QUARTERLY REPORT

October 2016

There are many new, as well as legacy, issues in the electric power business for the Western states and Mexico. The articles in this Quarterly Report will explain and detail each, from the expert viewpoints of our different committee consultants and our regulatory counsel.

Our new consultant for the Mexico Electricity Committee, Julie McLaughlin, is making her Quarterly Report debut with this edition. Julie has deep experience developing renewable power projects in Mexico, South America, and elsewhere in Latin America. Her committee is costaffed by Rebecca Bollenbach from Essentia Consulting, a firm that tracks wholesale power markets in Mexico. Julie and Rebecca have been doing a fantastic job of keeping our members current on Mexico's rapidly evolving competitive electricity business.

The other WPTF committees have been tested by the multistate development of a prospective regional Independent System Operator (ISO). Because so many of the issues regarding a new regional ISO touch on greenhouse gas (GHG) accounting principles, resource adequacy, and transmission access charges, Ellen Wolfe and Carrie Bentley of our California ISO (CAISO) Committee have been working with our GHG consultant Clare Breidenich and our Western Electricity Coordinating Council (WECC) consultant Caitlin Liotiris. This intercommittee coordination has been entirely organic and self-motivated. It is gratifying to see this level of cooperation and efficiency, which benefits our membership.

I hope you enjoy reading this installment of the Quarterly Report.

Gary Ackerman
Executive Director

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Save the Dates

The WPTF Board of Directors will meet in person the evening before the start of the 2017 General Meetings.

WPTF Winter General Meeting
March 2-3, 2017
The Grand Del Mar,
San Diego, California

WPTF Summer General Meeting
June 8-9, 2017
The Meritage Resort & Spa,
Napa, California

MEXICO ELECTRICITY REFORM COMMITTEE

Julie McLaughlin & Rebecca Bollenbach

Julie McLaughlin coordinates WPTF's Mexico Committee*. Julie has more than 13 years of experience in the energy sector across 15 countries. In Mexico, she has spent several years developing a utility-scale solar portfolio as co-founder of Vertex Engería. Previously, she held executive positions with Dynamic Energy, E.ON Climate & Renewables and EcoSecurities in the United States, South America, Europe, and Asia. Earlier in her career, Julie completed a two-year Peace Corps assignment in Nicaragua.*

Rebecca Bollenbach of Essentia Advisors is also an advisory partner to WPTF's Mexico Committee.

Rebecca Bollenbach is a Partner at Essentia Advisors (formerly part of WG Consulting). In her eighteen years of experience in deregulated power and gas across ERCOT, SPP, SERC, PJM, CAISO, NYISO, ISO-NE, Ontario, Alberta, and most recently in Mexico. In addition to her consulting experience, Rebecca has served as Vice President of Market Advisory for Adapt2 ISO and held several leadership roles at Reliant Energy, including Director of Forecasting.

Mexico's Second Long-Term Power Auction

On September 22, Mexico concluded its second long-term power auction for generation, Clean Energy Certificates (CELs in Spanish), and capacity. In the first two long-term auctions this year, Commission Federal de Energía (CFE) was the only participating buyer, but additional buyers are expected in the future. As a result of the auction, CFE was able to secure 80.5% of the total demand solicited in the request for proposals (RFP).

The 23 successful bidders (out of 57 who prequalified) won 15-year contracts for generation and capacity and 20-year contracts for CELs. The average winning price for clean energy (generation plus CELs) was USD $33.47 per megawatt hour (MWh), and the average winning bids for capacity were USD $32,258/MW year or USD $88.37/MW day.

The successful procurement of capacity was an improvement on the first long-term auction, which resulted in no capacity bids because of the low maximum capacity price of USD $2/MW. The two capacity winners were CFE and Frontera Mexico Generation, which we understand to reflect installed capacity in both cases. CFE won 400 MW years of capacity, likely from plants requiring offtake following disintegration of CFE under the reform. On the other hand, Frontera is a Blackstone combined cycle gas turbine plant located in Texas, which last year secured the required permit to import generation capacity across the border.

Status of Mexico's Wholesale Market

Since Mexico launched its wholesale market (abbreviated MEM in Spanish) with day-ahead pricing earlier this year, significant progress has been made. The Centro Nacional de Control de Energía (CENACE) is making meaningful strides to publish real-time pricing for Baja and the larger mainland National Interconnected System (SIN). The network model has been completed and is now available to registered participants. That said, the market remains immature in its efficiency and liquidity, in comparison to established power markets in the U.S., Europe, and elsewhere.

