

**CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES**  
**QUARTERLY STAFF REPORT**  
**SEPTEMBER – DECEMBER 2014**

**EXECUTIVE SUMMARY: THE PAST THREE MONTHS AT A GLANCE** (pages 1–2):

**The Low-Carbon Grid** (full report on page 3)

CEERT's Jim Caldwell and Ali Ehlen are continuing to staff *the California 2030 Low-Carbon Grid Study*. Analysis for Phase II is underway at the National Renewable Energy Laboratory, General Electric, and JBS Energy, and a Technical Review Committee will vet results and assumptions. Final Phase II results are expected in April or May.

**Advocacy at the California Air Resources Board (CARB)** (full report on page 3)

CARB Chairwoman Mary Nichols is focusing on the state's *climate and clean-energy goals*, further updates to the *AB 32 Scoping Plan*, an *electricity-sector* portion of the Scoping Plan, a *short-lived climate-pollutant reduction implementation plan*, and refinements to the *cap-and-trade investment plan*.

**Advocacy at the California Energy Commission (CEC)** (full report on page 3)

The CEC's *2015 Integrated Energy Policy Report* will concentrate on issues tied to the Governor's new energy and climate goals, and on integrating land-use and renewable-energy planning.

**Advocacy at the California Public Utilities Commission (CPUC)** (full report on pages 3 – 13)

CEERT objected to the *utilities' Renewable Portfolio Standard (RPS) Procurement Plans* ignoring AB 327 provisions that remove any ceiling on RPS procurement and permit the CPUC to authorize such procurement above 33%.

We also objected to further delay in the overhaul of the *Least Cost Best Fit evaluation*; the *isolation of RPS procurement* from other planning, policy, and procurement initiatives and authorizations; the *on-going failure to properly value resources from the Imperial Valley*; a *renewable integration cost adder* being developed without stakeholder input; and a *pervasive lack of transparency* in the investor-owned utilities' (IOUs') procurement.

A recent CPUC Decision completed the *RPS compliance and enforcement rules* for retail sellers.

CEERT filed critical Comments on a CPUC Energy Division *RPS Calculator* Proposal that neglected to note the limitations of the Calculator's original purpose and that proposed an expansion of the Calculator's use to include planning for future renewables procurement.

In the 2012 LTPP rulemaking, we joined other groups in challenging the Energy Division's secretive in-house review and approval of *Southern California Edison's (SCE's) and San Diego Gas & Electric's (SDG&E's) Local Capacity Requirement (LCR) procurement plans*, as well as SDG&E choosing to fill 600 MW of its LCR procurement from a gas-fired plant before reviewing the results of its Track 4 Request for Offers and potentially competitive bids from other technologies.

The focus of the *2014 Long Term Procurement Planning (LTPP) rulemaking* has been on modeling to evaluate system need.

CEERT supported a renewed SCE proposal to include a *renewable energy product* in its *2014 Bundled Procurement Plans*. We asserted once again that the integration of renewables into long-term procure-

ment plans is required to ensure compliance with the Loading Order and AB 327, and that the SCE proposal is the most immediate means of achieving those outcomes.

A Decision in the *Demand Response (DR)* proceeding modified material terms of the multi-party Settlement Agreement, sped up the schedule for DR bifurcation, and injected uncertainty into the valuation process.

CEERT filed Comments on the Preliminary Scope of the new Resource Adequacy (RA) rulemaking failing to reflect the *limitations on the flexible capacity framework* in earlier RA decisions that specified this framework was “interim,” and subject to changes based on data from the 2015-2017 compliance years.

A ruling in the *Joint Reliability Plan* proceeding highlighted CEERT’s recommendation that the CPUC develop a durable annual flexible product first before addressing multi-year RA.

CEERT is a party to or is tracking additional CPUC proceedings on *distributed energy resources, energy storage, energy efficiency, and electric vehicles*.

#### **The DRECP and CDREWG** (*full report on pages 13 – 14*)

The draft *Desert Renewable Energy Conservation Plan (DRECP)*, an achievement five years in the making, was released with much fanfare in late September. CEERT will be filing comments, though the draft plan’s pervasive lack of clarity makes it difficult to do so constructively. The governance structure and funding for implementation are not detailed, transmission planning is not well integrated, and the durability agreement is missing key commitments.

It is unclear if the draft plan provides adequate *development focus areas (DFAs) for solar projects*. About 75% of the land that CEERT and LSA proposed for development is in a proposed preferred DFA. The *wind industry* was not entirely successful in getting its *preferred lands* included in the draft plan.

The *California Desert and Renewable Energy Working Group (CDREWG)* is struggling to find common ground on the DRECP draft and its many deficiencies. At this point it seems that joint CDREWG comments will be high-level, and that CEERT will support them.

#### **Southern California Activities** (*full report on pages 14 – 15*)

IID will be submitting comments in order to include the *Salton Sea Known Geothermal Resource Area* in the DRECP. A draft map includes enough Imperial acreage to reach the DRECP goal of 7,000 MW, of which 2,500 MW represents geothermal resources for export from Imperial County.

The Dudek consulting firm will help IID refine the planning process for the *Salton Sea Restoration and Renewable Energy Initiative* by evaluating concept designs, cost estimates, and on-the-ground projects.

#### **Clean Transportation Advocacy** (*full report on pages 15 – 17*)

CEERT advocated for innovative approaches that increase the *Low-Carbon Fuel Standard’s* flexibility, and supported cost-containment provisions to protect consumers from any price spikes in fuel.

CEERT is tracking a CPUC proceeding on *vehicle-grid integration* and an SCE pilot on *electric vehicle (EV) charging*.

CEERT and other members of the California Fuel Cell Partnership are focused on supporting the deployment of the *54 hydrogen fueling stations* currently funded and under development throughout the state.

CEERT helped develop the *AB 118/AB 8 Program's Draft 2015-2016 Investment Plan*, which is proposing \$18 million for EV charging infrastructure and \$20 million for hydrogen fueling infrastructure.

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### **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.

Phase I results were released in August 2014, and can be found at [LowCarbonGrid2030.org](http://LowCarbonGrid2030.org). Since that release, Jim, Ali, and key members of the study's Steering Committee of funders have briefed commissioners and staff at CARB, CPUC, CAISO, CEC, 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 now comprises 31 companies, trade associations, and foundations, and is continuing to grow.

