

CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES
QUARTERLY STAFF REPORT
SEPTEMBER – DECEMBER 2015

EXECUTIVE SUMMARY: THE PAST QUARTER AT A GLANCE (pages 1–2):

Paris Climate Conference

CEERT Executive Director V. John White joined Governor Brown, Senator De León, and other California officials in Paris at the 21st Conference of the Parties of the *United Nations Framework Convention on Climate Change*. John met with senior staff of the Hewlett Foundation, Pisces Foundation, Climate Works, Google, Facebook, and the Georgetown Energy Law Center, and discussed short-lived climate pollutants, the Low Carbon Grid Study, and opportunities for additional regional modeling work.

Low-Carbon Grid Study

Jim Caldwell and Liz Anthony complete Phase II results report for the *2030 Low-Carbon Grid Study*. In Phase II results NREL ran its model under specified sensitivities and generally support the Phase I conclusions and project a 2030 rate impact of +7% to -4% with a most probable value of roughly +½%. Final Phase II results are posted on the LCGS website and outreach is continuing.

Regional Coordination, the Energy Imbalance Market, and Western Grid Integration

V. John White took part in meetings and strategy sessions with the California Independent System Operator (CAISO), PacifiCorp, Natural Resources Defense Council (NRDC), Union of Concerned Scientists (UCS), Environmental Defense Fund (EDF), and others to discuss *implementation of Senate Bill (SB) 350* and develop strategies for *outreach to key stakeholders*, including labor and environmental justice groups, on Western grid coordination. CEERT argued for early engagement with key policymakers and stakeholders to educate them about the importance of regional integration of the electric system.

Discussions with the Governor’s Office

CEERT participated in several meetings at the Governor’s Office on *implementation of SB 350*, the development of *regional grid expansion proposals*, the upcoming California Air Resources Board (CARB) *Scoping Plan for the state’s 2030 greenhouse-gas (GHG) reduction target*, and suggestions for the *integrated resource planning* process at the California Public Utilities Commission (CPUC).

Advocacy at the California Air Resources Board

CEERT met with Mary Nichols and senior CARB staff to discuss the *2030 GHG-target Scoping Plan*, reducing GHG emissions from *electric-sector reliability services*, incentives for *methane conversion technologies* for dairies and for exporting renewable methane to the natural gas pipeline system, and consideration of funding for *geothermal brine/minerals extraction*.

Transmission Expansions

V. John White took part in a CEC/CPUC workshop launching the *Renewable Energy Transmission Initiative 2.0*. He urged the agencies to consider the expanded need for new renewable resources to meet the 2030 Renewable Portfolio Standard (RPS) and GHG targets, and to consider a balanced renewable portfolio, including geothermal. CEERT continued to push for *new lines and upgrades* in Imperial County, the Central Valley, and the West Mojave.

Large-Scale Storage

At a joint California Energy Commission (CEC)/CPUC workshop on large-scale energy storage, V. John White suggested the CPUC direct the IOUs to evaluate the feasibility of *bulk storage projects*. He recommended the CPUC examine joint IOU ownership of such projects because the benefits are spread across utility service territories.

Advocacy at the California Public Utilities Commission (CPUC)

At a CPUC workshop on *implementation of SB 350*, V. John White emphasized to the Commissioners the importance of focusing without delay on procurement of zero-carbon-emitting resources and a balanced renewable portfolio. John noted that gas-fired generation remained very prominent in CPUC-authorized procurement, and that that must change to achieve the goals of SB 350.

The CPUC delayed until 2016 consideration of a CEERT proposal on *GHG-reduction criteria* for the *least-cost best-fit (LCBF)* evaluation methodologies in the investor-owned utilities' (IOUs') 2015 RPS Procurement Plans.

On three applications SCE and SDG&E filed seeking approval of procurement to meet their local capacity requirements (LCRs), the CPUC issued disappointing decisions that *mostly approved gas-fired generation* to meet those LCR needs and *gave short shrift to preferred resources*, despite the Loading Order and the CPUC's own authorizing decisions in the 2012 Long-Term Procurement Planning (LTPP) rulemaking.

In the *2014 LTPP*, the CPUC again refused to embed a renewables product in the *Bundled Procurement Plans*, thus continuing to isolate renewables procurement in the RPS rulemaking process.

In the *Resource Adequacy* proceeding, Track 1 issues focus on local RA obligations for the 2017 RA year, but can also consider proposals on Effective Load-Carrying Capacity and Qualifying Capacity for solar and wind. Track 2 will focus on a durable flexible capacity requirement program.

In the CPUC's *demand response (DR)* proceeding, CEERT continues to take part in the meetings of Working Groups on Supply Resource DR Integration, Load-Modifying Resource (LMR) DR Valuation, LMR DR Operations, and the Demand Response Auction Mechanism.

CEERT was granted party status in the CPUC's *Distribution Resource Plans (DRPs)* proceeding. We believe optimal development of the DRPs will be a crucial step toward increased renewable procurement.

CEERT is a party to a CPUC proceeding on the *Energy Storage Procurement Framework and Design Program* and Related Action Plan of the California Energy Storage Roadmap.

A Scoping Memo was issued on Southern California Edison's (SCE's) Application for its *West of Devers Transmission Upgrade Project*.

Southern California Activities

Jim Caldwell briefed senior Los Angeles Department of Water and Power (LADWP) management on the Low Carbon Grid Study, and he and V. John White met with Los Angeles Mayor Garcetti's staff. John talked with officials of Imperial County, the Imperial Irrigation District, and the Salton Sea Authority about Sea restoration plans, transmission, and renewable resource development.

Short-Lived Climate Pollutants (SLCPs)

CEERT convened a panel of experts to provide briefing on SLCPs for legislators and staff that covered the science and global warming contributions of methane, black carbon, and fluorocarbon refrigerants, and the role that reducing these pollutants could have on reducing warming in the near term.

Clean Transportation Advocacy

The CARB Board adopted a revised *Low-Carbon Fuel Standard* (LCFS) regulatory package. The LCFS is expected to contribute approximately 20% of the state's 2020 GHG reductions mandated under AB 32.

CEERT is tracking proceedings on the utilities' proposed pilots for *electric vehicle charging station deployment*. Several CEERT affiliates are active parties in these proceedings.

CEERT continues to serve on the Advisory Committee for the Alternative and Renewable Fuel and Vehicle Technology Program. The draft 2016-17 Investment Plan calls for \$37 million for *electric charging and hydrogen fueling infrastructure* and \$23 million for *medium- and heavy-duty vehicle technology*.

Paris Climate Conference

In December, CEERT Executive Director V. John White joined Governor Jerry Brown, California Air Resources Board Chair Mary Nichols, Senator Kevin De León, and several other California legislators, NGO representatives, and business leaders at the 21st Conference of the Parties in Paris. In addition to attending numerous workshops and presentations, John met with senior officials from the Hewlett Foundation, the Pisces Foundation, Climate Works, Google, Facebook, and the Georgetown Energy Law Center. Topics of discussion included the 2030 Low Carbon Grid Study, California's work on short-lived climate pollutants, and opportunities for additional regional modeling work with the Department of Energy.

