

CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES
QUARTERLY STAFF REPORT
MAY – AUGUST 2015

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

The Low-Carbon Grid

CEERT’s Jim Caldwell and Liz Anthony are continuing to staff the *2030 Low-Carbon Grid Study*. Draft Phase II results generally support the Phase I conclusions and project a rate impact of +3% to -2% in 2030 with a most probable value of roughly +½%. Work to develop outreach documents is underway.

Advocacy at the California Air Resources Board (CARB)

CARB Mary Nichols and her staff strongly agreed with CEERT that the state needs *specific greenhouse gas (GHG) reduction targets for the electric sector*, that California is likely to need *more than 50% renewables by 2030*, and that achieving a 2030 40% GHG reduction target will require *fundamental changes to grid operations and a zero-carbon infrastructure*. Following conversations at CARB, CEERT developed a *Grid Reliability Infrastructure Plan (GRIP)* that has been very well received by a variety of stakeholders.

Discussions with the Governor’s Office

We have been exploring with the Governor’s office our ideas about increasing reliance on *renewables*, planning for *large-scale storage*, greater *regional coordination*, *expansion of the California Independent System Operator (CAISO) grid*, necessary *low-carbon investments*, and the framework of a *Grid Reliability Infrastructure Plan*.

Regional Coordination, the Energy Imbalance Market (EIM), and Expansion of the CAISO

CEERT has been actively involved in discussions with PacifiCorp, CAISO, Berkshire Hathaway Energy, Southern California Edison (SCE), and other key stakeholders about how best to *expand the EIM* and accomplish the transition to an *enlarged CAISO footprint* and *greater regional cooperation*.

Transmission Expansions

We are strongly advocating for *extending the CAISO transmission planning horizon* and *expanding the CPUC’s future generation portfolios* to reflect the Governor’s GHG and renewable targets. Crucial transmission expansions include new lines and upgrades in Imperial County, the Central Valley, and the West Mojave. We were encouraged by Michael Picker and Bob Weisenmiller recently announcing they would convene a “*Renewable Energy Transmission Initiative (RETI) 2.0*.”

Large-Scale Storage

CEERT urged the California Public Utilities Commission (CPUC) and the utilities to plan for and procure *large-scale energy storage*, and pressed the CPUC to initiate a proceeding that will evaluate bulk storage projects. We briefed key policymakers and stakeholders on the urgency of at least 1,000 megawatts (MW) of new bulk storage coming online in the next five years, thereby helping *avoid significant curtailment of renewable resources* because of overgeneration.

Advocacy at the California Energy Commission (CEC)

We are tracking the CEC’s *Integrated Energy Policy Report (IEPR) workshops*, which have examined integrating renewables with GHG reductions, expanding land-use planning to renewable development on disturbed lands, planning new transmission, and finding a role for high-value renewables such as bio-methane and geothermal.

Advocacy at the California Public Utilities Commission (CPUC)

A May 20 Scoping Memo and Assigned Commissioner Ruling in the Renewable Portfolio Standard (RPS) Rulemaking confirmed CEERT's priorities list by including as prime issues *AB 327 implementation*, incorporation of GHG reduction factors in the *Least-Cost Best-Fit resource evaluation*, and improved *coordination between RPS and Long-Term Procurement Planning (LTPP) proceedings*. CEERT will be filing Comments on the investor-owned utilities' 2015 RPS Procurement Plans.

We strongly recommended that the CPUC ensure the metrics and application of the *RPS Calculator* are publicly available and clearly understood by all parties, especially to confirm that the CPUC is on course to meet the Governor's 2030 goals for GHG reductions and 50% renewables procurement.

CEERT argued that SCE's *33% Renewable Integration Cost Adder Study* should not be seen as producing a generic technology adder that could be used uncritically for any 33% RPS scenario.

In informal comments in the *LTPP*, CEERT urged the CPUC to conduct a process in which parties could propose different technical interpretations or programs to develop less carbon-intensive alternatives.

The CAISO Board of Governors approved tariff changes that will for the first time allow *demand response (DR)* aggregators to bundle DR from small customers in order to sell it on the wholesale market. A ruling in the *CPUC's DR proceeding* asks the IOUs to identify how DR programs can absorb excess power during periods of overgeneration to support grid operations and *avoid renewables curtailment*.

CEERT plans to seek party status in the *Distribution Resource Plans* proceeding.

CEERT filed a Reply in which we held that any definitions and goals the CPUC adopts in the *Integrated Demand-Side Management* proceeding should emphasize the importance of meeting clean-energy goals.

We filed comments renewing our support for making the GHG emission reduction requirement the primary screen for establishing technology eligibility for the *Self-Generation Incentive Program (SGIP)*.

Central Valley and Southern California Activities

On August 12, CEERT, the Latino Environmental Advocacy and Policy Program (LEAP), and Environment California hosted "Unlocking Renewables: A Valley Summit" at Fresno State University in order to jumpstart a dialogue about the San Joaquin Valley's potential to become a clean-energy region. Over 225 people from around the region and the state attended.

CEERT held discussions with the Governor's office and the Resources Agency about the Imperial Irrigation District, the Department of Water Resources, and San Diego Gas & Electric (SDG&E) collaborating on an initial joint procurement of geothermal resources as part of a first-phase Salton Sea Mitigation and Restoration Plan.

Short-Lived Climate Pollutants (SCLPs)

We led the drafting of a joint comment letter to CARB on enabling sector-wide SCLP emission reductions, and recommended that CARB's Investment Plan for AB 32 Auction Proceeds designate projects that reduce SCLP emissions as a priority category.

Clean Transportation Advocacy

CEERT submitted comments on the *Low-Carbon Fuel Standard* supporting the extended eligibility of electricity and hydrogen fuels.

We are part of a working group that is exploring the *role that hydrogen can play as a form of energy storage* for use in stationary fuel cells during periods of peak demand.

CEERT continues to serve on the *Advisory Committee for the Alternative and Renewable Fuel and Vehicle Technology Program* and to help shape the Program's annual investment decisions.

Low-Carbon Grid Study

CEERT's Jim Caldwell and Ali Ehlen are continuing 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. A UC Davis intern, Liz Anthony, has recently joined the team as a replacement for Ali. CEERT is the LCGS's fiscal sponsor.

Phase I results demonstrated that this level of emission reductions can be achieved without significant rate impacts while maintaining the reliability of the electric grid. In recent months Jim, Ali, and key members of the study's Steering Committee of funders continued to brief commissioners and staff at the California Public Utilities Commission (CPUC), California Air Resources Board (CARB), California Energy Commission (CEC), 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. The Steering Committee has comprised over 30 companies, trade associations, and foundations.

Analysis for Phase II has been conducted at the National Renewable Energy Laboratory (NREL), General Electric, and JBS Energy, with results and all assumptions vetted by a Technical Review Committee (TRC) that has included representatives of the CPUC, CEC, CAISO, Western Electricity Coordinating Council, Western Interstate Energy Board, SCE, PG&E, SDG&E, SMUD, Nevada Energy, The Utility Reform Network (TURN), Barkovich & Yap Consultants, and the U.S. Energy Information Administration. Phase II modeling is now complete and the draft reports have been sent to the TRC. Discussions on the review draft have been conducted with both the Steering Committee and the TRC.

Draft Phase II results generally support the Phase I conclusions and project a rate impact of +3% to -2% in 2030 with a most probable value of roughly +1/2%. Work to develop outreach documents is underway.