Analysis for Phase II is underway at the National Renewable Energy Laboratory, General Electric, and JBS Energy. Full results and assumptions will be vetted by a Technical Review Committee, which includes representatives from CEC, CAISO, CPUC, WECC, WIEB, PG&E, SCE, SDG&E, SMUD, NV Energy, TURN, Barkovich & Yap Consultants, and EIA. Phase II results are expected in April or May.

### **Climate Advocacy at the California Air Resources Board (CARB)**

As Chair of the Energy Principles Group, CARB Chairwoman Mary Nichols will focus in the coming year on how to go beyond the state's 2020 climate and clean-energy goals, ways to update the AB 32 Scoping Plan, what an electricity-sector portion of the Scoping Plan might include, a short-lived climate-pollutant reduction implementation plan, refinements to the cap-and-trade investment plan, and California's commitments for the 2015 Conference of the Parties in Paris.

The new leadership in the state Senate shares the administration's dedication to these issues, and the institutional dialogue between the bodies will require CEERT to present our views on the path ahead in multiple forums.

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

The CEC's 2014 Integrated Energy Policy Report (IEPR) Update will be finalized soon. The 2015 Report will be a full IEPR, and will concentrate on a number of issues tied to the climate and energy goals that the Governor recently announced. CEC Commissioner Karen Douglas will continue to focus on integrating land-use and renewable-energy planning.

### **Advocacy at the California Public Utilities Commission (CPUC)**

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

In November and December, the CPUC issued three decisions in its RPS proceeding (R.11-05-005), as well as a key ruling initiating consideration of refinements to and a broader application of the RPS Calculator, which has been used to inform the California Independent System Operator (CAISO) of current and forecasted renewables procurement for transmission planning purposes.

- (1) *Decision (D.)14-11-042*, issued on November 20, approved the 2014 RPS Procurement Plans of the investor-owned utilities (IOUs) and other RPS-obligated retail sellers, adopted refinements to certain procurement review rules, and set a schedule for Pacific Gas and Electric Company (PG&E) and Southern California Edison Company (SCE) RPS solicitations.

In our response to the IOUs' RPS procurement plans and proposed changes to the procurement review rules, CEERT sought to correct the failure of the Procurement Plans to implement AB 327 provisions that remove any claimed "ceiling" on RPS procurement and permit the CPUC to authorize procurement above 33%.

We also offered needed corrections to the treatment of renewables versus gas-fired cost assumptions, including the long-overdue overhaul of the Least-Cost Best-Fit (LCBF) evaluation; the isolation of RPS procurement from other planning, policy, and procurement initiatives; and the ongoing failure to properly value resources from the Imperial Valley. On the issue of a renewable integration cost adder (RICA), CEERT objected to the adder being developed outside of a public stakeholder process and applied to renewable generation only. Other parties supported many of these positions.

Disappointingly, the Proposed Decision on the 2014 RPS Procurement Plans failed to address many of these concerns, and CEERT (and other parties) again objected in responsive comments. The final decision (D.14-11-012) made few, if any, corrections in response, and deferred consideration of AB 327, with only the promise that the Commission will address that issue in “a new rulemaking to be initiated in early 2015.” However, instead of launching such a new rulemaking, on January 14 the CPUC issued a decision extending the statutory deadline for the current RPS proceeding.

Further, despite concerns expressed about the addition of a confusing and potentially duplicative RPS solicitation project development “protocol,” D.14-11-012 requires that “projects have achieved, at a minimum, an ‘application deemed complete’ (or equivalent status with the applicable land use entitlement process).” Over the objections of many parties, D.14-11-012 adopts an interim RICA methodology to be incorporated in PG&E’s and SCE’s 2014 RPS Solicitations. The Decision authorizes RPS solicitations by PG&E and SCE (but not SDG&E, based on its asserted lack of need), with the IOUs’ plans again only subject to review and approval by the Energy Division on resubmission with directed changes. And D.14-11-012 eliminates the assumption, in place since 2011, of a maximum import capability of 1,400 MW from the Imperial Irrigation District (IID) Balancing Authority Area (BAA).

While D.14-11-012 did not afford parties an opportunity to participate in the review process or respond further on the final plans and solicitations, on December 31, IID nevertheless filed a Response to SCE’s RPS Procurement Plan objecting to language in SCE’s LCBF that “may be applied inappropriately to adversely affect the evaluation of responses” that renewable generators in the IID area submitted to SCE’s 2014 RPS RFO. IID asserts that this language will be applied to “double-count transmission costs incurred by renewable resources” connected to the IID BAA, and thus discourage bidders in that area. IID also filed a Motion for leave to file the Response.

On January 7, SCE filed a response objecting to IID’s Motion and any consideration of IID’s Response, claiming that such a Response was not authorized by D.14-11-012 and that IID’s claims were without merit. However, on January 12, the Commission granted IID’s Motion to file the Response, but permitted SCE to file a Reply to the IID Response, stating that, by doing so, it was not disrupting SCE’s RFO and was not making a disposition on the merits of IID’s claims.

CEERT will continue to track this IID Response, since a lack of transparency in IOU procurement plans or activities is pervasive, and has plagued the Long-Term Procurement Plan’s Local Capacity Requirements procurement authorizations. The IID Response may prove to be an initial test of whether there will be greater transparency in the review and approval of IOU procurement plans (renewable, gas, or all-source), or if business as usual will prevail.

- (2) *D.14-12-023*, issued on December 4, completes the compliance and enforcement rules applicable to RPS-obligated retail sellers. These rules include a process for these retail sellers to seek waiver or reduction of their obligations and requirements, continue the current penalty amount of \$50 per REC of shortfall in a retail seller’s procurement obligation, and revise the cap on total potential penalties to account for new multiyear compliance periods and differences in the size of the three IOUs and other retail sellers (a range of \$75 – \$100 million for the IOUs through 2020, with penalties imposed on

other retail sellers capped at a lesser amount determined by a separate formula). Revisions to RPS compliance reporting documents are to be undertaken consistent with the decision.

