

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

Application of Southern California Edison Company (U338-E) for Approval of Demand Response Programs, Goals, and Budgets for 2009-2011	Application 08-06-001 (Filed: June 2, 2008)
and Related Matters	Application 08-06-002 Application 08-06-003

**AMENDED RESPONSE OF
THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR
TO UTILITY APPLICATIONS FOR APPROVAL OF DEMAND RESPONSE
PROGRAMS AND BUDGETS FOR 2009-2011**

The California Independent System Operator Corporation (“CAISO”) submits this Errata to correct errors filed in the CAISO’s Response of the California Independent System Operator to Utility Applications For Approval Of Demand Response Programs And Budgets For 2009-2011, filed July 9, 2008 in Applications 08-06-001 (Southern California Edison Company), 08-06-002 (San Diego Gas & Electric Company), and 08-06-003 (Pacific Gas and Electric Company). These proceedings have been consolidated pursuant to the Ruling of ALJ Jessica Hecht dated July 2, 2008.

The attached Errata Sheet (in table form) shows the changes that the CAISO has made to its Response; we also submit a Conformed Response, which is marked to illustrate changes from the Response as originally filed on July 9th.

Respectfully submitted,

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Dated: July 23, 2008

REFERENCE SHEET

Re: Response of the California Independent System Operator to Utility Applications for Approval of Demand Response Programs and Budgets for 2009-2011, document dated and filed July 9, 2008
Proceedings A.08-06-001, A.08-06-002, A.08-06-003

Page Reference (corresponding to original Response, filed July 9 2008)	Item for Correction & Description of Correction	Correction (see Conformed Response; note that pagination has changed from original Response, due to changes that correct formatting)
Page 1, at Introduction, first paragraph	Typographical error: “ALJ Hecht has now consolidated the three Application proceedings of the utility applications of the 2009-2022 program cycle.”	Typo corrected: “ALJ Hecht has now consolidated the three Application proceedings of the utility applications of the 2009-2011 program cycle.”
Page 1, at Introduction, second paragraph.	Formatting error: paragraph is single spaced	Formatting error corrected: Re-formatted to double line spacing.
Page 2, n. 2.	Citation style: Chapter 3 of PG&E Testimony (Witness Kenneth e. Abreu) at pg.3-9, lines 3-16.	Citation style correction: PG&E Testimony, Chapter 3 (Witness: Kenneth E. Abreu), at p. 3-9, lines 3-16.
Page 4 at Heading DR Programs Should be More Transparent and Comparable Across Programs	Margin error—second line of heading not aligned with margin.	Heading conformed to the left margin of the document.
Page 5, n. 5.	Citation style: Chapter 1 of PG&E Testimony (Witness: Stephen J. McCarthy), at p. 1-11.	Citation style correction: PG&E Testimony, Chapter 1 (Witness: Stephen J. McCarthy), at p. 1-11.
Page 5, Chapter 1, at section entitled, Base Interruptible Program, Table “Synopsis of CAISO Points,” table item 2	Typographical error: ▪ Support transition to PeakChoice™, Program but sooner than 2011	Typo corrected: ▪ Support transition to PeakChoice™ Program, but sooner than 2011
Page 6, at section entitled “Critical Peak Pricing and SmartRate Program,” Table	Formatting error—table formatted with grid lines	Table re-formatted: to remove grid lines.

Page Reference (corresponding to original Response, filed July 9 2008)	Item for Correction & Description of Correction	Correction (see Conformed Response; note that pagination has changed from original Response, due to changes that correct formatting)
Page 6, at block quotation within first paragraph.	Typographical error: application..	Typo corrected: application...
Page 6	Formatting error—table formatted with grid lines	Table re-formatted: to remove grid lines.
Page 6, n. 6	Citation style: Pg 1-4 to 1-5.	Citation style correction: PG&E Testimony, Chapter 1 (Witness: Stephen J. McCarthy), at p. 1-4 to 1-5.
Page 6, n. 7	Citation style: pg. 2-2.	Citation style correction: PG&E Testimony, Chapter 2 (Witnesses: Osman Sezgen and Randall K. Wong), at p. 2-2.
Page 6, n. 8	Citation style: Pg. 3-11	Citation style correction: PG&E Testimony, Chapter 3 (Witness: Kenneth E. Abreu), at p. 3-11.
Page 7, n. 9	Citation style: Pg. 3-11	Citation style correction: PG&E Testimony, Chapter 3 (Witness: Kenneth E. Abreu), at p. 3-11.
Page 7, n. 11	PG&E Testimony Volume ____, testimony of _____, at p.. 1-7.	PG&E Testimony, Chapter 1 (Witness: Stephen J. McCarthy), at p. 1-7.
Page 8, at section entitled “3(b). Aggregator Managed Portfolio (AMP),” Table	Formatting error—table formatted with grid lines	Table re-formatted: to remove grid lines.
Page 8, n. 13	Citation style: pg. 2-10	Citation style correction: PG&E Testimony, Chapter 2 (Witnesses: Osman Sezgen and Randall K. Wong), at p. 2-2.

