

CENTER FOR ENERGY EFFICIENCY AND RENEWABLE TECHNOLOGIES
QUARTERLY STAFF REPORT
JUNE – JULY 2018

EXECUTIVE SUMMARY: THE PAST QUARTER AT A GLANCE (pages 2–3):

Grid Modernization and Reform (full report on page 5)

CEERT Director of Grid Policy Liz Anthony has largely completed her *gas-fleet database* and is using it for gas-related policy issues.

Western Grid Integration (full report on page 5 – 6)

CEERT's ally Clean Power Campaign continues to work with Fix the Grid Coalition, taking part in discussions on bringing about an *integrated regional electric system* that can aid in the transition to a cost-effective, reliable low-carbon grid. Issues of concern that are complicating prospects for regional integration include California's continued access to lower-cost wind and solar from neighboring states, potential hostile interference from the Federal Energy Regulatory Commission (FERC), and proposed governance provisions for a new regional system operator.

CEERT is working with Pacific Northwest colleagues on advocacy for a California-Northwest *solar-hydro exchange* and opposition to a recent increase in the Bonneville Power Administration's *southbound transmission rates*.

Southern California Municipal Utilities (full report on page 6)

The Los Angeles Department of Water and Power (LADWP) has agreed to a *70% Renewable Portfolio Standard by 2035*, which will result in approximately *2,500 megawatts (MW) of new renewable procurement* over the next five years. It next must reconcile its in-Basin gas repowering program with an Aliso Canyon phase-out and further decarbonization. CEERT's Jim Caldwell is on the Advisory Committee and Liz Anthony is an alternate for LADWP's 100% Clean Energy Study.

Glendale Water and Power has issued a Request for Proposals in response to Jim Caldwell's alternate plan emphasizing *local renewable resources* instead of a proposed new 262 MW gas-fired plant.

Transmission Expansions (full report on pages 6 – 7)

Jim Caldwell and Liz Anthony are conferring with Northwest colleagues about transmission expansions and other strategies for better utilizing Pacific Northwest hydroelectric resources to *reduce dependence on natural gas* in meeting California system reliability needs, including the evening ramp.

In the aftermath of last year's California Energy Commission decision to disapprove the proposed Puente power plant in Oxnard, Jim Caldwell has been working with Southern California Edison on a proposed set of transmission expansions and upgrades to meet *reliability needs in the Moorpark sub-area*.

Large-Scale Energy Storage (full report on page 7)

Partly as a result of CEERT's advocacy, the California Independent System Operator (CAISO) may be required to develop a procurement plan for *1,000-2,000 MW of large-scale storage* and a methodology for allocating costs to all load-serving entities.

Discussions with the Governor's Office (full report on page 7)

CEERT talked with the Governor's advisors about the *utilities' wildfire liabilities*, the *de facto moratorium on new renewable procurement*, and the California Public Utilities Commission's (CPUC's)

mistaken assumptions that California is on target to meet *2030 RPS procurement and GHG reduction targets*.

Advocacy at the California Air Resources Board (CARB) (*full report on page 7*)

Partly as a result of CEERT's meetings with CARB officials and comments Liz Anthony submitted to the Energy Division, the CPUC has revised modeling assumptions for the Resolve Model and Avoided Cost Calculator to better reflect *actual emissions* and a more realistic trajectory of *future emission reductions*.

Advocacy at the California Public Utilities Commission (CPUC) (*full report on pages 7 – 16*)

A new CPUC rulemaking will review *Renewable Portfolio Standard (RPS)* plans submitted by retail sellers, analyze progress of retail sellers and the RPS program, assess retail sellers' compliance with RPS obligations, and integrate new legislative mandates and administrative requirements into the RPS program.

A ruling in the *Integrated Resource Planning (IRP) proceeding* adopts a modified clean net short methodology for load-serving entities to use in their IRP filings, and adopts updated greenhouse-gas (GHG) benchmarks to use for planning purposes in those filings.

CEERT's Reply Comments in the *Resource Adequacy (RA)* proceeding supported arguments that the 100% multiyear local RA procurement requirement for year 2 is not warranted. In our Comments we urged the CPUC to prioritize developing standards to count hybrid resources.

CEERT's RA Track 2 Opening Testimony asserted that the CPUC should not be choosing to increase RA costs through multiyear procurement obligations as a way of encouraging existing generators to remain a little longer, and that the CPUC's priorities should be to reduce local capacity requirement (LCR) demand and increase the supply of zero-carbon LCR preferred resources as a means of mitigating the market power of existing resources under current rules.

The CPUC opened an Order Instituting Investigation on minimizing or eliminating use of the *Aliso Canyon natural gas storage facility* in Los Angeles County. CEERT now has Party Status in this proceeding.

In line with CEERT's strong advocacy, the CPUC voted to adopt President Picker's Alternate Proposed Decision and approve *19 contracts for 125 MW of preferred resources* in Southern California Edison's Preferred Resources Pilot Request for Proposals 2.

PG&E sought approval of *four energy storage contracts totaling 567.5 MW* resulting from its Request for Offers to address local sub-area capacity deficiencies and manage voltage issues.

The CPUC held a workshop that provided an overview of the *Demand Response Auction Mechanism (DRAM)* evaluation metrics, explored the potential of an additional one-year pilot, and explored whether the CPUC should consider short-term improvements to the DRAM pilot.

Short-Lived Climate Pollutants (*full report on page 17*)

CEERT is collaborating with the Dairy/Livestock Working Group, allied stakeholders, and state agencies on achieving progress toward California's goals for *slashing methane emissions*. We are also taking part in CalRecycle's process for implementing a *reduction in organic waste disposal*.

Clean Transportation Advocacy (*full report on pages 17 – 18*)

CEERT continues to work with state and national NGOs to defend the 2022-2025 *vehicle emissions standards* against efforts by the Trump administration to roll them back.

The CPUC approved four transportation electrification programs and one rate design proposed by California's three investor-owned electric utilities.

CEERT recommended that CARB allow adjustments to the rate at which capacity credits are issued to ensure that the market price of *Low-Carbon Fuel Standard credits* is not undercut or compromised. We also recommended that CARB investigate expanding the use of capacity credits to include fleets.