- (3) *D.14-12-081*, issued on December 18, implements Senate Bill 1122, which amended the RPS feed-in tariff provisions of PU Code Section 399.20 to require IOUs to procure mandated quantities of RPS-eligible generation from facilities using specified types of bioenergy. The decision sets the quantities of each type of eligible generation to be procured by each of the IOUs, identifies the required fuel type characteristics, sets the price mechanism (based on the Renewable Market Adjusting Tariff (RE-MAT)), and sets a statewide starting price, subject to bimonthly adjustments for each fuel type. The adopted methodology for the statewide starting price is based on bids from eligible bioenergy projects in the four RAM auctions to date. The IOUs are to file a proposed joint tariff and standard contract by February 9. The program end date is 60 months from the beginning of the first program period.

The most significant additional action during the period was a November 10 ALJ's Ruling that provided notice of an Energy Division proposal to revise and expand the application of the RPS Calculator.

On December 3, CEERT filed Comments on this RPS Calculator proposal. While the ALJ's Ruling posed questions about refinements to the Calculator, CEERT's Comments focused on the proposal's failure to note the Calculator's narrow original purpose — to inform CAISO transmission planning in coordination with the LTPP — and on the proposed expansion of the Calculator's use to include planning for future renewables procurement. As our Comments detail, the Calculator, while perhaps an effective accounting tool, is a limited, ineffective means of fully integrating renewables procurement as part of holistic energy planning that is consistent with the Loading Order and the need for GHG emission reductions.

#### Long-Term Procurement Planning (LTPP)

##### 2012 LTPP: Local Capacity Requirements (LCR) Requests for Offers (RFOs) and Resulting Applications

The CPUC's 2012 LTPP rulemaking concluded with two key decisions authorizing 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). Of particular concern to CEERT is our longstanding objection to the secrecy and lack of transparency in the approval of these procurement plans. We joined other environmental groups in challenging the CPUC Energy Division's confidential, in-house review and approval of these plans, as well as SDG&E's plans not following D.14-03-004's directive to issue an all-source RFO to meet need that was not set aside for preferred resources only.

These IOUs have filed three applications seeking approval of procurement contracts, with SDG&E's involving a bilateral contract. SCE's applications have led to proposed contracts resulting from RFOs that may or may not have included terms sufficient to encourage preferred resources meeting its LCR need.

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

On July 21, SDG&E filed an Application to partially fill the LCR need identified in the D.14-03-004 Track 4 Decision and enter into a PPTA with a gas-fired plant in Carlsbad. The Track 4 Decision authorized SDG&E to procure between 500 and 800 MW by the end of 2021 due to the closure of the San Onofre Nuclear Generating Station, and required that at least 25 MW be procured from energy storage and 175 MW from preferred resources. The Decision ordered SDG&E to issue an all-source RFO for some or all of this authorized capacity.

CEERT became a party to the proceeding at a September 3 Pre-Hearing Conference. On September 12, Assigned Commissioner Florio issued a Scoping Memo and Ruling that scheduled Evidentiary Hearings for November and identified issues to be determined, including if SDG&E's application

complies with its authority in D.14-03-004 and whether the Carlsbad PPTA is a reasonable means to meet the 600 MW of LCR that D.14-03-004 determined may be met by conventional resources.

CEERT participated in the November Evidentiary Hearings. On December 22, we filed a Reply Brief 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 a gas-fired plant before reviewing the results of its September Track 4 RFO to determine what other options were available. We agreed with the Office of Ratepayer Advocates, Protect Our Communities Foundation, Shell Energy North America, and Sierra Club/California Environmental Justice Alliance that approval of the Carlsbad PPTA prior to review of the Track 4 RFO results may inappropriately exclude other technologies from competing to fill SDG&E's LCR needs, and may disadvantage ratepayers.

(2) *A.14-11-012: SCE – Results of LCR RFOs for the Western Los Angeles Basin*

This application was filed on November 21. CEERT is tracking this proceeding, and plans to attend the PHC and determine whether to take a more active role as a party. Our primary concerns are, again, the issues of compliance with CPUC decisions and state policy, and transparency in the RFO and procurement process.

(3) *A.14-11-016: SCE – Results of LCR RFOs for the Moorpark Area*

This application was filed on November 26, and, while it obviously shares issues of law and policy with A.14-11-012, the two have not been consolidated. CEERT will track this application for the same reasons as those noted for A.14-11-012 above.

2014 LTPP (R.13-12-010)

*Phases 1A and 1B: System and Local Need*

A Scoping Memo and Ruling of Assigned Commissioner Picker and ALJ Gamson was issued in the 2014 LTPP in May, establishing a Phase 1 on System Reliability Needs and a Phase 2 on Procurement Rules and Bundled Procurement.

Since that time, the focus of this proceeding has been entirely on modeling being undertaken by various parties — principally the CAISO and SCE — that rely on deterministic or stochastic approaches, or a combination of the two. The modeling to be undertaken in Phase 1A was primarily to evaluate system need, including the need for additional resources to meet operational flexibility or reliability requirements through 2024, and the characteristics of any such additional resources, like expected GHG emissions.

Instead of considering possible requests for evidentiary hearings, ALJ Gamson held a Status Conference on December 9 to determine next steps for Phase 1A and for Phase 1B, which was to consider what resources would be used to meet need. The Conference focused on the apparent results from the earlier modeling indicating that there may not be a system need within the 2014 LTPP planning period, but a need did remain to further examine the merits of the two competing modeling approaches. ALJ Gamson proposed a Nine Point Plan for moving forward in the 2014 LTPP, including a transition to the 2016 LTPP. On December 16, the ALJ issued a ruling encompassing, and requesting comments on, this Nine Point Plan.

The Nine Point Plan would discontinue Phase 1A as a venue to determine if there is a 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. This work would be the subject of a stakeholder process. The ALJ proposed that, while there would be no explicit finding of an absence of need, there could be a finding that evidence was not sufficient to support a procurement authorization. Other work in Phase 1B could include consideration of policy guidance on modeling and resources to identify and meet need. No evidentiary hearings would be held in Phase 1A.

