remaining workshops will be more productive than the first. But I also fear that some will treat the workshops as advocacy platforms rather than the roll-up-your-sleeves exercises that are required to get the job done. If we have a final proposal ready for the Commission’s consideration by the end of June (much less February), it will be a minor miracle.

# CALIFORNIA LEGISLATIVE COMMITTEE

*Jesus Arredondo*

## WPTF Legislative Committee

consultant is Jesus Arredondo.

*Jesus is the principal and founder of Advantage Government Consulting LLC and has over 19 years of experience in media and government relations, including concentrated experience in energy policy. Prior to launching Advantage Consulting, Jesus worked as a senior advisor for two major public relations firms in the United States and Mexico. Jesus also served as a policy advisor to a major California transmission project, principal advisor on an education effort in California concerning natural gas and on a national education campaign concerning the FERC's push for standard market design. Before launching Advantage Consulting, Jesus was a bilingual spokesman for two California governors and served five years as director of regulatory and government affairs for a fortune 250 independent power producer and two years at the California Power Exchange, where he served as director of corporate communications.*

## **2021 Legislative Session Concludes, Influenced by a Recall Election, the Pandemic and Wild Fires**

### *The Newsom Recall is Defeated*

On September 14, 2021, after polls vacillated between “get rid of him” and “keep him,” Governor Gavin Newsom defeated a pandemic-driven recall effort.

Though the prospect of recalling Newsom once appeared to be a political fantasy, conservative foes harnessed frustration with the Democrat’s pandemic shutdown orders to qualify the election. Newsom then raised over \$70 million and enlisted national Democratic figures like President Joe Biden, Vice President Kamala Harris, and Senators Elizabeth Warren and Bernie Sanders to ensure supporters turned out to vote.

In 2018, Newsom cruised to a 24-point landslide victory. In the recall election, Newsom crushed the recall by a 2-to-1 margin.

Newsom will now enter the final year of his first term in a position of strength. He is expected to stand for reelection in 2022, and Republicans’ failure to oust him in an off-year special election fueled by conservative grievances suggests they face a steep fight to defeat Newsom next year.

With the unsuccessful recall behind him, Newsom now turns fully to the business of governing (at least, until the 2022 campaign

starts in a few months). With the legislative session concluded, Newsom has until October 10, 2021 to decide whether hundreds of measures become law. Some that he has already signed are highlighted below.

### *Newsom’s Actions on the Energy and Climate Legislation*

Focusing on energy and fire measures, Governor Gavin Newsom this month used the Sequoia National Park’s wildfire and smoke as a backdrop to sign SB 170, a \$15 billion climate package for California – the largest such investment in state history.

The climate spending plan outlined in SB 170 includes \$5.2 billion for water and drought resilience, \$3.9 billion for zero-emission vehicles, \$3.7 billion for climate resilience, \$1.5 billion for wildfire and forest resilience, and \$1.1 billion for climate-smart agriculture.

California has already recorded more wildfires this year compared to the same period last year, prompting worries that the state could ultimately break its record for number of acres burned.

### *Other Bills Signed*

- **AB 843** (Aguiar-Curry) – California Renewables Portfolio Standard Program: renewable feed-in tariff; Bioenergy Market Adjusting Tariff program: community choice aggregators.



- **SB 1** (Atkins) – Establishes the California Sea Level Rise Mitigation and Adaptation Act to help coordinate and fund state efforts to prepare for sea level rise.
- **SB 27** (Skinner) – Carbon sequestration: state goals: natural and working lands: registry of projects.
- **SB 273** (Hertzberg) – Water quality: municipal wastewater agencies.
- **SB 423** (Stern) – Energy: firm zero-carbon resources.
- **SB 596** (Becker) – Greenhouse gases: cement sector: net-zero emissions strategy.
- **SB 626** (Dodd) – Department of Water Resources: Procurement Methods.

#### *Big Win for Wind*

As expected, Newsom also signed a bill that directs California regulators to plan for offshore wind development, one of the first steps toward building out the sector.

**AB 525** adds to the deal reached with the federal government as to where floating turbines would be installed in U.S. waters off the California coast. **AB 525** by Assemblymember David Chiu (D-San Francisco) requires the California Energy Commission to set goals for how much offshore wind should be installed by 2030 and 2045. The CEC is also required to coordinate with sister agencies on a strategic plan for

the permitting and construction of floating turbines.

Earlier this year, the CEC said in the [Joint Agency SB 100 Report](#) that California needs 10 gigawatts of offshore wind — enough to power 7.5 million homes — to meet the State’s requirement of 100 percent clean energy by 2045. **AB 525** was initially held up when the bill set an installation target, but it was later amended to let regulators, not lawmakers, decide, clearing the way for its passage. **AB 525’s** installation goals are due June 1, 2022, and its strategic plan is due June 30, 2023.

#### *Fire Threats Remain*

While we have reached October, the wildfire threats still loom large. Sadly, now the second largest fire in State history, the Dixie Fire (nearly 1 million acres burned), was ignited in July and is not yet 100% contained. Since July, the Caldor Fire (15th largest fire in State history), the Monument Fire (14th largest fire in State history) and the River Complex (17th largest fire in State history), are all still burning – and have burned a combined 640,000 acres.

If it seems like wildfires in California are getting larger, they are. Nine of the state’s 10 largest wildfires since 1932, when modern records began, have occurred in the past decade. And amazingly, the eight largest have all burned since 2017.

These events are troubling not

only for the destruction and loss of life, and public power safety shut offs, but also for the impacts to the utilities. Of the 4 major fires currently burning, 2 are being investigated for possible utility equipment failures. Yes, the Legislature is sure to act on this in 2022.