Page Reference (corresponding to original Response, filed July 9 2008)	Item for Correction & Description of Correction	Correction (see Conformed Response; note that pagination has changed from original Response, due to changes that correct formatting)
Page 8, n. 14.	<p>Error in Description of CAISO activity:</p> <p>See discussion herein regarding CAISO’s Technical Studies effort, which is intended to assist the IOUs in transitioning emergency triggered DR into price-responsive DR.</p>	<p>Description of CAISO activity corrected:</p> <p>See discussion herein regarding CAISO’s Technical Design Session effort, which is intended to assist the IOUs in transitioning emergency triggered DR into price-responsive DR.</p>
Page 9	<p>Typographical error: failure to italicize language to which emphasis is added.</p> <p>PG&E states within its Application . . .”if it is cost effective”</p>	<p>Typo corrected</p> <p>PG&E states within its Application . . .”<i>if it is cost effective</i>” (emphasis added)</p>
Page 9, at section entitled “E. Pilot Program,” n. 15	Citation style: Pg. 3-11	Citation style correction: PG&E Testimony, Chapter 3 (Witness: Kenneth E. Abreu), at p. 3-11.
Page 9, n. 16	Footnote with blank [no citation]	Footnote deleted
Page 9, n. 17	Citation style: Pg. 2-27 to 2-28	Citation style correction: [FN re-numbered to 16]; PG&E Testimony, (Witnesses: Osman Sezgen and Randall K. Wong), at p. 2-27 to 2-28.
Page 10, at section entitled “Chapter 1. Section D., Demand Response Resource Plan for 2009-2011,” n. 18	Citation style: pg. 1-11	Citation style correction: [FN re-numbered to 17]; PG&E Testimony, Chapter 1 (Witness: Stephen J. McCarthy), at p. 1-11.
Page 10, n.19	Citation style: Pg. 3-2	Citation style correction: [FN re-numbered to 18]; PG&E Testimony, Chapter 3 (Witness: Kenneth E. Abreu), at p. 3-2.

Page Reference (corresponding to original Response, filed July 9 2008)	Item for Correction & Description of Correction	Correction (see Conformed Response; note that pagination has changed from original Response, due to changes that correct formatting)
Page 11, n. 20	Citation style: Pg. 3-4	Citation style correction: [FN re-numbered to 19]; PG&E Testimony, Chapter 3 (Witness: Kenneth E. Abreu), at p. 3-4.
Page 12, Chapter 3, 4a-Participating Load,” 21	Citation style: Pg. 3-9	Citation style correction: [FN re-numbered to 20]; PG&E Testimony, Chapter 3 (Witness: Kenneth E. Abreu), at p. 3-9.
Page 13, at section entitled “Comments as to Application of Southern California Edison,” n. 22	Citation style: SCE pg. 3	Citation style correction: [FN re-numbered to 21]; SCE Testimony, Chapter 1 (Witness: L. Olivia), at p. 3.
Page 13, n. 23	Citation style: SCE pg. 3	Citation style correction: [FN re-numbered to 22]; SCE Testimony, Chapter 1 (Witness: L. Olivia), at p. 3.
Page 14, n. 24	Citation style: SCE pg. 3	Citation style correction: [FN Renumbered to 23] SCE Testimony, Chapter 1 (Witness: L. Olivia), at p. 3.
Page 14, n. 25	Footnote numbering	[FN re-numbered to 24]
Page 14, n. 26	Footnote numbering	[FN re-numbered to 25]
Page 14, n. 27	Footnote numbering	[FN re-numbered to 26]
Page 15, at section entitled “Policy Considerations Regarding Demand Response Programs, C. DR Goals (p. 12),” n. 28	Citation style: SCE pg. 13	Citation style correction: [FN re-numbered to 27]; SCE Testimony, Chapter 2 (Witness: L. Olivia), at p. 13.
Page 15, at section entitled “Market Redesign and Policy Upgrade (p. 13),” n. 29	Citation style: SCE pg. 14	Citation style correction: [FN re-numbered to 28.]; SCE Testimony, Chapter 2 (Witness: L. Olivia), at p. 14. Formatted: to superscript
Page 16, n. 30	Footnote numbering	[FN re-numbered to 29]
Page 16, n. 31	Footnote numbering	[FN re-numbered to 30]

Page Reference (corresponding to original Response, filed July 9 2008)	Item for Correction & Description of Correction	Correction (see Conformed Response; note that pagination has changed from original Response, due to changes that correct formatting)
Page 17, n. 32	Footnote numbering	[FN re-numbered to 31]
Page 17, n. 33	Citation style: SCE Pg. 15	Citation style correction: [FN re-numbered to 32] Chapter 2 of SCE Testimony (Witness: L. Olivia), at p. 15.
P. 18	Formatting error—table heading not bold	Table re-formatted: to make heading bold.
Page 18, n. 34	Footnote numbering	[FN re-numbered to 33]
Page 20, at section entitled “Real Time Pricing,” first paragraph	Bullet items not within table	Bullets items placed in table with heading “Synopsis of CAISO Points”
Page 20, at section entitled “Agricultural Pumping Interruptible,” first paragraph	Bullet items not within table	Bullets items placed in table with heading “Synopsis of CAISO Points”
Page 20, n. 35	Footnote numbering	[FN re-numbered to 34];
Page 21, first paragraph	Typographical error any typeof	Typo corrected: any type of
Page 21, Table	Formatting error—table formatted with grid lines	Table re-formatted: to remove grid lines
Page 21, at section entitled “Summer Discount Plan,” first paragraph	Bullet items not within table	Bullets items placed in table with heading “Synopsis of CAISO Points”
Page 22, at section entitled “Demand Response Resource Contracts”	Bullet points not within table.	Bullet points placed in table with heading “Synopsis of CAISO Points.”
Page 22, at section entitled “Permanent Load Shifting.”	Bullet points not within table.	Bullet points placed in table with heading “Synopsis of CAISO Points.”
Page 22, at section entitled “Automated Demand Response.”	Bullet points not within table.	Bullet points placed in table with heading “Synopsis of CAISO Points.”