The *Alternative and Renewable Fuel and Vehicle Technology Program Advisory Committee*, of which CEERT is a longstanding member, released a final 2018 – 2019 Investment Plan Update with *funding for electric vehicle charging infrastructure* raised from \$20 million to \$134.5 million and for *hydrogen fueling infrastructure* from \$20 million to \$92 million. This funding will support achieving the Governor's targets of placing 5 million zero-emission vehicles on California's roads by 2030, along with 200 hydrogen fueling stations and 250,000 electric vehicle charging stations by 2025.

Grid Modernization and Reform

CEERT has continued its efforts to find solutions to decrease the gas burn in California. Grid Policy Director Liz Anthony has begun to use the now largely completed gas-fleet database for policy applications. Her outreach to environmental and environmental-justice advocates has helped to further coordination and assistance on policy issues directly relating to the gas fleet, an orderly retirement of gas-fired capacity, and the potential retirement of the Aliso Canyon gas storage facility. The gas database has also been utilized to map gas capacity and usage for local capacity areas and requirements.

Western Grid Integration

CEERT's ally Clean Power Campaign has been meeting regularly with the Fix the Grid Steering Committee and related subgroups to discuss new developments, media, and political strategy on the proposed legislation to begin the transition to an integrated regional grid. But Assemblymember Holden's decision to include amendments in AB 813 that would restrict the importation of renewable energy from outside the current CAISO footprint would effectively eliminate the use of dynamic transfers of regional wind for purposes of Renewable Portfolio Standard (RPS) compliance. This amendment is all but certain to lead to a court challenge to the legislation, because it appears to directly conflict with the Dormant Commerce Clause of the U.S. Constitution, and it undermines one of the principal goals of regionalization, which is to allow California to access lower-cost, grid-friendly wind and solar from neighboring states.

A group of Fix the Grid affiliates met with Assemblymember Holden and expressed strong opposition to this language being included in the bill, but were told that the amendment wouldn't be dropped unless the Governor and Mr. Holden determined removing the language would increase support for the bill. In addition, a number of Fix the Grid affiliates, led by Environmental Defense Fund, are seeking to add language to the bill that would be designed to strengthen California's ability to defend itself from hostile action by the Federal Energy Regulatory Commission. To date, Assemblymember Holden has declined to accept the proposed FERC amendments.

Concern is growing about the risks of FERC interference in state environmental and clean energy policies, based on two recent decisions involving state clean energy subsidies and their potential to distort electricity markets. While these two decisions would not apply in regions such as California where there are no capacity markets, two recent filings at FERC by natural gas generators La Paloma and Calpine, protesting California's Resource Adequacy programs as interference in wholesale markets and requesting FERC intervention, have raised concerns about the possibility of future FERC intrusions, especially in light of the prospect of President Trump appointing two new FERC commissioners.

Fix the Grid affiliates are divided on the value and risks of moving AB 813 forward without additional amendments, amid fears that the Governor will jam the bill through in August, perhaps as part of a mega-deal on SB 100 (de León) and wildfire liability.

There is growing interest by some members of the Fix the Grid Coalition in having the legislation be amended to require approval of the Legislature and the next Governor of the final governance proposal developed by CAISO and stakeholders and utilities in neighboring states. There is also concern about the provisions of AB 813 specifying that California would only have three members out of 12, or possibly 18, on the States Committee, which would approve nominations to the new board of CAISO's successor agency and advise on key policy issues such as resource adequacy and transmission cost allocation.

Meanwhile, CEERT continues to work with colleagues from the Pacific Northwest to advocate for further coordination between California and the Northwest. Current barriers to a solar-hydro exchange between the regions are largely due to misalignment of timelines and seams issues. In order to receive resource adequacy (RA) payments, Northwest entities would have to bid capacity before they know what the hydro levels are, and therefore what capacity will be available. For shorter timeframe transactions, Northwest

entities typically buy and sell excess hydro capacity days before the CAISO's day-ahead market bidding occurs. CEERT and our Northwest allies have been successful in pushing for a new framework for flexible resource adequacy that would better allow Northwest hydro to count for RA compensation.

Grid Policy Director Liz Anthony and Technical Director Jim Caldwell have also been in discussions with colleagues about a recent increase in the Bonneville Power Administration's southern intertie south-bound short-term transmission rate. That increase made current low-carbon imports from the Northwest much less affordable, and created another significant barrier to an exchange of California midday solar surplus for the Northwest's hydro ramping capacity. CEERT is working with Northwest advocates on a strategy to push back against this rate increase.

Southern California Municipal Utilities

The Los Angeles Department of Water and Power (LADWP) is facing what amounts to a total system makeover. Its current Integrated Resource Plan (IRP) (circa early 2016) has assumed exiting the IPP coal facility in Utah and replacing it with a large combined-cycle gas plant, compliance with SB 350 and repowering of LADWP's entire in-Basin gas fleet due to age, and compliance with Once Through Cooling regulations — basically a 50/50 gas/renewables system.

Meanwhile, political pressure to be a “climate leader” led to an LA City Council resolution to take the system to 100% “renewables” by 2045, and everything that has happened since only moves up that timing. With the front end of the IRP being a \$5 billion investment in gas generation, the long-term low-carbon strategy is difficult. LADWP has now inked the exit deal for IPP coal, retaining the DC transmission rights from northern Utah and committing to construction of an 840 MW gas combined-cycle complex plus a pilot for Compressed Air Energy Storage at the Utah site. In exchange, it agreed to increase its in-Basin solar and energy efficiency programs and commit to an accelerated renewable procurement program, ending with a 70% Renewable Portfolio Standard (RPS) by 2035. The result will be approximately 2,500 megawatts (MW) of new renewable procurement over the next five years.

LADWP next must reconcile its in-Basin gas repowering program with an Aliso Canyon phase-out and further decarbonization while preserving reliability and planning for potentially large load growth due to electrification of transportation and buildings. Preliminary decisions are required by late fall. There should be significant further procurement of in-Basin preferred resources as a result.

Jim Caldwell is on the Advisory Committee and Liz Anthony is an alternate for LADWP's 100% Clean Energy Study — work that should lead to a dramatically revised IRP in 2019.

Glendale Water and Power (GWP) is proposing to build 263 MW of new gas to replace the aging, obsolete, inefficient Grayson gas facility. Jim Caldwell sponsored an alternate plan that achieved reliability through emphasis on energy efficiency, demand response, local solar, and transmission. The Glendale City Council instructed staff to issue a Request for Proposals (RFP) for local renewable resources before committing to the new gas plant. GWP is due to report back to the City Council at the end of August on the RFP results plus transmission options.

