



California Customer Choice Team
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, California 94102

Submitted electronically to customerchoice@cpuc.ca.gov.

June 11, 2018

Subject: Informal Comments and Recommended Solutions of the American Wind Energy Association California Caucus on the Draft Green Book

The American Wind Energy Association (AWEA) is the national trade association of the U.S. wind energy industry. Members of AWEA California Caucus (ACC) include global leaders in utility-scale wind energy development, ownership, and operations who strive to direct the economic and environmental benefits of utility-scale wind energy to California. ACC is unanimous in its commitment to the need for—and widespread economic benefits derived from—a diverse and balanced renewable resource portfolio in California.

AWEA companies have contributed \$12.6 billion in capital investment in the state, and \$15-20 million in annual land lease payments through 2017. While California once led the nation in wind development, we have dropped to fourth place, with Texas, Oklahoma, and Iowa exceeding California in terms of installed capacity. As California pushes forward with aggressive distributed energy resource policies, ACC has observed diminished procurement of utility-scale electricity in California over the past several years, which could impact achievement of statewide renewable energy and carbon goals.

ACC appreciates the CPUC's efforts to develop a roadmap and agrees with the need for an overarching plan to stabilize the market. The most critical issue for the roadmap and plan to address is market uncertainty resulting from customer load-shifting and questions around the financial stability of California's load-serving entities. Specifically, ACC makes the following points in these comments:

1. Deeper investigation into *statewide* compliance with the 50% RPS requirement is necessary, due to the possibility that the IOU accounting relies heavily on banked RECs and departing load projections.
2. Risk aversion in the private equity markets threatens the ability to unlock the necessary 10,300 MW of utility-scale renewables called for in the Reference System Plan.
3. Long-term contracting is imperative. The Green Book should investigate LSEs' positions to meet the 65% of RPS obligation with long-term procurement contracts.
4. Sustained focus on costs and reliability is necessary.

California customers cannot afford to wait for current market uncertainties created by higher levels of choice to settle or stabilize, as we have aggressive and unmet renewable and greenhouse gas goals and a suite of policy decisions that position Californians to pay for more expensive technologies while passing on the opportunity to lock in some of the least expensive and cleanest renewable energy available through tax-eligible renewable resource procurement.



As a possible solution to these challenges, ACC exploration of various alternatives for either centralized or state-assisted procurement if some LSEs cannot meet their long-term procurement obligations in the near-term. ACC's preference is to have the most simple and transparent competitive process possible for procurement of affordable and clean electricity.

ACC directs your attention to the comments filed on Friday, 6.8.18 by the Renewable Energy Parties, indicating several suggestions for exploration by the Commission. ACC's comments below should be considered additional to the comments filed by the joint Renewable Energy Parties.

Relevance to Existing Proceedings

ACC believes many of the issues identified in the Green Book are within the CPUC's authority to resolve. Specifically, ACC highlights the proceedings below, which touch on matters of retail choice, wholesale renewable energy procurement, planning, and system-wide costs.

1. **Integrated Resource Planning Process (R. 16-02-007).** The Reference System Plan of the IRP suggested that the Commission could have designed a process that guarantees a transfer of savings to ratepayers through tax-eligible renewable procurement, however it cited customer load-shifting as one of several reasons for deferred near-term procurement.¹

In comments on the IRP PD, ACC argued that the Commission could have, at a minimum, required LSEs to issue Requests for Information on tax-eligible renewable projects in 2018 for the sake of price discovery in development of individual LSE IRPs, with some degree of presumed approval should LSEs decide to take advantage of tax benefits on behalf of their retail customers. ACC urged the Commission to "swiftly resolve complex market challenges to fulfill the purpose of the long-term integrated planning process and to identify procurement entities and their procurement obligations for long-term market certainty. Such action is critical if the Commission is to ensure adequate advance planning, just and reasonable rates for California customers, and cost-effective achievement of the State's greenhouse gas reduction goals."²

2. **Diablo Canyon Replacement (A. 16-08-006).** ACC actively engaged as a party in the Diablo Canyon Retirement proceeding, emphasizing the need to begin planning for procurement of replacement zero-carbon power soon so that it is online in time for the retirement of Diablo. Additionally, ACC supported additional consideration of procurement to replace Diablo Canyon Power Plant ("Diablo") in the next iteration of the IRP. The Commission should provide direction to utilities to consider how renewable resources can fulfill the system needs that are currently served by Diablo. Procurement in the 2018-2019 IRP cycle will best ensure that Diablo is replaced with zero GHG emissions resources that minimize ratepayer costs through fleeting federal tax incentives.