Page Reference (corresponding to original Response, filed July 9 2008)	Item for Correction & Description of Correction	Correction (see Conformed Response; note that pagination has changed from original Response, due to changes that correct formatting)
Page 22, at section entitled "Spinning Reserves."	Bullet points not within table.	Bullet points placed in table with heading "Synopsis of CAISO Points."
Page 22, n. 36	Citation style: SCE page 45	Citation style correction: [FN re-numbered to 35]; SCE Testimony, Chapter 5 (Witness: M. Martinez), at p. 45.
Page 22, n. 37	Id	[FN re-numbered to 36]; SCE Testimony. Chapter 5 (Witness: M. Martinez), at p. 45.
Page 22, n. 38	Citation style: SCE page 49	Citation style correction: [FN re-numbered to 37]; SCE Testimony, (Witness: M. Martinez), at p. 49.
Page 24, n. 39	Citation style: SDGE pg. 2	Citation style correction: [FN re-numbered to 38]; SDG&E Testimony, Chapter 1 (Witness: Mark Gaines), at p. 2.
Page 25, n. 40	Citation style: SDGE Mark Gaines pg. 3	Citation style correction: [FN re-numbered to 39]; SDG&E Testimony, Chapter 1 (Witness: Mark Gaines), at p. 3.
Page 25, n. 41	Footnote renumbering	FN re-numbered to 40
Page 26, n. 42	Citation style: SDGE Mark Gaines pg. 5	Citation style correction: [FN re-numbered to 41]; SDG&E Testimony, Chapter 1 (Witness: Mark Gaines), at p. 5.

Page Reference (corresponding to original Response, filed July 9 2008)	Item for Correction & Description of Correction	Correction (see Conformed Response; note that pagination has changed from original Response, due to changes that correct formatting)
Page 26, n. 43	Citation style: SDGE Mark Gaines pg. 5	Citation style correction: [FN re-numbered to 42] Chapter 1 of SDGE Testimony (Witness: Mark Gaines), at p. 5.
Page 27, Table	Formatting error—table formatted with grid lines	Table re-formatted: to remove grid lines
Page 27, at section entitled “Base Interruptible Program” last Paragraph	Bullet points not within table.	Bullet points placed in table with heading “Synopsis of CAISO Points.”

CERTIFICATE OF SERVICE

I hereby certify that on July 23, 2008. I served on the parties listed on the service lists of the following Docket Numbers A.08-06-001, A.08-06-002, A.08-06-003 and R.07-01-041, a copy of the foregoing Amended Response of the California Independent System Operator to Utility Applications for Approval of Demand Response Programs and Budgets for 2009 – 2011.

I made service by electronic mail to those parties on the Service List providing an email address for service in the proceeding. For those parties on the Service Lists requesting service by U.S. mail, I served those parties via U.S. mail.

Executed on July 23, 2008 at Folsom,
California

/s/ Anna Pascuzzo

Anna Pascuzzo
An employee of the California Independent
System Operator

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

Application of Southern California Edison
Company (U338-E) for Approval of Demand
Response Programs, Goals, and Budgets for
2009-2011

and Related Matters

Application 08-06-001
(Filed: June 2, 2008)

Application 08-06-002
Application 08-06-003

**CONFORMED
RESPONSE OF
THE CALIFORNIA INDEPENDENT SYSTEM OPERATOR
TO UTILITY APPLICATIONS FOR APPROVAL OF DEMAND RESPONSE
PROGRAMS AND BUDGETS FOR 2009-2011**

Introduction

Pursuant to Rule 2.6 (c) and the Ruling of ALJ Hecht on July 2, 2008¹, the California Independent System Operator Corporation (“CAISO”) submits this Response to the Applications of Pacific Gas and Electric Company (“PG&E”), and San Diego Gas & Electric Company (SDG&E). ALJ Hecht has now consolidated the three Application proceedings of the utility applications for the 2009-202211 program cycle.

In this Response, the CAISO begins with general points that are applicable to all of the IOU Applications, and then discusses the applications of PG&E, SCE, and SDG&E, respectively. So that the reader of this CAISO Response may correlate our points for each utility filing to the that utility filing, our comments here track the layout of the utility’s written testimony; in the discussion for each utility, we have used the subheadings from the headings in the witness’s testimony. For certain areas, we have included a box referencing “Synopsis of CAISO Points.”

¹ Administrative Law Judge’s Ruling Consolidating Proceedings, dated July 2, 2008.