Transmission Expansions

Jim Caldwell and Liz Anthony have been holding regular meetings and conference calls with colleagues from Renewable Northwest and the Northwest Energy Coalition about developing new market mechanisms and strategies to better utilize Pacific Northwest hydroelectric resources to meet California system reliability needs, including the evening ramp. CAISO is studying the economic benefits and costs of expanding north/south transmission lines in order to allow a greater volume of transfers between the Northwest and California as a way to reduce dependence on natural gas.

In the aftermath of the California Energy Commission's 2017 decision to disapprove the proposed Puente power plant in Oxnard, Jim Caldwell has been working with Southern California Edison (SCE) on a proposed set of transmission upgrades and expansions to meet reliability needs in the Moorpark transmission sub-area. In its 2018 Transmission Planning Process, the California Independent System Operator (CAISO) is studying possible transmission expansions and upgrades to reduce Local Capacity Requirements and the need for gas-fired generation in disadvantaged communities.

Large-Scale Energy Storage

Partly as a result of CEERT's nonpolitical advocacy in support of actions to undertake procurement of large-scale storage, Assemblymember Bill Quirk has recently amended legislation (AB 2787) to require CAISO to develop a procurement plan for 1,000-2,000 MW of large-scale storage and a methodology for allocating costs to all load-serving entities. Long-duration storage is not defined, but would presumably include pumped hydro, compressed air, solar thermal with storage, and perhaps hydrogen. The legislation is sponsored by Next Era Energy and is supported by National Grid and the California Building & Trades Council.

Discussions with the Governor's Office

V. John White joined other renewables advocates for meetings with the Governor's new Executive Secretary Diana Dooley and Special Advisor Alice Reynolds to discuss the importance to the renewables industry of keeping the investor-owned utilities solvent and spreading and sharing the current massive wild-fire liability obligations. The group also discussed the de facto moratorium on new renewable procurement, and the fact that without substantial new renewable investment that takes advantage of expiring federal tax credits, California would fall behind in its renewables and greenhouse-gas reduction targets.

V. John White and Liz Anthony also met with Alice Reynolds and Saúl Gómez to discuss discrepancies and errors in the CPUC's modeling assumptions for current and future projections for air pollution and greenhouse-gas (GHG) emissions, and the CPUC's mistaken assumptions that California is on target to meet 2030 RPS procurement and greenhouse-gas (GHG) reduction targets.

Advocacy at the California Air Resources Board (CARB)

V. John White and Liz Anthony met with CARB Executive Officer Richard Corey to discuss discrepancies in the California Public Utilities Commission's (CPUC's) modeling of air pollution and greenhouse-gas (GHG) emissions in the Resolve Model and the Avoided Cost Calculator, and the fact that the assumed level of emissions are inaccurate, compared to actual and future emission levels. We strongly suggested CARB take a more active role in vetting and verifying the CPUC's modeling assumptions, as the CPUC has consistently underestimated the actual level of power-sector emissions and has made unsupported assumptions about the trajectory of future air quality and GHG reductions. We pointed out that the reference case for the Resolve Model in the CPUC's Integrated Resource Plan showed that air pollution from the power sector would actually increase in 2030, even as GHG emissions and Renewable Portfolio Standard targets were being met.

Partly as a result of these meetings and the comments that Liz submitted directly to Energy Division staff, the CPUC has revised the modeling assumptions for both the Resolve Model and the Avoided Cost Calculator to better reflect actual emissions and a more realistic trajectory of future emission reductions.

Advocacy at the California Public Utilities Commission (CPUC)

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

On June 1, the Commission issued [D.18-05-032](#), a Decision Modifying Sections 4.1 and 4.2 of the Bio-energy Market Adjusting Tariff (BioMAT) Power Purchase Agreement Approved in D.15-09-004. This Decision removes the language "or any Laws" and "or any Law" from the attestation clauses found in Sections 4.1.2 and 4.2.3. The utilities and other parties asserted that their ability to execute BioMAT

contracts had been impaired by recent legal developments in the Renewable Energy Market Adjusting Tariff (ReMAT) realm; with this modification, the Commission addresses this perceived impediment so that parties and contractual participants can execute pending BioMAT power purchase agreements (PPAs), thus enabling the BioMAT program to help meet California's environmental, air quality, and public safety priorities.

On June 6, the CPUC issued [D.18-05-026](#), which completes the implementation of enforcement rules for the RPS program in response to changes made by Senate Bill (SB) 350, maintains the existing RPS penalty scheme, integrates changes made by SB 350 into the current RPS waiver scheme, and denies Shell Energy's August 2, 2017 Petition for Modification of D.17-06-026.

On June 21, Assigned Commissioner Rechtschaffen and ALJ Mason issued a [Ruling](#) Identifying Issues and Schedule of Review for 2018 RPS Procurement Plans and providing filing requirements for all retail sellers of electricity, including electrical corporations, community choice aggregators (CCAs) and electric service providers. All current CCAs and any CCAs that intend to procure for 2018 and 2019 are subject to this Ruling. The 2018 RPS Procurement Plans must include all information required by statute, including quantitative analysis supporting the retail seller's assessment of its portfolio and future procurement decisions. The Ruling also requests Comments on the RPS Procurement Plans. Responses to questions about energy storage are due on August 17 and Reply Comments are due August 31. A [Corrected Ruling](#) on July 10 made minor modifications to the June 21 Ruling.

At the July 12 CPUC Business Meeting, the Commissioners voted to adopt a new Order Instituting Rule-making (OIR) to Continue Implementation and Administration, and Consider Further Development, of California's RPS Program. The [Proposed OIR](#) is a successor to R.15-02-020 and will be designated R.18-07-003. Its scope includes reviewing RPS procurement plans submitted by retail sellers; providing tools for analysis of and reporting on progress of retail sellers and the RPS program as a whole; assessing retail sellers' compliance with RPS obligations; and integrating new legislative mandates and administrative requirements into the RPS program. The CPUC will take enforcement action, if necessary. This OIR closes R.15-02-020, which remains open only to consider pending petitions for modification and intervenor compensation claims. Comments on the OIR are due 20 days from issuance of the Final OIR and Reply Comments are due 30 days after issuance. A Pre-Hearing Conference is scheduled for September 24, and a Scoping Memo will be issued in the fourth quarter of 2018.