Advocacy at the California Air Resources Board (CARB)

Mary Nichols, Chairman of the California Air Resources Board, is also Chair of the Energy Principals group, an informal body of regulatory agency officials that includes CAISO management, CPUC Commissioners, CEC Commissioners, and the Governor's office.

In late February, the Governor's office and CARB convened a modeling workshop on 2030 goals that included presentations from E3 on its 2030 Pathways study. Greg Brinkman from NREL, CEERT's partner on the Low Carbon Grid Study, presented the LCGS Phase I results. And on July 9, the Governor's office and the Energy Principals group convened a workshop on 2030 energy sector goals. Presentations were made by E3, each of the state energy agencies, and a panel of stakeholders that included CEERT Executive Director V. John White.

Over the past few months we have had several conversations with Mary Nichols and her staff about next steps on implementing the state's 2030 and 2050 goals set by the passage of SB 350 and the issuance of the Governor's Executive Order B-30-15. We have shared with them the results of the 2030 LCGS study and the insights we have drawn from it. They agree strongly with the need for specific GHG reduction targets for the electric sector, with the E3 Pathways Study conclusions that California is likely to need more than 50% renewables by 2030, and with our belief that achieving a 40% reduction in GHG emissions by 2030 will require fundamental changes to grid operations and a zero-carbon infrastructure.

We also discussed with CARB the potential for integrating electric transportation development with some of the findings on low-carbon grid management, especially the use of electric vehicle charging to provide demand response, and the use of surplus renewable generation for hydrogen production and desalination.

Following these conversations at CARB, we developed an outline describing a Grid Reliability Infrastructure Plan (GRIP), which would be led by the Governor's office and require specific action items to be undertaken by each of the energy agencies, with CARB supplying transparent metrics and oversight. The GRIP template and CEERT's specific implementation ideas have been very well received by a variety of interests and stakeholders.

We also suggested that the Department of Water Resources and both investor-owned and municipal-owned utilities be required to participate in developing zero- and low-carbon infrastructure plans for achieving the 2030 GHG reduction targets. Among the key objectives of this planning process would be integration of renewables with long-term procurement planning; using renewables, demand response, and efficiency to provide essential grid reliability services; modernizing and right-sizing the gas fleet to enable more renewables and less GHG emissions from grid management; and developing a planning and procurement pathway for large-scale storage.

In addition, we proposed targeting cap and trade GHG-reduction funds to support high-value, higher-cost renewables that are needed for environmental protection, GHG reduction, and economic development, but that are too expensive to compete in the renewable generation market. Examples include bioenergy derived from captured methane, clean conversion of woody biomass, and geothermal combined with desalination and mineral extraction.

CARB has indicated that next year it will be undertaking an update and significant revision of the AB 32 Scoping Plan to incorporate the Governor's clean-energy goals and GHG targets for 2030 and 2050. We anticipate that this Scoping Plan update process could be the driving force for implementing some of the key policy changes needed across the energy sector and the regulatory agencies.

We have also worked closely with CARB on strengthening measurement and monitoring of methane hot spots, updating lifecycle emission estimates for imported natural gas, and reassessing methane's role as a precursor to the formation of photochemical ozone.

Discussions with the Governor's Office

CEERT Executive Director V. John White has met several times with the Governor's key advisors working on climate and clean energy, and has shared the results the 2030 Low Carbon Grid Study and its potential policy implications.

Following our discussions with CARB, we have explored with the Governor's office our ideas about increasing reliance on renewables, planning for large-scale storage, greater regional coordination, expansion of the CAISO grid, necessary low-carbon investments, and the framework of a Grid Reliability Infrastructure Plan. We also discussed the need for the Governor to provide direction and accountability to the state's energy and environmental agencies.

Regional Coordination, the Energy Imbalance Market, and Expansion of the CAISO (low carbon grid)

The launch of the Energy Imbalance Market (EIM) has been relatively smooth and successful, with some adjustments required. While limited to 5- and 15-minutes ahead, the expansion of the market and neighboring states' increased ability to share resources has increased the confidence of market participants and stakeholders that the EIM program has significant value. Consequently, a number of utilities in the Western Interconnection have shown growing interest in joining the EIM, with PacifiCorp, Arizona Public Service, Nevada Energy, and Puget Sound Energy all indicating their intention to become participants.

The EIM Governance Committee, on which CEERT board members Carl Zichella and Kevin Lynch serve, has submitted its recommendations that the future governance of the EIM include broader representation of regional interests and stakeholders. These recommendations will be an important foundation upon which to build efforts to expand regional coordination in the West.

In May, CAISO and PacifiCorp announced they would jointly explore the possibility of PacifiCorp becoming a full market participant in the CAISO system. As the largest transmission-owning utility in the West, PacifiCorp joining the CAISO would be a major step forward in expanding California's electric grid, and permit significant sharing of electric generation resources across the West.

This expansion would allow much more robust intraregional trading, and would greatly improve California's ability to balance its load with less curtailment of renewables by enabling the export of surplus power to neighboring states. It would also smooth out the variability of solar and wind resources without as much reliance on natural gas. The increased integration of transmission systems could help PacifiCorp reduce its dependence on coal and gas and potentially accelerate the retirement of its large fleet of aging, inefficient coal plants.

CEERT has been actively involved in meetings and discussions with PacifiCorp, CAISO, Berkshire Hathaway Energy, Southern California Edison, and other key stakeholders to strategize about how best to accomplish the transition to an expanded CAISO footprint and greater regional cooperation. Significant issues must be resolved in order for the transition to be accomplished.

The most politically sensitive and critical subject is the governance of the CAISO. Under current law, the Governor of California makes all five appointments to the CAISO Board of Governors, with these appointees subject to California State Senate confirmation. In order for PacifiCorp to turn over its transmission system to the CAISO, it must receive approval from regulators in each of the six states in which it operates. Most stakeholders agree that it will be necessary to change the appointment process to establish a more regionally representative governance for CAISO (as well as at some point to change its name).

Making this change, however, would require new California legislation, and the politics of that will be complicated. Already, key stakeholders — including labor, consumer groups, and some environmental groups, notably the Sierra Club — have expressed concerns about California "giving up control" of the CAISO board. Those concerns include fears that CAISO will become just another party at the Federal Regulatory Energy Commission and independent of policy direction from California, ceding control over the state grid to the federal government. Environmental concerns arise from the fact that PacifiCorp is more than 60% reliant on coal-fired power plants.

CEERT believes these issues and legitimate policy concerns can be overcome, but will require delicate and sustained diplomatic efforts and likely some concessions from PacifiCorp on its future resource plans, as well as some tangible commitments from CAISO to be responsive to California policy directives on renewables and climate change.

Transmission Expansions – (renewable transmissions and)

CEERT has continued to push for a longer transmission planning horizon by the CAISO, integrated with the development of generation portfolios by the CPUC and CEC, to encourage near-term consideration of transmission expansions that will be needed to meet Governor Brown's GHG emission reduction targets for 2030 and 2050 and SB 350's goal of 50% renewables by 2030.

At present, CAISO is severely constrained in its transmission planning process, and only considers the generation scenarios the CPUC gives them. These scenarios, with one exception, do not extend beyond 2020, and do not reflect the Governor's 2030 and 2050 GHG goals or the 50% renewable target. As a

result of this short-sighted planning horizon, CAISO is failing to consider or evaluate important transmission expansions that will likely be needed in the near future.