GENERAL COMMENTS APPLICABLE TO ALL UTILITY DEMAND RESPONSE APPLICATIONS

There is No Need to Wait Until the Close of the First Full Year of MRTU to Increase Participating Load

PG&E states that it “plans to move DR programs to PL only when [i.e. after] necessary CAISO tariff changes, BPM changes and User Guides for PL are adopted.”² However, PG&E and the other IOUs do not need to wait for the enhanced Participating Load capability under MAP.³ Participating Load can participate under the CAISO’s initial release of MRTU. The Commission should encourage the IOUs not to delay until MAP to develop new Participating Loads, where appropriate.

Price-responsive Programs Should Have Clear Price Triggers

The Commission should insist that the utilities restructure programs like CPP and SmartRate, to have clear price triggers, instead of the triggers based on temperatures, or expected heat rates that represent the current configurations in the utility applications.⁴ Continuing to operate programs with triggers based on temperatures and/or expected heat rates is not progress towards developing program triggers that are useful in a market context. This Commission has

² ~~Chapter 3 of~~ PG&E Testimony, Chapter 3 (Witness Kenneth eE. Abreu) at pg. 3-9, lines 3-16.

³ While MRTU is a major overhaul of the original zonal California ISO market design, it does not represent the end state for energy markets in California. Rather, MRTU provides a flexible platform for subsequent enhancements as needed, for example to support environmental policy initiatives enhance infrastructure development and demand response participation.

The CAISO Market Initiatives Roadmap identifies and prioritizes enhancements to the MRTU platform, which are then elaborated through scope definition and the market design process. Once the market design of an enhancement or set of enhancements reaches the point that an implementation plan can determined it is defined in a release.

The CAISO has identified the next release of market enhancements and we collectively refer to these items as “Markets and Performance,” or “MAP.” Previously, the CAISO referred to this bundle of software market enhancement functionality as “Market Release 1A.”

⁴ For instance, certain programs can be called when the utility forecasts a thermal unit heat rate of 15,000 btu/kWh on a day-ahead or day-of basis.

articulated that the market is the environment in which non-generation resources must be placed if they are going to be viable resources that can substitute for new generating capacity in the future. This Commission's articulation is also the consensus of other energy policy makers, such as the FERC.

Moreover, as a practical matter, triggers based on temperature or expected heat rates do not necessarily translate well into resolving conditions on the grid. The weather could be warm in San Francisco, prompting the need for additional energy/capacity resources, a need which DR resources might well be able to fulfill, but there may be no serious reliability conditions that would trigger DR program availability, and so no way to commit the DR resource.

The CAISO is Developing a Process to Assist the Utilities in Transitioning Their Programs to Integrate with MRTU

The CAISO intends to work with the IOUs in a series of Technical Design Sessions scheduled for late-July through mid-August to explore and demonstrate how certain utility DR programs could be modified to fit under the MRTU market design structure. The emphasis of the Technical Design Sessions will be on getting DR programs into the CAISO's initial release of MRTU. Similar sessions can be organized in the near future, as the details of the MRTU changes under MAP are further refined.

The Current Cycle IOU of Programs Should be Reformulated to Develop an Ancillary Services Non-Spinning Reserve Product for 2009

Given the sophistication and capability of DR aggregators, the Commission should insist on developing new Participating Loads under the IOUs' Capacity Bidding Programs, and other aggregator delivered programs, like AMP, including the development of loads that can bid into the CAISO's ancillary service market as non-spinning reserves.

RA Capacity Treatment for Emergency-Triggered DR Should Be Eliminated

PG&E requests that the Commission “count the “reliability” programs towards the IOUs’ DR targets, if new targets are adopted.”⁵ In this context, it is important to distinguish between two separate requirements that the Commission has set for the IOUs, with respect to DR: 1) DR customer participation (generally measured in MWs, and as a proportion of utility peak system load) and 2) DR resource inclusion in the mix of utility RA resources. Should the Commission choose to apply reliability programs so that they “count” toward the CPUC’s utility DR goals and targets, then the CAISO would seek clarification as to whether the Commission intends that any portion of those DR resources “count” for RAR purposes, and the Commission’s analysis and basis for that determination. In the RAR context, the CAISO reiterates its oft-stated position that, regardless of how the Commission “counts” reliability-based DR for DR participation goals, the Commission should not “count” such programs as resource adequacy capacity.

DR Program Costs Should be More Transparent and Comparable Across Programs

Taking the utility Applications as a whole, it is difficult for the reader to discern the information that provides for cost comparisons across all the utilities and programs, information that would assist in providing a statewide perspective. The Commission should consider developing some standard metrics for analysis in this regard. For example, the CAISO would suggest having the IOUs produce a \$/kW-Yr number for each DR program, with agreed-upon assumptions as to what exactly is to be included in the development of this figure, e.g. an “all-in-cost” methodology or other. The CAISO would discourage trying to incorporate externalities into this figure; this sort of evaluation can be considered after-the-

⁵ ~~Chapter 1 of~~ PG&E Testimony, Chapter 1 (Witness: Stephen J. McCarthy), at p. 1-11.

fact. A \$/kW-Yr number would help the CAISO, for example, to understand the costs of DR programs, relative to generating resources, and would provide context for costs associated CAISO backstop capacity procurement.