Low-Carbon Grid Study

CEERT's Jim Caldwell and Liz Anthony have continued to staff the California 2030 Low-Carbon Grid Study (LCGS), an in-depth analysis with a 2030 greenhouse-gas (GHG) emissions target of 50% below 2012 levels, which would set California well on the way toward meeting its 2050 emissions reduction goal. CEERT is the LCGS's fiscal sponsor. The Steering Committee of the project's funders has comprised 34 companies, trade associations, foundations, and the U.S. Energy Information Administration.

Phase I results published in the summer of 2014 demonstrated that this level of emission reductions can be achieved without significant rate impacts while maintaining the reliability of the electric grid. Jim, Ali Ehlen (a CEERT intern who played a key role in the study), and key members of the study's Steering Committee briefed commissioners and staff at the California Public Utilities Commission (CPUC), California Energy Commission (CEC), California Air Resources Board (CARB), California Independent System Operator (CAISO), and the Governor's Office of Planning and Research, as well as members of industry and utility groups, on the study's findings.

Analysis for Phase II was conducted at the National Renewable Energy Laboratory (NREL), General Electric, and JBS Energy, with results and all assumptions and modeling conventions vetted by a Technical Review Committee that included representatives of the CPUC, CEC, CAISO, Western Electricity Coordinating Council, Western Interstate Energy Board, Southern California Edison, Pacific Gas and Electric Company, San Diego Gas and Electric Company, Sacramento Municipal Utility District, Nevada Energy, The Utility Reform Network, and the U.S. Energy Information Administration.

Phase II modeling is complete and four reports have recently been posted on the project website www.lowcarbongrid2030.org along with a generic PowerPoint presentation that is continuously updated as outreach proceeds. The four reports cover:

- The production cost modeling results, written by NREL;
- The cost tradeoffs covering a broad range of gas prices, renewable resource cost/performance characteristics, and economic conditions, written by JBS Energy;
- The reliability implications of the LCGS, written by General Electric Consulting; and
- A preview of how energy efficiency programs need to change in order to achieve the state's stretch targets for efficiency, written by the Energy Efficiency Industry Council.

Phase II results demonstrate that Phase I results are robust across a broad range of variables with rate impacts ranging from -4% to +7%, while highlighting a series of changes in planning and grid operations practices that are required to achieve deeper carbon reductions and lower costs while positioning the grid for even deeper carbon reductions post-2030. Jim, Liz, and John White have conducted numerous briefings on these results and their implication for implementation of Senate Bill (SB) 350.

The project has been declared complete, with nominal cash balances remaining at NREL and CEERT to maintain the website and provide technical support for outreach. The contracts remain in place to develop follow-on work.

Regional Coordination, the Energy Imbalance Market (EIM), and Western Grid Integration

The ongoing success and experience gained in the Energy Imbalance Market have continued to draw favorable attention throughout the West. Additional utilities have announced their intention to join, and preliminary discussions have taken place with several more utilities in the West. While much attention is focused on the broader Western Grid Integration initiative led by PacifiCorp and the California Independent System Operator (CAISO), that initiative will be greatly influenced by the progress of the EIM.

V. John White participated in several meetings and strategy sessions with CAISO, PacifiCorp, Natural Resources Defense Council (NRDC), Union of Concerned Scientists (UCS), Environmental Defense Fund (EDF), and others to discuss implementation of SB 350 and to develop strategies for outreach to key stakeholders, including labor and the environmental justice community. John also participated in meetings of Western environmental and renewable advocates that the Energy Foundation and Hewlett Foundation convened to develop coordinated responses to upcoming CAISO stakeholder outreach efforts on transmission cost allocation, market design, and greenhouse-gas (GHG) reporting and tracking.

CEERT met with Ron Binz, former Colorado Public Service Commissioner, who is doing a consulting project for the Hewlett Foundation on governance issues. Binz reported that CAISO and the California Governor's office are not in agreement on independent governance vs. continued political appointees to an expanded, regional ISO. Binz suggested that other states in the West will not be amenable to the Governor of California continuing to appoint all ISO board members. One idea discussed was to create two boards, one made up of independent stakeholder/headhunter-selected members and the other made up of political and regulatory appointees, with both boards having to agree for an action to be approved.

The other key political issue facing regional grid integration is the strong opposition of some parts of organized labor, in particular the International Brotherhood of Electrical Workers. IBEW disputes the value and need for greater coordination, denies that there is any real problem with overgeneration and curtailment, and is worried that regional grid integration will undermine the emphasis on building new renewable generation in California.

In a recent meeting with CAISO, PacifiCorp, Berkshire Hathaway Energy, and the Energy and Hewlett Foundations to discuss next steps and overall strategy, CAISO indicated that the required studies and reports are in the process of getting organized. Its main consultants are the Brattle Group and E3, and a stakeholder meeting on February 8 discussed key input assumptions. CAISO anticipates the studies will be completed in time for the results to be presented to a workshop before the CPUC, CARB, and CEC in early June, following which they will be forwarded to the Governor and Legislature. CAISO is hopeful that legislation revising the governance statutes to enable regional grid integration can be introduced and passed by the Legislature before it adjourns on September 1.

CEERT expressed concerns with the overall strategy, and argued for early engagement with key legislators and stakeholders to educate them about the value and importance of regional grid integration. We emphasized that the parties involved should not wait until the third quarter of 2016 to begin that process.

Discussions with the Governor's Office

CEERT participated in several meetings in the Governor's Office on implementation of SB 350, the development of regional grid expansion proposals, the upcoming CARB scoping plan for the 2030 GHG-reduction target, and suggestions for the integrated resource planning process at the CPUC. We have kept

the Governor's advisors informed about our progress in briefing agencies and stakeholders on the Low Carbon Grid Study and our plans for additional work.

Advocacy at the California Air Resources Board (CARB)

CEERT met with Mary Nichols and senior CARB staff to discuss upcoming plans for the 2030 GHG-target Scoping Plan and the importance of reducing GHG emissions from electric-sector reliability services, and briefed them on Phase II results of the Low Carbon Grid Study. We also discussed the need for better reporting protocols and more transparent metrics to monitor progress in reducing GHG emissions.

In addition, we discussed incentive programs for accelerating the introduction of advanced methane conversion technologies for dairies and incentives for treating and exporting renewable methane to the natural gas pipeline system.

CEERT participated in the public hearing on the adoption of the Greenhouse Gas Reduction Fund Expenditure Plan, and urged consideration of funding for geothermal brine/minerals extraction as a complementary strategy for advanced transportation technologies and lowering the cost of grid-friendly geothermal energy. We cautioned against providing subsidies for existing biomass power plants unless they are equipped with advanced air pollution control technologies.

