

RTR Appendix

Southern California Edison, Pacific Gas and Electric, Southern California Gas, and San Diego Gas and Electric (“Joint Utilities” or “Joint IOUs”) developed Responses to Recommendations (RTR) contained in the evaluation studies of the 2013-2015 Energy Efficiency Program Cycle. This Appendix contains the Responses to Recommendations in the report:

RTR for the PY2013-2014 California Energy Efficiency and Demand Response Residential Behavior Market Characterization Study Report (Opinion Dynamics Corporation, DNV GL; Calmac ID #CPU0109.01; ED WO #ED_D_Res_1)

The RTR reports demonstrate the Joint Utilities’ plans and activities to incorporate EM&V evaluation recommendations into programs to improve performance and operations, where applicable. The Joint IOUs’ approach is consistent with the 2013-2016 Energy Division-Investor Owned Utility Energy Efficiency Evaluation, Measurement and Verification (EM&V) Plan¹ and CPUC Decision (D.) 07-09-043².

Individual RTR reports consist of a spreadsheet for each evaluation study. Recommendations were copied verbatim from each evaluation’s “Recommendations” section.³ In cases where reports do not contain a section for recommendations, the Joint IOUs attempted to identify recommendations contained within the evaluation. Responses to the recommendations were made on a statewide basis when possible, and when that was not appropriate (e.g., due to utility-specific recommendations), the Joint IOUs responded individually and clearly indicated the authorship of the response.

The Joint IOUs are proud of this opportunity to publicly demonstrate how programs are taking advantage of evaluation recommendations, while providing transparency to stakeholders on the “positive feedback loop” between program design, implementation, and evaluation. This feedback loop can also provide guidance to the evaluation community on the types and structure of recommendations that are most relevant and helpful to program managers. The Joint IOUs believe this feedback will help improve both programs and future evaluation reports.

¹ Page 336, “Within 60 days of public release of a final report, the program administrators will respond in writing to the final report findings and recommendations indicating what action, if any, will be taken as a result of study findings. The IOU responses will be posted on the public document website.” The Plan is available at <http://www.energydataweb.com/cpuc>.

² Attachment 7, page 4, “Within 60 days of public release, program administrators will respond in writing to the final report findings and recommendations indicating what action, if any, will be taken as a result of study findings as they relate to potential changes to the programs. Energy Division can choose to extend the 60 day limit if the administrator presents a compelling case that more time is needed and the delay will not cause any problems in the implementation schedule, and may shorten the time on a case-by-case basis if necessary to avoid delays in the schedule.”

³ Recommendations may have also been made to the CPUC, the CEC, and evaluators. Responses to these recommendations will be made by Energy Division at a later time and posted separately.

Response to Recommendations (RTR) in Impact, Process, and Market Assessment Studies

Study Title: PY2013-2014 California Energy Efficiency and Demand Response Residential Behavior Market Characterization Study Report
Program: Residential Behavior
Author: Opinion Dynamics Corporation, DNV GL
Calmac ID: CPU0109.01
ED WO: ED_D_Res_1
Link to Report: http://calmac.org/publications/PY2013-2014_Behavior_Market_Characterization_Report_Final_Volume_I.pdf