As of October, more than 25 market participants have been registered or are in advanced stages of registration. Formally registered market participants have permission to transact in the MEM. They also have access to all relevant "safe or certified" information outlined in the System Market Information manual, like the network model, more detailed pricing information, and a unique library of information.

Securing registration is not without challenges. Although not expensive, the process is arduous and time consuming. It requires establishing a Mexican entity and employing a minimum number of Spanish-speaking personnel in order to complete the required training efficiently. Additionally, certain potential participants are wary of registering before they have a full view of market operations, or are prohibited from doing so by corporate rules. Ideally, meaningful levels of information will become accessible to potential participants and the registration process will become more agile. The Mexico Committee is working toward both of these goals.

CENACE Pricing Adjustments
On August 22, CENACE, in conjunction with Mexico's Energy Ministry (SENER), issued its restatement of MEM day-ahead marginal and distributed prices for January to July 2016. The corrections lowered prices in the SIN an average of USD $10/MWh, or 16%. The sweeping restatements affected more than 95% of the energy, congestion, and loss values published since market launch across all three transmission grids (SIN, Baja California, and Baja Sur).

CENACE's dramatic price restatement may not be all bad news. For months, traders have had difficulty replicating Mexico's steep day-ahead power costs. Limited access to additional data such as plant heat rates, fuel costs, and transmission network models have contributed to skepticism about the long-term validity of Mexico's initial power price signals. Moreover, headroom calculations comparing the wholesale power prices to the "price to beat" retail rates haven't left much room for new retailers to compete with CFE.

SENER's August 4 statement contained critical details about the reasoning behind the changes, and emphasized the importance of the formulae linking fuel costs to power prices, published back in July. CENACE and SENER's candid statements are a signal that the market is addressing its imperfections and slowly improving transparent communications with stakeholders.

The restated price levels are fundamentally more credible than the dramatic price spikes published during the early days of the MEM. And, in spite of the price reductions, the spread between the Electric Reliability Council of Texas (ERCOT) and the MEM's north zone prices remains in the USD $20–30 range. This is particularly significant for ERCOT off-peak power, which continues to decline in value because of increased renewable generation and other factors. Moreover, estimations of retail profitability could improve significantly in light of the adjusted price values.

Legacy FTR Manual and Allocations
In September, SENER published a manual on the DFT legados, or legacy Financial Transmission Rights (FTRs). These instruments are similar to auction revenue rights in U.S. markets. Under the energy reform, legacy generators and basic services suppliers are defined as those that successfully interconnected to the grid before August 12, 2014, when the reform became law. Under the new market rules, operating projects are required to hold sufficient FTRs to transmit generation to their offtakers, which could be CFE, a governmental organization, or a private customer.

Allocations of legacy FTRs for fossil fuel and nuclear generation were calculated using the lower value between historical average generation and average consumption during the two-year period from August 12, 2012, to August 11, 2014. In contrast, FTRs for renewable generation were calculated using averages from up to 10 years before August 12, 2014. All legacy FTRs are subject to a simultaneous feasibility test using a 4/3 multiplier for revenue adequacy, and loss calculations as applicable. Based on these factors, it is likely that many legacy loads will not receive FTR allocations that cover 100% of their congestion risk.

Formal legacy FTR assignments from CENACE are expected in October 2016, after which recipients will have five working days to dispute their allocations. If FTRs are not explicitly rejected within 10 days, they will be considered accepted. No partial acceptance of legacy FTRs is allowed. Another constraint faced by legacy FTR recipients is the loss of their FTR allocation for specific generation if the offtaker consuming that generation breaks its contractual arrangement to purchase power.

What's Next?
CENACE and SENER expect to reach several key milestones over the next 6–12 months. The first midterm auction will be held in early 2017, to be followed by the market's inaugural FTR auction in late spring or early summer. The Comisión Reguladora de Energía (CRE) also is working to publish revised Basic Service Rates to replace the old CFE rate structures before year's end. These new retail rates will make transmission and distribution costs more transparent, and should foster increased competition among retailers. Additionally, publication of Baja's real-time pricing is expected by December, followed by that for the mainland SIN.

WPTF's Mexico Committee is actively communicating with market regulators, and expects to provide detailed feedback to SENER as the midterm auction and FTR auction manuals are developed this year.