Transmission Expansions

V. John White participated in a joint CEC/CPUC workshop launching the Renewable Energy Transmission Initiative 2.0. This effort is significant because it represents the first time the CPUC has looked beyond 2020 and 33% in assessing the need for new transmission. RETI 2.0 will also be the first proceeding to address the combined needs of the 50% Renewable Portfolio Standard (RPS) and the 2030 GHG target included in SB 350 and the Governor's Executive Order. CEERT urged the agencies to consider the expanded need for new renewables to meet the 2030 RPS and greenhouse-gas (GHG) targets, and to consider a balanced renewable portfolio, including geothermal, in order to minimize the need for gas-fired generation.

We continue to push in particular for new lines and upgrades in Imperial County, the Central Valley, and the West Mojave that will be essential if the state is to reach its renewables and GHG-reduction goals. We are advocating that the CAISO's transmission planning process fully weigh the enormous potential of the renewable resources in these areas, along with the likelihood that local communities with high unemployment will welcome with open arms the good jobs that come with clean-energy development.

Large-Scale Storage

V. John White participated in the November joint CEC/CPUC workshop on large-scale storage. In his presentation, John suggested the CPUC direct the investor-owned utilities to evaluate the economic and technical feasibility of bulk storage projects under development in California. He made the comparison to the Tehachapi Study Group, which began the process that led to the first utility-financed renewable transmission trunk line in Tehachapi. John also recommended the CPUC examine the potential for joint utility ownership of large-scale storage projects, because the benefits are spread across utility service territories.

In the Long-Term Procurement Planning (LTPP) process, CEERT has continued to urge the CPUC and the utilities to procure bulk storage projects, emphasizing how the 2030 Low-Carbon Grid Study results demonstrate the value and cost-effectiveness of such facilities. We believe it is extremely important that 1,000 MW or more of new bulk storage come online as soon as possible, especially as a fast-ramping solution to overgeneration and renewables-curtailment challenges. Our advocacy on this continues to meet with a positive reception, and the CAISO has recently seemed favorable to bulk storage, leading us to think that a number of new large storage projects could well be procured over the next few years.

Advocacy at the California Public Utilities Commission (CPUC)

Integrated Resource Planning (IRP) - SB 350 Implementation

On October 7, Governor Brown signed into law Senate Bill (SB) 350, the Clean Energy and Pollution Reduction Act of 2015. This sweeping bill covers a broad spectrum of state agencies and statutory additions and amendments, with the goal of setting and implementing a new group of objectives in clean energy, clean air, and pollution reduction for 2030 and beyond. Those objectives include increasing procurement of electricity from renewable resources from 33% to 50% by 2030 and doubling energy efficiency savings by 2030.

Following the enactment of SB 350, CEERT provided analysis of its provisions, including those directly impacting the Renewable Portfolio Standard (RPS) Program and those affecting CAISO governance, electrification in transportation, and integrated resource planning, among other subjects.

The CPUC's responsibilities under SB 350 include implementing new PU Code Sections 454.51 and 454.52. Section 454.51 requires the CPUC to take multiple steps to identify a "diverse and balanced" portfolio of resources needed to ensure a reliable electricity supply that provides optimal integration of renewable energy in a cost-effective manner, with reliance on "zero carbon-emitting resources to the maximum extent reasonable," and to direct the investor-owned utilities (IOUs) to include, as part of their Long Term Procurement Plans (LTPPs), a strategy for procuring "best fit and least cost resources" to satisfy portfolio needs the CPUC identifies, with cost allocation and community choice aggregation (CCA) requirements also specified.

Section 454.52 mandates the CPUC, commencing in 2017, to adopt a process for each load-serving entity to file an *integrated resource plan* (IRP), with scheduled updates, to meet both the GHG emission reduction targets CARB sets and 50% renewable resource procurement by 2030. The authorized all-source procurement can take into account geographic service area differences, as well as technologies that reduce greenhouse gases (GHGs) and meet other goals, even if they might not otherwise compete favorably with other resources.

On December 2, the CPUC held a "workshop" to initiate consideration of the new resource optimization and integrated planning requirements established by SB 350. As it turned out, this "workshop" was not typical of the informal give-and-take among staff and stakeholders on a specific topic, but was more in the form of a CPUC meeting, where all five Commissioners were present and mainly discussed SB 350 among themselves and with Energy Division Director Ed Randolph. This discussion seemed to dwell on the expense and CPUC resources that would be needed to implement what the CPUC identified as the 17 different procurement requirements of SB 350.

At the conclusion of the workshop there was a limited opportunity for party comment, during which V. John White emphasized to the Commissioners the importance of not simply engaging in business as usual, but focusing without delay on strategies that ensure procurement of zero-carbon-emitting resources and a balanced renewable portfolio. John noted that gas-fired generation remained very prominent in CPUC-authorized procurement, and that that must change to achieve the goals of SB 350.

Renewable Portfolio Standard (RPS) Program (R.15-02-020)

Despite changes to the RPS Program law resulting from SB 350 and from AB 327 (which permits the CPUC to approve renewables procurement above 33% by 2020), and despite concerns about ongoing segregation of RPS procurement, the CPUC's actions in its RPS Rulemaking (R.) 15-02-020 largely follow approaches long in place. On December 17, the CPUC issued decision D.15-12-025 approving the IOUs' 2015 RPS Procurement Plans. That decision can be found at: <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M156/K902/156902305.PDF>.

D.15-12-025 declined to set higher RPS targets in line with SB 350 and AB 327, as CEERT and others advocated, and focused only on “procurement proposals that will help meet their near-term RPS procurement,” and concluding that “[s]ince the 2015 RPS Plans do not directly incorporate SB 350’s requirements, *in 2016* we will address the implementation of SB 350’s higher RPS targets.” (Emphasis added.)

Similarly, a CEERT proposal before the CPUC in this decision was to require the IOUs’ least-cost best-fit (LCBF) evaluation methodologies to reference GHG emission reduction considerations or metrics. Again, instead of deciding that issue, D.15-12-025 simply states that “[t]his matter will be considered in 2016 as part of the SB 350 implementation and LCBF reform.”

CEERT therefore will continue our advocacy to have the CPUC begin work now on implementing the increased RPS procurement mandate and integration of GHG emission reduction considerations in the LCBF procurement evaluation in order to achieve the objectives of SB 350.

The RPS Calculator and the Renewable Integration Cost Adder

The RPS Calculator and its application and the development of a Renewable Integration Cost Adder (RICA) have become cross-over issues between the CPUC’s RPS and LTPP rulemakings.

RPS Calculator

An RPS Calculator Version 6.2 is expected in the first quarter of 2016. The RPS Calculator remains an input to the scenario planning for the CAISO’s Transmission Planning Process (TPP) and the CPUC’s 2016 LTPP. The CPUC staff is also considering a “50% RPS Energy Only Special Study” based on Version 6.1. This Study will develop technical information on hypothetical energy-only scenarios that are needed to inform the RPS Calculator’s representation of the transmission system and develop portfolios for CAISO consideration in a future TPP cycle.