Among the expansions that CEERT believes will be critical to achieving the Governor's goals are new lines and upgrades in Imperial County, the Central Valley, and the West Mojave. CAISO's current transmission planning limitations leave no room for considering the economic development potential and environmental importance of expanding transmission in these areas, all of which have abundant renewable resources and an acute need for the well-paying jobs that new clean-energy projects bring.

CEERT has been advocating vigorously for extending the CAISO planning horizon and expanding the CPUC's future generation portfolios to reflect the Governor's GHG and renewable targets, and hopes to make these objectives part of the upcoming CARB Scoping Plan for the energy sector. We have also been working with key stakeholders, including Imperial and Central Valley economic development and renewable industry interests, to encourage them to communicate their views to the Governor, CAISO, CPUC, and other key policymakers.

We were encouraged by the recent announcement by CPUC President Michael Picker and CEC Chairman Bob Weisenmiller that they would be convening the "Renewable Energy Transmission Initiative 2.0." Building on the work that CEERT undertook several years ago, the idea is to engage CAISO and a broad range of stakeholders to examine transmission system needs through the lens of the Governor's 2030 GHG reduction target, and evaluate regional and California renewable resource potential and transmission expansions needed to meet the state's climate and clean-energy goals.

Large-Scale Storage – new page – John & Sarah & Jim Caldwell

As part of our advocacy in the Long-Term Procurement Planning (LTPP) process, CEERT has urged the CPUC and the utilities to plan for and procure large-scale energy storage projects, including pumped hydro storage at existing reservoirs and solar thermal with molten-salt storage. We have highlighted the value and cost-effectiveness of large-scale storage, based on the 2030 Low-Carbon Grid Study results, and, as part of our recommendations for integrating the state's GHG and renewable targets into the LTPP, have pressed the CPUC to initiate a proceeding that will evaluate the benefits and potential ownership options for bulk storage projects.

CEERT has developed relationships with several of the prospective developers of large-scale storage, including the Lake Elsinore Pumped Storage project, San Vicente Reservoirs in San Diego County, Eagle Crest in eastern Riverside County, and projects in Northern California.

We have briefed key policymakers and environmental and industry stakeholders on the urgency of at least 1,000 MW of new bulk storage coming online in the next five years, thereby helping avoid significant curtailment of renewable resources because of overgeneration and reducing the need to rely on natural gas for load balancing and ancillary services. We have found many stakeholders and opinion leaders receptive to these ideas, and believe that in the months ahead we can set the stage for procurement of new bulk storage projects over the next two to three years.

The CAISO recently sent a letter to the CPUC that advocated for large-scale pumped storage as a key technology for addressing overgeneration and the need for fast-ramping resources. The CAISO is including pumped storage in the 2015-16 Transmission Planning Process, and has told the CPUC it wants to use its study results to inform procurement in the 2016 LTPP proceeding.

At the request of the administrative law judge (ALJ), the July 29 Status Conference in the CPUC's LTPP rulemaking (R.13-12-020) specifically addressed the CAISO's letter. Discussion centered on solutions to

overgeneration and renewables integration, including pumped storage. As noted below, the CPUC's Energy Division is preparing a study on solutions to overgeneration due to be issued in the fall.

On April 2, the CPUC initiated a rulemaking to consider policy and implementation refinements to the Energy Storage Procurement Framework and Design and related Action Plan of the California Energy Storage Roadmap. CEERT is a party to this proceeding.

Following a Pre-Hearing Conference, a Scoping Memo was issued on June 12 that divided the proceeding into two tracks: Track 1 on Procurement Best Practices, Refinement of the Consistent Evaluation Protocol (CEP), Flexibility of Energy Storage Target Tracking for CCAs and ESPs and Cost Recovery/PCIA; and Track 2 on Revision of Energy Storage Procurement Targets, Eligibility (Phase 2), Multiple Use Applications, Station Power, Coordination across Proceedings, Third-Party Owned Energy Storage, Measurement and Evaluation, and Deferral/Displacement of Transmission and Distribution Upgrades. Comments and Reply Comments on Track 2 issues are tentatively due in October.

A July 28 workshop was held to assess lessons learned from the recent energy storage procurement cycle, discuss potential refinement of the energy storage Consistent Evaluation Protocol, and present Energy Division's plan to conduct measurement and evaluation of the Energy Storage Framework. A further workshop was held August 19 on safety and program eligibility.

Advocacy at the California Energy Commission (CEC): The 2014 Integrated Energy Policy Report

CEERT is following the CEC's Integrated Energy Policy Report (IEPR) workshops, which have touched on a variety of key issues, including integrating renewables with GHG reductions, expanding landscape-level planning to include renewable resource development on disturbed lands, planning new transmission to facilitate long-term GHG reductions and economic development, and finding a role for higher-cost, high-value renewables such as biomethane and geothermal.

We believe the IEPR could be a venue for developing an integrated, interagency infrastructure initiative that emphasizes renewables, efficiency, and demand response as a pathway to GHG reduction targets.

Advocacy at the California Public Utilities Commission (CPUC)

Renewable Portfolio Standard (RPS) Program (R.11-05-005)

On February 26 the CPUC issued a new RPS Rulemaking (R.) 15-02-020. CEERT's initial comments on the preliminary scope for this proceeding identified our priority issues for the rulemaking as implementation of AB 327 (increase of RPS requirements above 33%); incorporation of GHG emission reduction factors in Least-Cost Best-Fit (LCBF) evaluation of resources; and more formal integration of RPS and Long-Term Procurement Planning (LTPP) rulemakings and analysis.

On May 20, a Scoping Memo and Assigned Commissioner Ruling (ACR) was issued (<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M151/K862/151862437.PDF>). The Scoping Memo confirms CEERT's priorities list by including as prime issues AB 327 implementation, incorporation of GHG emission reduction factors in LCBF, and improved coordination between RPS and LTPP proceedings. (And the CPUC has subsequently moved to provide better coordination between the RPS and LTPP on issues such as development of the Renewable Integration Cost Adder, as described below.)

On May 28, an ACR was issued revising and identifying issues to be addressed in the investor-owned utilities' (IOUs') 2015 RPS Procurement Plans. Notably, this ACR seeks to finally implement AB 327 by requiring these plans to "consider...increased [RPS] requirements," at a level up to 40% by 2024 (<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M152/K045/152045579.PDF>).

Between July 31 and August 5, 22 RPS-obligated retail sellers filed their 2015 RPS Procurement Plans in R.15-02-020. These retail sellers include PG&E, SCE, SDG&E, and 19 other entities that either are Energy Service Providers, serve Direct Access customers, or are small or multi-jurisdictional utilities.

On August 12, CEERT provided a summary of the IOUs' RPS Procurement Plans focused on key points. Of the three IOUs, only SCE identified a long-term RPS need and planned to hold an RPS Request for Offers (RFO) in 2015. These plans address overgeneration and economic curtailment, but do not include demand response (DR) among the IOUs' proposed solutions or responses, despite an August 6 Administrative Law Judge's (ALJ's) Ruling in the DR Rulemaking (R.13-09-011), discussed below, that indicates DR is currently being considered in that proceeding as one of the solutions to overgeneration and curtailment. CEERT held a Conference Call for August 17 to discuss the plans in preparation for filing comments.