A wide range of parties filed Comments that generally supported the ALJ's Nine-Point Plan. However, gas-fired generators appeared to be reluctant to give up on any need being found, and asked the CPUC to reserve the right to return to that question if the modeling warranted. The one distinct filing was by SCE, which asked that the CPUC not include in Phase 1B the issue of policy development or mandates, but instead be guided by the Clean Energy Standard process directed at GHG emission reductions.

The ALJ issued a ruling on December 23 on assumptions and scenarios for the 2015-2016 LTPP proceedings. Only comments were authorized on this document. Of interest were the three filings made by parties that develop or support large-scale pumped storage. While the filings back the conclusion that the CPUC staff "expects to explore" pumped storage, these parties argue real-world examples exist that support including assumptions and analysis of viable new pumped storage projects in the LTPP.

CEERT continues to actively track and participate in the LTPP. We expect that the next step may be a Proposed Decision resolving the way forward for this 2014 LTPP, as well as for the process planned for 2016. This remains a critical transition both for planning and for advocating for more transparency in the planning and procurement process to ensure that preferred resources are fairly considered in meeting any identified need, as intended by the Loading Order.

#### *(2) Phase 2: 2014 Bundled Procurement Plans*

On October 3, the three IOUs filed their Proposed 2014 Bundled Procurement Plans. SCE renewed a proposal from its 2010 BPP that CEERT had previously supported: to finally include a renewable energy product among its BPP pre-approved transactions. At present, those pre-approved generation products are limited to gas-fired resources only. To date the CPUC, as part of its ongoing isolation of renewables procurement, has deferred this issue back to the RPS rulemaking, where it has languished.

In Comments filed November 4, CEERT restated our longstanding position that the integration of renewables procurement into long-term procurement plans, both bundled and system, is long overdue and is required to ensure compliance with the Loading Order and AB 327, and that the SCE proposal is the most immediate means of achieving those outcomes and should finally be adopted. In Reply Comments, both SCE and PG&E supported our position. A Proposed Decision has not yet issued on the 2014 BPPs, but, as part of our advocacy in seeking changes to the Proposed Decision on the 2014 RPS Plans, CEERT made outreach to Commissioner advisors to urge them to avoid sending this issue back to the RPS.

#### *Resource Adequacy and the Joint Reliability Plan*

The issues of resource adequacy (RA) and system reliability remain primary CPUC and CAISO considerations. In October, the CPUC issued the successor RA Rulemaking (R.14-10-010) to R.11-10-023, assigned to Commissioner Florio, and continued R.14-02-001, initiated to consider a Joint Reliability Plan and the potential for a longer-term RA procurement requirement, assigned to Commissioner Peterman. On December 17, however, a Joint PHC was held in R.14-10-010 and R.14-02-001 to consider if both these proceedings should move forward and, based on earlier party comments filed in R.14-02-001, whether certain multiyear RA issues should be deferred or considered in R.14-10-010 instead.

#### *Resource Adequacy (R.14-10-010)*

On November 5, CEERT filed Comments on the Preliminary Scope for R.14-10-010. Our central concern was the failure of R.14-10-010 to reflect the limitations on the flexible capacity framework adopted in D.13-06-024 and D.14-06-050 in the predecessor RA rulemaking. Those decisions specified that this framework was "interim," and subject to refinement based on analysis of data "gleaned from the first years of the obligation."



CEERT thus made a series of recommendations for a “top-to-bottom re-examination of the existing flexible capacity framework based on data to be gathered during the 2015-2017 RA compliance years,” including the IOUs and CAISO filing reports on the operation of the “interim” program. We stated that only by doing such a review will the CPUC be in a position to effectively evaluate and make informed changes to this framework, especially to ensure that resource decisions are being made that will cost-effectively improve grid reliability and further state policy goals, including GHG emission reductions.

On December 12, an ALJ’s Ruling was issued seeking party comments on a series of questions posed by the ruling, as well as any proposed refinements to the annual RA Program. The questions focused primarily on eligibility criteria and treatment of energy storage and demand response resources in the RA Program and any recommended changes to current approaches.

A Scoping Memo for R.14-10-010 was issued on January 6, and established 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).

The Scoping Memo also established a schedule for party comments and proposals pursuant to the December 12 ALJ’s Ruling, as well as the issuance of Energy Division refinement proposals and subsequent comments and workshops. The RA Workshop was rescheduled for February 9. In reference to coordination with R.14-02-001 (Joint Reliability Plan), the Scoping Memo states that “development of a durable flexible capacity program is within the scope of this proceeding,” but development of a multi-year RA program is not, and remains within the scope of R.14-02-001. (See the R.14-02-001 summary below.)

On January 16, CEERT filed Comments in response to the ALJ’s Ruling that reflect an ongoing concern that both the ruling and the Scoping Memo fail to include directives to ensure that real-world experience will inform refinement of the RA Program’s interim flexible capacity component. We proposed that the CPUC refine the scope of R.14-10-010 to make clear that “(1) the ‘interim’ EFC is and shall remain ‘interim’ unless and until the data and reporting requested by CEERT” is undertaken, and that “(2) no ‘durable’ EFC, whether annual or longer term, will be put in place until that data is evaluated, including, but not limited to, that information and analysis,” as well as an expected October 2015 CAISO Report. We will continue to be active in on this and all other issues to be considered in the R.14-10-010 proceeding.

#### Joint Reliability Plan (JRP) (R.14-02-001)

On January 16, following on the input received at the December 17 Joint PHC, an Assigned Commissioner and ALJ’s Ruling was issued suspending Track 1 of the JRP proceeding.

The ruling notes that “nearly all parties believe” the interim flexible RA requirements do not provide an adequate foundation for developing a permanent one-year or multi-year RA requirement for flexible capacity, and that while generators and storage industry representatives do not wish to defer the development of multi-year RA, most other parties believe that such development should be undertaken after 2015.

The ruling highlights CEERT’s comments recommending that the CPUC develop a durable annual flexible product first before addressing multi-year RA, and that a strong record be built for both purposes. In the end, the ruling agrees with deferring consideration of the issue until a “durable flexible capacity program is considered in the RA proceeding” (R.14-10-010). As noted above, the Scoping Ruling in R.14-10-010 does include this issue, but CEERT argued in our Comments that the data and analysis to support such an outcome must be completed before any interim framework is made permanent.