Renewable Integration Cost Adder (RICA)

Through November, Southern California Edison (SCE) continued to work as program manager on a RICA for a 33% RPS and a 40% RPS, but sought an extension of time to file a RICA. On December 8, an Administrative Law Judge (ALJ) Ruling was issued granting this request in part, but requiring SCE to file a Progress Report on the modeling efforts by December 15. A schedule was also adopted calling for a complete report with 33% and 40% RPS analysis to be filed by March 4, with Workshops and comments to follow, and a Proposed Decision by summer 2016.

On December 15, SCE filed the required Progress Report on the RICA modeling, but indicated that technical issues had arisen from the use of the model the CAISO developed following the methodology laid out in a March 27 ALJ Ruling. The Progress Report reviews potential solutions to those problems and indicates that the modeling parties are working to test those solutions. The Report concludes: “Therefore, the solutions must work in the 33% RPS, 40% RPS high solar portfolio, and 40% RPS high wind portfolio scenarios before the Modeling Parties will recommend officially accepting the changes for the final integration cost adder report.” According to SCE, “[i]f no appropriate solution is found, then the Commission should consider changing the methodology identified in the March 27 ALJ’s Ruling.”

On January 12, a teleconference was held and noticed in both the LTPP and RPS proceedings to discuss this report and next steps. CEERT participated in the teleconference, which discussed both the background of the RICA in detail (presented by E3) and the technical problems that had emerged in modeling for the 40% RPS in particular, with proposed solutions (presented by SCE). The technical issues included non-convergence, an unstable objective function, and non-economic penalty prices that over-impact results. “Solutions” range from adjusting the curtailment methodology, modifying penalty prices, adding generic flexible capacity, changing soft constraints into hard constraints, and permitting net exports from California, with this last option seeming to have greater support than the others.

However, there was no commitment by parties to a particular solution since the results or impact of applying any such solution to the RICA methodology will not be known until SCE submits a complete report with 33% and 40% RPS analysis and results on March 4. The goal, if it can be achieved, is to develop “well-behaved” production simulation model cases. A Workshop presenting the results is scheduled for March 18, with party Opening and Reply Comments to follow on April 1 and April 8.

The 2012 Long-Term Procurement Planning (LTPP) Preferred Resources Procurements

The CPUC’s 2012 LTPP rulemaking concluded with two key decisions authorizing local capacity requirement (LCR) procurement for SCE and SDG&E in D.13-02-015 (Track 1, SCE) and D.14-03-004 (Track 4, SCE and SDG&E), both of which had identified a certain portion of this procurement to come from Loading Order resources (i.e., energy efficiency, demand response, and renewables) and not simply gas-fired generation. SCE and SDG&E filed three applications seeking approval of procurement contracts signed pursuant to those authorizations: (1) A.14-07-009 (SDG&E (Carlsbad Power Purchase Tolling Agreement)); (2) A.14-11-012 (SCE LCR Request for Offers (RFO) for Western LA Basin); and (3) A.14-11-016 (SCE LCR RFO for Moorpark).

All three of these applications have now resulted in decisions, but remain steeped in controversy. The outcome and next steps for each application are summarized as follows:

A.14-07-009 (SDG&E (Carlsbad)): On May 21 the CPUC issued D.15-05-051 adopting an Alternate Proposed Decision. Four Commissioners voted to approve a modified PPTA with the gas-fired Carlsbad project as compliance with the LTPP decisions, stressing the importance of meeting reliability needs with the modified PPTA. Multiple parties (Sierra Club, Office of Ratepayer Advocates, Protect Our Communities, Center for Biological Diversity) challenged this decision in applications for rehearing on the basis that D.15-05-051 did not comply with Commission rules (by adding considerations that had not been within the identified scope of the proceeding and by authorizing procurement that did not comply with the authorizing decisions and was not supported by the evidence).

On November 5, the CPUC issued a decision (D.15-11-025) denying the rehearing requests (with limited modifications of D.15-05-051), upholding D.15-05-051, and rejecting arguments that CEQA applied or that it violated prior orders or CPUC rules.

Notably, D.15-11-025 finds that the CPUC properly exercised its discretion in deciding that a reliability need would arise for SDG&E in 2018, where that issue was not “definitively” determined in the authorizing decision (D.14-03-004), and, in rejecting arguments for preferred resources procurement as required by D.14-03-004, determined that, “Because our reliability conclusions are adequately supported, we are justified in *weighting reliability concerns as higher priority* than procuring the maximum amount of preferred resources.” (D.15-11-025, at p. 10; emphasis added.)

On December 7, two timely Petitions for Writ of Review (appeals) of D.15-05-051 (and D.15-11-025) were filed in the First District of the California Court of Appeal by Sierra Club and by Protect Our Communities and the Center for Biological Diversity jointly, again challenging the CPUC’s decisions on bases of failure to follow the law (i.e., rules/authorizing precedent) and failure to reach a decision based on the record. The CPUC’s answer to both petitions, with the grant of a requested extension of time, is due on February 1. Answers from other “real parties in interest” (i.e., SDG&E and Carlsbad) are also due on that date. Replies to those answers are due from the petitioners on February 22.

A.14-11-012 (SCE LCR RFO (Western LA Basin)): This application also arose from the CPUC’s LTPP Track 1 and Track 4 authorizing decisions (D.13-02-015 and D.14-03-004) that mandated a specific amount of the LA Basin LCRs be met by preferred resources. A.14-11-012 reflects that SCE fell short of

meeting that mandate, and met much of its preferred resources obligation with storage. On November 19, the Commission issued its decision (D.15-11-041) on LA Basin. Though SCE fell significantly short on its preferred resources procurement, the CPUC nevertheless found that SCE had “substantially” complied with the authorizing decisions and that no further RFO was required, despite the fact that no or little (depending on a further contract amendment) demand response (DR) was procured and that 75% of the overall approved procurement was from gas-fired generation.

Between December 21 and December 24, four applications for rehearing of D.15-11-041 were filed challenging both the legal and evidentiary record support for the outcome the CPUC reached in that decision. Those filing included the Sierra Club, Los Cerritos Wetlands Land Trust, Powers Engineering, and EnerNOC. Objections again focused on SCE non-compliance with authorizing decisions and the unreasonableness of its RFO process, especially for DR, and the CPUC’s failure to follow the authorizing decisions, the Loading Order, and the Commission’s own rules. Responses by various parties (e.g., SCE and CAISO) were filed on January 8. The California Energy Storage Association filed a response that did not address any of the merits of these applications for rehearing, claiming, without specifying how, that the rehearing requests “may unreasonably delay or interfere with fulfillment of the contracts approved” in D.15-11-041.

A.14-11-016 (SCE LCR RFO (Moorpark)): A.14-11-016 (Moorpark) is a smaller authorized procurement specific to the Big Creek/Ventura local reliability area and resulted from the Track 1 decision only, which mandated that SCE use all efforts to meet its LCR need first by preferred resources. SCE’s application seeks approval to meet 95% of the authorized procurement with gas-fired generation, represented by a GFG plant in Oxnard. Briefs were filed in the summer. At the CPUC’s December meetings, a large number of Oxnard residents and others came to speak against approval of A.14-11-016.

