



California ISO  
Shaping a Renewed Future



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January 31, 2014

The Honorable Alex Padilla, Chair  
California State Senate Committee on  
Energy, Utilities and Communications  
State Capitol, Room 4038  
Sacramento, CA 95814

The Honorable Jean Fuller, Vice Chair  
California State Senate Committee on  
Energy, Utilities and Communications  
State Capitol, Room 3063  
Sacramento, CA 95814

Dear Senators Padilla and Fuller:

We are pleased to report that your effort to ensure that our agencies have made significant progress toward ensuring that California's energy efficiency and demand response policies defer the need for new fossil generation. As you requested, we have worked closely with one another in the California Energy Commission's (CEC) planning process and as a result are aligned on the study assumptions each agency will use in their related planning and procurement processes.

Of course, there is more to be done, and we are doing it. This letter describes the agreements we have reached on the use of the CEC's adopted demand forecast, how our processes are changing to better align their timing, and the ongoing work to continuously improve over collective work in this area.

### **Single Managed Forecast**

The Energy Commission's 2014-2024 adopted forecast contains three baseline cases and five scenarios of additional achievable energy efficiency. Leadership from the Energy Commission, in consultation with the CPUC and the CAISO, considered public input in selecting a single or managed demand forecast from the adopted forecast report for use in transmission planning and procurement. This set of forecast numbers is a combination of two forecast components: a base case with weather variants and an additional achievable energy efficiency (AAEE) scenario. Combined together, these create the single or managed forecast.

The selected base case will be the mid-demand case for the combined investor-owned utility (IOU) service areas, including variants for different weather conditions used in system-wide versus local capacity and reliability studies. The three agencies all agree that the same additional achievable energy efficiency case should, in principle, be applied to all of the analyses, but the ability to characterize and assign the locational attributes of the demand forecast, procurement authorizations, and transmission additions is still evolving.

Therefore, the agency leadership has agreed to use the mid-AAEE forecast scenario for system-wide and flexibility studies in the upcoming 2014-2015 procurement and transmission planning cycles. Because of the local nature of reliability needs and the difficulty of forecasting load and additional achievable energy efficiency at specific locations, using the low-mid-AAEE scenario for local studies is more prudent at this time. The goal is to be able to converge on the same AAEE scenario for all studies in the next cycle. This agreement is documented in the final *2013 IEPR*, adopted at the January 15, 2014 CEC business meeting and by Resolution.

### **2013 Accomplishments**

**Agency collaboration framework** - The agencies formed a senior staff team to oversee coordination among the agencies and escalate issues to agency leadership, as necessary. In addition, the effort leveraged ongoing work of their technical staff in addition to the work of existing stakeholder working groups active in the CEC forecasting process. The existing stakeholder working groups are the Demand Analysis Working Group (DAWG), and the Demand Response Measurement and Evaluation Committee (DRMEC). Staff of the three agencies consulted periodically during the process.

**Demand forecast refinement** - Stakeholders expressed a strong interest in a more disaggregated demand forecast to better inform resource and infrastructure-related analyses and decisions. As a first step in this direction, staff developed forecast results at the climate zone level, in addition to the usual planning areas. Five possible scenarios of AAEE, beyond the committed efficiency savings in the baseline forecast,

were developed with input from stakeholders. For the first time, these AAEE results were merged with baseline results into adjusted or managed demand forecasts for the combined investor-owned utilities. Projected impacts of climate change on electricity and natural gas consumption for the eight CEC planning areas and the state as a whole were also added to the forecast.

**Energy efficiency model refinement** - The CPUC's energy efficiency potential and goals model was modified in response to requests from the CAISO and stakeholders to enhance geographic granularity of outputs down to the climate zone and building type levels. These outputs are being mapped to transmission substation granularity by CEC staff with CPUC input. Further refinements are being planned to improve the accuracy of this mapping.

**Demand response estimation** - Working with the DRMEC and in coordination with the new CPUC Demand Response rulemaking, a classification scheme for load-modifying vs. "supply-side" demand response was developed. To begin implementing this scheme, the CEC subsequently included impacts of three additional load-modifying demand response programs in the IEPR baseline forecast. In the 2012 LTPP Track 4, CPUC, CEC, and CAISO staff agreed on the subset of existing demand response programs with the required characteristics (such as dispatchability within 30 minutes) to serve as an input to the San Onofre plant retirement analysis.