The January 16 Ruling indicates Track 2 of R.14-02-001, on developing a Unified Long Term Reliability Planning Assessment, will continue. Workshops will be scheduled in 2015 to discuss specific questions to be addressed and the analysis to be performed as part of that assessment, followed by a Staff Report.

#### *Demand Response Programs (R.13-09-011)*

As noted in our previous Quarterly Report, from June to August 2014, numerous parties worked to reach a settlement on several Phase Three issues in the Demand Response proceeding. On August 4, the settling parties filed a Motion to Adopt Settlement Agreement on Phase Three Issues. The settling parties included DR companies, the IOUs, the CAISO, and environmental and consumer advocates.

On October 24, ALJ Hymes issued a Proposed Decision (PD) Resolving Several Phase Two Issues and Addressing the Motion for Adoption of Settlement Agreement on Phase Three Issues. On the same date CPUC President Peevey issued an Alternate PD on the same topic. Both PDs modified several material terms of the Settlement Agreement (SA), and ignored the condition of the agreement that it be treated as a unified whole to reflect the concessions made by multiple parties.

The Settling Parties filed Comments objecting to these changes, especially those seeking to significantly advance the schedule for full implementation of bifurcation and injecting uncertainty into the valuation process, but on December 4 the CPUC unanimously voted to adopt President Peevey's Alternate, issued as D.14-12-024. The Decision gave the Settling Parties only 15 days to accept the modifications or "seek other relief."

The following is a summary of some of the material changes that D.14-12-024 made to the SA:

#### *DR Goals*

- Emergency and Reliability DR does not count toward the interim 5% goal, as the parties had otherwise agreed;
- CPUC Staff shall design the DR Potential Study using the parameters of the Settlement as a guide;
- The DR Potential Study will address more issues than the Settling Parties agreed to, including program classification and goals for the amount of DR to be integrated into the CAISO market;
- CPUC Staff shall begin the design phase immediately;
- CPUC Staff shall present the design to all stakeholders at a workshop;
- The Potential Study will be completed no later than one calendar year from its commencement;
- CPUC Staff will provide a final report on the Potential Study to the assigned ALJ no later than 90 days from completion of the study.

#### *Valuation and Program Categorization and CAISO Market Integration Costs*

- 2016 and 2017 DR funding periods will be a transition period, contrary to the schedule in the SA;
- Bifurcation will be fully implemented in 2018, significantly advancing the date in the SA;
- The decision rejects the component of the SA that freezes the current resource adequacy rules for load-modifying demand response for any period of time;
- The hiring of additional experts for the Valuation Working Group is capped at \$200,000;
- The Integration Working Group and the Operations Working Group Compliance Reports will be filed by June 30, 2015; the Valuation Working Group Compliance Reports will be filed by May 1, 2015;
- In November 2016, the IOUs will submit applications for their 2018 and post-2018 DR portfolios.

#### *DRAM, Utility Roles and Future Procurement*

- The DRAM Pilot Design Working Group will develop standard evaluation criteria and recommend a proposal for set-aside for the DRAM pilot, based on location, customer class, attributes, and end uses;

- The DRAM pilot design, set-asides requirements, protocols, standard pro forma contracts, evaluation criteria and non-binding cost estimates will be filed at the CPUC as a Tier Three Advice letter no later than April 1, 2015;
- Fund shifting in the 2015-2016 DR approved bridge funding budget will be allowed by the IOUs for the sole purpose of funding the DRAM pilot with the following caveats: (1) the utilities shall not eliminate any other approved DR program in order to fund the pilot without proper authorization from the CPUC and (2) the utilities shall submit a Tier 2 Advice Letter before shifting more than 50% of any one program's fund to the pilot.

#### *Budget Cycle*

- The ALJ will issue a ruling in 2015 and initiate the process to authorize a 2017 bridge funding period;
- There will be end-of-year review workshops in late 2015 and again in late 2016 to ensure that each successive year of the transitional cycle moves the CPUC closer to full CAISO market integration and full bifurcation implementation.

For remaining Phase Two Issues, the Decision made the following Orders:

#### *Cost Allocation*

- Any DR program or tariff that is available to all customers shall be paid for by all customers — if it is only available to bundled customers then the costs can only be borne by bundled customers;
- Once a direct access or community choice provider implements its own DR program, the competing utility shall, no later than one year following the implementation of that program, (1) end cost recovery from that provider's customers for any similar program, and (2) cease offering the similar program to that provider's customers;
- There will be a workshop on implementing the competitive neutrality cost causation principle.

#### *Back-Up Generators (BUGs)*

- Fossil-fuel emergency BUG resources should not be allowed as part of a DR program for resource adequacy (RA) purposes, subject to rules adopted in future RA proceedings;
- The IOUs shall require any non-residential DR-contracted customer to self-certify whether the customer owns or operates a BUG, and, if so, to identify its make, model, and location;
- The IOUs shall file the BUG data as a compliance document by November 30;
- The IOUs shall collect information about hourly usage for each BUG owned by non-residential customers that participate in their DR programs. This information shall be collected over the course of 2015 and shall be filed as a compliance document in this proceeding by November 30.

On December 22, the Settling Parties filed and served the required Compliance Letter, in which they asked to be known now as the Joint Sponsoring Parties (JSPs), and stated that the binding terms of the SA required all Settling Parties to accept any changes to the material terms of the SA and they had not reached consensus on whether the CPUC's changes in D.14-12-024 were acceptable to each JSP.

The JSPs asked that the Decision be modified to reflect that the SA is not a binding settlement and that the SA now be known as the Joint Proposal, which can be admitted into evidence, but that each party's right to petition for modification or rehearing of D.14-12-024 would be preserved. The JSPs indicated each was committed to moving forward with the Working Groups and timetables in the Decision, but requested a public meeting in which the changes the CPUC adopted could be explained and discussed.

On January 12, a Pre-Hearing Conference was held in this proceeding, which CEERT attended. At that time, the Compliance Letter and some of the terms of the Commission's decisions were discussed between the JSPs and Assigned Commissioner Florio, his advisor, Matthew Tisdale, and ALJ Hymes. The next steps in response to the Compliance Letter have not yet been determined, but CEERT will continue to track the proceeding and the planned output of the Working Groups.