In R.15-02-020 (RPS), on July 19, 2018, ALJ Mason granted East Bay Community Energy's Motion for Extension of Time to Submit RPS Plans. The new deadlines are:

- August 20: Due date for filing and serving proposed 2018 RPS Procurement Plans
- September 14: Due date for Comments on proposed 2018 RPS Procurement Plans
- September 14: Due date for Motions Requesting Evidentiary Hearings
- September 28: Due date for Reply Comments on proposed 2018 RPS Procurement Plans
- September 28: Due date for Motions to update proposed 2018 RPS Procurement Plans

RPS ReMAT (Renewable Market Adjusting Tariff) Program – On Hold per U.S. District Court Decision

On December 6, U.S. District Judge Donato issued an order granting summary judgment in favor of Winding Creek Solar LLC's requests for relief from PG&E's ReMAT program, and found that CPUC decisions establishing the ReMAT Program conflict with federal law (PURPA). The decision effectively shut down the ReMAT program and foreclosed the investor-owned utilities (IOUs) from signing new ReMAT contracts.

On April 23, the U.S. District Court denied the CPUC's request to stay this order and judgment, pending the CPUC's appeal to the US Court of Appeals for the Ninth Circuit. That appeal has not yet been filed.

On the Agenda for the July 26 Commission Business Meeting is a [Proposed OIR](#) Regarding Continued Implementation of the PURPA and Related Matters, which is a direct response to the U.S. District Court's order in *Winding Creek v. Peevey*. The OIR will consider: changes to California's existing implementation of the federal PURPA for the state's IOUs; adoption of a new standard offer contract that will be available to any qualifying facility (QF) of 20 MW or less seeking to sell electricity to a Commission-jurisdictional utility pursuant to PURPA; and adoption of a price to be paid at the time of delivery when a QF has opted to sell as-available energy to the utility without a contract. A Pre-Hearing Conference is scheduled for September or October.

Integrated Resource Planning (IRP) (R.16-02-007)

On February 28 several of the original "Joint Parties" to the Diablo Canyon application filed a [Petition for Modification](#) (PFM) of D.18-02-018 to provide direction on the procurement of GHG-free resources to prevent any increase in GHG emissions after the Diablo Canyon generators are retired, as planned, in 2024 – 2025. On March 26, CEERT and other parties (the "Environmental Responders") filed a [Joint Response](#) that strongly supported additional CPUC consideration of the impact of Diablo Canyon's retirement within the IRP proceeding. There has not yet been a ruling on the PFM.

On May 25, ALJ Fitch issued a [Ruling](#) that finalizes an accounting methodology for the GHG emissions of individual load-serving entity (LSE) electric resource portfolios and adopts updated GHG benchmarks to use for planning purposes in the IRP filings due August 1. The Ruling adopts a modified clean net short (CNS) methodology for all LSEs to use in their IRP filings.

On May 30 the IRP Modeling Advisory Group (MAG) held a webinar that modeled energy storage resources in the 2019-2020 IRP and discussed draft proposals for capturing locational values in 2019-2020.

On June 18 ALJ Fitch and ALJ Kao issued a [Ruling](#) that finalizes individual LSE load forecasts for 2030 and associated GHG benchmarks for use in the IRP filings due August 1. Any motions for updated load forecasts and GHG benchmarks received after this Ruling will be used only for later IRP cycle planning.

On June 21 the Commission Energy Division provided updates to the CNS Calculator and the Baseline Resource Data Template.

On June 29 the IRP MAG held a webinar that discussed distribution impacts analysis of the IRP and Distribution Resource Plan (DRP), and provided the Joint IOU proposal on the calculation of distributed energy resource (DER) avoided distribution costs.

During an August 7 workshop, individual LSEs presented an overview of their IRPs.

Resource Adequacy (RA) (R.17-09-020)

On June 11, CEERT filed [Opening Comments](#) on the Proposed Decision Adopting Local Capacity Obligations for 2019 and Refining the Resource Adequacy Program. Our Comments noted that the Proposed Decision adequately quantifies system, local and flexible capacity obligations for 2019, but we argued that load forecasts and contingency scenarios for system, local and flexible capacity obligations need to be recalibrated to 2017 actual loads and contingencies, and we stated that the consequences of the emergence of use-limited preferred resource alternatives to RA supply need comprehensive analysis.

On June 18, CEERT filed [Reply Comments](#) supporting parties that argued that the 100% multiyear local RA procurement requirement for year 2 is not warranted. In addition, we urged the Commission to prioritize developing standards to count hybrid resources. We did not file comments on the Proposed Decision Adopting Flexible Capacity Obligations for 2019.

At the June 21 CPUC Business Meeting, the Commissioners voted to adopt both Proposed Decisions. [D.18-06-030](#) is the Decision Adopting Local Capacity Obligations for 2019 and Refining the Resource Adequacy Program, and [D.18-06-031](#) is the Decision Adopting Flexible Capacity Obligations for 2019.

On July 10, CEERT served Track 2 Opening Testimony by our Technical Director Jim Caldwell. That testimony asserts that the CPUC has the wrong priorities in choosing to increase RA costs through multi-year procurement obligations as a way of encouraging existing generators to remain a little longer, and that the Commission's priorities should be to reduce local capacity requirement (LCR) demand and increase the supply of zero-carbon LCR preferred resources as a means of mitigating the market power of existing resources under current rules. CEERT's testimony recommends that the CPUC take modest, common-sense steps in Track 2 along this path and factor in these steps in setting forth procurement obligations for a lower-cost, higher-reliability win-win in both the short term and the long term.

"Responsive" Track 2 testimony is due on August 8. However, the CPUC already held a July 19 Workshop that allowed parties to discuss multiyear RA and central procurement buyer/authority proposals. A Prehearing Conference (PHC) has been scheduled for August 1, mainly to determine whether evidentiary hearings are necessary in Track 2; any party that believes evidentiary hearings are necessary must file and serve a PHC statement on July 27. At this point, CEERT does not necessarily believe that evidentiary hearings will further discussion of the merits of any of the proposals. The discussion during the Workshop indicated there are areas of disagreement, as well as a need for more information, on the proposals, including the one sponsored by the Energy Division.

Aliso Canyon (I.17-02-002)

On February 9, 2017, the Commission opened an [Order Instituting Investigation](#), pursuant to SB 380, on minimizing or eliminating use of the Aliso Canyon natural gas storage facility in Los Angeles County while still maintaining energy and electric reliability for the region. On June 15, ALJ Semcer issued a [Ruling](#) Requesting Informal Feedback on Energy Division's Updated Proposed Phase 1 Scenarios.