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

While the issue of the RPS Calculator is formally included in the scope of the RPS proceeding, it has a direct impact on the LTPP process, especially in supplying input to the CAISO's Transmission Planning Process (TPP). On April 13, the CPUC issued a ruling in R.15-02-020 (RPS) providing a further revised RPS Calculator for party comment.

CEERT filed Comments (<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M151/K340/151340231.PDF>) on April 27. Our key recommendation was that the CPUC must ensure the metrics and application of the RPS Calculator are publicly available and clearly understood by all parties, especially to confirm that the CPUC is on course to meet the state's 2030 goals for GHG reductions and 50% renewables procurement, with the remaining 50% being met, to the extent feasible, by preferred resources such as demand response and energy efficiency.

An RPS Calculator Version 6.2 is expected in the first quarter of 2016. However, the CPUC is considering conducting a "50% RPS Energy Only Special Study" based on Version 6.1. This Study was the subject of a CPUC-sponsored teleconference held on June 29, in which CEERT participated. The Special Study will not provide portfolios that CAISO will consider in authorizing new transmission lines, but 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. (For E3 and CAISO slide decks on this study and related portfolios, see: <http://www.cpuc.ca.gov/PUC/energy/Renewables/hot/RPS+Calculator+Home.htm>).

Renewable Integration Cost Adder (RICA)

On March 27, an ALJ's Ruling was issued in the LTPP rulemaking (R.13-12-010) directing SCE to be program manager on a RICA for a 33% RPS and a 40% RPS. On May 29, SCE issued its RICA 33% RPS study, followed on June 2 by a Joint ALJ's Ruling issued in both R.13-12-010 (LTPP) and R.15-02-020 (RPS) for a teleconference to be held jointly in those proceedings to address SCE's and E3's inputs, methodologies, and simulation results for the 33% RICA Study. While the two rulemakings have not been formally consolidated, this joint teleconference certainly attests to CEERT's advocacy for increased coordination between these proceedings.

CEERT participated in the joint teleconference and, on June 26, filed Comments on SCE's 33% RICA Study (<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M152/K912/152912202.PDF>). In those Comments, we agreed that SCE had followed the express criteria required by the March 27 ALJ's Ruling for

this Study, but did not agree that the results achieved could apply to anything other than the precise scenario and marginal renewable addition modeled. Thus, as reflected by several hypotheticals we offered, the Study should not be viewed as producing a generic technology adder that could be used uncritically for any 33% RPS scenario.

In addition, we stated that the variable component of an integration adder calculated by this methodology cannot be considered additive to the fixed-cost components of an integration adder, as the Study suggested. Also, the Study should not be used as a replacement for a holistic study of the whole system (e.g., what meets the remaining 50% need). Instead, it should be used at the end of the LCBF evaluation as a tool to determine “best fit.”

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). These IOUs have filed three applications seeking approval of procurement contracts.

A.14-07-009: SDG&E – Carlsbad Power Purchase Tolling Agreement (PPTA)

CEERT became a party to this proceeding on September 3, 2014, participated in November Evidentiary Hearings, and filed a Reply Brief on December 22, supporting several parties’ positions that a Final Decision on this application should be deferred, as SDG&E had chosen to fill 600 MW of its authorized Track 4 procurement from the Carlsbad gas-fired plant before reviewing the results of its September Track 4 request for offers (RFO) to see what other options were available.

On March 6, ALJ Yacknin issued a Proposed Decision (PD) Denying without Prejudice SDG&E’s Application for Authority to Enter into a PPTA with Carlsbad. Then, on April 6, Commission President Picker issued an Alternate Proposed Decision (APD) conditionally approving SDG&E’s application. The APD essentially approved Carlsbad’s alternative, but did not provide a record to support the alternative and did not credit Carlsbad as the creator of the Alternate. The APD approved the PPTA subject to two conditions: the project contract capacity was reduced from 600 MW to 500 MW while otherwise subject to the same per unit price, terms, and conditions; and all of the 100 MW in residual procurement authority resulting from the amendment of the PPTA had to consist of preferred resources or energy storage.

On May 21 the CPUC issued Decision (D.) 15-05-051 adopting the APD. The four Commissioners that voted to adopt the APD stressed the importance of meeting reliability needs with the modified PPTA. At the end of June, several parties filed Applications for Rehearing of D.15-05-051, including CARE, Sierra Club, Protect Our Communities, Office of Ratepayer Advocates, and Center for Biological Diversity. Some of the bases for these Applications for Rehearing are that the Decision does not comply with the procurement authority granted in D.14-03-004, does not comply with the Public Utilities Code, is prejudicial, and is not supported by evidence.

A.14-11-012 (LA Basin) and A.14-11-016 (Moorpark): SCE

Both of these SCE applications were filed in November 2014. A.14-11-012 (LA Basin) was an outgrowth of the CPUC’s Track 1 and Track 4 decisions 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, met much of its preferred resources obligation with storage, and yet met its full authorized procurement of gas-fired generation. Questions emerged in the hearing about the fuel source used in support of claimed demand response products. Briefs have been submitted.

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. Unfortunately, SCE proposes to meet 95% of the authorized procurement with gas-fired generation. Briefs in this application have also been submitted.

CEERT has not sought party status, but continues to track both applications, with a particular focus on the extent to which the Commission's "first step" direction to SCE to rely on Loading Order preferred resources to meet its LCRs has actually been met.

2014 LTPP (R.13-12-010) Phases 1a and 1b (System Need)

ALJ Gamson held a Status Conference on Phases 1a and 1b (System Reliability Needs) and announced a Nine Point Plan for moving forward in the 2014 LTPP (R.13-12-010), which would include discontinuing Phase 1a as a venue to determine the need for long-term flexible capacity procurement authorization in 2015, and would devote Phase 1b to refining the deterministic and stochastic models to create an "improved tool" to examine that need in the 2016 LTPP.

On March 25, following party comments, ALJ Gamson issued a ruling discontinuing Phase 1a on the basis of insufficient evidence to determine whether there is a need for additional flexible or system capacity through 2024. The March 25 ALJ's Ruling found that flexible capacity issues will 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.

For Phase 1b, the ruling recognizes that ensuring system reliability remains a primary motive for Phase 1, but it must be done in a manner that realizes state policy goals of GHG minimization at the lowest cost. The ruling establishes a workplan and a technical working group for Phase 1b 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."

These working groups began meeting in April and continued to meet in June. On May 8, CAISO filed a report on its deterministic studies of the Existing Trajectory and 40% Renewable Portfolio Standards scenarios with no renewable curtailment. On June 23, CEERT participated in a conference call with like-minded renewable and environmental advocates to coordinate on issues raised by the working group output and the CAISO report, and consider next steps.

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. We now expect that an Energy Division study or paper will be issued on overgeneration issues and potential solutions. During the Status Conference, CAISO, CEERT, and others addressed the potential for pumped storage to be among those solutions that could achieve both reliability and integration of renewable resources. However, reliance on DR as a solution to renewable overgeneration was not mentioned, even though a ruling in the DR Rulemaking (R.13-09-011) was issued shortly thereafter that specifically cited the potential of DR to solve renewable overgeneration (see below).

This is a reminder of the constant need to "connect the dots" between the CPUC's proceedings, especially where the Commission itself is not doing so. Piecemeal decision-making on these important issues can undermine the development of coherent, coordinated policies and procurement authorizations.