On January 11, the CPUC issued a Proposed Decision (PD) and an Alternate Proposed Decision (APD) (Florio), both of which did not approve (without prejudice) the larger GFG project (Puente Project (262 MWs)) based on the need for additional information on “fundamental issues, such as safety, reliability, and environmental justice,” that the CPUC, in its discretion, determined could emerge from the CEC’s pending environmental review of the project. (The CPUC was not required to consider these issues.)

This act of declining to approve a GFG plant on these grounds may be a first by the CPUC. However, the application remains open for reconsideration once the specified information is provided, and the Puente Project therefore may still be approved. Further, the APD did approve the smaller Ellwood project (54 MW GFG), even though the PD did not approve that project, finding that its considerations raised due process concerns since it was not within the scope of this procurement.

Preferred resources, such as demand response (0 MWs procured), energy efficiency (6 MWs), and renewable distributed generation (5.66 MWs) clearly did not fare well in this RFO, and objections to the RFO on these grounds were not addressed at all, even though the issue was within scope and litigated by several parties. The inconsistencies among all of the LCR decisions on matters of CPUC procurement policy (i.e., the Loading Order) will likely continue to raise objections to the PD/APD and calls for a new, corrected RFO.

2014 LTPP (R.13-12-010)

In March 2015 the CPUC discontinued its need assessment for the 2014 LTPP (since it was unclear whether any such need could be demonstrated) and chose instead to focus on refining the deterministic and stochastic models to create an “improved tool” to examine need in the 2016 LTPP. That ruling also determined that flexible capacity issues would be considered in the 2016 LTPP, and directed the CAISO

to conduct additional deterministic studies of the Existing Trajectory and 40% RPS scenarios with no renewable curtailment allowed, in order to provide a complete set of bookends to characterize the nature and extent of need for flexible resources to address expected overgeneration and ramping needs in 2024.

A workplan and working groups were established to help “further develop and validate models which can accurately highlight and distinguish needs for both flexible and generic system resource attributes to maintain reliability,” investigate “efficient solutions to potential operational flexibility events (such as overgeneration events),” and set “the stage for expanded future analyses which will balance the cost-effectiveness and GHG impacts of measures to ensure system reliability.”

A Status Conference for R.13-12-010 was held on July 29, followed by a Workshop on the results of the technical working groups on August 4. CEERT participated in both. An Energy Division study or paper was expected in the fall on overgeneration issues and potential solutions, but none has issued to date.

What did follow was: (1) a decision (D.15-10-031) on the IOUs’ Bundled Procurement Plans issued on October 22; (2) an Assigned Commissioner’s Ruling providing updates to the planning assumptions and scenarios for use in the 2014 LTPP and CAISO 2015 – 2016 TPP issued on October 28; and (3) an ALJ’s Ruling on a Staff Proposal on proposed revisions to LTPP Modeling methodology issued November 16. Disappointingly, the CPUC refused again to embed a renewables procurement product in the Bundled Procurement Plans, thus continuing to isolate renewables procurement in the RPS rulemaking and procurement process.

A Workshop was held on January 6 to address the work and results of a “Flexibility Metrics and Standards Project” conducted by the 21st Century Energy Systems (CES-21) Research and Development Program, a collaborative effort between the IOUs and LBNL. The project is considered relevant to both the LTPP and Resource Adequacy proceedings because it “develops tools for assessment of how much capacity and flexibility achieves adequate system reliability while meeting policy goals at least cost” and “uses the same system-reliability planning and production cost model being considered in the RA proceeding.” CEERT took part in this Workshop and believes that, while much work is left to do, the team is competent and well-motivated, and the initial research could lead to beneficial input to these proceedings.

Resource Adequacy (RA) (R.14-10-010)

On December 7, a Prehearing Conference (PHC) was held in R.14-10-010 (RA) to determine the scope and schedule for Phase 2 of this proceeding (which would include issuing the annual June decision on local RA obligations). Following that PHC, an amended Scoping Memo was issued on December 23.

As revised, the RA proceeding will no longer have a separate phase or track on DR issues; instead, those issues will be taken up in either Track 1 (issues to be decided by June 2016) or Track 2 (issues to be decided later in 2016). The Track 1 issues focus on local RA obligations for the 2017 RA year, but can also consider proposals on ELCC/QC for solar and wind and proposals to refine the RA Program. Those proposals are due by January 15. The Track 2 decision is to focus on issues related to the CPUC adopting a durable flexible capacity requirement (FCR) program. Workshops, comments, reports, and potentially even hearings on the FCR will take place throughout 2016, with a Final Decision expected in late 2016.

Joint Reliability Plan (JRP) (R.14-12-001)

On December 22, Commissioner Peterman issued a PD closing the OIR for the JRP. Remaining issues will be assumed by the LTPP and RA proceedings. The PD states that the objective for R.14-12-001 was to ensure that California’s electric reliability framework continues to adapt to meet the changing requirements of the grid while facilitating the achievement of California’s environmental policies and reasonable rates. However, not much has occurred in the proceeding and Track 1 and Track 3 had previously been closed. The only remaining issue was in Track 2, which pertained to implementation of a long-term joint

reliability planning assessment with CAISO and CEC. However, the PD found that Track 2 will not be completed by the scheduled end of this proceeding and, given the uncertainty of when or if remaining staff work would be completed, there is no compelling reason to keep the proceeding open.

Demand Response

CEERT believes demand response (DR) is an essential technology for achieving the state's GHG reduction goals. We continue to advocate vigorously before the CPUC and other energy agencies to strengthen existing DR programs while pressing for changes in DR procurement, and to urge the CAISO's Board of Governors and senior management to be more accommodating of DR aggregators by reducing barriers to increased use of this key resource.

Since the issuance of D.14-12-024 in the CPUC's DR proceeding in December of 2014, CEERT has monitored the meetings of DR Working Groups on Supply Resource DR Integration, Load-Modifying Resource (LMR) DR Valuation, LMR DR Operations, and the Demand Response Auction Mechanism (DRAM), including DRAM subgroups.

On August 6, the CPUC issued a Joint Assigned Commissioner and ALJ's Ruling seeking Comments on a proposed guidance for utilities' proposals for 2017 DR programs and activities. The ruling specifically asked the IOUs to provide recommendations for addressing overgeneration from renewables.

CEERT intended to file Comments, but that proved to be unnecessary, since the CPUC issued a ruling on September 15 to require that the IOUs' 2017 DR Program Improvement Proposals, due to be filed on February 1, include recommendations for pilot programs to address DR solutions for overgeneration from renewables beyond that offered by an initial PG&E "Excess Supply" Pilot. What has not yet been issued is a promised Energy Division Staff Paper on overgeneration issues and solutions in the LTPP Rulemaking. It will be important to keep this DR ruling in mind to ensure that the CPUC staff, in that paper, has recognized the role that DR can play in integrating renewables into the grid.

On September 29, ALJ Hymes issued a Ruling that introduced a proposal from the CPUC's Energy Division recommending that the CPUC prohibit the use of fossil-fueled Back-Up Generation (BUG) in DR programs beginning with the 2017 program year.