On June 28, CEERT filed a Motion for Party Status, and served Informal Comments that focused on concerns with the modeling efforts contained in the Energy Division's Updated Proposed Phase 1 Scenarios. CEERT's Motion for Party Status was granted on July 6.

A technical workshop on the Aliso Canyon scenarios framework was held in Simi Valley on July 31.

SCE, PG&E, and SDG&E Requests for Proposals (RFPs) or Requests for Offers (RFOs)

SCE Moorpark: In D.17-09-034 the CPUC rejected SCE's 54 MW gas-fired Ellwood contract and 0.5 MW energy storage contract to meet need in the Santa Barbara/Goleta area, directed SCE to determine whether that need could instead be met with reduced reliance on fossil fuel, and told SCE to update the Commission on actions and resources to address needs in the Santa Barbara/Goleta area that may arise in the event of a loss of the two Goleta-Santa Clara 230 kV transmission lines.

On February 28, SCE issued a Request for Proposals (RFP) soliciting preferred resources and energy storage that would meet the LCR needs in the Moorpark sub-area, and that also may further resiliency objectives in the Santa Barbara/Goleta area. SCE held a Bidder's Conference on March 15, and on March 23 amended the RFP to account for final approval by the CAISO Board of Governors of a transmission upgrade that reduced the overall need. Initial bids for this groundbreaking RFP were due on July 3, and the short list is to be published in October.

The residual LCR need in the Santa Clara sub-area increased substantially with the new CEC load forecast, and SCE has revised the procurement objective as a result. There also appears to be a very real pos-

sibility that new gas in the Goleta area will be at least short-listed. Efforts to improve the prospects for demand response (DR) by proper accounting for hybridization with storage were only partially successful, and it will be difficult for substantial quantities of DR to pass the initial screens for short-listing. As part of the RA Decision 18-06-030 mentioned above, the CPUC removed the existing prohibition against hybrid storage/DR resources, and SCE modified the RFP documentation to allow them to bid, but a lot of work remains to be done to take full advantage of this important resource.

SCE Preferred Resources Pilot RFPs: In pursuit of its PRP RFP 2, SCE filed briefs in October in support of 19 contracts for 125 MW of preferred resources that will meet DER and GHG goals. On February 23, the CPUC issued a [Proposed Decision](#) (PD) denying approval of all those 19 contracts. The PD held that SCE failed to adequately justify why these contracts were needed — whether under the PRP or to meet the objectives and requirements of existing CPUC procurement programs or policies — and that the CPUC was not convinced the contracts were in the best interests of SCE customers.

CEERT was not a party to this proceeding, but on April 20 we sent a letter to the Commissioners, their Advisors/Chiefs of Staff, and the Service List in A.16-11-002, emphasizing that the PD ignored applicable California policy and was in conflict with previous CPUC directives. We noted our grave concern about the message that adoption of the PD would send and the impact it would have on meeting California's clean-energy goals. On May 2, Megan Myers and Jim Caldwell met with advisors of Commissioner Peterman (the Assigned Commissioner) and Commissioner Rechtschaffen to discuss CEERT's position.

On May 30, CPUC President Picker issued an [Alternate Proposed Decision](#) (APD) that approved the results of SCE's PRP-2 RFOs and authorized SCE to recover in rates payments made pursuant to 19 purchase and sale agreement contracts for 125 MW of preferred resources that will interconnect to substations and circuits electrically in-line with either the Johanna A-Bank or Santiago A-Bank substations.

On July 2, CEERT sent a letter to the Commissioners and the A.16-11-002 Service List requesting that the CPUC adopt the APD. We argued that the APD corrected the errors found in the PD, and that adoption of the APD would demonstrate the CPUC's commitment to modernizing the grid and its belief that distributed energy resources and preferred resources could meet California's reliability needs.

At the July 12 CPUC Business Meeting, four Commissioners voted to adopt the APD, with Commissioner Peterman voting against the APD and reserving the right to file a dissent, noting that she struggled to find instances where she felt SCE met its burden of proof or demonstrated how these contract costs were justified and should be recovered in rates. [D.18-07-023](#) was issued on July 20.

PG&E Storage and Preferred Resources RFO: On February 28, in compliance with CPUC Resolution E-4909, PG&E issued its Local Sub-Area Energy Storage Request for Offers (LSA ES RFO) to address its South Bay – Moss Landing and Pease local sub-area capacity deficiencies and to manage voltage issues in the Bogue sub-area.

This RFO proceeded at a fast pace, and, on June 29, PG&E filed Advice Letter 5322-E seeking approval of four resulting energy storage contracts totaling 567.5 MW. Responses and protests were due on July 19. Because this is a Tier 3 Advice Letter, it will require a CPUC resolution to approve (including the contracts); a Draft Resolution is first required, with interested parties allowed 20 days to comment, before a final Resolution can be issued 30 days after the date of the Draft Resolution.

PG&E Oakland Clean Energy Project: In September 2017 PG&E filed a study request in the CAISO 2017-2018 Transmission Plan process, proposing to substitute preferred resources for its “reliability must-run resources” (RMR) contract with Dynegy for the Oakland C peaking plants, which are the only utility-

scale oil-fired generators in the state. The PG&E plan closely mirrors the SCE Moorpark RFP and Resolution E-4909.

On March 20, the CAISO Board of Governors approved the plan and authorized recovery of costs in the CAISO low-voltage Transmission Access Charge under FERC jurisdiction for substation upgrades and installation of a battery storage facility at the Oakland C substation. PG&E will file at the CPUC for a preferred-resource RFP to provide local energy to recharge that battery during a transmission outage, which will allow cancellation of the RMR contract and retirement of the 40-year-old high-emission plants near Oakland's Jack London Square.

PG&E reached agreement with the new East Bay CCA to conduct a joint procurement of preferred resources, with the East Bay CCA procuring the LCR attributes, as PG&E is generally very long on RA given the large load migration to CCAs. However, demand response is essentially shut out of the procurement because the East Bay CCA has yet to start operations, and did not feel comfortable with its knowledge of customer behavior and its ability to judge the efficacy of DR for this procurement.

SDG&E Preferred Resources RFO: On April 19, 2017, SDG&E filed A.17-04-017, asking for approval of 88 MW of new preferred resource contracts. In January 2018, the ALJ admitted into the record prepared testimony that had been served, and briefs were filed. No Proposed Decision has yet been issued.