Item #	Page #	Findings	Best Practice / Recommendations (Verbatim from Final Report)	Recommendation Recipient	PG&E (if applicable)		SCE (if applicable)		SCG (if applicable)		SDG&E (if applicable)	
					Disposition	Disposition Notes	Disposition	Disposition Notes	Disposition	Disposition Notes	Disposition	Disposition Notes
				If incorrect, please indicate and redirect in notes.	Choose: Accepted, Rejected, or Other	Examples: Describe specific program change, give reason for rejection, or indicate that it's under further review.	Choose: Accepted, Rejected, or Other	Examples: Describe specific program change, give reason for rejection, or indicate that it's under further review.	Choose: Accepted, Rejected, or Other	Examples: Describe specific program change, give reason for rejection, or indicate that it's under further review.	Choose: Accepted, Rejected, or Other	Examples: Describe specific program change, give reason for rejection, or indicate that it's under further review.
1	59-60	There is limited information regarding participation, expenditures, impacts, or other benefits, both within and across funding streams. IOUs should coordinate to propose harmonized tracking metrics across behavior efforts and funding streams and propose these to the CPUC. This would be the most expedient way to improvements in this area. At a later date the CPUC could confirm these IOU proposals and/or provide additional guidance requiring the IOUs to track program costs and impacts and other indicators in specific ways. We recommend tracking the following:	The IOUs should make improvements to data tracking, including units, reporting requirements, and timing, to support management and oversight over time. We recommend tracking the following: define the universe of AMI and behavior efforts and flag accordingly, program budgets and expenditures, program objectives, program engagement, energy impacts, other indicators, tracking over time.	All IOUs	Accepted		Accepted	SCE Accepts this recommendation and will follow the recommendations, where possible.	Accepted	SoCalGas will explore various tracking systems and protocols that could effectively track the desired data, with the understanding that new tracking mechanisms may need to be acquired or implemented with additional funding.	Accepted	
2		We recommend tracking the following:	Define the universe of AMI and behavior efforts and flag accordingly: To better understand benefits that have accrued and oversee future efforts, the IOUs could propose to the CPUC definitions of the universe of interest (e.g., programs that leverage AMI data, programs that offer behavior feedback). Once defined, we recommend creating a flag for an effort that would indicate the efforts that leverage AMI data or provide behavior feedback to allow for tracking of potential benefits enabled through smart grid deployment.	All IOUs	Other	Recommend on-going discussions with CPUC Staff to develop implementation of these recommendations and consider how this can be incorporated as part of the implementation of AB 793.	Accepted	SCE Accepts this recommendation and will follow the recommendations, where possible.	Other	Recommend on-going discussions with CPUC Staff to develop implementation of these recommendations and consider how this can be incorporated as part of the implementation of AB 793 or if it should be kept separate from AB 793 as behavior-focused only.	Other	Recommend on-going discussions with CPUC Staff to develop implementation of these recommendations and consider how this can be incorporated as part of the implementation of AB 793.
3		We recommend tracking the following:	Program objectives: Includes a brief program design description (1-2 sentences) as well as describe the objectives for the effort via selecting specific categories provided in a tracking document (i.e., energy savings, promotion of other DSM programs, increased knowledge of energy management strategies, etc.).	All IOUs	Accepted		Accepted	SCE Accepts this recommendation and will follow the recommendations, where possible.	Accepted	SoCalGas agrees that a brief description and objectives would be made readily available.	Accepted	
4		We recommend tracking the following:	Program engagement: Provides program participation levels, as well as describes whether the	All IOUs	Accepted		Accepted	SCE Accepts this recommendation and will follow the	Accepted	SoCalGas will provide program participation levels, as	Accepted	