Comments as to Application of Pacific Gas & Electric

In general, the CAISO is supportive of PG&E’s clear intent to work towards integrating demand response into the wholesale markets and ensuring that DR resources can contribute directly to reliability. In this spirit “PG&E proposes to integrate its DR programs with the CAISO Market Redesign and Technology Upgrade (MRTU) during the 2009-2011 period, by, among other changes, revising its programs to call DR events by local area and allowing DR resources to serve as participating load (PL), where feasible and cost effective.”⁶

Chapter 1, Policy Considerations for Proposed, Section C. Overview of PG&E’s Proposal

Base Interruptible Program:

Synopsis of CAISO Points
<ul style="list-style-type: none">▪ No new enrollment into BIP until a clear RA policy on the treatment of emergency-triggered DR programs is determined under the CPUC’s RA program▪ Support transition to PeakChoice™₅ Program₁ but sooner than 2011▪ Support movement to locational dispatch

The CAISO urges that the Commission not approve any new enrollment/recruitment into any type of emergency-triggered DR program, like BIP, until after the Commission has established a clear policy for how such programs will be treated under the CPUC’s RA program. That having been said, the CAISO applauds PG&E’s “...plans to migrate most of its Demand Bidding

⁶ [PG&E Testimony, Chapter 1 \(Witness: Stephen J. McCarthy\), at p. Pg-1-4 to 1-5.](#)

Program and BIP customers to the recently approved PeakChoice™ Program”⁷
The Commission should encourage PG&E in this effort, and, direct the other IOUs, in similar fashion, to follow PG&E’s lead, for instance, by directing SCE to move BIP into its Energy Options Program, as appropriate.

2(b). Critical Peak Pricing and SmartRate Program:

Synopsis of CAISO Points
<ul style="list-style-type: none">▪ Move to a clear price trigger▪ Move to locational dispatch capability

Like it does with Aggregator Managed Portfolios, PG&E leaves locational specificity out of the Critical Peak Pricing (CPP) program, stating that

[t]he Critical Peak Pricing (CPP) program is also not callable by local capacity area at this time. The transitioning to the operational parameters for the CPP and SmartRate programs to one that is callable by local capacity areas is not covered in this 2009-2011 DR program application⁸

The CAISO understands that these programs are being dealt with in the Commission’s current Dynamic Pricing investigation (Decisions around rates like CPP are being dealt with in the GRC, not in this application), but, given the importance and value-added by geographic specificity and locational dispatch, we respectfully urge the Commission to ensure that dynamic tariffs, like CPP and SmartRate, incorporate locational attributes during the 2009-10 timeframe, such that these programs/tariffs can be called locationally, or, at minimum, by the CAISO’s defined local capacity areas.

In addition, as stated above in our general points, the Commission should insist that the utilities restructure programs like CPP and SmartRate, move to

⁷ PG&E [Testimony, Chapter 2 \(Witnesses: Osman Sezgen and Randall K. Wong\), at pg. 2-2.](#)

⁸ [PG&E Testimony, Chapter 3 \(Witness: Kenneth E. Abreu\), at p. Pg-3-11.](#)

clear price triggers, which are more directly tied to the wholesale electricity markets than triggers based on temperatures, or expected heat rates.

2(c). PeakChoice™ Program:

Synopsis of CAISO Points
<ul style="list-style-type: none">▪ Develop Participating Load capability before 2010▪ Economic dispatch capable in 2009

PG&E states that “will begin to call the PeakChoice™ Program, E-BIP and SmartAC Programs by local area in 2009, initially for reliability purposes only.”⁹ The CAISO encourages the Commission to ensure that the IOUs invest the time and resources necessary to develop the capability to do economic dispatch by location or, at minimum, by CAISO local capacity area¹⁰ sooner than 2010.

3(a) Capacity Bidding Program:

Synopsis of CAISO Points
<ul style="list-style-type: none">▪ Move to a clear price trigger▪ Add locational dispatch capability▪ Allow enrollment as CAISO Participating Load

With respect to the Capacity Bidding Program (CBP), PG&E states that “there are no customers directly enrolled,” and that “customers interested in directly enrolling in a DR program can select similar program options in the PeakChoice™ Program.”¹¹ One bright-line distinction between the CBP program and the PeakChoice™ Program appears to be that aggregators are authorized to

⁹ [PG&E Testimony, Chapter 3 \(Witness: Kenneth E. Abreu\), at p. Pg-3-11.](#)

¹⁰ For additional information regarding CAISO local capacity areas, please refer to the CAISO’s 2009 Local Capacity Technical Analysis found at: <http://www.caiso.com/1fba/1fbace9b2d170.pdf>

¹¹ [PG&E Testimony, Chapter 1 \(Witness: Stephen J. McCarthy\), at p. 1-7, PG&E Testimony Volume ____, testimony of _____, at p. 1-7.](#)

solicit and enroll customers under the CBP program, but not under the PeakChoice™ Program. The CBP program has a heat rate trigger that essentially serves as a proxy for a price trigger, and, thus, could easily be converted to a price trigger. Given this, the CAISO would petition PG&E to move the CBP program from a heat rate trigger to a clear price trigger. In addition, the program parameters should be restructured, such that it is eligible to participate directly in the CAISO’s participating load program, with a bid in the DA forward energy market or in the real-time market under MRTU.¹²