Other CPUC Rulemakings:

CEERT has had a limited budget to actively participate in other CPUC proceedings focused on distributed energy resources, energy storage procurement (based on the framework excluding large-scale pumped storage projects), energy efficiency, and electric vehicles. 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. In particular, CEERT may wish to consider more active participation in the new Rulemaking on Distribution Resource Plans required pursuant to AB 327.

Distribution Resource Plans (Distributed Energy Resources) (R.14-08-013)

On August 14, the CPUC issued a Rulemaking (R.14-08-013) to “establish policies, procedures, and rules to guide California [IOUs] in developing their Distribution Resources Plan Proposals [DRPs] required by AB 327 (Perea) by July 1, 2015.” On September 17, CEERT attended a CPUC workshop to discuss guidance to the utilities on the contents, structure and framework for the DRPs and PU Code Section 769. On November 17, Assigned Commissioner Picker issued a Ruling on draft guidance for use in utility DRPs, and requested comments on the DRP Guidance document that he and the Energy Division developed.

The Draft Guidance is divided into four parts:

*Part 1:* The Draft Guidance provides a “New Framework for Distribution Planning,” driven by the need for deep GHG reductions, and enabled by mass adoption of Distributed Energy Resources (DERs).

*Part 2:* The Draft Guidance suggests the jurisdictional scope of the proceeding should be the low-voltage distribution system, while also identifying where this proceeding overlaps with other CPUC proceedings.

*Part 3:* The Draft Guidance identifies the need for ongoing coordination between the utilities, state agencies, and the CAISO.

*Part 4:* The Draft Guidance lays out the requirements for the DRP filings, including: development of Integration Capacity and Locational Value Analysis tools, development of demonstration projects, provision of data access, assessment of tariff and contract implications, identification of safety considerations, description of barriers to DER deployment, explanation of how DRP filings will be coordinated with utility general rate cases, and description of proposed next steps.

On January 8, CEERT attended a CPUC workshop on Tools and Technologies for DRPs. We anticipate that the CPUC will issue a Ruling with final guidance on DRP proposals in late January. CEERT will continue to track this proceeding and attend all relevant workshops and conferences.

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

On October 8, the CPUC issued an OIR to create a consistent regulatory framework for the guidance, planning, and evaluation of integrated demand-side resource programs. Phase One of the proceeding will consider the development of an integrated customer energy solutions framework, and Phase Two will adopt a mechanism to create a customer energy solutions program. On December 5, the CPUC held a PHC in this matter, and on January 5, Commissioner Florio and ALJ Hymes issued the Scoping Memo.

Phase One on Policy Issues will review past IDSM activities; review activities in related proceedings; determine reasons and barriers hindering past IDSM success; develop guiding principles for future IDSM activities; develop priorities and goals for IDSM; determine the breadth of future IDSM activities; develop objectives for IDSM, including metrics; and consider the structure of future IDSM activities.

Phase Two on Rate-Setting Related Activities will be determined by the outcomes of Phase One, and may include development of mechanisms for shareholder incentives, funding, and necessary unification.

A Workshop referred to as “Learning Session 1” is scheduled for January 22. The objectives of the Learning Session 1 are to understand what IDSM activities have been previously undertaken in California, what barriers have been encountered that limit or prohibit success, and what information the CPUC may need to know to take the necessary steps to remove or limit those barriers. We anticipate that there will be two more Learning Sessions following this Workshop. CEERT plans to attend all the workshops, and will continue to track this matter.

#### Energy Storage (i.e., A.14-02-006, et al. (IOU 2014 Energy Storage Procurement Plans))

Following issuance of D.13-10-040 adopting an Energy Storage Procurement Framework per AB 2514, the IOUs filed Applications on February 28 for approval of their 2014 Energy Storage Procurement Plans. The IOUs’ Applications were consolidated into a single proceeding, and on May 27, the Commission issued a Scoping Memo that reminded parties about the three purposes any storage project must meet to receive approval: integration of renewable energy; optimization of the grid, including peak reduction, contribution to reliability needs, and deferment of transmission and distribution upgrade investments; and reduction of GHG emissions to 80% below 1990 levels by 2050, per California’s goals.

On October 22, the CPUC issued D.14-10-045 approving IOU storage procurement framework and program applications for the 2014 biennial procurement period, with modifications. Those modifications included:

- SDG&E is authorized 16 MW, SCE 16.3 MW or more, and PG&E 80.5 MW;
- Eligible technologies include V2G electric vehicle technologies, eligible storage component of biogas, eligible storage component of solar thermal generation, and eligible storage component of hybrid thermal generation, but exclude V1G and biogas (without eligible storage component);
- The Power Charge Indifference Adjustment (PCIA) mechanism to recover above-market costs associated with departing load for market/bundled energy storage services procured via the 2014 solicitation is authorized — SDG&E, SCE and PG&E are directed to submit for CPUC review and approval a Joint IOU Protocol proposal for a PCIA methodology to determine potential above-market stranded cost of bundled service storage (procured in the 2014-2016 solicitation);
- Request for extension of the PCIA mechanism beyond 10 years is denied;
- Resolution of “Dual Use” cost recovery proposal for combined generation/distribution energy storage is deferred;
- SDG&E, PG&E and SCE shall file an Application requesting CPUC approval of proposed PCIA methodology to determine above-market stranded cost of bundled service storage along with signed contracts for the winning bids within one year of the December 1, 2014 energy storage solicitation;
- SDG&E, PG&E and SCE must file their respective Dual Use cost recovery methodology if and when they propose such projects to the CPUC for approval;
- The IOUs’ proposed Consistent Evaluation Protocol with adjustments for reporting and benchmarking purposes and proprietary evaluation protocols for bid selection are adopted, and each IOU must implement such adjustments in their December 1, 2014 solicitation requirements and bid materials;
- SCE and PG&E must provide a more detailed explanation of the type of storage resources and the associated MW quantities the IOU intends to procure, categorized by grid domains, use cases, and locations in their December 1, 2014 solicitation requirements and bid materials; and
- The dates for the IOUs to request biennial target deferment are extended from three months from when they receive offers to no later than one year from the date of the first solicitation.