WESTERN ELECTRICITY COORDINATING COUNCIL (WECC) COMMITTEE

Caitlin Liotiris

Caitlin Liotiris coordinates WPTF's [WECC Committee](), *which engages ontechnical, policy, and market developments at WECC and Peak Reliability and also advocates for broader western energy markets, especially the EIM and regional market expansion. 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 WECC footprint. 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.*

APS and PSE Join the EIM while Others Seek to Join

For the first time in the short history of the western Energy Imbalance Market (EIM), two utilities were integrated simultaneously. On October 1, both Arizona Public Service (APS) and Puget Sound Energy (PSE) began financially binding EIM operations. Not only were two entities integrated at the same time and in different areas of the interconnection, but EIM implementation occurred on time and with relatively few reported issues. It is safe to say that EIM implementation is becoming more streamlined, especially compared to the rocky launch in 2014.

Streamlining is crucial because more and more utilities are interested in joining the EIM. Even municipal utilities, such as the Los Angeles Department of Water and Power (LADWP) and Seattle City Light (SCL), are studying and considering joining the EIM. SCL recently sought city council approval to enter into an agreement to join the EIM. Although the council did not vote to approve SCL's entrance, SCL will continue to study the EIM and may enter into an interim agreement with the California Independent System Operator (CAISO), as will LADWP. SCL's initial cost-benefit analysis, presented to the city council, estimated the one-time capital investments necessary for SCL's EIM entrance at $8.8 million, with ongoing annual costs of approximately $2.8 million. The assessment estimated that annual benefits would range between $4 million and $23 million, depending on the scenario analyzed. For SCL, Idaho Power, and some future EIM Participants, EIM participation is driven not only by the quantifiable benefits, but also by the fact that, absent EIM, many short-term trading options are drying up. It would be safe to bet that, despite efforts to better coordinate across the EIM to non-EIM seams (which is discussed more in the CAISO Committee's report), the coming months and years will see more EIM entrants that join, at least partly, to increase short-term trading options.

Peak Reliability Strives to Find Ways to Better Manage Congestion

Peak Reliability, the Reliability Coordinator for most of the Western Interconnection, is building a tool referred to as the Enhanced Curtailment Calculator (ECC). A Peak task force is evaluating the scope and use of the ECC. Depending on the direction taken, the ECC could be a small project that has a relatively minor impact, or it could be an influential tool used to better manage congestion across the vast majority of the Western

Interconnection. The ECC could be designed and implemented in a way that significantly reduces today's fairly common e-Tag curtailments, in a manner that reduces loop flow and associated uplift for CAISO market participants. The ECC could achieve these desirable outcomes in two ways. First, the ECC could provide better information on actual system conditions, so system operators can know whether e-Tag curtailments (or other actions) are necessary from a reliability perspective. Second, the tool could be used to find the most effective mitigation strategy when congestion relief is necessary, whether that is coordinated phase shifter operations, generation redispatch, e-Tag curtailments, or other actions. Before the tool is fully built, key policy questions must be answered. Peak's Enhanced Curtailment Calculator Task Force (ECCTF) has just begun tackling these policy questions. Over the next 12 months or so, the Western Electricity Coordinating Council (WECC) Committee will ramp up its participation in these efforts with the goal of increasing efficient and effective congestion management in the West and reducing the number of unnecessary or ineffectual e-Tag curtailments.

WECC Restructuring: Efficiency Gains or Growing Pains?

The WECC Committee's Quarterly Report would not be complete without mention of the major restructuring efforts proposed at WECC. The Operating Committee's and Market Interface Committee's restructuring proposals have been eclipsed by a radical restructuring effort proposed by the Planning Coordination Committee (PCC) and the Transmission Expansion Planning Policy Committee (TEPPC).

The PCC-TEPPC task force has proposed major changes for these committees, including combining the two committees, completely overhauling the governance and voting structures, changing the committees' reporting structure, and other things. The goals of this group are laudable: conduct intelligent planning studies and create a uniform production-cost modeling and power-flow modeling dataset as a starting point for various economic and reliability studies across the Western Interconnection.

Even so, the WECC Committee is skeptical that such goals can be achieved in the near future.

If the proposal is ultimately implemented, which will not be known until at least the end of the year, it's likely to be accompanied by substantial growing pains.

However, if the group's goals are achieved, even several years down the line, the resulting consistent set of modeling data would greatly benefit both Western generation developers and transmission developers.

WE'RE NOT IN KANSAS ANYMORE: REGIONAL TAC AND RA, EIM AND GHG—OH MY!