3(b). Aggregator Managed Portfolio (AMP):

Synopsis of CAISO Points
<ul style="list-style-type: none">▪ Eliminate the BIP option▪ Allow enrollment as CAISO Participating Load▪ Consider revising existing aggregated DR contracts, to include locational dispatch and enrollment as CAISO Participating Load

PG&E states that “[a]ggregators are able to participate in two tariff-based programs: the CBP and BIP.”¹³ The CAISO submits that the Commission should eliminate the option for aggregators to enroll customers under the BIP program until such time as the Commission has established a clear policy, on a going-forward basis, for the treatment of these programs under the Commission’s Resource Adequacy (“RA”) program. In addition, given the sophistication and capability of DR aggregators, the Commission should insist on developing new Participating Loads under the Capacity Bidding Program, including the development of loads that can bid non-spinning reserves into the CAISO’s ancillary services market.¹⁴

¹² More information about CAISO participating load can be found at <http://www.caiso.com/docs/2005/10/05/2005100520280423155.html>

¹³ pg. 2-10

¹⁴ See discussion herein regarding CAISO’s Technical [Design Session Studies](#) effort, which is intended to assist the IOUs in transitioning emergency triggered DR into price-responsive DR.

PG&E states within its Application that it is planning a new RFP for an AMP, during the 2009-2011 timeframe, that "...may include localized calling of DR[,] *if it is cost effective.*"¹⁵ (emphasis added.) Because a resources' value is tied much more directly to its physical location under MRTU, the Commission should insist that any future RFPs for aggregator-delivered demand response resources be dispatchable by location or, at minimum, by the CAISO's defined local capacity areas¹⁶

E. Pilot Programs:

Synopsis of CAISO Points

- | |
|---|
| <ul style="list-style-type: none">▪ Support all of PG&E's pilot programs/projects▪ Expand permanent load shifting pilot to investigate dynamic load shifting |
|---|

The CAISO appreciates the basis for PG&E's proposed pilot projects and "...DR's role to provide ancillary services and facilitate the integration of intermittent renewable resources."¹⁷ The Commission should support all of PG&E's pilot projects and the CAISO looks forward to working with PG&E on these projects.

The Commission should also explore having PG&E, or one of the other IOUs, pilot the concept of dynamic load shifting. The idea behind "dynamic" load shifting is the notion that a storage device has the ability to follow price or frequency, in a regulating like manner, and can charge (add load) or discharge (reduce load) based on system or market conditions. The results of such a study could be very informative to policymakers and engineers that are learning how to better integrate intermittent resources.

¹⁵ [PG&E Testimony, Chapter 3 PG&E Testimony \(Witness: Stephen J. McCarthy\), at p. Pg-3-11.](#)

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¹⁷¹⁶ [PG&E Testimony, Chapter 2 PG&E Testimony \(Witness: Stephen J. McCarthy\), at p. Pg-2-27 to 2-28.](#)

Chapter 1, Section D. Demand Response Resource Plan for 2009-2011

In this section, PG&E outlines its perspectives on DR goals for the 2009-2011 program cycle. Specifically, PG&E requests that the Commission “count the “reliability” programs towards the IOUs’ DR targets, if new targets are adopted.”¹⁸ In this context, it is important to distinguish between two separate requirements that the Commission has set for the IOUs, with respect to DR: 1) DR customer participation (generally measured in MWs, and as a proportion of utility peak system load) and 2) DR resource inclusion in the mix of utility RA resources. Should the Commission choose to apply reliability programs so that they “count” toward the CPUC’s utility DR goals and targets, then the CAISO would seek clarification as to whether the Commission intends that any portion of those DR resources “count” for Resource Adequacy Requirement (“RAR”) purposes, and the Commission’s analysis and basis for that determination. In the RAR context, the CAISO reiterates its oft-stated position that, regardless of how the Commission “counts” reliability-based DR for DR participation goals, the Commission should not “count” such programs as resource adequacy capacity.

Chapter 3- Integrating Demand Response with the Markets

PG&E’s Application repeats here an inaccurate but apparent consensus utility perception that “DR will generally not participate directly in the CAISO markets for Release 1 [of MRTU].”¹⁹ The CAISO clarifies for the Commission that Participating Load capability will continue to be available, under the initial release of MRTU, as it is today.

The CAISO believes that certain IOU DR programs, including, potentially PG&E’s CBP, AMP (as well as certain PeakChoiceTM Program configurations),

¹⁸[17 PG&E Testimony, Chapter 1 \(Witness: Stephen J. McCarthy\), at p. 1-11, pg. 1-11](#)

¹⁹[18 PG&E Testimony, Chapter 3 \(Witness: Kenneth E. Abreu\), at p. 3-2, Pg. 3-2](#)

can and should be revised to participate directly in the CAISO's market under MRTU, without waiting for the additional functionality that will occur under MAP. While Participating Load will have enhanced effectiveness under MAP, it is a viable option for 2009, right at the start of the program cycle. The CAISO intends to work with the IOUs in a series of Technical Design Sessions scheduled for late-July through mid-August to explore and demonstrate how certain programs could be modified to fit under the MRTU market design structure.