Demand Response (DR) (R.13-09-011)

At the June 21 CPUC Business Meeting, all five Commissioners voted to adopt the Proposed Decision Modifying D.16-09-056, and the CPUC subsequently issued [D.18-06-012](#), which determines that the DR prohibited-resources policy should not rely on any metric developed in the Self Generation Incentive Program (SGIP). The Decision modifies D.16-09-056 to exempt all energy storage resources not coupled with fossil-fueled generation from the list of prohibited resources. These exemptions will be reviewed again in either the proposed rulemaking on new models of DR or the 2023 – 2027 DR program applications, when the CPUC will have more experience with energy storage resources participating in DR and can better consider whether to continue the exemptions or develop and adopt a new independent emissions requirement for energy storage resources participating in DR programs.

On June 27, the Energy Division held an initial workshop on implementation of competitive neutrality cost causation, and on July 18, SCE, on behalf of workshop participants, filed a [Petition for Modification of D.17-10-017](#)'s Adoption of Steps for Implementing the Competitive Neutrality Cost Causation Principle. The PFM proposes changes to D.17-10-017 to enable a more effective, less confusing implementation of the CPUC's competitive neutrality cost causation directives. The workshop participants request changes to D.17-10-017 to confirm compliance obligations of the IOUs and third-party DR aggregators when communicating to customers.

DR Applications (A.17-01-012, et al.)

On May 22, Assigned Commissioner Guzman Aceves issued an [Amended Scoping Memo and Ruling](#) that extends the deadline of this proceeding to July 17, 2019, and expands its scope to determine the next steps for the DR Auction Mechanism (DRAM). A future decision will address: (1) development of guidance to the utilities on designing pilots targeting DR in transmission-constrained local capacity areas and disadvantaged communities, (2) whether to revise the DR dual participation rules, (3) adoption of a final set of guidelines to implement the automated DR control incentive policy, (4) confirmation of the final Capacity Bidding program trigger method, (5) management of and potential changes to the 2% Reliability Cap, and (6) determination of the next steps for the DRAM pilot as a result of the preliminary evaluation analysis.

On June 15, ALJ Hymes issued a [Ruling](#) that asks for responses to questions on: a straw proposal for DR pilot plans to benefit disadvantaged communities, dual participation, an automated DR incentive policy, and managing and/or modifying the two-percent reliability cap. A Status Conference was held on June 18. Comments on this Ruling were filed on July 20, and replies are due on August 3.

On July 26, the CPUC will hold a workshop on the DR Auction Mechanism (DRAM) that will provide an overview of the DRAM evaluation metrics, explore the potential of an additional 1-year pilot (2020 delivery), and explore whether the CPUC should consider short-term improvements to the DRAM pilot.

Draft California Customer Choice Green Book

On May 3 the CPUC issued California Customer Choice: An Evaluation of Regulatory Framework Options for an Evolving Electricity Market Draft Green Book ([Draft Customer Choice Paper](#)). This document was intended to begin addressing current shifts in the evolving electricity market and the next steps in managing this transition.

On June 22, the Commission held an En Banc on the Draft Green Book that discussed various aspects of customer choice, including providing affordability and consumer protections, scaling infrastructure for decarbonization, and maintaining reliability.

Other CPUC Rulemakings and Governance Actions:

CEERT has had a limited budget to actively participate in other CPUC issues. Nevertheless, we are currently a party to or are tracking the following proceedings in order to advance key resources.

Power Charge Indifference Adjustment (PCIA) (R.17-06-026)

At the July 12 CPUC Business Meeting, the Commissioners voted to adopt a [Proposed Decision](#) that resolves issues in Track 1 of this proceeding on current exemptions from paying the PCIA for certain departing load customers in the SCE and SDG&E service territories. The PD determines that:

- The current exemptions from paying the PCIA for SCE and SDG&E customers that participate in California Alternate Rates for Energy (CARE) and Medical Baseline (MB) programs are eliminated, with immediate effect.
- SCE and SDG&E shall ensure that no CARE or MB customers of newly formed or now-forming Community Choice Aggregation (CCA) programs in their service territories receive any exemptions from paying the PCIA.
- SCE and SDG&E shall collaborate with stakeholders and policymakers to implement an appropriate outreach plan to CARE and MB customers impacted by the elimination of the PCIA exemption.

PG&E had previously submitted a Settlement Agreement which resolves all Track 1 issues in its service territory. As of this writing, Final Decision D.18-07-009 was not available online.

On July 19, ALJ Roscow issued a [Ruling](#) Noticing Oral Argument.

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

On March 22 the CPUC issued [D.18-03-023](#), which addresses issues identified in Track 3, Sub-Track 2 (Grid Modernization), and provides a framework for Grid Modernization Guidance to inform future General Rate Cases. There has not been much activity in this proceeding since that time.

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

On June 21, the Commission issued [D.18-06-010](#), which modifies D.16-12-036 to require that utility spending for DERs pilot projects that either avoid or defer a distribution capital project previously authorized or pending be recovered initially through previously authorized distribution capital project spending from the utility's general rate case.

In a related matter, on July 13, the CPUC issued [Final Resolution E-4942](#), which adopts certain data input updates and minor modeling adjustments to the Avoided Cost Calculator for use in demand-side DERs cost-effectiveness analyses.

DER Action Plan

There has been no recent activity with the DER Action Plan. The Final DER Action Plan was issued on May 3, and it is still unclear how this plan will be used going forward.

DER Improvements to Rule 21 (R.17-07-007)

As previously reported, on February 14, ALJ Hymes issued a Ruling Revising Schedule and Reassigning Issue Six. The remaining items on the new schedule are:

- September 15: Deadline for filing the Working Group Two proposal.
- October 15: Deadline for Comments on the Working Group Two proposal.

Energy Efficiency (EE) (R.13-11-005)

On June 25, ALJ Fitch issued a [Ruling](#) that seeks comments from parties on questions related to the definition and implementation of the three-prong test used for determining energy efficiency program funding eligibility for projects involving fuel substitution. The test, as defined by CPUC policy, requires that a fuel-substitution program or project, whether for retrofit or new-construction applications, must pass the following three-prongs to be considered eligible for energy efficiency funding incentives:

- The program/measure/project must not increase source-British Thermal Unit (BTU) consumption. Proponents of fuel substitution programs should calculate the source-BTU impacts using the current California Energy Commission (CEC) established heat rate.
- The program/measure/project must have a Total Resource Cost (TRC) and Program Administrator Cost (PAC) benefit-cost ratio of 1.0 or greater.
- The program/measure/project must not adversely impact the environment.