Ellen Wolfe

Ellen Wolfe coordinates [WPTF's CAISO Committee](). She has more than 25 years' experience with electric utilities and in the energy industry, and has been active with the CAISO since the 1990s, when the CAISO was being formed. Ellen dives in deep on technical issues, sees the "big picture," and works effectively with CAISO staff and other stakeholders.

Ellen has extensive experience in Western markets generally and in the Electric Reliability Council of Texas (ERCOT) in particular. She has performed detailed modeling activities; evaluated benefits and costs associated with the Regional Transmission Organization–West, WestConnect, ERCOT, and Southwest Power Pool; and developed tariffs and implementation processes for ERCOT and other ISOs. She has worked as an industry consultant since 1994, prior to which she had employment engagements with the U.S. Department of Energy's national labs and at the Rancho Seco nuclear power plant.

These days, CAISO Committee activities can have us feeling like we are wandering in a strange and different land, where everyone is walking a road that we hope goes somewhere useful. It's unclear which ones of us are Dorothy and which are Toto.

This quarter in Oz, regional issues are forefront for the CAISO Committee—both with respect to new regional integrated market designs and with keeping the EIM running.

- **EIM Intertie Bidding.** At the Regional Issues Forum (RIF), CAISO entertained a discussion of economic participation at the EIM interties. Coming off a bit like the Wicked Witch of the West, CAISO suggested that at the EIM interties, only physical external resources will be able to participate. In contrast to CAISO's position, WPTF is advocating for bilateral markets and integrated systems to also have viable means to participate economically at the EIM boundaries. A presentation by Mark Rothleder of CAISO previewed CAISO's presentation at the upcoming October 28 technical conference, where the Federal Energy Regulatory Commission (FERC) is requiring that these issues be addressed in response to WPTF's protests. WPTF has submitted comments to both CAISO and FERC, and plans to participate on a panel on this topic at the technical conference.
- **Regional Transmission Access Charge (TAC).** CAISO staff has made yet more changes to its Yellow Brick Road to optimal transmission design. Proposed policies have been simplified: 200 kilovolts (kV) is now the magical threshold triggering cost allocation across subregions; if a project was planned through the regional TAC process it is "new" and otherwise it is "existing"; and a single region-wide export rate is planned. The potholes include default criteria for cost allocation that will put a lot of burden on California ratepayers if policy projects are approved, and open issues about TAC export revenue allocation.
- **Regional and EIM Greenhouse Gas (GHG) Design.** The carbon world feels Oz-like for nearly everyone. The California-only cap-and-trade program doesn't belong in the technicolor regional world. The EIM is creating threats of leakage while the California Air Resources Board (CARB) is trying to cap the leaking resources deemed by the EIM algorithms to be serving California. The CAISO

Committee is working closely with the WECC and GHG committees to envision better regional GHG designs that will work across states with disparate policies.

- **Regional Resource Adequacy (RA) as the Tin Man.** Pushback continues on rigid regional RA rules. CAISO has been holding fast to its claim that it's the right entity to decide the needed amounts of capacity, determine how much capacity from any resource can count toward the needed amounts, and enforce firm rules against short-term import contracting.
- **EIM Governors and RIF.** The EIM Governors and the regional liaisons seem to have been given Scarecrow costumes by CAISO. Meetings have been slow to roll out, WPTF has had to work hard to get issues discussed in the RIF, and (most disturbing) CAISO refused to post comments in response to the EIM intertie participation issue on behalf of the RIF, offering a sort of "not our job" reproach. However, those handed the costumes are still making good decisions—to entertain our agenda items, to push for transparency, and to proactively reach out to stakeholders on issues.

It is not yet clear who the Wizard is. Is the California Governor who has yet to be won over? Is it the PacifiCorp states' regulators? (Is PacifiCorp itself waning in its interest?) Is it the Northwest utilities, on the fence about joining EIMs? Stay tuned to see if we find anybody in particular behind the black curtain.

Back in Kansas (the traditional CAISO footprint), CAISO stakeholders were recently hit with a tornado. After months of agreement between CAISO staff and stakeholders, the proposal to lower the bid floor was yanked from the Market Surveillance Committee meeting, and abruptly removed as a proposal in an addendum to the final draft proposal. The addendum still included pages of support for lowering the bid floor and provided little to no explanation on why the proposal was being dropped. Stakeholders (and it appeared some CAISO staff) were left downright befuddled by this unexplained move. Many stakeholders, including WPTF, pushed back hard and vowed to rebuild and bring this up at the next CAISO Board meeting.