Following the August 4 Workshop, CEERT submitted informal comments on the implications of this effort to standardize technical details of modeling for the LTPP. CEERT believes these seemingly technical

details that the Energy Division proposes to be decided by specialists, in advance of actual modeling and without regard to overall policy, actually drive the procurement. Just as LCR need in the last round of the LTPP was driven by nuances of how a "contingency" was technically defined, the "flexibility" need in the next round of the LTPP will be driven by nuances in how, e.g., a "reliability event" or the 25% Regional Generation Rule are defined.

As it stands today, the default supplier of these flexible services is natural gas, which has significant implications for both costs and GHG-reduction potential going forward. These issues, while clearly critical to grid reliability, are highly technical and subject both to current interpretation and evolving technology and policy over time. In our informal comments, CEERT urged the CPUC not to simply make a decision that then becomes cast in stone for the foreseeable future, but to conduct a process in which parties could propose different technical interpretations or programs to develop less carbon-intensive alternatives.

We expect that formal comments will also be called for on the results and next steps of this modeling.

2014 LTPP (R.13-12-010) Bundled Procurement Plans

The three IOUs filed their Proposed 2014 Bundled Procurement Plans in October. CEERT filed Comments in November to restate our longstanding position in favor of the overdue integration of long-term *renewables* procurement and planning into long-term procurement plans, both bundled and system, consistent with the Loading Order and AB 327; and to again support the SCE proposal for a preapproved renewables product as the most immediate means of achieving those outcomes. A Proposed Decision has still not been issued in R.13-12-010 on the 2014 BPPs, but ALJ Gamson announced at the July 29 Status Conference that such a decision would be forthcoming.

Resource Adequacy (R.14-10-010)

CEERT's ongoing focus in CPUC Resource Adequacy (RA) proceedings is to secure appropriate evaluations for clean-energy resources, including clear definitions of their attributes for meeting RA and flexible capacity needs, and to ensure that these resources are properly counted and considered in any authorized RA procurement. We are also working to shift the RA proceedings from a backward-looking framework to a more useful focus on the near-term future.

On January 6 a Scoping Memo for RA rulemaking R.14-10-010 was issued, establishing three phases for this proceeding: Phase 1 (annual (2016) LCR obligations, implementation of flexible capacity program, and refinements to RA Program); Phase 2 (definition of flexibility needs); and Phase 3 (demand response issues). On June 25, the CPUC issued D.15-06-063 (<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M152/K977/152977475.PDF>) in Phase 1.

A Workshop was held July 23 to complete work related to the Phase 1 2016 RA Compliance Year. The primary purpose of this workshop was to present and discuss RA compliance rules and procedures for the 2016 RA Compliance Year and to introduce the 2016 RA Templates and RA Compliance Guide.

The Scoping Memo tied the start of Phase 2 to a CAISO study to be filed in October, at which time a ruling will likely set forth a process for consideration of a permanent flexible capacity program. This process will culminate in a decision no later than June 2017.

The Scoping Memo tied the start of Phase 3 to the release of a Valuation Working Group Report, which was an outgrowth of a decision issued in the R.13-09-011 Demand Response rulemaking. That Report is currently being reviewed as part of a comment process, including consideration of a revised cost-effectiveness methodology for DR resources. According to the RA Scoping Memo, this report may trigger Phase 3, but no ruling on any such steps or schedule has yet been issued.

Demand Response

CEERT believes demand response (DR) is an extremely critical technology for enabling a grid with a significantly reduced level of GHG emissions. We have advocated consistently before the CPUC and the other energy agencies to strengthen existing DR programs while advocating for changes in DR procurement, and have been convening small-group meetings with DR companies and environmental groups to determine the best options for achieving these goals.

We believe that continued advocacy before the CAISO is essential to the success of this technology. We have worked intensively with CAISO's Board of Governors and senior management to encourage CAISO to be more flexible and accommodating of demand response aggregators by reducing barriers to increased use of this key resource.

CAISO's current strategic plan expresses strong support for expanding reliance on DR as a crucial tool for managing essential grid reliability services. And in an important sign of progress, the CAISO Board of Governors at its most recent meeting approved tariff changes that for the first time will allow demand response and other distributed energy aggregators to bundle DR from small customers to meet the threshold required to sell energy on the wholesale market. This is a significant step forward, and, along with the CPUC's recent adoption of a Demand Response Auction Mechanism (DRAM) pilot, will open up market opportunities for DR providers beyond the confines of existing utility programs.

Since the issuance of D.14-12-024 in the CPUC 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 DRAM (including DRAM subgroups).

On April 20, the IOUs filed a Joint Advice Letter with the CPUC, seeking approval of the IOUs' 2016 DRAM, which would be a pay-as-bid auction of monthly system RA associated with a DR product in the IOUs' service areas bid directly into the CAISO day-ahead energy market. The IOUs will acquire the RA only and will have no claim on revenues the winning bidders may receive from the CAISO energy market.

On June 18, the CPUC issued a Draft Resolution and Alternate Draft Resolution, both of which approve the first year of the DRAM pilot with modifications and order the following:

- The DRAM shall be exempt from the load impact analysis for the purposes of RA qualifying capacity, if approved in R.14-10-010 (RA). These exemptions shall be for the limited purposes of the first year of the DRAM pilot alone, consistent with the RA motion.
- There will be a waiver of RA penalties for any failure of DRAM sellers to deliver for the pilot period only.
- The methods for basing contract performance on monthly demonstrated capacity are approved.
- SDG&E shall allow Net Energy Metering customers to participate in the DRAM.
- The seller shall provide to the CPUC information about the seller's obligations and performance, and this information will be confidential.
- The pro forma contract is modified to require quarter-end financial information within 30 days of quarter close, and within 40 days of year-end close.
- The IOUs can file a second AL for the second year of the DRAM pilot.
- An Independent Evaluator may be employed by the IOUs.
- The IOUs are encouraged to procure viable bids beyond the 22 MW minimum authorization.
- PG&E shall not limit its Proxy DRs to 50 service accounts for purposes of the DRAM pilot.
- The IOUs are to file Tier 1 ALs in which the DRAM contracts are submitted for approval.
- The IOUs may select the next best DRAM bid if a short-listed bid discontinues participation in the DRAM auction.

- If the capacity is not reached in the first DRAM solicitation, then the IOUs shall make up the shortfall in the next solicitation.

The Draft Resolution and Alternate Draft Resolution (ADR) differ on one point: the Draft Resolution accepts SDG&E's proposal to disallow fossil-fueled Back-Up Generators (BUGs) and requires that PG&E and SCE collect fossil-fueled BUG data, whereas the ADR explicitly disallows the use of fossil-fueled BUG units in conjunction with DRAM contracts for PG&E and SCE, in addition to SDG&E.

At the July 23 CPUC Business Meeting, all five Commissioners voted to adopt the Alternate Draft Resolution, which became Final Resolution E-4728. See: <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M153/K436/153436367.pdf>. The 2016 DRAM RFO will launch this September. Meetings are ongoing to develop the DRAM RFO for 2017.

On August 6, the CPUC issued a Joint Assigned Commissioner and ALJ's Ruling Allowing Parties to Comment on Proposed Guidance for Utilities' Proposals for 2017 DR Programs and Activities. The ruling provides preliminary expectations for the content of DR program proposals for 2017 bridge funding, and states that proposals for 2017 DR program incremental advancements will include program changes to enable market integration, changes for overall program improvement, clarification of DR portfolio contents, and miscellaneous items.