CEERT will continue to track the implementation of this storage procurement framework.

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

On March 3, an ACR was issued amending the original Scoping Memo for this proceeding and providing guidance on energy savings goals for program year 2015. On March 26, the IOUs, as “program adminis-

trators,” filed their individual responses and requests for 2015 EE programs and funding. On October 24, the CPUC issued D.14-10-046 establishing EE savings goals and approving 2015 EE programs and budgets.

D.14-10-046 concludes Phase 1 of R.13-11-005 and approves 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. The Decision directs PG&E, SDG&E, SCE and SoCal Gas to develop a Zero Net Energy program for Eligible Local Educational Agencies and community colleges, and file with the CPUC an Implementation Plan for a pilot program to better understand the extent to which below-code equipment is not getting replaced quickly enough through natural turnover or existing programs.

By rulings in December and January, the CPUC commenced Phase II, with a PHC scheduled for January 28. The January 13 ALJ’s Ruling notes Phase II was originally scoped to address “how we will put ‘Rolling Portfolios’ in place for 2016 and beyond,” and then continues:

“Our current thinking is that in the first half of 2015, we should focus on deciding what we must [do] in order for Program Administrators (PAs) to revise 2016 portfolios, with this serving as a trial for how we will review and revise rolling portfolios going forward. As part of this effort, we will consider changes to direct in 2016 portfolios to better align them with the Governor’s goal of ‘doubling the efficiency of existing buildings’ by 2030. As a practical matter, this means figuring out and deciding by mid-2015 the ‘critical path’ items for changes to 2016 portfolios, regardless of those items’ previous designation as part of Phase II or Phase III.”

CEERT will continue to track developments in this rulemaking.

### **The DRECP and CDREWG**

The draft Desert Renewable Energy Conservation Plan (DRECP), an achievement five years in the making, was released with much fanfare in late September.

However, the 8,000-page draft Plan is based on two federal laws and one state law, and many of the important sections include directions for compliance with those laws but not an integrated permitting or monitoring pathway. The governance structure and funding for implementation are not detailed, transmission planning is not well integrated, and the durability agreement is missing key commitments.

The comment deadline has been extended to February 23, and CEERT will be filing comments, though the draft plan’s pervasive lack of clarity makes it difficult to do so constructively.

Until the agencies are clearer about how the development focus areas (DFAs) will work, it is not easy to understand if the draft plan provides an adequate amount of land for solar development. About 75% of the land that CEERT and the Large-Scale Solar Association (LSA) proposed for development is in a proposed preferred development focus area (DFA).

CEERT has long advocated for a DFA on public lands in the West Mojave that have the highest solar insolation in the United States but contain some overlap with Mojave ground squirrel habitat. The preferred alternative in the draft plan proposes some of the West Mojave for DFA consideration, but actually getting that area fully included in a DFA will take significant additional work. During the 11 public meetings the agencies have conducted in the desert, residents expressed significant opposition to any expansion of renewable development.

The wind industry was not entirely successful in getting its preferred lands included in the draft plan. The agencies are working to clarify the industry’s understanding of the plan and how wind permitting will be administered. Crucial issues are how many acres are projected for wind and how eagle “take” permits

will work in practice. The American Wind Energy Association (AWEA) is planning to be more active in the DRECP discussion and to assist the California Wind Energy Association (CalWEA) in its dialogue with the agencies.

The conservation organizations are likely to file detailed comments on their objections to the draft and their proposed solutions, and are focusing on how a Natural Community Conservation Plan (NCCP) must be implemented and whether the plan meets legal tests. The renewable energy companies, while unlikely to oppose the plan, find little in it that provides clear encouragement for new projects; their prime concerns are how projects will be permitted, what the costs will amount to, and whether there will be incentives for development through streamlining or other measures.

The California Desert and Renewable Energy Working Group (CDREWG) is struggling to find common ground on the DRECP draft and its many deficiencies. The group has succeeded in getting the agencies to continue a dialogue about the draft plan with stakeholders and to schedule in-depth webinars about the most important issues. At this point it seems that joint CDREWG comments will be high-level, and that CEERT will support them.

It is unclear if the plan will be made easier to understand or modified to meet stakeholder concerns or improve renewable energy development in the California desert. The agencies responsible for the plan are opposed to extending the comment period again or circulating a revised plan, as they want to ensure that a final plan is issued before the end of 2015.

### **Southern California Activities**

#### **Imperial Valley and the DRECP**

CEERT's Nicole Ochoa met with Antonio Ortega of the Imperial Irrigation District (IID) to talk about the DRECP. IID has not officially taken a position, but they do plan to support it, and will be submitting comments in order to include the Salton Sea Known Geothermal Resource Area (KGRA).

Antonio said we shouldn't be concerned about members of the grassroots group Backcountry against Dumps — they have family ties to farmers in the northern end of the valley, but their opposition will likely wane when the local farming community reaches out to them. The Farm Bureau has stated on numerous occasions that it is against projects on productive farmland, but will not oppose projects that individual farmers are supportive of. Many farmers are open to leasing their land to developers since the land they have is non-productive and developers are willing to pay higher lease rates.

Nicole also met with Andy Horne with the County of Imperial. The county hasn't officially taken a position on the DRECP, but Andy doesn't see any reason why they would oppose it. They plan to ask for an extension of the 90-day comment period. The county is in the process of doing a full environmental analysis, and they hope to make enough progress on their land-use plans to coincide with the DRECP. A geothermal overlay has been drafted in conjunction with several EIRs to include many, if not all, of the KGRAs, and the geothermal and renewable energy overlays will overlap. The draft map includes enough acreage to reach the DRECP goal of 7,000 MW, of which 2,500 MW represents geothermal resources for export from Imperial County. As of now, they are halfway to these goals with current projects that have been approved or are under construction without having to take farmland out of production.

The Board of Supervisors may not approve three projects in the southern end of the county, just east of Calexico: the Wisteria, Calexico 1A, 1B, and 2B projects do not have PPAs, and parts of the projects are located on prime farmland where produce crops are grown. Produce crops are more labor intensive than mechanically farmed crops, and the Vegetable Growers Association may therefore oppose these projects.