On November 6, Commissioner Florio and ALJ Hymes issued an Amended Scoping Memo that extended the deadline for completing this proceeding to March 14, 2017. The major factor in extending the deadline appears to be a delay in the issuance of the DR Potential Study, which is now anticipated to be issued in March 2016, with another report providing the market viewpoint to be delivered in summer 2016.

On November 30, the CPUC issued D.15-11-042, a Decision Addressing the Valuation of Load Modifying DR and DR Cost-Effectiveness Protocols. This Decision notably finds that effective January 1, 2018, capacity value shall be attributed to DR only if the resource is integrated into the wholesale market or a non-event-based program embedded in the CEC's unmanaged/base case load forecasts.

On December 29, the Joint DR Parties (EnerNOC, Comverge, CPower, EnergyHub, and Johnson Controls) filed an Application for Rehearing of D.15-11-042 based on the fact that it failed to proceed in the manner required by law and failed to include findings of fact in support of its conclusion that event-based load modifying DR has no capacity value, and that in issuing D.15-11-042, the CPUC abused its discretion and violated due process. There has not yet been a Decision on this Application for Rehearing.

On December 3, ALJ Hymes issued a Ruling clarifying that PG&E, SCE, and SDG&E must update the existing DR cost-effectiveness reporting template with current avoided cost values, if their 2017 proposed improvements to a DR program make any changes to cost-effectiveness inputs.

On January 12, the CPUC held a workshop on a review of the 2015 DR Program and on January 13, the CPUC held a workshop for discussion of the Energy Division Staff Proposal on the prohibition of the use of certain resources (i.e., BUGs) in CPUC-regulated DR programs.

Given the ongoing challenges facing DR at the CPUC, CEERT believes it is essential to continue our advocacy in support of DR, and we plan to continue to track this proceeding and become further involved where possible.

As previously noted, the Federal Fifth Circuit Court of Appeals issued a decision vacating FERC Order 745, which provided rules for DR participation in wholesale markets. The Supreme Court granted review of this decision and oral arguments were heard on October 14, but a Decision has not yet been issued.

Other CPUC Rulemakings and Governance Actions:

CEERT has had a limited budget to actively participate in other CPUC proceedings focused on distributed energy resources (DERs), integration of DERs, energy efficiency, etc. Nevertheless, we are currently a party to or are tracking the following proceedings to take the opportunity (when appropriate and our budget permits) to advance these resources.

Distribution Resource Plans (DRPs) (R.14-08-013)

On September 23 CEERT was granted party status at a Prehearing Conference for this proceeding. On November 2, the CPUC Energy Division drafted a Straw Proposal that laid out a detailed roadmap for developing the DRPs. In November CEERT attended several workshops on the DRP Roadmap and DRP methodologies. Numerous workshops, decisions and rulings are scheduled for 2016 and 2017.

On January 8, the CPUC issued ALJ Fitch's Ruling that asked parties to offer alternative suggestions or proposals to the utilities' locational net benefits analysis (LNBA) methodologies proposed in their DRP applications. The Ruling also set a workshop on this topic for February 1. Alternative LNBA methodologies are due on January 26.

Given the large scope of the DRP Roadmap, CEERT believes we will have numerous opportunities to comment and participate in this proceeding. We also believe that optimal development of the DRPs will be a crucial step toward successful and increased procurement of renewables.

Integration of Distributed Energy Resources (IDER) (R.14-10-003)

On September 22, the CPUC issued D.15-09-022, which adopted an expanded scope, a definition, and a goal for the integration of distributed energy resources (DERs). D.15-09-022's definition of integration of DERs is "a regulatory framework that enables customers to effectively and efficiently choose from an array of demand-side and distributed energy resources. The framework is based on the impact and interaction of such resources on the system as a whole, as well as on a customer's energy usage." The goal adopted in D.15-09-022 is "to deploy distributed energy resources that provide optimal customer and system benefits, while enabling California to reach its climate objectives."

The scope of the proceeding has also been expanded to consider a framework based on the entire energy product and delivery system from the customer side to the utility side, to determine how best to source the distributed energy resources the utilities need based on determinations made in the DRP proceeding, and to consider the issue of localized incentives.

On October 9, ALJ Hymes issued a Ruling establishing a working group to evolve Phase 1 of the Staff Proposal on updating the CPUC's cost-effectiveness framework into a consensus proposal. This working group will develop a consensus on establishing a system for Avoided Cost Calculator version control;

developing a process for Avoided Cost Calculator data updates; and developing recommendations on resource balance year, avoided cost estimation, definitions of costs and benefits, and social cost test. These working group meetings are currently ongoing.

Energy Efficiency (EE) (R13-11-005)

Phase 2 of this proceeding will address developing “Rolling Portfolio” review processes, providing guidance on changes for 2016 portfolios, and updating various metrics to keep portfolios on course through 2016 and beyond.

On October 28, the CPUC issued D.15-10-028, which adopted “aggressive yet achievable” energy saving goals for ratepayer-funded energy efficiency program portfolios for 2016 and beyond; established a Rolling Portfolio process for regularly reviewing and revising portfolios; and updated energy efficiency program portfolio metrics, including a Database of Energy Efficient Resources values, effective January 1.

Several rulings have been issued in this proceeding. On October 30, Assigned Commissioner Peterman and ALJ Edmister issued an Amended Scoping Memo that identified the following issues that would be addressed over the next 12 months: high opportunity programs or projects; remaining Rolling Portfolio Cycle implementation issues; and interpretation and implementation of AB 802 generally and support for implementation of SB 350. On November 4, ALJ Edmister issued a Ruling Requesting Comments on a CPUC Staff White Paper on High Opportunity Programs and Projects, and on December 30, Assigned Commissioner Peterman and ALJ Edmister issued a Ruling stating that beginning January 1, Program Administrators may submit High Opportunity Programs or Projects to the CPUC via expedited review through a Tier 1 Advice Letter. And on January 12, ALJ Edmister issued a Ruling Requesting Comments on Regional Energy Networks, with comments due on February 26.

On January 12 the CPUC issued a Notice of Prehearing Conference in this proceeding for February 1.

Energy Storage (R.15-03-011)

On March 26, 2015, the CPUC issued an OIR to Consider Policy and Implementation Refinements to the Energy Storage Procurement Framework and Design Program (D.13-10-040, D.14-10-045) and Related Action Plan of the California Energy Storage Roadmap. CEERT is a party to this proceeding, which was divided into two tracks. Track 1 considered only those issues that must be expeditiously resolved prior to commencement of the IOUs’ 2016 energy storage procurement solicitations and the required January 1 Tier 2 Advice Letter compliance filings of Electric Service Providers and Community Choice Aggregators. Track 2 will consider additional issues for the continued development and refinement of the Energy Storage Procurement Framework and Design Program.