¹ [D. 18-02-012](#), at p. 100.

² Comments of the AWEA California Caucus on the Proposed Decision Setting Requirements for Load Serving Entities Filing Integrated Resource Plans. 17 January 2018.

<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M206/K676/206676998.PDF>



3. **Power Charge Indifference Adjustment (R. 17-06-026).** ACC has emphasized the need to ensure that existing contracts with renewable power providers remain intact. In the near-term, ACC suggests modifications to the existing benchmarks. While more structural changes will be needed in the longer-term, it is critical to resolve matters of customer- and cost-shifting as swiftly as possible in order to provide market stability and certainty to developers of renewable energy who need to calculate the risk associated with entering into new long-term contracts with off-takers in such an uncertain marketplace.

Specific Suggestions for the Green Book

1. Deeper investigation into *statewide* compliance with the 50% RPS requirement is necessary, due to the possibility that the IOU accounting relies heavily on banked RECs and departing load projections.

ACC appreciates the forward-looking nature of the Green Book. The Commission should scrutinize the assumption that IOUs will exceed their RPS minimum procurement obligations. While we acknowledge that the IOU strategies around banked RECs may provide a glidepath toward early compliance, our understanding is that part of their early success in achieving high penetrations of renewables in retail sales is their accounting for significant projections of customer load migration to CCAs. ACC formally expressed concern in the RPS proceeding in 2017³ regarding the lack of regulatory clarity regarding LSE procurement on behalf of customers who have either recently transitioned to nascent CCAs, or who are likely to migrate to a new CCA soon. The IOUs are permitted to use their own load shifting assumptions, and there is little clarity in the RPS proceeding as to how much load shifting affects the IOUs' RPS compliance obligations. This also begs a more formal decision from the Commission regarding the 'provider of last resort'.

If legislative direction is necessary to ensure that customers are covered by a load-serving entity as they transition from one LSE to another because of increased choice, the Commission should explicitly state the authority that is needed with respect to clarifying the Provider of Last Resort.

2. Risk aversion in the private equity markets threatens the ability to unlock the necessary 10,300 MW of utility-scale renewables called for in the Reference System Plan.

ACC acknowledges the opportunity that CCAs bring to the California market through enthusiasm for low- and zero-carbon generation that is tailored to a community's interests. ACC members agree that the financial stability of off-takers—CCAs, IOUS, or otherwise—is critical to securing financing for new project development. While there are ways for developers to sign contracts with LSEs without access to a line of credit, members agree that obtaining financing is exponentially more challenging when a potential counterparty does not have a credit rating. Each company has a different tolerance for risk that may or may not enable them to enter into contract with a nascent CCA absent a credit rating or, at least, the full faith and credit of the municipality served by the CCA.

³ ACC Comments on RPS Plans. R. 15-02-020. Filed 18 August 2017.

Figure 1 shows the need for an off-taker with a good credit-rating to trigger the billions in the financial markets designated for investment in California’s renewable and GHG portfolio. The prototypical project finance model requires strong credit (investment grade) to leverage risky development capital into the billions of dollars necessary to finance the renewable projects that California policy currently demands.