Notably, the ruling specifically asks the IOUs to provide "*recommendations for addressing overgeneration from renewables.*" (Emphasis added.) The ruling states that the utilities had funded a study in 2014 investigating the relationship between renewables and overgeneration, which led to the CPUC authorizing PG&E to perform an "Excess Supply" pilot to look at that relationship. The ruling notes, "[w]e anticipate this to be a growing problem in the future," and asks whether PG&E should continue this pilot or if SDG&E and SCE should expand on this work and identify how load-modifying and supply-side demand response programs can absorb excess power during periods of overgeneration to support renewables integration and grid operations and avoid curtailment of renewable generation.

CEERT may file comments on this ruling, especially to connect the dots between what the IOUs are proposing on overgeneration issues in the RPS rulemaking (R.15-02-020), or even what the CPUC may be considering in its LTPP rulemaking, and what the Commission is seeking in this DR Rulemaking. The IOUs' RPS Plans make no mention of the role that DR could play in addressing overgeneration, nor was it referenced at the LTPP Status Conference on July 29, even though overgeneration and an upcoming Energy Division study of that issue were discussed.

As we have previously reported, the Federal Fifth Circuit Court of Appeals issued a decision vacating FERC Order 745, which provided rules for DR participation in wholesale markets. However, the Supreme Court recently announced that it will be granting review of this decision. The case will be heard during the Court's upcoming term.

Other CPUC Rulemakings and Governance Actions:

CEERT has had a limited budget to actively participate in other CPUC proceedings focused on distributed energy resources, integrated demand-side management, and energy efficiency. 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 February 6, Assigned Commissioner Picker issued a Ruling on Guidance for Public Utilities Code Section 769 – Distribution Resource Planning. The Guidance defines a framework for the utility DRPs

with three sections that describe the structure and intended content of the DRPs, the phasing of next steps, and the definition of certain terms in PU Code Section 769 and how the utilities will interpret these terms.

On July 1, the IOUs submitted their DRPs, and small and multi-jurisdictional utilities Golden State Water Company on behalf of its Bear Valley Electric Division, Liberty Utilities, and PacifiCorp submitted their simplified DRPs. (See: <http://www.cpuc.ca.gov/PUC/energy/drp/>.) The DRPs focus on preparing the grid for increased inclusion of distributed energy resources (DERs).

The IOUs' DRPs are broken down into DRPs, Demonstration and Deployment, Data Access, Tariffs and Contracts, Safety Considerations, Barriers, and Next Steps. Going forward, there will be a phased approach to future DRP filings. The small and multi-jurisdictional utilities' simplified DRPs addressed Locational Benefits and Costs of Distributed Resources Located on the Distribution System; Standard Tariffs, Contracts, and Other Mechanisms for the Deployment of Cost-Effective Distributed Resources; Use of Existing Programs, Incentives, and Other Mechanisms to Maximize Benefits and Minimize Costs; Additional Expenditures Needed to Integrate Distributed Resources; and Barriers to Deployment.

On July 27, ALJ Gamson issued a Ruling that consolidated this rulemaking with the six utilities' Applications for Approval of their DRPs. The Ruling set a Prehearing Conference for September 23 and an extended deadline of August 31 for parties to file protests or responses to the utilities' DRP Applications.

From late July through mid-August, CEERT attended meetings NRDC organized on joint responses to the DRPs, and we plan to seek party status in order to take part in possible joint comments. We will continue to track this proceeding and attend all relevant workshops and conferences.

Integrated Demand-Side Management (IDSMD) (R.14-10-003)

On April 15, Assigned Commissioner Florio and Assigned ALJ Hymes issued a Joint Ruling that posed several questions about the definition of integration of demand-side resources and the goals and breadth of this proceeding. Parties filed Responses on May 15 and Replies to Responses on May 29. CEERT filed a Reply in which we agreed with multiple parties that any definitions and goals the CPUC adopts in this proceeding should emphasize the importance of meeting clean-energy goals. We also urged coordination with utility and CAISO planning and operation and with other CPUC proceedings to effectively integrate demand-side resources.

On July 30, the CPUC held a workshop on the Integrated Demand Side Resources Cost-Effectiveness Mapping Project. The Workshop provided an overview of this project and of staff recommendations, which were broken down into four phases:

- Phase 1: Improve Existing Framework (including the Avoided Cost Calculator)
- Phase 2: Improve the Relationship to the Actual System Conditions, in Coordination with DRPs
- Phase 3: Improve the Models so They More Accurately Reflect State Policy and Goals
- Phase 4: Expand to and Coordinate with Supply Side to Create a Valuation Framework

ALJ Hymes stated she would be issuing a Ruling shortly asking for responses to issues and questions that came up in this Workshop. CEERT will continue to monitor this proceeding and determine whether to file responses to ALJ Hymes' upcoming Ruling.

On August 13, the CPUC issued a Proposed Decision (PD) that adopts an expanded scope, a definition, and a goal for the integration of demand-side resources. The PD's definition of integration of demand-side resources 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 the PD 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 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.

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

Phase 1 of this proceeding concluded on October 24, 2014, with D.14-10-046, which approved the EE portfolios of PG&E, SDG&E, SCE, SoCal Gas, Bay Area Regional Energy Network, Southern California Regional Energy Network, and Marin Clean Energy. Phase 2 was launched earlier this year, and 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.

In May, ALJ Edminster issued two rulings. The first pertained to post-2015 energy efficiency potential and goals and Database for Energy Efficiency Resources updates. The second ruling confirmed the comment process for the Staff White Paper on Energy Efficiency Rolling Portfolio Cycle Mechanics and the April 28 Energy Efficiency Baseline Workshop. The White Paper recommended: addition of more CPUC “touch-points,” particularly for budget oversight; filling in details not clearly defined by the joint parties; and changing proposed details to better reflect on-the-ground experience in portfolio review, or to reflect systems updates already undertaken to conform practices to a Rolling Portfolio world.

A decision is scheduled to be issued that will address, at a minimum, revised savings goals and may also cover any or all of the three issues to be addressed in Phase 2. A second decision is scheduled to be issued in the first quarter of 2016 that will address the remaining Phase 2 issues. CEERT will continue to track developments in this rulemaking.

Self-Generation Incentive Program (SGIP)

On March 27, an Assigned Commissioner’s Ruling (ACR) was issued seeking comments on updates to the avoided-GHG-emissions calculations that determine whether GHG-emitting generators and storage technologies are eligible to participate in SGIP.

CEERT filed comments on April 17 (<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M151/K170/151170211.PDF>), primarily to renew our support for making the GHG emission reduction requirement the primary screen for establishing technology eligibility for the SGIP, and to underscore the critical need for the CPUC to work collaboratively with CARB, CEC, and affected stakeholders through a transparent public process on any update of the GHG eligibility threshold.

On July 10, Commissioner Picker issued a Proposed Decision on this issue (<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M153/K157/153157353.PDF>). This PD had little policy discussion and was directed at specific calculation of the update; therefore, CEERT does not plan to file comments on the PD. On August 13, the PD was held by staff until the Commission’s Business Meeting of August 27.