Comments were filed on July 17 and Reply Comments on July 27.

EE Business Plans (A.17-01-013, et al.)

On June 5, the CPUC issued [D.18-05-041](#), which approves the EE business plans of eight program administrators (PAs), except as modified in this decision. The business plans, sector strategies, and associated approved budgets will run between 2018 and 2025. The decision includes a required set of metrics and indicators to track progress toward EE goals at the portfolio and sector levels.

The utility PAs must undertake certain limited integration activities to realize ancillary DR benefits when funding EE projects. The decision refines the definition of disadvantaged communities and hard-to-reach customers; approves statewide programs, including lead PA assignments; and gives guidance on governance, balancing account treatment, and fund contributions. The decision includes clarifications of previous requirements applied to REN programs and portfolios and approves Marin Clean Energy as a single point of contact in its geographic area, on a non-exclusive basis. The Local Government Sustainable Energy Coalition proposal for statewide administration of local government programs is rejected.

Finally, the decision includes detailed requirements for the annual budget advice letter submissions and a standard of review for Commission staff in analyzing those submissions. The proceeding remains open to consider the standard and modifiable terms proposed for use in contracts associated with third-party solicitations addressed in D.18-01-004.

On July 5, the Office of Ratepayer Advocates (ORA) filed an [Application for Rehearing](#) of D.18-05-041, arguing that the decision commits legal error because it violates the California Public Utilities Code, and is incompatible with the evidentiary record and the CPUC's own procedural rules on confidentiality. The CPUC's threshold for approval of Annual Budget Advice Letters (ABALs) from the IOUs and Marin Clean Energy (MCE) for program years 2019 – 2022 will result in the approval of EE portfolios that are not cost-effective. ORA argues that D.18-05-041 should be modified to:

- Require the IOUs and MCE to achieve a portfolio-level Total Resource Cost (TRC) ratio of 1.25 on a forecast basis and 1.0 on an evaluated basis for 2019 – 2025;
- Change the threshold for approval of ABALs, requiring a forecast TRC ratio of at least 1.25 for the IOUs' and MCE's ABALs for 2019 – 2025;
- Vacate the Administrative Law Judge's February 27 Ruling, April 9 Ruling, and June 14 Ruling;
- Affirm that the discovery schedule does not impact ORA's discovery rights;
- The record was not deemed submitted formally on October 13, 2017, thereby excluding additionally material and/or arguments;
- Public Utilities Code Section 583 does not apply to the substantive determination of whether material is confidential;
- Confidentiality is within scope; and
- ORA appropriately submitted its "Motion of the Office of Ratepayer Advocates to Deem as Public the Materials that Southern California Gas Company Improperly Marked as Confidential or Redacted; to Expedite a Ruling on This Motion, and to Impose Sanctions" pursuant to Rule 11.1.

Responses to the ORA Application for Rehearing were filed and served on July 20.

On July 9, Commissioner Peterman and ALJs Fitch and Kao issued a Scoping Memo and Ruling. Issues for the remainder of this proceeding include workforce quality standards, terms and conditions for third-party contracts and local government partnership contracts, and measurement and verification guidance for measuring energy savings. While a decision adopting some contract terms and conditions is scheduled for the end of 2018, this schedule or a change in this schedule should not postpone issuance of solicitations for new third-party or statewide programs, nor should parties expect that the first decision adopting standard terms and conditions will close the discussion on this topic. Here is the remaining schedule:

- 4th Quarter 2018: Proposed Decision Addressing Terms and Conditions for Third-Party Contracts and Workforce Quality Standards
- September 4: Motion for Approval of Standard Contract for Local Government Partnerships.
- September 19: Responses to Motion for Approval of Standard Contract for Local Government Partnerships.
- 4th Quarter 2018/1st Quarter 2019: Ruling or Proposed Decision Addressing Terms and Conditions for Local Government Partnership Contracts.
- 4th Quarter 2018: Ruling or Proposed on Normalized Metered Energy Consumption Guidance.

On July 9, ALJs Fitch and Kao issued a Ruling invites parties to file comments on the proposed workforce quality installation requirements for HVAC and lighting controls and a set of questions related to those proposed requirements. Comments are due July 30, and Reply Comments due August 10.

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

On June 12, Commissioner Picker issued an [Amended Scoping Memo](#) for this proceeding. The scope of Phase 2B includes the characteristics of documents that should be preemptively be designated as confidential or public, how often preemptive designations should be updated or revisited, what process should be used to challenge a designation of a specific document, and what revisions of General Order 66 D are necessary. The new schedule is:

- Summer 2018: Staff Proposal on revisions to GO 66 D addressing information production in the context of investigations and audits.
- Summer 2018: Comments on Staff Proposal.
- 3rd Quarter 2018: Proposed Decision on revisions to GO 66 D.
- 3rd - 4th Quarter 2018: Review of industry-specific matrix proposals.
- 1st - 2nd Quarter 2019: Proposed Decision on industry-specific matrix proposals.

Climate Change Adaptation (R.18-04-019)

On May 7, the CPUC issued an [Order Instituting Rulemaking](#) that considers strategies to integrate climate change adaptation matters in relevant CPUC proceedings. The electricity and natural gas utilities will be the only entities addressed in Phase 1. It is anticipated that future phases will consider adaptation for water and telecommunications utilities. This proceeding is quasi-legislative; the assigned Commissioner is Liane Randolph. CEERT staff is currently tracking this proceeding on an Information Only basis.

On July 9, ALJ McKenzie issued a [Ruling](#) that scheduled a Prehearing Conference (PHC) for August 6. Staff workshops will proceed and follow the PHC.

SCE Application for Clean Energy Optimization Pilot (CEOP) (A.18-05-015)

On May 15, SCE filed its [Application for Approval of its CEOP](#), requesting that the CPUC approve the application as soon as possible, without modification, and authorize \$21.4 million from Cap-and-Trade allowance revenues to fund the CEOP as a clean energy project. Upon approval, SCE requests CPUC authorization to file a Tier 1 Advice Letter that would establish the CEOP Balancing Act (CEOPBA) to record: annual transfer of GHG revenue funds from the GHG Revenue Balancing Account to the CEOPBA, actual annual CEOP performance payments, and incremental CEOP program administrative expenses. The Application requests a Proposed Decision be issued on July 30. A Prehearing Conference was held on July 6. CEERT is tracking this proceeding on an Information Only basis.