			program design was opt in or opt out.					recommendations, where possible.		well as describe whether the program design was opt in or opt out.		
5		We recommend tracking the following:	Energy impacts: Includes specific information regarding energy savings, demand impacts, or GHG emissions reductions that resulted from the intervention on an annual basis.	All IOUs	Accepted		Accepted	SCE Accepts this recommendation and will follow the recommendations, where possible.	Accepted	SoCalGas will report energy impacts/savings as a result of the annual interventions.	Accepted	
6		We recommend tracking the following:	Other indicators: These interim indicators may suggest future energy-saving benefits (e.g., web analytics, actions recommended or taken, programs promoted).	All IOUs	Accepted		Accepted	SCE Accepts this recommendation and will follow the recommendations, where possible.	Accepted	SoCalGas agrees to report the other indicators such as web analytics, recommended actions and promoted programs where applicable.	Accepted	
7		We recommend tracking the following:	Tracking over time: The IOUs should consider developing a dashboard that shows success over time, to assess the value of each program, and how they perform relative to each other since any prioritization or decision about potential efforts would need to be reviewed over time, as a longitudinal study. Again, this could be submitted to the CPUC, and confirmed or further guidance provided at a later time. Additionally, the CPUC could consider setting up an annual meeting where IOU staff present to the CPUC oversight group (see recommendation below) the variables suggested above to document the value of these efforts.	All IOUs	Accepted	Recommend that annual program updates & results should be coordinated with presentations of related EM&V studies.	Accepted	SCE Accepts this recommendation and will follow the recommendations, where possible.	Accepted	Recommend that annual program updates & results should be coordinated with presentations of related EM&V studies.	Accepted	Recommend that annual program updates & results should be coordinated with presentations of related EM&V studies.
8	61	We assume that if guidance is given from a single regulatory "voice," it will allow the CPUC to set tracking requirements to effectively follow all efforts with fewer required resources. IDSM may be a natural space for establishing program oversight as it cuts across various funding sources and organizations within the IOU, as well as focuses on customer engagement. Conversely, a behavior oversight group tasked with setting reporting requirements, and reviewing initiatives at a holistic level, could also serve this function. The oversight group should incorporate relevant stakeholders as needed. The Integrated Demand Side Resource Programs Proceeding may be one possible area, subject to review.	Integrate oversight of residential behavior feedback programs. The CPUC and the IOUs should consider centralizing oversight, across the various funding streams. The CPUC should establish centralized regulatory guidance to better understand value, track achievements, and identify potential redundancies.	IOUs and CPUC	Other	PG&E is working with CPUC staff and the IOUs to develop a unified approach to behavior programs. We agree that oversight, goals, metrics, measurement and evaluation should all be addressed as part of this process.	Accepted	Will work with CPUC Staff on various behavior program oversight and review with appropriate stakeholders for current, new and developing BROs activities.	Other	Will work with CPUC Staff on consolidating and integrating all the various behavior programs and intervention strategies.	Other	Will work with CPUC Staff on consolidating and integrating all the various behavior programs and AB 793 efforts.
9	61-62	Despite limited evidence of program overlap or redundancy across funding streams, the current reporting requirements limit the ability to oversee and manage efforts strategically. Because there are many efforts offered across organizational teams, it might be difficult for program regulators or administrators to effectively prioritize program efforts and minimize double-counting of benefits, especially if ongoing communication is limited across funding streams and rulemakings. As such, future reporting would benefit from enhanced tracking requirements to support accounting for, and allocating, costs and benefits appropriately, to better inform cost-effective choices for future efforts. We recommend that, barring systematic tracking across all funding streams, that the IOUs incorporate a	Make improvements to data tracking across funding streams.	All IOUs	Other	Will work with CPUC Staff on consolidating and integrating all the various behavior programs and AB 793 efforts.	Other	IOU's track multiple data related to behavior programs and customer usage data to provide for evaluations. Specific change to data that is reported should be deferred to CPUC. Data that is tracked and reported to CPUC is based on a participation data template that is provided to IOU's by the CPUC Staff or Consultants.	Other	Will work with CPUC Staff on consolidating and integrating all the various behavior programs and intervention strategies. Will also explore various tracking technologies and possible funding requirements to acquire the necessary systems.	Other	Will work with CPUC Staff on consolidating and integrating all the various behavior programs and AB 793 efforts.