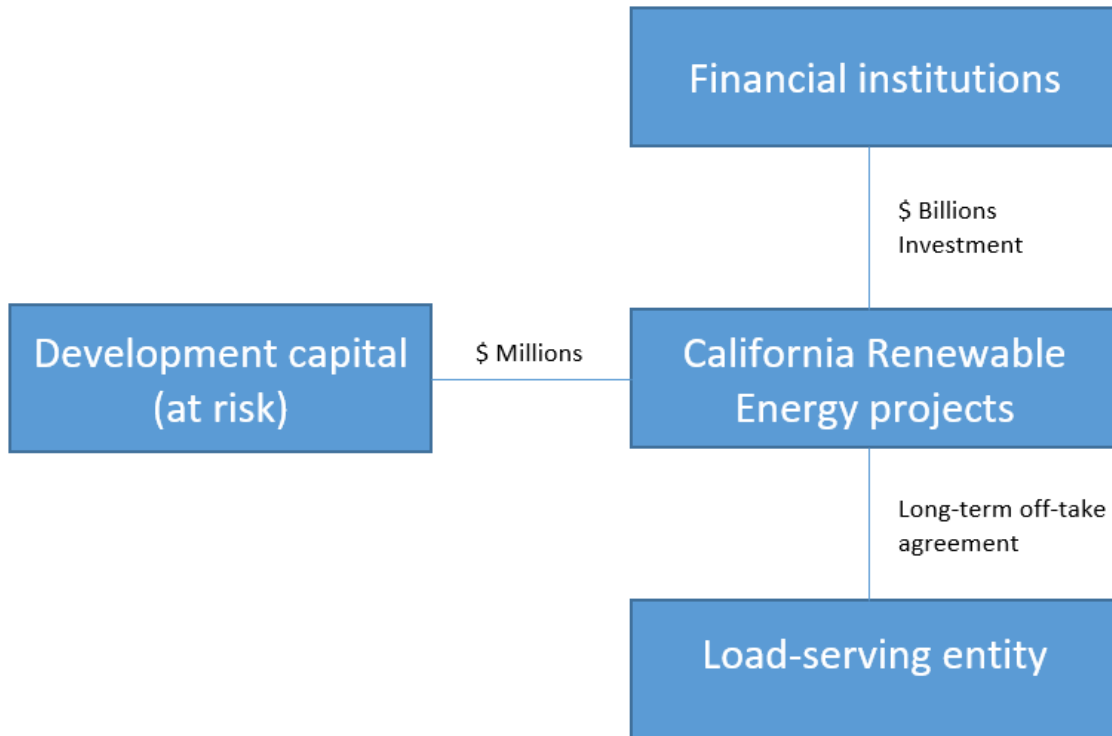


Figure 1. Project financing and the importance of credit in unlocking at-risk capital.

3. Long-term contracting is imperative. The Green Book should investigate LSEs’ positions to meet the 65% of RPS obligation with long-term procurement contracts.

Many Community Choice Aggregators (CCAs) need time to receive a credit rating as MCE did earlier this year; in waiting, however, these entities and their customers they serve miss the benefits of new, low-cost wind generation that could take advantage of the time-limited federal tax incentives.

The Commission should consider the option of LSEs entering in to PPAs in 2018 or 2019 to provide renewable developers with the certainty they need to complete project construction in time to meet IRS milestones and to secure the maximum benefits of the PTC for California ratepayers. Contracts can be structured for projects to begin delivering to California later in the 2020s as need arises.



Figure 2. 80% PTC eligibility timeline

Figure 3 summarizes the results of a recent solicitation for renewable energy by Xcel, a utility in Colorado that received 96 bids for utility-scale wind, with a median price of \$18.10/MWh.⁴ Wind bids were priced lower than solar and lower than solar with storage, in part factoring in the PTC. While the costs of wind energy will likely continue to decline over time, those overall cost improvements may be mitigated in part or in whole by the pending PTC phase-out. Unfortunately, the PTC phase-out aligns nearly exactly with the requirement that LSEs meet 65% of their RPS obligation with long-term contracts by 2021. Just as more CCAs acquire credit-ratings and the commensurate ability to finance new renewable energy projects, wind – and possibly solar – prices will be coming up for the first time in many years.

RFP Responses by Technology

Generation Technology	# of Bids	Bid MW	# of Projects	Project MW	Median Bid	
					Price or Equivalent	Pricing Units
Combustion Turbine/IC Engines	30	7,141	13	2,466	\$ 4.80	\$/kW-mo
Combustion Turbine with Battery Storage	7	804	3	476	6.20	\$/kW-mo
Gas-Fired Combined Cycles	2	451	2	451		\$/kW-mo
Stand-alone Battery Storage	28	2,143	21	1,614	11.30	\$/kW-mo
Compressed Air Energy Storage	1	317	1	317		\$/kW-mo
Wind	96	42,278	42	17,380	\$ 18.10	\$/MWh
Wind and Solar	5	2,612	4	2,162	19.90	\$/MWh
Wind with Battery Storage	11	5,700	8	5,097	21.00	\$/MWh
Solar (PV)	152	29,710	75	13,435	29.50	\$/MWh
Wind and Solar and Battery Storage	7	4,048	7	4,048	30.60	\$/MWh
Solar (PV) with Battery Storage	87	16,725	59	10,813	36.00	\$/MWh
IC Engine with Solar	1	5	1	5		\$/MWh
Waste Heat	2	21	1	11		\$/MWh
Biomass	1	9	1	9		\$/MWh
Total	430	111,963	238	58,283		