A Proposed Decision (PD) on Track 1 issues was issued on December 15. The PD:

- Approves the IOUs’ request for additional flexibility of energy storage targets between grid domains. The IOUs are allowed to satisfy some of their transmission and distribution domain targets through customer-connected projects, up to a “ceiling” of 200% of the existing customer domain targets.
- Denies the requests for modifications to the Request for Offer (RFO) process to require additional specificity on operational need or location.
- Clarifies that DC-based storage used as part of a DC microgrid is an eligible storage product for meeting the storage targets established in D.13-10-040 and the requirements of AB 2514, but finds that hydrogen-based power-to-gas is ineligible for meeting those targets and requirements at this time.
- Finds that voluntary energy storage deployment should count toward the storage target established for that customer’s Load Serving Entity.

- Extends the authorization of the Power Charge Indifference Adjustment mechanism to recover potential above-market costs associated with departing load for market/bundled energy storage services procured via the 2016 solicitation.
- Defers the resolution of the request for extension of the Power Charge Indifference Adjustment mechanism for market/bundled energy storage contracts beyond 10 years to applications for approval of contracts resulting from the 2014 storage solicitations process.
- Defers the resolution of the requests to change the Power Charge Indifference Adjustment mechanism to the applications for approval of contracts resulting from the 2014 storage solicitations process.

On January 5, a Scoping Memo was issued that set forth the scope of Track 2 of this proceeding, which will address revision of energy storage procurement targets, eligibility, multiple-use applications, station power, and community storage. Comments on this Ruling are due January 29, and a multiple-use application workshop is scheduled for March.

West of Devers Transmission Upgrade Project (A.13-10-020)

On October 25, 2013, Southern California Edison (SCE) filed an Application for a Certificate of Public Convenience and Necessity for the West of Devers Upgrade Project (WODUP) and for an Interim Decision Approving the Proposed Transaction between SCE and Morongo Transmission LLC. On August 24, 2015, Assigned Commissioner Randolph issued a Scoping Memo that set a schedule for serving written prepared testimony, rebuttal testimony, and evidentiary hearings.

The Scoping Memo set forth a number of key issues to be determined in this proceeding, including whether the proposed project serves present or future public convenience and necessity, what the maximum prudent and reasonable cost of the project would be if it is approved, what significant adverse environmental impacts the project would have, and what mitigation measures or project alternatives might lessen those environmental impacts.

In testimony, the Office of Ratepayer Advocates (ORA) opposed WODUP, contending existing transmission capacity, including the West of Devers Interim Upgrades, is sufficient to support the state's renewable energy goals. However, Palen Solar Holdings believes ORA's recommendations—which could halt a transmission project that has been the basis for statewide transmission planning and relied upon by utilities, renewable developers and project financing entities over an extended period of time—will significantly discourage renewable project development in California. CAISO also opposed ORA's position, and SCE advocated for the CPUC to approve the proposed transaction as being in the public interest.

Briefs and Reply Briefs have not yet been filed because the evidentiary hearings were continued into December, but we anticipate that they will be filed shortly.

Tehachapi Renewable Transmission Project (TRTP) (A.07-06-031)

The TRTP proceeding has been closed since August 14, 2014. In November of 2014, the City of Ontario filed Amended Petitions of Modification of D.09-12-044 and asked for a stay of construction of Segment 8 of the TRTP within Ontario and the undergrounding of Segment 8 within Ontario. On May 15, 2015, the CPUC issued D.15-05-004 which denied the Amended Petitions for Modification because they were not timely filed and Ontario's determination not to participate in this proceeding earlier was not warranted. In addition, the construction Ontario sought to stay was essentially complete.

Ontario filed an Application for Rehearing of D.15-05-004. On December 18, the CPUC issued D.15-12-053, an Order Modifying D.15-05-004 and Denying Rehearing of the Decision as Modified, finding that good cause for rehearing was not shown.

Time-Of-Use Rates (R.15-12-012)

On December 28, the CPUC issued an OIR for a framework for designing, implementing, and modifying time periods for use in future Time-of-Use (TOU) rates. This effort will include development of the principles, methodologies, and data sources needed to identify TOU periods that better reflect actual and near-term expected electricity supply and demand. Comments on the OIR are due January 15, and CAISO is to file and serve an explanation of the data, assumptions and analytical methods that support its identified TOU periods on January 22. A Prehearing Conference will be held in February or March.

Reliability Reporting (R.14-12-014)

The CPUC issued an Order Instituting Rulemaking (OIR) at the end of 2014 to implement PU Code §2774.1, which establishes new rules for utilities' reporting of reliability statistics, as well as requirements for mitigating reliability problems revealed by that new reporting.

On August 31, ALJs Gamson and Fortune issued a Ruling seeking Comments on the Reliability Report Template. On November 16, the CPUC issued a Proposed Decision (PD) that amends current electric reliability reporting requirements to define the utility district or division level as the local area from which electric outage information is collected. The PD clarifies limited issues related to electric reliability reporting, describes data that utilities must provide to the CPUC in an annual Electric Reliability Report, and orders all California electric utilities to submit district- or division-level electric reliability information to the CPUC on July 15 of each year. The PD also closes the proceeding.

Water-Energy Nexus (R.13-12-011)

On December 19, 2013, the CPUC issued an OIR on Policies to Promote a Partnership Framework between Energy Investor Owned Utilities and the Water Sector to Promote Water-Energy Nexus Programs.

On September 17, 2015, the CPUC issued D.15-09-023, which adopts new tools that allow the CPUC to better quantify the benefits of water-savings programs. These tools are the Water-Energy Calculator (which quantifies how much electric energy it takes to move and treat water, and calculates the associated indirect energy savings benefits) and the Avoided Water Capacity Cost Model (which calculates an avoided water system capacity cost associated with water savings).

On December 2, Assigned Commissioner Sandoval issued a Ruling seeking proposals for a pilot opt-in Energy Matinee Pricing Tariff for commercial, industrial and agricultural customers to promote the use of renewable energy and low-water-use energy generation when it is most abundantly supplied on the grid. By creating a price signal when renewable and low-water-using electric generation is abundant, some commercial, industrial and agricultural customers may be able to respond and realign their energy usage. A workshop is scheduled for January 19 on Advanced Metering Infrastructure Pilots.

Public Records Access (R.14-11-001)

On January 12, Assigned Commissioner Picker issued a Ruling scheduling a workshop for February 2 on developing a reporting matrix for the confidential treatment of information. The workshop will facilitate discussion and seek consensus on identifying specific records, classes of information, and data that should be readily disclosable to the public because they are not privileged, confidential, or needing to be withheld from public disclosure. Because of its potential significance for document access at the CPUC, CEERT is tracking this proceeding.

Southern California Activities

CEERT's Jim Caldwell briefed the senior management of the Los Angeles Department of Water and Power on the 2030 Low Carbon Grid Study, and he and V. John White met with senior staff of Los Angeles Mayor Garcetti, including the Mayor's sustainability and infrastructure team. We also met with officials of the City of Burbank Municipal Utility to discuss large-scale storage and transmission issues.