Integrating demand response into markets will require greater geographic specificity and therefore locational dispatch for demand response resources. The ability to identify and/or dispatch demand response resources locationally is essential under the CAISO's MRTU market design, which will incorporate Locational Marginal Pricing ("LMP"). Locational Marginal Pricing is a market-pricing approach used to manage the efficient use of the transmission system when congestion occurs on the bulk power grid. Locational Marginal Prices may vary at different times and locations, based on transmission constraints. Thus, a demand response resources impact on, and, therefore, benefit to the grid, is tied directly to where the resource is physically located. PG&E makes an important point in its Application that, in order "[t]o be able to develop demand response resources with greater geographic specificity, [t]he forecasting and settling of the PL [Participating Load] [by local area] will be a new feature for IOUs and the development of this capability may take some time to complete."²⁰ Because MRTU will bring enhanced reliability and market benefits derived from knowing where resources are located on the grid, the Commission should insist that the IOUs immediately focus the time and resources necessary to develop the

²⁰¹⁹ [PG&E Testimony, Chapter 3 \(Witness: Kenneth E. Abreu\), at p. 3-4, Pg. 3-4](#)

capability to forecast, schedule, and dispatch DR resources on a locational basis and begin doing so in 2009, where possible.

The ability to forecast, schedule/bid and dispatch demand response resources on a locational basis will require investment in additional communication and information technology infrastructure. The Commission should support the IOUs' investments that help achieve this objective of developing, operating and participating geographic specific demand response resources in the CAISO's wholesale markets and grid operations.

Chapter 3, 4.a- Participating Load

PG&E states that it "plans to move DR programs to PL only when [i.e. after] necessary CAISO tariff changes, BPM changes and User Guides for PL are adopted."²¹ However, PG&E and the other IOUs do not need to wait for the enhanced Participating Load capability under MAP. PL can participate under the CAISO's initial release of MRTU. The Commission should encourage the IOUs not to delay until MAP to develop new Participating Loads, where appropriate.

Chapter 3, 4.e- Scarcity Pricing

The CAISO respectfully differs with PG&E's characterization, as stated in its Application, that the CAISO's process for scarcity pricing is still being developed and no final design has been established at this time. Rather, the CAISO responds that the relationship between scarcity pricing and demand response has been clearly communicated in exchanges with CAISO's stakeholders, and that has not changed since February 2008. The issue of scarcity pricing has been discussed for over a year, with a white paper on scarcity pricing initially released in May 2007. The discussion in the last number of months has focused on finer details, and, in fact, the CAISO intends to publish its final scarcity

²¹[PG&E Testimony, Chapter 3 \(Witness: Kenneth E. Abreu\), at p. 3-9, Pg. 3-9](#)

pricing design proposal for stakeholders on July 11th. Accordingly, the CAISO is of the opinion that sufficient information has been presented to stakeholders on the relationship between scarcity pricing and demand response, and that information enables the utilities to develop DR programs that can help mitigate scarcity prices.

Chapter 3, E- Changes to Programs by Advice Letter

The Commission should support and allow the IOUs to make adjustments to new DR programs, or apply for new programs, via Advice letters. As the CAISO adds additional functionality and enhancements for DR resources under MRTU MAP, program changes will likely be necessary and, therefore, the Commission should accommodate the utilities' need for flexibility to make appropriate and cost-effective program adjustments to their programs.

Comments as to Application of Southern California Edison

I. Introduction

A. Background

SCE acknowledges that its “customers have the opportunity to move to the forefront of DR in the nation”²² but cautions, for example, that customers “will certainly be impacted as SCE transitions to dynamic pricing, advanced metering, and integration with the CAISO market (in making this cautionary statement, implying potential detrimental impact, SCE points to customers on its Base Interruptible Program and those on the Summer Discount Plan, which amount to 1,000 MW of DR),”²³ As such, SCE states that it “intends to ensure that the transition to new program designs be made in an orderly manner, so that

²²[221 SCE Testimony, Chapter 1 \(Witness: L. Olivia\), at p. 3, SCE pg. 3](#)

²³[222 SCE Testimony, Chapter 1 \(Witness: L. Olivia\), at p. 3, SCE pg. 3](#)

customers' important contributions are not lost.”²⁴ The CAISO appreciates this sentiment and, likewise, wants to ensure that DR-participating customers are not “lost in the equation” and, importantly, that customers are getting the best value from the DR resources that they are paying for, by ensuring that DR programs deliver a meaningful reliable and cost-effective supply of electricity.

Examining the two programs Edison highlights, in 2007, the BIP/I-6 programs offered an expected response of approximately 630 MW, at a cost of approximately \$53 million dollars. This equates to approximately \$84/kW-Yr. Yet, in 2007, these programs were never dispatched.²⁵

In 2007, the Summer Discount Programs offered an expected response of approximately 586 MW, at a cost of approximately \$44 million dollars. This equates to approximately \$75/kW-Yr. In 2007, these programs delivered a total of only 302 MW-hrs²⁶, or the equivalent of a simple cycle combustion turbine operating for 6 hours in a year.²⁷

In summary, the Commission must be concerned about the customers that are delivering DR and the customers that are paying for DR and strike an appropriate balance between the two. Customers that provide DR must clearly understand the rules, requirements and expectations that they are under for the benefit or rate relief they are provided. Conversely, customers that are paying for DR must get meaningful value and reliability benefit from the investment they are making.