Regarding the flexible ramping product, FERC denied WPTF's plea to make the product biddable and instead accepted CAISO's proposal in full. This was less like a tornado and more like Auntie Em sending us to bed early with no supper because we yelled too loud. FERC's primary argument seemed to be that CAISO's proposal was just and reasonable, because "opportunity cost" appropriately captures costs and avoids the market inefficiencies that could be caused by a biddable product. The flexible ramping product will be implemented November 1, and it is a challenge to know what to expect. In general, the product should be an improvement on the current flexible ramping constraint; however, it is unclear whether CAISO has established a firm flexible ramping procurement requirement, and how the requirement may or may not be changed by operators across and between days.

Interestingly, our "Kansas" will have two important votes this November: it is stakeholder initiative catalog season again. This is the one time of year when CAISO stakeholders get together and vote on initiatives they want to see happen in the next year. Spoiler: WPTF will be voting for an initiative addressing a nonphysical EIM intertie participation model. Let's hope everyone makes the right choices and no one claims the outcome is rigged in either election.

CARBON POLICIES IN THE WEST GET MUDDIER

Clare Breidenich

Clare Breidenich coordinates WPTF's GHG Committee. Clare has over 18 years' experience on greenhouse gas regulation and policy. In addition to her work with WPTF, Clare has worked on international climate issues with the Environmental Protection Agency, the Department of State, and the United Nations Framework Convention on Climate Change secretariat. She has also served on the Washington State Governor's Climate Action Team and on a National Academy of Science's Committee on monitoring of greenhouse gas emissions.

CARB Proposes Extension of California Cap-and-Trade Program while Stakeholders Dispute Authority

CARB recently closed its first round of comments on regulations to amend the cap-and-trade program This is despite the fact that agency has not yet released its comprehensive scoping plan for meeting the state's new GHG target of reducing emissions by 40% relative to 1990 levels by 2030.

The delay in release of the scoping plan is linked to controversy over CARB's legal authority to extend the cap-and-trade program after 2020. In 2006, Assembly Bill (AB) 32 established the state's original GHG target and authorized CARB to consider market-based approaches, but did not explicitly call for a cap-and-trade program. The state's environmental justice community has long opposed cap-and-trade because it fails to force emission reductions from facilities located in low-income and minority communities. In reality, these groups are concerned about the other environmental impacts of GHG-emitting sources, but are using the high profile of the cap-and-trade program to push their concerns.

AB 197, adopted this past summer, calls for CARB to prioritize direct GHG emission reductions. The environmental justice community wants to interpret this language as prohibiting cap and trade, but bill authors have indicated this was not the intent. Expect ongoing challenges to CARB's legal authority to extend cap and trade, as CARB moves forward with the cap-and-trade regulation and development of the scoping plan this fall and winter.

Thorny GHG Accounting Issues for Energy Imbalance and Regional Market Design

California's program is the only GHG emission trading program in the world that assigns a compliance obligation to imported electricity. This one wrinkle has necessitated the development of complicated rules for determining and assigning emissions associated with electricity imports, including the program's rules for specified and unspecified imports, and provisions on resource shuffling. With the advent of the EIM and the possibility of a regional market, GHG accounting for electricity imports has become even more complicated: the treatment of GHG costs in market design affects generation dispatch within the market footprint, how dispatched generation is assigned to California or non-California load, and marginal prices. Additionally, the market design will need to accommodate the evolving carbon and clean-energy policies of other Western states.

In June, CARB raised concerns that the EIM algorithm is not appropriately assigning emissions. The EIM algorithm optimizes for least-cost dispatch of all California and EIM participating resources. Although such optimization results in the lowest overall system costs, CARB is concerned that it underestimates the quantity of emissions attributable to California imports. In some cases, the EIM algorithm will deem the output of a zero- or low-emission EIM participating resource as delivered to California and will displace generation of California thermal resource by dispatching a non-California thermal resource.

CARB's primary concern seems to be that the EIM algorithm reduces California emissions, but has not reduced overall emissions in the EIM footprint. CAISO has countered that any increase in footprint emissions during intervals in which California is an importer should be netted against the significant reductions in emissions that occur in intervals in which export of California renewable electricity displaces thermal generation outside of California. Because the cap-and-trade program does not allow netting of emissions over time, this argument is not likely to carry weight with CARB.