		flag to indicate that the program is behavioral and leverages AMI data (see Initiative #3 below). This system, once in place, could then be applied across funding streams.										
10	62	Greater requirements for tracking costs and benefits from residential behavior feedback efforts would support greater understanding of the benefits realized to date, and serve to inform future prioritization of projects. This will support rationalizing and prioritizing efforts moving forward, and allow the CPUC to make comparisons across efforts.	Coordinate cost-effectiveness across different funding streams. In addition to establishing a regulatory guidance oversight group, we recommend that the CPUC consider developing some framework for understanding differences in inputs and assumptions for cost-effectiveness across efforts in EE, DR, and AMI funding streams.	CPUC			Other	This recommendation is broader than EE. The CPUC has other ongoing proceedings that are working on various aspects of integrating DSM activities, e.g., IDER (R.14-10-003), DRP (R.14-08-013), IRP (R.16-02-007), R.13-12-001 (WEN).	Other	N/A	Other	This recommendation is broader than EE. The CPUC has other ongoing proceedings that are working on various aspects of integrating DSM activities, e.g., IDER (R.14-10-003), DRP (R.14-08-013), IRP (R.16-02-007), R.13-12-001 (WEN).
11	62-63	We found that vendors reported difficulties accessing AMI data, engaging with the IOUs, and trying to comply with timelines associated with entering the IOU portfolio of programs. Without providing an environment whereby vendors are able to access and leverage AMI data or operate within the IOU space, the benefits of AMI investments may not be realized or captured. The CPUC continues to make efforts to reduce existing barriers to open data access, specifically related to Decision D.11-07-056 and subsequent Electric Rules68 to create procedures for the secure release of customer usage data to third parties. However, vendors indicated that access to and privacy concerns related to AMI data are driving vendors to identify workarounds to using utility-provided data. Many vendors expressed that they or other companies have developed alternative approaches to collecting home energy consumption data (e.g., deploying sensors within homes, widgets that can be installed on Smart Meters) to get around some of these concerns.	Ensure that AMI data (via GBC) is readily available in the market. We recommend that the IOUs, with CPUC involvement when feasible , continue to work to support access to AMI data through GBC or other avenues. In particular, we suggest that the IOUs ensure that entry to GBC is available and easy to access for vendors, and that the CPUC monitor the number of GBC vendors across the IOUs as a proxy for engagement and open access.	IOUs and CPUC	Accepted	PG&E offers Green Button and Green Button Connect to customers and vendors and continues to review and improve functionality.	Accepted	Green Button and Green Button Connect are accessible to its customers and vendors and undergoes continuous review to improve functionality.	Other	SoCalGas has its Green Button Download accessible to its customers and continues to review and improve functionality. SoCalGas is exploring the resource impacts and budget required to incorporate Green Button Connect.	Other	SDG&E has its Green Button and Green Button Connect accessible to its customers and vendors and continues to review and improve functionality.
12	63	In terms of exploring a wider range of technologies, various technology agnostic models that allow customers to choose from a wide range of technologies and assess use and savings in the field can help facilitate incorporating market-based solutions.	Expand and consolidate marketing of current IOU/vendor partnership opportunities. We recommend that the IOUs continue to consider opportunities to build partnerships with vendors, including broadening their marketing of the Emerging Technologies Open Forum, Emerging Technologies Summit, and other solicitation efforts (such as IDEA 365) that allow vendors to participate in describing their technology/product, and gain access to ETP and third-party program staff.	All IOUs	Other	Will work with CPUC Staff on consolidating and integrating all the various behavior programs and AB 793 efforts.	Accepted	SCE Accepts this recommendation and will follow the recommendations, where possible.	Accepted	SoCalGas continues to consider opportunities to build partnerships with vendors, including broadening marketing of the Emerging Technologies Open Forum, Emerging Technologies Summit, and other solicitation efforts (such as IDEA 365) that allow vendors to participate in describing their technology/product, and gain access to ETP and third-party program staff.	Accepted	
13	63	The ability of the CPUC and IOUs to foster a robust marketplace for residential feedback efforts relies on three levers: 1) ensuring that access to AMI data (via GBC) is readily available in the market, 2) enhancing processes for building partnerships with IOUs, and 3) determining an approach to shortening the timeline for in-	Determine an approach to shortening the timeline for introducing behavior feedback products and services into the demand-side management (DSM) portfolio. We recommend that the IOUs, with CPUC involvement when feasible , work with interested stakeholders to identify opportunities and develop an approach to shorten the	IOUs and CPUC	Other	Recommend on-going discussions with CPUC Staff to develop implementation of these recommendations and consider how this can be incorporated as part of the implementation of AB 793.	Accepted	Green Button and Green Button Connect are accessible to its customers and vendors and undergoes continuous review to improve functionality.	Other	Recommend on-going discussions with CPUC Staff to develop implementation of these recommendations.	Other	Recommend on-going discussions with CPUC Staff to develop implementation of these recommendations and consider how this can be incorporated as part of the implementation of AB 793.