John moderated a panel discussion on regional transmission and renewable development at the Southern California Energy Summit in Palm Springs, and met with officials of Imperial County, IID, and the Salton Sea Authority on restoration plans, transmission, and renewable resource development.

Short-Lived Climate Pollutants (SLCPs)

On November 17 CEERT convened a briefing on SLCPs for legislators and staff, prior to the Paris Climate Conference. We brought together internationally renowned experts, such as Dr. Drew Shindell of Duke University; Dr. Mark Jacobson of Stanford; Dr. Ryan McCarthy, policy advisor to CARB; and Michael Walsh, founding co-chairman of the International Council on Clean Transportation. The briefing covered the science and global-warming contributions of methane, black carbon, and fluorocarbon refrigerants, and the role that reducing these SLCPs could have on reducing warming in the near term and providing a climate buffer until global efforts to cut emissions of longer-lived pollutants can take effect.

Senator Ricardo Lara's staff participated, and they indicated Senator Lara would be introducing legislation in January to put emission-reduction targets for SLCPs into statute.

CARB released a Draft Short-Lived Climate Pollutant Reduction Strategy on September 30, and in October took written comments and held public workshops in Sacramento, Los Angeles, and Fresno on the Draft Strategy. CEERT, Californians Against Waste, Coalition for Clean Air, NRDC, and other organizations submitted comments on methane emissions from waste and diversion of organic waste from landfills. Outside of landfills the waste can be composted or digested under controlled conditions, preventing the generation of landfill methane and creating products whose use can help reduce GHG emissions.

The Governor has included \$215 million to address SLCPs in his proposed 2016 – 2017 budget, focusing on methane from organic wastes. A key part of this strategy will be to divert nearly all organic wastes from landfills and to process the wastes in clean composting or digester facilities.

Clean Transportation Advocacy

Low-Carbon Fuel Standard (LCFS)

The CARB Board adopted the revised LCFS regulatory package on September 25. Governor Brown has identified the LCFS as an important tool in achieving the state's goals of cutting petroleum consumption in half by 2030 and achieving 2030 and 2050 GHG emission reduction targets. The LCFS requires a 10% reduction from 2010 levels in the carbon intensity of gasoline and diesel fuels by 2020, with the targets becoming progressively more stringent each year. The LCFS is expected to contribute approximately 20% of the state's 2020 GHG reductions mandated under AB 32.

On October 30, ethanol producer Poet LLC filed suit against CARB implementing the revised LCFS regulation. POET contends that in revising the LCFS, CARB failed to comply with the writ of mandate issued pursuant to POET's previous lawsuit and violated CEQA, the California Administrative Procedure Act, and the Health and Safety Code. The case awaits further court action.

Electrifying Transportation

Alternative-Fueled Vehicles (R13-11-007)

CEERT continues to track R.13-11-007, and A.14-04-014 (SDG&E's Vehicle-to-Grid Integration Pilot), A.14-10-014 (SCE's Charge Ready Pilot), and A.15-02-009 (PG&E's Electric Vehicle Infrastructure and Education Program). Several CEERT affiliates are active parties in these proceedings.

A.14-04-014

On June 3, a number of parties, including SDG&E, filed a proposed Settlement Agreement with the CPUC proposing a pilot program that, among other things, would:

- Install grid-integrated infrastructure to support 1 million zero-emission vehicles by 2020.
- Accelerate the adoption of 1.5 million zero-emission vehicles by 2025.
- Provide equitable deployment of services to all ratepayers, including statutory requirements and directives to serve disadvantaged communities and increase access to clean transportation.
- Provide customer choice.
- Support investment in charging equipment and services by public, private, and utility entities, while avoiding anticompetitive impacts on the market.
- Use rate design and load management practices to facilitate integration of renewable energy.

On August 5, the CPUC issued a Ruling denying the need for hearings on the proposed settlement, but acknowledging that it introduced modifications to SDG&E's original proposal that require further explanation. The Commission therefore requested that parties submit opening and reply briefs elaborating how the settlement is to be implemented.

A.14-10-014

On July 9, several parties filed a proposed Settlement Agreement with the CPUC on SCE's Charge Ready pilot program. The settlement would require that SCE's pilot meet many of the same criteria listed above for the SDG&E pilot, and would:

- Allow SCE to deploy, own, and maintain the underlying electric infrastructure up to the point of the interconnection.
- Require that SCE make reports during Phase 1 deployment to identify lessons learned and recommend adjustments to ensure the success of Phase 2 deployment.
- Cap the budget for Phase 1 at \$22 million to protect ratepayers and allow for reexamination of the program if the planned 1,000 charging stations are not deployed.
- Require an Advisory Board to provide guidance on program management.

The CPUC issued a September 14 Ruling setting a schedule for SCE and the settling parties to provide more information on the proposed design and implementation of modifications to the pilot program.

A.15-02-009

On June 16 the CPUC issued a Ruling requesting comments on whether PG&E's proposed EV program should be phased in to allow for a smaller initial deployment. (PG&E's is the largest of the utility pilot proposals, and its application did not include sufficient information to determine whether the four criteria established in CPUC decisions D.11-07-029 and D.14-12-079 are being met.)

After evaluating party comments, the CPUC issued a Ruling on September 4 setting out the scope of issues to be explored for the proposed pilot, and requiring PG&E to submit a supplemental proposal outlining an initial Phase 1 of EV charging station deployment, and detailing:

- The nature of the proposed program and its elements, including whether the utility proposes to own or provide charging infrastructure, billing services, metering, and customer information and education.
- Examination of the degree to which the market is competitive, with what level of concentration.
- Identification of potential unfair utility advantages, if any.

If the potential for the utility to compete unfairly is identified, the CPUC will determine if rules, conditions, or protections are needed to mitigate any anticompetitive impacts or unfair advantages.

PG&E's proposal did not provide an opportunity for the CPUC to collect and evaluate data to determine pilot program effectiveness and allow for modifications. The Commission required PG&E's supplement to set forth an initial phase of 10% of the originally proposed number of charging stations to be deployed over no more than 24 months. The supplement is also to include a transition plan that provides at least 18

months of data for CPUC evaluation of Phase 1 and identifies steps to minimize market uncertainty and discontinuity during the review period. Phase 2 will examine the results of Phase 1 and determine if increased deployment is merited, and if so, what that deployment should look like.

The CPUC required parties to provide testimony in November and December. Evidentiary Hearings were held on February 8 – 12, with a proposed decision expected by the summer of 2016.

Alternative and Renewable Fuel and Vehicle Technology Program

CEERT continues to serve on the Advisory Committee for the Alternative and Renewable Fuel and Vehicle Technology (ARFVTP/AB118/AB8) Program. The initial draft of the proposed 2016-17 Investment Plan was released on October 22, and was the subject of an Advisory Committee public hearing on November 6. The draft plan maintains funding for electric charging and hydrogen fueling infrastructure at \$37 million, the same level as in the previous year, and proposes that funding for medium- and heavy-duty vehicle technology demonstration, scale-up, and manufacturing be increased to \$23 million. The Committee was broadly in support of the proposed funding levels.