Several options are under consideration to address the GHG accounting concerns. Some involve adjustments to the algorithm that would require non-California resources to be attributed to native load before California, or that would impose an additional GHG hurdle rate to all non-California resources for attribution to California. An alternative would require the CAISO to calculate the quantity of residual emissions so that CARB could assign additional carbon obligations to California load-serving entities.

Appropriate resolution of this issue will affect the attractiveness of the EIM and regional market to entities in the West and state regulators. An approach that limits the ability of entities outside California to avoid or plan for carbon obligations, or that would disadvantage non-California resources relative to California resources, will hinder participation. Similarly, a solution that increases prices for other states, or complicates implementation of clean energy and carbon policies in those states, will not be attractive to other state regulators.

Washington Moves Forward with Poorly Designed Carbon Trading System

On September 15, the Washington Department of Ecology adopted the state's Clean Air Rule (CAR). This regulation sets individual declining emission targets for sources regulated by the program, including electricity generators and other stationary sources of GHGs, petroleum refineries, and natural gas distributors. Covered entities must comply by reducing their on-site emissions to within the level of their individual targets, or by purchasing and surrendering Emission Reduction Units to cover their excess emissions. The regulation provides that electricity generators would be excluded from the rule if and when Washington's program for compliance with the federal Clean Power Plan is in place, and provided that Washington's program sets a target lower than that established by the U.S. Environmental Protection Agency.

As anticipated, several organizations filed legal challenges to the regulation almost immediately. Avista, Puget Sound Energy, and other Washington natural gas utilities filed a lawsuit in the U.S. District Court. The Western States Petroleum Association and a number of Washington and Northwest business associations filed a separate challenge in the Washington State Superior Court.

Despite calls for climate action in the state, the CAR has only lukewarm support from state environmental organizations. As is true in California, some in the community oppose any type of emissions trading mechanism; others support emissions trading but fault the CAR for a lack of environmental integrity and incompatibility with true cap-and-trade programs.

The CAR's survival is dependent not only on the outcome of the legal challenges, but also on a November Washington ballot initiative that would impose a state carbon tax. Unless one of the courts stays the rule or the ballot initiative succeeds, the CAR will go into effect for electric generators and natural gas utilities as of January 1, 2017. Petroleum producers and energy-intensive, trade-exposed industries would be subject to the program as of January 2020.

AS THE LEGISLATIVE SESSION CONCLUDES, THE POLITICS OF A NATIONAL ELECTION COME INTO FOCUS

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.

Whoever Is Elected President, Brown Will Push Climate Change Agenda

After the first presidential debate, Governor Brown told reporters that, no matter who is elected president in November, Brown will continue to push California's climate change policies. At the annual Society of Environmental Journalists conference, Brown said "I would do what I'm doing now."

Brown, who has made climate change a centerpiece of his final term, touted the group of climate change bills signed over the last month, including Senate Bill (SB) 32, which requires the state to cut greenhouse gas (GHG) emissions to 40% below 1990 levels by 2030. Brown added, "California has goals… They're steep and they'll get steeper as we go down the road. We need technology, the investment and the understanding, and that's where journalism comes in."

Brown said climate change is a slow-moving and complex problem, and America's journalists need to do a better job of explaining it and the threats it poses if political leaders are going to make progress in averting catastrophe. "A lot of things that are of deep concern are not that exciting… Donald Trump is more exciting for many journalists than climate change because he can make a lot of noise. That's one of your infirmities." He implored the room of reporters to keep writing about the widespread challenges of climate change.

Who Will Be Attorney General, if Harris Wins Senate Race?

If Attorney General (AG) Kamala Harris wins her U.S. Senate bid, she will vacate the state office she has held since 2011. Her immediate successor, by law, would be her chief deputy, Nathan Barankin, but the state constitution allows the Governor to select a successor for the remaining two years of Harris's term.

The last time that happened was in 1964, when Brown's father, Governor Pat Brown, named AG Stanley Mosk to the state Supreme Court and appointed San Francisco District Attorney Thomas Lynch to succeed him. Lynch served the remaining two years of Mosk's term and was then elected for another four years.

Brown, who preceded Harris as state AG, would certainly choose a fellow Democrat to succeed her, most likely from the limited supply of prosecutors and other government lawyers who haven't opposed his Proposition 57 ballot measure to shorten sentences for some of the state's less-violent inmates. One name that has surfaced is Mike Feuer, current Los Angeles City Attorney and former member of the Democratic leadership in the state Assembly. Closer to home, another upwardly mobile office-holder who seems to fit the criteria is San Francisco District Attorney George Gascón. Stay tuned.