#### **Salton Sea Restoration & Renewable Energy Initiative**

In October, the IID Board approved a Request for Proposals and selected the Dudek consulting firm to do a programmatic EIR on restoration and renewable energy development at the Salton Sea. Phase I will include habitat restoration projects currently in development and create a process for implementing instant habitat should funding become available for projects within the state's Species Conservation Habitat footprint. Phase II will carry out work started in Phase I and integrate it with renewable energy development, using state, federal, and private-sector funding. Phase III will integrate Phases I and II into the Salton Sea Restoration and Renewable Energy Initiative, and include on-the-ground projects that offer habitat and air quality benefits along with renewable energy development.

IID wants to have the environmental work in place so that when the legislative session reconvenes they can be ready when new policies are proposed. Using this three-phase approach, Dudek will help IID refine the planning process for the Salton Sea Restoration and Renewable Energy Initiative by exploring concept designs and cost estimates, as well as evaluating initial on-the-ground projects.

#### 2015 Imperial Valley Renewable Energy Summit

Nicole has been volunteering on the planning committee for the 2015 Imperial Valley Renewable Energy Summit, which will be held March 11 – 13 in Winterhaven and feature a tour of renewable energy facilities, a business exposition, and industry-specific breakout sessions. Nicole was able to secure CEERT Board Chair Jonathan Weisgall's participation as opening speaker and moderator of the Statewide Initiatives panel, on which Angelina Galiteva of the CAISO Board of Governors will also participate. The summit will focus on the Salton Sea, transmission challenges, planning initiatives, new international opportunities, lithium extraction, and biofuel and algae development.

#### **Clean Transportation Advocacy**

##### Low-Carbon Fuel Standard (LCFS)

CARB continued to thoroughly review and refine the LCFS through an extensive series of 21 public workshops. These workshops allowed stakeholders to work with CARB staff on revisions to both technical aspects and administrative components of the regulation. CARB staff's proposal for the entire LCFS regulation was released to the public on December 30.

The proposed regulation is based on updated scientific information (e.g., revisions to the indirect Land Use Change carbon adder). It streamlines the analyses of new fuel pathways, increases the LCFS's flexibility (e.g., by allowing GHG reductions at refineries to qualify for LCFS credits), and incorporates a new cost-containment mechanism to avoid price spikes from LCFS credit shortfalls. These and other proposed revisions are designed to foster investments in low-carbon-intensity fuels, offer additional flexibility to regulated parties, and simplify program operations while enhancing enforcement.

CEERT advocated for several innovative approaches that increase the regulation's flexibility (e.g., allowing new technologies that lower the carbon intensity of energy for producing crude to qualify for LCFS credits). CEERT also supports the inclusion of cost-containment provisions that could help protect consumers from price spikes in fuel that might result if there were to be LCFS credit shortfalls in the future.

##### Electrifying Transportation

##### Alternative-Fueled Vehicles (R.13-11-007)

CEERT continues to track R.13-11-007, and A.14-04-014, SCE's EV Charging Pilot. On September 29, the CPUC issued a Scoping Memo consolidating these proceedings and setting out the issues to be addressed. The VGI Pilot review was held in abeyance until the CPUC decided whether utilities would be allowed to own electric vehicle (EV) charging infrastructure. A July 2011 decision (D.11-07-029), recognizing the market power of utilities, prevented them from owning such equipment except if it was used to charge their own EV fleets or provide workplace charging for utility employees.



However, as most parties now agreed on an expanded role for utilities in deploying EV charging infrastructure, the CPUC issued a proposed decision on November 14 concluding that the earlier prohibition was too broad and a case-specific approach would be more appropriate. The CPUC formally approved this position on December 18, and during the coming months will evaluate whether SDG&E's pilot is reasonable in its program design, program cost, cost-effectiveness, rate treatment, and potential competitive impact on the PEV charging infrastructure market. A prehearing conference to discuss the next steps in the consolidated proceeding was held January 20.

#### Southern California Edison's Charge Ready Pilot (A 14-10-014)

On October 30 SCE filed an application to undertake its own "Charge Ready" EV two-phase pilot program. In Phase I it will install 1,500 charging stations, with complementary market education efforts, at a cost of approximately \$22 million. SCE will use Phase 1 to validate assumptions and address any uncertainties prior to full implementation of the program in Phase 2, in which it will deploy up to 30,000 charging stations and expand its market education work at a cost of \$333 million over four years.

Unlike SDG&E, which claims it needs to own the charging equipment for the pilot to be effective, SCE is proposing to deploy the supporting electric infrastructure (including the "make-ready" stub) for the charging stations at participating customer locations, and offer customers a rebate for those stations. SCE intends to own and maintain the supporting electric infrastructure and "make-readies," but expects its customers to own, operate, and maintain the stations.

CEERT has not formally filed comments in the A.14-10-014, A.14-04-014 or R.13-11-007 proceedings, but will continue to track developments and engage if our advocacy will ensure the successful deployment of charging infrastructure necessary to build a strong PEV market.

#### Fuel-Cell Vehicles (FCVs) and Hydrogen Fueling Infrastructure

On December 10, CEERT attended the opening ceremony for the first publicly available hydrogen fueling station in Northern California, at Ramos Oil Company in West Sacramento. The station is part of a planned network for the Sacramento area that will also serve as a link between fueling stations being built in the San Francisco Bay Area and stations in the Lake Tahoe region.

On November 18 CEERT participated in a roundtable discussion that Toyota hosted on the future of hydrogen. We took the opportunity to meet with several of Toyota's top executives. During the roundtable we shared our perspective that hydrogen should be viewed part of a system that includes electrified transport components, and as part of the future decarbonized grid. CEERT also attended the launch at the LA Auto Show of Toyota's first commercially available FCV, the Mirai (Japanese for "future").

CEERT is part of a new working group at the California Fuel Cell Partnership that will be exploring the integration of the low-carbon grid and hydrogen production, and the role 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.

#### 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 (AB118/AB8) Program. On November 5 the CEC released its Draft 2015-2016 Investment Plan, which proposed \$18 million for EV charging infrastructure and \$20 million for hydrogen fueling infrastructure for FCVs, with additional funding possible for EVs and FCVs as part of the \$20 million Medium and Heavy Duty Vehicle Technology Program.