Figure 3. Results of Xcel Energy Electric Resource Plan, All Source Solicitation 30-Day Report (December 28, 2017)

⁴Xcel Energy Electric Resource Plan, All Source Solicitation 30-Day Report (December 28, 2017). https://gallery.mailchimp.com/e7cf5fdc15f883035056bc31b/files/17c637d4-a9bb-4390-8452-58430f292fe9/PSCo_redacted_30_Day_Report.pdf



4. Sustained focus on costs and reliability is necessary

ACC wishes again to differentiate between choice and regulation and to suggest that Californians can enjoy greater levels of choice without having to compromise on affordability or reliability if the state commits to a uniform level of oversight when it comes to planning and procurement. The Energy Division and Commission should investigate whether increased levels of choice should in-fact necessitate greater regulation to ensure that new market entrants are held to the same standards of their competitors.

Recommended Solutions in Response to Specific Questions

- How does California continue its course as a global leader in achieving deep decarbonization as regulated utilities provide electricity to fewer Californians?

The state would likely benefit from a single entity (or no more than a couple of entities) for policy target setting, implementation, oversight and enforcement. As energy procurement becomes increasingly decentralized, the state should ensure that individual energy choices are holistically linked and further the Commission's statutory direction with respect to integrated planning that focuses on costs and carbon reductions necessary for the system as a whole.

A diverse and balanced renewable grid can reduce the use of fossil fuels such as natural gas, which is used not just for electric power, but also for industry and in homes and buildings. However, the transition away from conventional resources must be thoughtful and considerate of the statewide carbon and renewable energy targets.

- Can California provide investment and operational certainty to address reliability and resiliency, especially in the face of catastrophic events that impact the electric sector, such as the 2017 wildfires?

ACC is concerned that the 2017 wildfires represent both a new normal and a need to accelerate our decarbonization goals. The fires also introduced a new element of uncertainty into the marketplace that is complicating our progress toward climate policy and renewable procurement.

- Are there adequate protections for all customers with the wider choices created by Direct Access, CCAs and behind-the-meter installations?

It is not clear that adequate protections are in place for all customers. As stated earlier, choice and regulation are not necessarily directly correlated, and increased choice may necessitate increased regulation. ACC supports the notion of a state entity that would provide basic customer protections to all customers, regardless of their utility service provider, to ensure customer protections (both in terms of affordability and reliability) and progress toward statewide goals.

ACC believes that the State must identify an entity to ensure that customers have access to power service if an electric power provider fails. It is worthwhile to explore various alternatives for either



centralized or state-assisted procurement in the event that some LSEs cannot meet their obligations in the near-term. ACC's preference is to have the most simple and transparent competitive process possible for procurement of affordable and clean electricity. We recognize LSEs' desires for autonomy in procurement decisions, but the state must be careful to balance autonomy and progress and must therefore be in position to act swiftly if LSEs are not delivering the best products for their customers at lowest cost.

- Regulated utilities were required by laws, like the Renewables Portfolio Standard, to enter into long-term contracts. If customers increasingly buy electricity from non-utility sources, what happens to the contracts that the regulated entities executed?

It is critical that long-term contracts with regulated utilities remain intact to ensure continued progress toward California's carbon policies and, importantly, to ensure a sound investment community for companies interested in bringing new zero-carbon energy solutions to the California market. Long-term contracts have been essential to ensuring that greenhouse gas reductions are met through *incremental new* development of renewable energy and the concept of additionality.

Conclusion

ACC appreciates the wide-ranging topics included in the Green Book and related materials and looks forward to participating in future discussions around the stability of our state's clean energy future.

Sincerely,

A handwritten signature in black ink, appearing to read "Danielle".

Danielle Osborn Mills
Director, AWEA California Caucus
916-320-7584
danielle@renewableenergystrat.com