Will Democrats Regain a Supermajority in the Legislature?
Under revised term limits enacted by proposition in 2012, legislators may remain in one house for up to 12 years. One consequence is that, after this year, no Assembly member will be forced to leave until 2024. Thus, this could be the last election until then in which interest groups can try to influence the Legislature's heavily partisan makeup and the tenor of its Democratic majority.

Democrats gained two-thirds supermajorities in both legislative houses in 2012, but lost them two years ago, when voter turnout plunged to a record low. They need two more Assembly seats and one more Senate seat to regain their supermajorities, and there are enough shaky Republican seats to make it possible.

Unless a new group of moderate Democrats emerges, a supermajority of Democrats could slant the Legislature decisively left. However, recent battles, on topics ranging from climate change to workplace rules, have proven how fractious Democratic politics can be. Assuming that California keeps electing "moderate" Democratic governors who try to hold the line on spending, those battles may continue even if Democrats retain supermajority control. If California elects a more left-leaning governor, life could become difficult for all regulated businesses in the state.

Brown Signs Compromise Spend Plan for Cap-and-Trade Funds
Governor Brown in September signed a package of four bills, negotiated with Democratic legislators, that spend money raised through CARB's cap-and-trade program. The spending is part of a new effort to fight climate change in California's disadvantaged communities. "We wanted to make sure that disadvantaged communities were served— not only disadvantaged but also under-served communities, communities that traditionally haven't received a lot of the benefits from these programs," Assembly Speaker Rendon said.

"These bills unleash badly needed resources that can make tangible improvements to environmental health and quality of life in our most polluted and impoverished communities," said Senate President pro Tempore Kevin de León. "This year we set ambitious new targets for reducing harmful emissions of greenhouse gases and other toxic pollutants."

Under current law, 60% of annual cap-and-trade auction proceeds are allocated on an ongoing basis to public transit, affordable housing, sustainable communities and high-speed rail. The legislation signed by Brown—Assembly Bill (AB) 1550 by Assembly member Gomez (D-Los Angeles), AB 2722 by Assembly member Burke (D-Inglewood), and SB 859 and AB 1613 (budget committees)—invests $900 million of the remaining unallocated funds for fiscal year 2016–2017 and reserves approximately $462 million for appropriation in future years. To date, cap-and-trade investments in California, including expenditures in this latest agreement, total $3.2 billion. Press release

Brown Approves Short-Lived Climate Pollutants Bill
Also in September, Governor Brown signed a bill (SB 1383) that will for the first time regulate GHG emissions tied to dairy cows and landfills. The bill targets a category of gases known as short-lived climate pollutants (methane, hydrofluorocarbons, and black carbon [soot]), which have an outsize effect on climate despite their relatively short life in the atmosphere. Environmentalists hope that tackling short-lived pollutants will buy time to develop new and more affordable technology to reduce carbon emissions.

Under the bill, dairy farmers will be required to reduce methane emissions from manure to 40% below their 2013 levels by 2030, with the help of $50 million from cap-and-trade funds. The funding will help purchase dairy digesters, which use methane from manure to generate energy that is sold to electrical utilities. The new law also calls for a 50% increase in composting within four years, to reduce organic waste in landfills. Lastly, the legislation also allows CARB to regulate cow flatulence if there's viable technology to reduce it. Press release

THE DIABLO IS IN THE DETAILS

Dan Douglass

Dan Douglass has directed WPTF's legal efforts since helping to cofound WPTF with Gary Ackerman in 1998. On behalf of WPTF, he has been extremely active at the California Public Utilities Commission and assists Ellen Wolfe, Caitlin Liotiris, and Carrie Bentley with WPTF matters at the Federal Energy Regulatory Commission.

His firm, Douglass & Liddell, specializes exclusively in energy law issues, providing regulatory and transactional counsel to generators, suppliers, and end-users in the electricity and natural gas markets. This work has included the formation and representation of several influential regulatory advocacy organizations in addition to WPTF.

Prior to Douglass & Liddell, Dan was a partner with the national firm of Arter & Hadden, where he headed the firm's California energy practice; he previously was General Counsel of LG&E Power and President of Cook Inlet Energy Supply. Dan also spent fifteen years at Southern California Gas Company and its affiliates and worked on several international and domestic gas supply and storage issues during that time.