		roduction into the EE portfolio that aligns with the vendors offering these products and services. Absent intervention, it is highly possible that the state could not reach the full potential of behavioral feedback efforts or that the full potential would take much longer.	timeline for DSM program entry, particularly for software vendors, given their shortened time horizons. Our prior recommendations can help shorten timelines for DSM integration, such as ensuring entry to GBC as well as broadening exposure to solicitations to enter third-party and ETP programs and projects. Additionally, the IOUs should consider if it is feasible to create a fast-track review process for vendors with shorter time horizons to get to market. Further, we acknowledge that moving to a rolling portfolio cycle could potentially alleviate some of the aforementioned barriers, particularly lengthy timelines to DSM portfolio integration. IOUs should report on their progress on this activity to the CPUC within a year.									
14	65	For the CPUC to count residential feedback efforts as California attempts to meet ambitious GHG and EE goals, they must broaden their definition of behavior programs. The IOU straw proposal represents a first step toward broadening behavior program scope. The IOUs should formally propose this definition in the EE Rule-making for CPUC consideration.	Continue to redefine and broaden behavior definition. Additionally, we recommend that the behavior oversight group (recommended in Section 8.1) support efforts to redefine the behavior definition.	IOUs and CPUC	Other	PG&E has developed a proposed framework for approaching behavior programs, and is working with the CPUC, IOUs and broader stakeholders to revise and finalize it.	Accepted	IOU's are collaborating with the CPUC and industry partners to broaden the definition of behavior.	Accepted	Recommend on-going discussions with CPUC Staff to develop a broader behavior program definition to allow more flexibility for program development and implementation outside of the current definition.	Other	Recommend on-going discussions with CPUC Staff to develop implementation of these recommendations and consider how this can be incorporated as part of the implementation of AB 793.
15	65	The CPUC currently incorporates only one behavioral program, the HER program, within the PGS model for determining savings potential. However, the PGS has a large role to fill as it provides assessments of savings potential to help the CPUC frame and choose EE goals to meet CPUC policy objectives. Incorporating residential behavior feedback savings could potentially support realizing many of the customer empowerment and engagement benefits explicated in the AMI business case decisions and SGDPs. Additionally, integrating these projects into future planning and goals could also support enhancing quantification of anticipated benefits and results from these efforts, as they would require greater measurement and evaluation. Performing these activities, though, is not straightforward and requires collaboration.	Develop a framework to capture residential behavior feedback programs in the EE PGS based on the new definition. We recommend that the behavior oversight group (recommended in Section 8.1) work with PGS evaluators to determine approaches to using consistent assumptions across funding streams, rationalize cost-effectiveness assumptions, and ensure that comparisons across activities are equivalent.	CPUC					See Response to Item 9.	N/A	See Response to Item 9.	SDG&E notes that its behavior program is tracked separate from HER.
16	65	Currently, there is insufficient information tracked to comprehensively understand and verify the benefits or savings potential of residential behavior feedback efforts. Consistent with the IOUs' current approach, pilots and initiatives under behavior programs are an effective approach to rolling out alternative or innovative strategies to garner savings, given that they do not need to achieve cost-effective savings or that they can be folded into program level cost-effectiveness. Insights from vendors, CPUC and IOUs suggest that technology agnostic efforts with a strategic focus that build on prior results are a good framework for capturing additional information regarding these efforts. As behavior initiatives continue to be offered and	Continue to conduct efforts to understand the benefits of residential behavior feedback to inform PGS. We recommend that the IOUs consistently track efforts moving forward, in line with the data categories recommended earlier to garner greater insights from existing and future efforts.	All IOUs	Accepted		Other	This recommendation is broader than EE. The CPUC has other ongoing proceedings that are working on various aspects of integrating DSM activities, e.g., IDER (R.14-10-003), DRP (R.14-08-013), IRP (R.16-02-007), R.13-12-001 (WEN).	Accepted	SoCalGas will continue to conduct efforts to understand the benefits of residential behavior feedback, as well as other behavior interventions and tactics as appropriate.	Other	This recommendation is broader than EE. The CPUC has other ongoing proceedings that are working on various aspects of integrating DSM activities, e.g., IDER (R.14-10-003), DRP (R.14-08-013), IRP (R.16-02-007), R.13-12-001 (WEN).

		evaluated, greater evidence will be available to support prioritizing and scaling programs that leverage behavior intervention strategies. We recommend that the IOUs consistently track efforts moving forward, in line with the data categories recommended earlier to garner greater insights from existing and future efforts.										
17	65-66	The California Energy Efficiency Strategic Plan recognizes the integration of DSM options, including EE, DR, and distributed generation (DG), as fundamental to achieving California’s strategic energy goals. Additionally, the DR team is working to develop a PGS with Lawrence Berkeley National Laboratory.	Coordinate with the DR PGS. We recommend that these groups work together and collaborate across disciplines to better integrate planning efforts to realize the potential benefits from these efforts across these groups. While it may take time to implement, if the CPUC were to create a single potential study that incorporates all aspects of EE, DR, and DG, such a tool could facilitate tradeoffs between the three areas as well as synergies. We recommend the CPUC work with stakeholders to identify the benefits and challenges of integrating these studies.	CPUC			Other	This recommendation is broader than EE. The CPUC has other ongoing proceedings that are working on various aspects of integrating DSM activities, e.g., IDER (R.14-10-003), DRP (R.14-08-013), IRP (R.16-02-007), R.13-12-001 (WEN).	Other	N/A	Other	This recommendation is broader than EE. The CPUC has other ongoing proceedings that are working on various aspects of integrating DSM activities, e.g., IDER (R.14-10-003), DRP (R.14-08-013), IRP (R.16-02-007), R.13-12-001 (WEN).