In a separate ACR issued on April 29, further issues were raised on the implementation of SB 861, which amended SGIP requirements. CEERT filed Opening and Reply Comments on May 22 (<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M152/K045/152045544.PDF>) and June 9 (<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M152/K869/152869376.PDF>). Our primary interest is the implementation of statutory amendments designed to advance technologies that reduce carbon emissions and criteria pollutants, while improving local and system reliability. In our Reply Comments, we also

took exception to calls by certain stakeholders to eliminate technologies from SGIP that contribute to grid reliability while reducing GHG emissions and criteria air pollutants.

Reliability Reporting (R.14-12-014)

The CPUC issued this 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 April 24, Assigned Commissioner Picker and ALJ Gamson issued a Ruling and Interim Scoping Memo, which noted that a Proposed Decision is anticipated in September or October. The first filing requirements for the IOUs are anticipated to be issued in July 2016. The scope of issues for this proceeding are: (1) review current IOU reliability reporting, (2) develop revised annual reporting requirements, (3) define the term "local area," (4) clarify the term "major event day," (5) develop criteria and methodology for identifying worst performing circuits, (6) develop an approach for demonstrating cost-effective remediation and determining cost recovery procedures, (7) consider whether the IOUs should be allowed to set up memorandum accounts for remediation costs, and (8) develop an annual outreach plan and related reporting to inform customers about planned and unplanned outages.

A workshop on April 24 addressed current reliability reporting and local area definition. A second workshop was held May 26 and 27 to build the record for R.14-12-014 on issues of reliability improvement based on required reporting, and public reporting formats and venues. CEERT is now tracking this proceeding, but may seek party status to comment on the PD.

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

At the end of 2014, the CPUC, faced with an increase of California Public Records Act requests (many stemming from the San Bruno fire and issues related to communications between Commissioners and regulated utilities), launched this OIR to "buil[d] on a process we started last year to increase public access to records furnished to the Commission by the entities we regulate, while ensuring that information truly deserving of confidential status retains that protection." Because of its potential significance for document access at the CPUC, CEERT is tracking this proceeding.

On August 11, Assigned Commissioner Picker issued a Scoping Memo and Ruling in this proceeding. The Scoping Memo identifies the following issues to be addressed:

- Are documents submitted to the CPUC subject to disclosure unless deemed exempt from disclosure by the California Public Records Act or other law?
- Is the proposed General Order (GO) 66-D lawful and appropriate?
- Does the proposed GO 66-D comport with §583 of the Public Utilities Code?
- Should the CPUC provide notice to submitters that their documents are to be disclosed?
- Is the procedure for resolving public records requests adequate?
- Should there be a fee waiver?
- What is the effect of the proposed GO 66-D on documents already submitted to the CPUC?
- Does the proposed GO 66-D improve public access to public records?

A Proposed Decision and Final Decision are projected to be issued in the first quarter of 2016. CEERT will continue to track this proceeding and evaluate whether to seek party status.

CPUC President Picker's Proposed Sub-Committees

As previously reported, the CPUC has developed the following sub-committees:

- Finance and Administration: President Picker and Commissioner Peterman
- Policy and Governance: Commissioners Randolph and Florio

- CPUC Modernization: Commissioner Sandoval and President Picker

On July 23, Commission President Picker gave a presentation seeking endorsement of the initial scope of work for the agency-wide strategic planning process over the next 12 months that was developed in the Finance and Administration sub-committee. This effort will be the first comprehensive CPUC planning initiative in over 20 years. The other four Commissioners gave statements of support. All three committees have monthly meetings scheduled for the remainder of the year.

With respect to the CPUC's Governance Committee and consideration of its ex parte rules and practice:

- On June 10, a Draft CPUC Commissioner Code of Conduct was issued. This document can be found at: http://www.cpuc.ca.gov/NR/rdonlyres/2EFB5E5D-5C09-4CD9-B45F-48EF33516C5A/0/RevisedCommissionerCodeofConduct_June10Version_Final.pdf.
- On June 22, the Governor's Office of Planning and Research hosted a workshop on Government Decisions. The CPUC's Ed O'Neill presented his Report on Key Findings from CPUC Modernization & Reform Project. This Report can be found at: <http://www.cpuc.ca.gov/NR/rdonlyres/74C97014-3639-42AA-98BF-9ED316D9F6C4/0/62215KeyFindingsModReformProject.pdf>. Michael Strumwasser of Strumwasser & Woocher presented his Report to the CPUC Regarding Ex Parte Communications and Related Practices, which can be found at: <http://www.cpuc.ca.gov/NR/rdonlyres/1EE7A892-D7C3-43C7-9163-E60AD859463E/0/StrumwasserReport.PDF>. Tim Sullivan, CPUC Executive Director, provided comments that stressed the importance of changes in Bagley-Keene rules and the fact that once the CPUC has more public trust, the CPUC will find it easier to implement the policies that California needs. His comments can be found at: http://www.opr.ca.gov/docs/State_Agency_Sullivan_Notes.pdf.
- On August 12, the Policy and Governance Committee held a public meeting that discussed Mr. O'Neill's and Mr. Strumwasser's reports. In addition, Mr. O'Neill and Mr. Strumwasser prepared a Pilot Program on Ex Parte Communications. The objectives of the Pilot Program are to determine whether ex parte communications in rate-setting cases can be prohibited while providing Commissioners the information they believe they require and presently obtain through ex parte communications, and to determine whether such a prohibition can improve constructive communication and information flow between CPUC decision-makers, advisory staff, the parties and the public, while advancing greater transparency and accountability in record-based decision-making. The Pilot Program presentation is at: http://www.cpuc.ca.gov/NR/rdonlyres/A12B21AC-1FEE-4BE2-9827-57BEF260EF74/0/ProposedExPartePilot_StrumwasserandO'Neill_12Aug2015.pdf.

Central Valley and Southern California Activities - (Southern CA Activities)

On August 12 CEERT, the Latino Environmental Advocacy and Policy Program (LEAP), and Environment California hosted "Unlocking Renewables: A Valley Summit" at Fresno State University in order to jumpstart a dialogue about the San Joaquin Valley's potential to become a clean-energy region. Over 225 people from around the region and the state attended. Multiple media outlets participated in the event: UniVision's anchorwoman, Reina Cardenas, was the MC; Bill McEwen, Opinion Editor at the Fresno Bee, moderated a panel of Valley legislators and CARB board members; and Herman Trabish, reporter for UtilityWire and Public Utilities Fortnightly, moderated a panel on transmission issues. CEERT consultant Rhonda Mills wrote a Primer for the Summit with Rey León and Dan Jacobson that is available at: www.RenewablesInTheValley.org.

Senior Advisor to Governor Brown and Director of the Office of Planning and Research Ken Alex gave the keynote speech. Plenary panelists included renewable energy developers, transmission builders and owners, utilities, bioenergy concerns, and environmentalists. Break-out workshops focused on clean energy incentives and workforce development opportunities. Several CEERT affiliates participated in or helped convene the Summit, including Duke American Transmission Co., EDP Renewables, Berkshire

Hathaway Energy, and FuelCell Energy.

CEERT has continued to engage with key agencies and stakeholders in our ongoing efforts to break the logjam on geothermal and solar development in the Salton Sea region of eastern Imperial and Riverside counties. We have worked to narrow differences on transmission planning and the allocation of deliverability of exported power between the Imperial Irrigation District (IID) and CAISO.