That's Diablo as in Diablo Canyon, the Pacific Gas and Electric Company (PG&E) 2,200-megawatt (MW) nuclear power plant that the utility now plans to mothball when its current Nuclear Regulatory Commission licenses expire in 2024 and 2025, for Units 1 and 2, respectively. In August, PG&E filed an application with the California Public Utilities Commission (CPUC) seeking authority to retire the plant, recover the associated costs (lots of them), and plan for how to replace the lost generation (yet to be determined).

The first sentence of the application states that, "For more than thirty years, Diablo Canyon Power Plant ("DCPP" or "Diablo Canyon") has provided Californians with safe, reliable, and GHG-free energy."[1] So what's not to like? Plenty, apparently, if you go by the signatories to the application's Joint Proposal to retire Diablo Canyon. It was signed by an array of parties, including the Natural Resources Defense Council, Friends of the Earth, Environment California, International Brotherhood of Electrical Workers Local 1245, Coalition of California Utility Employees, and the Alliance for Nuclear Responsibility. These parties all foresee a future for Diablo Canyon that involves "its orderly and measured replacement with energy efficiency, Renewables Portfolio Standard ("RPS")-eligible, and other GHG-free energy resources."

PG&E says its electricity supply needs are uncertain because three key trends have significantly reduced its electricity sales in recent years: the expansion of energy efficiency, increases in distributed generation (especially privately owned solar resources), and the growth of community choice aggregation (CCA). As a result of these trends, the utility says there is downward pressure on bundled electric sales that reduces the need for electricity from Diablo Canyon.

In response to these trends, the Joint Proposal foresees three tranches, or portions, of replacement procurement for Diablo Canyon:

1. Tranche #1: This tranche includes one or more competitive solicitations and potentially new utility programs to add 2,000 gross gigawatt hours (GWh) of energy efficiency, to be installed by the end of 2024. This tranche is intended to reduce load using a

[1] *All quotations in this article come from the August 11, 2016, Application of Pacific Gas and Electric Company for Approval of the Retirement of Diablo Canyon Power Plant, Implementation of the Joint Proposal, and Recovery of Associated Costs Through Proposed Ratemaking Mechanisms.*

GHG-free resource before Diablo Canyon retires.

2. Tranche #2: This tranche includes a competitive solicitation for 2,000 GWh of GHG-free energy for delivery in 2025–2030. Energy-efficiency, RPS resources, and other GHG-free energy resources, will compete for this opportunity.

3. Tranche #3: This tranche includes a voluntary 55% RPS commitment, which is 5% above the 2030 RPS mandate of Senate Bill 350. The commitment would start in 2031 and terminate 2045 or earlier if superseded by law or a CPUC decision.

What's interesting here is that Diablo Canyon has historically provided more than 18,000 GWh of energy each year, providing approximately 8.6% of the energy generated in California annually, which PG&E acknowledges to be "enough to meet the energy needs of more than three million Californians." This means that the planned Tranche #1 and Tranche #2 replacement procurement of 4,000 GWh (assuming it all comes to fruition) will replace less than 25% of the Diablo Canyon capacity. That leaves quite a lot to be made up by rooftop solar and CCA growth. This brings to mind the gambling expression "betting on the come"—meaning that you don't have what you want or need at the moment, but are betting you will have it when the time comes. PG&E is actually "betting on the go away," essentially hoping that its load will diminish sufficiently so that the Diablo Canyon retirement will not contribute to increased reliability risk.

The Joint Proposal also relies entirely on GHG-free RPS-eligible procurement. Although this is of course admirable from an environmental perspective, it also means replacing 24/7 baseload generation with the variability of wind and solar generation that is largely missing at the "belly of the duck" curve system peak. And this is happening at the same time that gas-fired generation is being mothballed because of inadequate revenue streams.

In other words, there are a great deal of uncertainties here that will need to be addressed in the CPUC's consideration of PG&E's application. Many institutional parties are affected in addition to ratepayers—local cities that rely on Diablo for a substantial share of their tax revenues; unions representing Diablo Canyon employees; existing and planned CCAs; solar and wind trade associations; environmental groups, and more. The broad impact was highlighted by the fact that approximately 40 parties filed protests or responses to the application, indicating an extraordinarily high interest in the planned nuclear plant retirement. Based on the discussion at the October 6 prehearing conference, we can expect to see several weeks of hearings, with a final decision likely to be issued in the fourth quarter of 2017.

This article is titled "The Diablo Is in the Details": PG&E customers must hope that the utility and CPUC get the myriad details associated with the plant's retirement right in the upcoming proceeding. The last thing anyone wants is to be saying in retrospect years from now, "better the Diablo you know than the Diablo you don't."