# CARBON AND CLEAN ENERGY COMMITTEE

*Clare Breidenich*

*Clare Breidenich coordinates [WPTF's Carbon and Clean Energy Committee](#). In this role, Clare has been actively involved in the development of California's cap and trade program since its inception and has particular expertise on issues related to the treatment of electricity imports under the program and the interactions of the carbon market and the markets operated by the CAISO. Clare also represents WPTF on matters related to carbon and clean energy policies in other western states.*

*Prior to joining WPTF, Clare worked on international climate issues at the Environmental Protection Agency, the US Department of State and the United Nations Framework Convention on Climate Change Secretariat. Clare has extensive knowledge of the technical and policy options for greenhouse gas mitigation, including market mechanisms, and methodologies and protocols for estimation, reporting and verification of greenhouse gas emissions and reductions. She has served on the Washington Governor's Climate Action Team, the Washington Carbon and Electricity Markets Workgroup and on a National Academy of Sciences' Committee on monitoring of greenhouse gas emissions. Clare is a graduate of the University of Michigan and has a Master of Public Affairs and a Master of Science in Environmental Science from Indiana University School of Public and Environmental Affairs.*

## **Carbon and Clean Energy Programs driving changes in environmental commodity and energy markets**

Demand for zero emission electricity is poised to increase dramatically over the next years as various state carbon programs and clean electricity standards (CES) come into effect. 2021 saw the passage of 100% zero emission electricity legislation in Oregon, and cap and trade legislation in Washington. These build on earlier CES programs adopted in Washington, California, New Mexico, Colorado and Nevada and on California's existing Cap and Trade Program. Up in Canada, the province of British Columbia also has a clean electricity goal and a provincial carbon tax. Following a Supreme Court ruling in its favor, the Canadian Federal government is set to impose a carbon tax in Alberta. Additionally, the expansion of clean fuel standards across the three Western states and British Columbia, and growing corporate interest in achieving carbon neutrality will drive demand for zero emission electricity in voluntary markets and to decarbonize transportation and other sectors.

Although both CES and cap and trade programs aim to account for and reduce emissions in the electricity sector, they do so in very different ways. Cap and trade is fundamentally a source-based approach that aims to regulate

emissions where they occur. The California and Washington programs extend this approach to cover electricity imports, but the intent is still to account for emissions at the generator level. Conversely, a CES establishes procurement mandates that fall on load-serving entities. CES programs evolved out of renewable portfolio standards (RPS) that typically rely upon procurement and retirement of RECs for compliance. However, they differ from RPS programs in a couple important ways. The first is that CES programs typically focus on the emissions associated with generation, rather than specific technologies. Second, but no less significant, CES programs aim for 100% of electricity to be zero emission by a certain date (2040 – 2050), and then establish interim clean energy targets before that date. This implies that by the time that a CES target reaches 100%, the generation of electricity by clean resources in each utility's portfolio must match its load shape.

Because of this matching of generation to load, there is growing interest in increased granularity in accounting for electricity and associated emissions used to serve retail load. The issue has been most active (and contentious) in the Washington rule-making under the Clean Energy Transformation Act (CETA), but is likely to come up in Oregon, California and other states in the near future.

For instance, in California, the CPUC, which has to date implemented SB100 through IRP planning, recently signaled that it is considering whether additional “programmatically” approaches will be needed to implement and enforce SB100 after 2030 (when the program’s zero emission electricity mandate exceeds the state’s 60% RPS target). If states wish to use RECs for CES program compliance, this may drive more granularity in the vintaging of RECs, which are currently issued in monthly blocks. Already, various initiatives are exploring the creation of hourly RECs, driven mainly by large corporate interests such as Google and Microsoft. Hourly accounting would have dramatic implications for tracking and valuing renewable electricity going forward.

Allowance markets are also going to change in response to the Washington cap and trade program. Although Washington’s program is designed to be linkable to California’s, linkage is not guaranteed and is extremely unlikely to occur during the first compliance period in Washington, which runs through 2026. This is because California will want to assess the stringency and environmental integrity of the Washington program after rules have been finalized, and because both states need to conduct a formal, public process. In the absence of linkage, allowances

under the two programs will not be fungible, and will trade at different prices. (Oregon also aims to adopt a cap and trade program through regulation this fall, which will not cover the electricity sector.) While Washington’s state-wide 2030 greenhouse gas targets are actually more stringent than California’s (45% reduction relative to 1990, compared to 40%), the level of reductions required under the cap and trade program itself will be not be clear until the Department of Ecology determines annual program emission budgets. Even if Washington’s program is more lax than California’s, its significantly smaller scale and high proportion of freely allocated allowances will likely make for an illiquid allowance market. Price discovery for the Washington carbon market won’t occur until the first auction – probably late 2022 at the earliest.

This price uncertainty will make electricity hedging more challenging over the next year, particularly around Mid-C transactions. Under the Washington legislation, electricity that is offered on ICE at Mid-C and sinks in Washington will create a carbon obligation for the offeror (who would be considered the responsible importer). To accommodate the potential risk that offers are picked up by Washington utilities, offerors may elect to include potential carbon costs in all offers. But this would also

raise prices for buyers located outside the state, and could have the unintended consequence of driving transactions off the exchange. In recognition of the need to maintain liquidity at the hub, some market participants are beginning to discuss the possibility of developing a new Mid-C product that would enable offers to differentiate between power intended for Washington and elsewhere, or that would be zero carbon. The latter would be particularly valuable if it were recognized under both the Washington and California cap and trade programs, as well as the various state CES programs.