**Demand response policy and planning** – The CAISO initiated a demand response/energy efficiency roadmap that outlined several activities to enhance and modernize demand response and energy efficiency to meet the changing needs of the grid. The CPUC initiated a new demand response rulemaking, which is focused on enhancing demand response to meet the state's resource planning needs and operational requirements. The two agencies have collaborated in each respective process, through both formal and informal comments, resulting in consistent policy signals to the market, such as the need to identify different categories of demand response (load-modifying and supply side) and positioning those resources to meet future needs.

**Program development** - In response to the San Onofre plant retirement, Southern California Edison (SCE) proposed a commercial heating, ventilation, and air conditioning early retirement pilot program, which is currently under review. The CPUC's new energy efficiency rulemaking directs SCE, San Diego Gas & Electric, and other program administrators to submit proposals for new 2015 pilot programs that target energy efficiency opportunities in the San Onofre-impacted region.

## **Process Alignment**

**Procurement, transmission, and forecast process alignment** - The agencies collaborated to construct an interagency plan, structured around a two-phased, biennial Long-Term Procurement Planning (LTPP) proceeding, with the CEC and CAISO providing critical annual inputs to the procurement proceeding out of their IEPR demand forecasting and Transmission Planning Processes, respectively. This will include having the CEC update the demand forecast in even-numbered years using the most recent economic/demographic assumptions and an additional year of actual data. Even-year forecasts will not include demand-side program updates, such as additional achievable energy efficiency. Also, in even numbered years the CAISO will perform system, flexibility, and local area studies, which will be used as inputs to the LTPP.

The 2014-15 LTPP rulemaking, opened on December 19, 2013 following a public workshop hosted by the three agencies, reflects this new framework. On December 17, 2013, the CAISO and CEC wrote letters to the CPUC memorializing their roles in ensuring the process alignment functions as planned.. These letters were shared with parties to the LTPP proceeding to ensure that stakeholders remain aware of our agencies' commitment to collaboration and respective responsibilities. If unforeseen events force any of the processes out of alignment, the agencies agree to coordinate on readjusting in order to continue moving forward in the most efficient manner.

## **Next Steps in Continued Improvement and Collaboration**

**Forecasting model disaggregation** - The agencies will coordinate efforts to enhance modeling capabilities to enable forecasting of load (through CEC forecast models) and AAEE (through CPUC potential and goals models) at specific locations (for example, local capacity areas). Local areas differ in their weather, income levels, housing vintage, and business mix -- a few among many variations influencing how effective different kinds of energy efficiency and other load-modifying programs may be in each area. Better understanding the types of load being modified will improve the planning studies and enable AAEE programs and strategies to be geographically effective in reducing load.

A combination of data sharing and education about current analytical capabilities and development of new capabilities, as needed, will be needed. The goal would be to familiarize ourselves with available data and disaggregation capabilities, affirm specific needs for increased granularity, and put necessary modeling infrastructure in place prior to the 2015 IEPR cycle. The Demand Analysis Working Group and the CEC's Demand Forecasting Expert Panel will play a large role. This would enable the Executive Oversight Committee to agree upon a single forecast for both local and system planning studies in subsequent planning cycles.

**2015 IEPR “single forecast” process recommendation** - The agencies will review lessons learned from the 2013 *IEPR* cycle and make any recommendations for process improvements for the 2015 *IEPR* cycle (for example, timing of completion of the CPUC goals study and/or program evaluations, stakeholder vetting, etc.).

**Forecasting Flexibility Requirements** - Staff of the CEC and CAISO actively participated in the CPUC’s 2012 LTPP examination of system flexibility needs. A cooperative effort is currently underway to determine the appropriate probabilistic forecasting model and common assumptions to forecast flexibility. This modeling, which will be reviewed within the 2014 LTPP, is of significant importance to resource planning.

### **Conclusion**

The work you set in motion has improved the coordination and transparency of our respective planning processes and is yielding significant benefits. Efforts to effectively align our joint processes continue through data sharing and discussion that is improving the consistency of the assumptions and data inputs used across our proceedings. System flexibility needs and geographical disaggregation of forecasts and preferred resource impacts are top priorities for 2014, Should unforeseen events occur to force these plans out of alignment, the agencies commit to work with each other to most effectively readjust our coordination.

Sincerely,

ROBERT B. WEISENMILLER  
Chair  
California Energy Commission

MICHAEL R. PEEVEY  
President  
California Public Utilities Commission

STEVE BERBERICH  
President and CEO  
California Independent System Operator

The Honorable Alex Padilla and The Honorable Jean Fuller  
January 31, 2014  
Page 6

cc: Governor Edmund G. Brown Jr.  
Darrell Steinberg, Senate President pro Tempore  
Members of Senate Energy Utilities and Communications Committee  
Members of Assembly Utilities and Commerce Committee