We held discussions with the Governor's office and the Resources Agency about IID, the Department of Water Resources, and SDG&E collaborating on an initial joint procurement of geothermal resources as part of a first-phase Salton Sea Mitigation and Restoration Plan. We also worked with leading geothermal developers in the Salton Sea area to explore opportunities for minerals extraction, desalination, and energy storage as part of geothermal development plans in order to lower costs, increase flexibility, and create co-benefits and additional revenue streams.

Unfortunately, IID recently filed an anti-trust lawsuit against CAISO, claiming that CAISO is discriminatory in its allocation of deliverability (which determines whether imports from Imperial count for resource adequacy and reliability). Nevertheless, progress has been made. There is significant legislative interest in geothermal being part of California's renewable portfolio, and we anticipate some provisions will be added to pending legislation that should help move geothermal procurement forward.

We have been frustrated in our efforts to work with the Los Angeles Department of Water and Power (LADWP), and have been disappointed in LADWP management's continuing refusal to participate constructively in discussions about greater regional cooperation and resource sharing between LADWP and CAISO. However, LADWP has shown some recent signs of interest in learning more about the Energy Imbalance Market and cooperative development of geothermal resources. We plan to reach out to Mayor Garcetti, his staff, and Southern California environmental leaders, brief them on the 2030 Low-Carbon Grid Study results, and air some suggestions for mutually beneficial steps to improve statewide and local reliability while reducing costs.

Short-Lived Climate Pollutants – (Advocacy CA Air Resources)

CEERT has long advocated that the state should reduce emissions of short-lived climate pollutants (SLCPs), which include methane, black carbon, tropospheric ozone, and hydrofluorocarbons. Although these pollutants have shorter atmospheric lifetimes and lower rates of emissions, they are much more powerful climate forcers than CO₂. While California and other jurisdictions around the world pursue strategies to reduce CO₂ emissions, cutting SLCPs can reduce the current rate of global warming by almost half and the rate of warming in the Arctic by two-thirds over the next several decades, while providing significant public health benefits from reduced air pollution.

Pursuant to SB 605, CARB released a Short Lived Climate Pollutant Reduction Strategy Concept Paper on May 7, and held an initial workshop on May 27 to review the Concept Paper with stakeholders and discuss the process for developing the SLCP plan during the remainder of 2015.

CEERT took part in the May 27 workshop and led the drafting of a joint comment letter on the Concept Paper, which was submitted on behalf of the American Lung Association of California, CEERT, Environmental Defense Fund, Natural Resources Defense Council, Clean Power Campaign, Californians Against Waste, Center for Biological Diversity, Coalition for Clean Air, and Sierra Club California.

We supported CARB's prioritizing actions with diverse benefits and pursuit of systems-level solutions that can enable deep, sector-wide emission reductions, and also supported CARB considering the use of the GWP20 (global warming potential over 20 years) for SLCPs. We recommended that CARB's new three-year Investment Plan for AB 32 Auction Proceeds designate projects that reduce SLCP emissions as

a priority category, and we encouraged CARB to work closely with state agencies to quantify the public health, environmental, economic and other co-benefits of such actions.

CARB has been evaluating stakeholder comments, and plans to release an initial draft plan for an SLCP reduction strategy in late August, followed by workshops. CARB will issue a second draft plan in late fall, with the goal of having a final plan for Board consideration in the spring of 2016.

Clean Transportation Advocacy

Low-Carbon Fuel Standard (LCFS)

The revised LCFS regulatory package that the California Air Resources Board (CARB) staff presented to its Board on February 19 has been rescheduled for consideration in September. This delay is necessary to give CARB staff enough time to provide a written response to the large volume of comments from stakeholders and to make minor adjustments to the regulation. CARB staff issued three sets of 15-day changes to clarify the regulatory language issued on February 19, update the carbon intensities of specific inputs of fuel pathways, and expand the eligibility of electricity and hydrogen as fuels for certain off-road applications. CEERT submitted comments supporting the extended eligibility of electricity and hydrogen fuels.

Fuel-Cell Vehicles (FCVs) and Hydrogen Fueling Infrastructure

Work at the California Fuel Cell Partnership (CaFCP) continues to focus on deployment of the 54 hydrogen fueling stations (HFSs) currently funded and under development throughout the state. 44 stations are expected to be commissioned by the end of the year, with the remaining 10 stations becoming operational during 2016. The HFSs will have a combined fueling capacity sufficient to support more than 13,500 FCVs. As a consequence of this extensive fueling infrastructure, auto manufacturers have indicated to CARB that they plan to accelerate deployment of FCVs to the California market. Currently 179 FCVs are registered with the DMV in California, and the auto manufacturers are planning to have more than 10,000 FCVs on California's roads by 2018.

CEERT continues to be part of the working group that is exploring the integration of the electrical grid with renewable power sources and hydrogen production, and the role that hydrogen can play as a transportation fuel or as a form of energy storage for use in stationary fuel cells during periods of peak demand. CEERT hosted a meeting of NREL and CaFCP staff and the Governor's Zero Emission Vehicle Infrastructure Project Manager to discuss the potential for hydrogen-grid integration, and determined hydrogen energy storage can supply value by decarbonizing the gas sector, providing energy and ancillary services, and supporting renewable integration, as well as by providing vehicle fuel. Follow-up meetings will take place, and efforts are underway to locate funding for the modeling research.

CARB adopted the FY 2015-16 Funding Plan for Low-Carbon Transportation Investments and the Air Quality Improvement Plan (AQIP) at its June 25 Board hearing. As part of the Investment Plan CARB staff needed to determine whether and at what level there should be an income cap on those eligible for program rebates when they purchase a TZEV or ZEV under the Clean Vehicle Rebate Project. Purchasers of plug-in hybrid (PHEVs) and battery electric vehicles (BEVs) are eligible to receive up to \$7,500 in tax incentives from the federal government.

CEERT had pointed out that since CARB's income-cap analysis uses data mostly limited to purchases of PHEVs and BEVs, there is an insufficient basis for evaluating how consumers will respond to the nascent market for FCVs, especially since hydrogen fueling infrastructure is still limited and the federal tax incentive for FCVs expired at the end of 2014. For those reasons, we recommended that CARB exercise restraint about applying an income cap to this market segment. CARB staff agreed with our position, and while the June 25 hearing had much discussion of the issue, the Board supported the staff recommendation and adopted the Investment Plan without requiring an income cap on FCVs purchasers.

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. In the development of the program's original regulations — with which CEERT was intimately involved — Title 20, Section 3103 was designed to require ARFVTP grant recipients to discount the value of LCFS carbon credits sold from their biofuels and biomethane projects commensurate with the value of the grants received. This was done to avoid subsidizing the oil industry's ability to comply with the LCFS.

The CEC has determined that, unfortunately, the implementation of this regulation has been working as a disincentive resulting in adverse economic impacts to biofuel and biomethane ARFVTP grant recipients, many of which are just completing substantial expansions of advanced biofuel production capacity.

The CEC implemented an emergency rulemaking (15-OIR-02) to modify Section 3103 in order to eliminate the restriction on using credits generated by projects with ARFVTP funding for those entities that voluntarily opt-in or produce low-carbon-intensity biofuels to qualify for an emissions reduction program such as the LCFS. On February 25 the CEC adopted emergency changes to Section 3103 that became effective March 12, and on August 12 the Commission voted to extend the emergency regulation and continue a rulemaking to make the revisions permanent. CEERT worked with the CEC, CARB, and other stakeholders to support the adoption of the emergency rule.