Disconnections and Reconnections (R.18-07-005)

On July 20, the CPUC issued an [OIR](#) to address disconnection rates for electric and gas IOUs by adopting policies and rules that reduce disconnections and improve reconnection processes and outcomes for disconnected customers. In Phase 1, pursuant to SB 598, the CPUC will adopt policies, rules or regulations to reduce the statewide level of residential gas and electric service disconnections for nonpayment. In Phase 2, the CPUC will take a more holistic, comprehensive approach to evaluating residential gas and electric disconnections to determine if the disconnection rate can be more effectively reduced through broader reforms and new approaches beyond those adopted in Phase 1. The proposed schedule is:

- August 9: Comments due on OIR
- August 20: Reply Comments due on OIR
- August 22: Prehearing Conference

Affordability (R.18-07-006)

At the July 12 CPUC Business Meeting, the Commissioners voted to adopt a [Proposed OIR](#) on Affordability Impacts. This proceeding will develop a framework and principles to identify affordability criteria for all utility services under CPUC jurisdiction, and develop the methodologies, data sources, and processes necessary to comprehensively assess the impacts on affordability of individual Commission proceedings and utility rate requests. The initial schedule does not provide any dates for upcoming events.

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

SCE's Application for a Certificate of Public Convenience and Necessity for the West of Devers Upgrade Project was granted through [D.16-08-017](#), which was issued on August 29, 2016. However, on July 20, the UCR Group, LLC filed a Petition for Modification of D.16-08-017 as it pertains to that portion of

Nevada Street in San Bernardino County from Almond Avenue to the south side of Interstate 10. UCR is requesting that the Commission order SCE to install the proposed Nevada Street 66 kV line underground.

Short-Lived Climate Pollutants (SCLPs)

Methane Emissions

California has a target of a 40% reduction in methane from 2013 levels by 2030. Dairies dominate the state's methane emissions (45%), followed by landfills (20%) and other livestock emissions (10%).

CEERT is participating in the Dairy/Livestock Working Group, which comprises three subgroups (SGs) focusing on fostering markets for non-digester projects, fostering markets for digester projects, and identifying research needs. The SGs are continuing to meet and review technical issues.

CalRecycle has completed a review of its implementation approach for the SLCP Reduction Strategy to reduce organic waste disposal to 50% below 2014 levels by 2020 and 75% below 2014 levels by 2025. It will begin its formal rulemaking process in the next couple of months, with final adoption of its regulatory package in 2019, which will give regulated entities time to prepare for the new, more stringent regime and plan for any needed budgetary, contractual, and other operational changes. CalRecycle expects all jurisdictions, haulers, and generators to be in compliance with the regulations starting January 1, 2022.

Clean Transportation Advocacy

Advanced Clean Cars Program

CEERT continues to work with other NGOs to defend the 2022 – 2025 federal passenger vehicle emissions standards, known in California as the Advanced Clean Cars regulations. (The state has also set California-only Zero-Emission Vehicle (ZEV) sales targets through model years (MY) 2022 – 2025).

The US-EPA and the National Highway Traffic Safety Administration (NHTSA) still have not issued their joint Notice of Proposed Rulemaking (NPRM) (now titled the Safer and Affordable Fuel Efficient (SAFE) Vehicles Rule) on how they plan to revise the 2021 – 2025 vehicle emissions standards. The public release of the NPRM is anticipated any day now, and indications are that the two agencies will recommend freezing the emissions targets at 2020 levels, and will also consider a proposal to revoke California's authority both to regulate vehicle emissions and to require auto manufacturers to deliver ZEVs to California. The effect of the SAFE Vehicle Rule will be to increase the nation's oil consumption by hundreds of thousands of barrels per day and its climate emissions by millions of tons per day.

In response to a July 2017 lawsuit jointly filed by California, other states, and several NGOs, the Second Circuit Court of Appeals ruled against NHTSA's continuing attempt to indefinitely delay the updating of penalties levied against automakers for violating fuel economy standards. The ruling upholds an earlier 2016 NHTSA determination during the Obama administration that mileage penalties should be adjusted for inflation. (CAFE penalties have only slightly increased while aggregate inflation has been in excess of 100%.) Updating the CAFE penalties would ensure that automobile manufacturers would be more inclined to build vehicles that comply with the 2021 – 2025 vehicle emissions standards rather than pay the penalties in lieu of compliance.

Electrifying Transportation

At its May 31 business meeting, the CPUC, as part of the SB 350 Transportation Electrification planning process, adopted its revised Proposed Decisions (D.18-05-040) recommending approval of four transportation electrification programs and one rate design proposed by California's three investor-owned electric utilities (PG&E, SCE and SDG&E) as their Standard Review Projects (expected to last roughly 5 years) totaling \$738 million, with \$29.5 million for program evaluation costs.

Low-Carbon Fuel Standard (LCFS)

On June 20, CARB staff issued a request for comments on clean-up revisions and on two additions the Board made to the LCFS program's Phase 2 regulatory package: 1) work with stakeholders to develop a calculation method, accounting process, and related requirements to allow hydrogen stations and EV direct-current fast chargers to earn credits on the capacity of the ZEV infrastructure; and 2) work with stakeholders to explore opportunities to increase the magnitude of ZEV vehicle rebates funded by sale of LCFS credits, especially at the point of sale.

CEERT has recommended that CARB allow transparent adjustments to the rate at which capacity credits are issued to ensure that the market price of LCFS credits is not undercut or compromised. We have also recommended that CARB investigate expanding the use of capacity credits to include fleets.

CARB will hold a workshop on August 8 to explore stakeholder perspectives on the first round of proposed revisions to the Phase 2 regulations, following which the agency may make further revisions. Staff's goal is to complete all revisions in time for the Board to approve the package so the program can take effect January 1, 2019.

Alternative and Renewable Fuel and Vehicle Technology Program

At its May business meeting, the CEC unanimously approved the Commissioner's version of the 2018 – 2019 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program. The Investment Plan Update includes \$134.5 million for EV charging infrastructure and \$92 million for hydrogen fueling infrastructure. This funding will provide critical support for achieving the Governor's targets of placing 5 million ZEVs on California's roads by 2030, along with 200 hydrogen fueling stations and 250,000 electric vehicle charging stations by 2025. The Staff Draft of the 2019 – 2020 Investment Plan Update will be issued during the late fall or early winter.