²⁴²³ [SCE Testimony, Chapter 1 \(Witness: L. Olivia\), at p. 3](#). ~~SCE pg. 3~~

²⁵²⁴ Report of Southern California Edison Company (U338-3) on Interruptible Load Programs and Demand Response Programs, January 22, 2008.

²⁶²⁵ In 2007, this program was called twenty-one times to provide distribution relief, and was not called for CAISO reliability purposes. See Report of Southern California Edison Company (U338-3) on Interruptible Load Programs and Demand Response Programs, January 22, 2008

²⁷²⁶ Report of Southern California Edison Company (U338-3) on Interruptible Load Programs and Demand Response Programs, January 22, 2008.

II. Policy Considerations Regarding Demand Response Programs

C. DR Goals (pg 12)

The Commission should ask SCE to further clarify or produce an example to illustrate what is meant by the statement that “DR goals should be based only on the potential demand of customers with appropriate metering who can participate in DR programs[.]”²⁸ The CAISO simply does not understand what the “potential demand of customers” means. What potential is SCE referring to? Is it the technical potential, market potential, realistic potential, or something else? Further explanation would be helpful.

2. Market Redesign and Technology Upgrade (pg 13)

In this section of its application, SCE states that “[t]he CAISO’s apparent belief that there is a large block of available load reduction enrolled in SCE’s BIP that is willing to participate in a price response program has no analytical basis.”²⁹ The CAISO has never made the claim that there is a “large block” of BIP customers that are willing to participate in a price response program. And this has not been the core concern. Rather, the CAISO’s concern has been that the current policy counts the MWs enrolled in the BIP as RA capacity. The CAISO is constantly making this clarification when it speaks with utility representatives, because, up to now, it has been a tautology in the state that DR equals resource adequacy capacity. This concept must change if DR is to ever be more than just an involuntary load-shedding substitute in California.

The CAISO’s sole motivation for advocating that willing BIP customers move to a price-responsive paradigm is so that these customers can gain the capability to make their demand response available in advance of a CAISO-declared staged emergency, and therefore, qualify these customers as viable

²⁸²⁷ [SCE Testimony, Chapter 2 \(Witness: L. Olivia\), at p. 13, SCE pg-13](#)

²⁹²⁸ [SCE Testimony, Chapter 2 \(Witness: L. Olivia\), at p. 14, SCE pg-14](#)

Resource Adequacy capacity providers. As the CAISO has recently conveyed to the Commission in its June 25th filing on Emergency DR, in the primary DR proceeding:

[I]t is the overall perspective of the CAISO that a range of 500 to 1000 MW, corresponding to a range between 1 and 2 percent of peak system load, is an appropriate quantity of emergency-triggered DR that would be useful to the system during serious system emergencies, to help prevent involuntary firm load shedding.³⁰

As a result, the Commission's final determination of how much emergency-triggered DR it deems appropriate may be on the lower side of the range that the CAISO has articulated. If this is the determination of the Commission, the CAISO can support such a reduction from current levels.³¹

Thus, the CAISO has no expectation as to the number of BIP customers or associated MW quantity that could or would transition to a price response option. However, the amount of emergency triggered DR that is currently being funded and offered through programs like BIP, exceed what the CAISO believes is necessary for the CAISO to avoid a Stage 3 emergency and, therefore, the call for involuntary firm load shedding, given the CPUC ensures that the Planning Reserve Margin is satisfied by resources that are available to the CAISO to prevent a system emergency.

Responding to assertion that no analysis has been done by the CAISO as to how many BIP customers would move to price response, the CAISO does believe that there are customers in BIP that would move to a price responsive paradigm, given the right program structure and incentive. The Commission has

³⁰²⁹ Comments of the California Independent System Operator Re: ALJ Ruling Requesting Information on Emergency-Triggered Demand Response, filed June 25, 2008 in R07-01-041, at p. 15.

³¹³⁰ Comments of the California Independent System Operator Re: ALJ Ruling Requesting Information on Emergency-Triggered Demand Response, filed June 25, 2008 in R07-01-041, at p.16.

likely taken notice of the quantity of DR that has participated and cleared in ISO New England's (ISONE) Forward Capacity Market ("FCM").

ISONE's forward capacity auction cleared 2,279 MW of DR, with 1,579 MW of the 2,279 MW being dispatchable by ISONE. The total of Demand Resources in this first forward capacity auction and those showing interest in ISONE's second forward capacity auctions is over 4,200 MW. According to ISONE, this would represent approximately 12% of ISONE's installed capacity requirement in their 2011/12 commitment period.³²

Thus, the CAISO believes that demand response resources will make themselves available in the wholesale electricity markets as viable and available capacity resources in significant quantities based on the success of demand response resources in eastern ISO capacity auctions.

Later in this section, SCE makes a statement regarding the CAISO's concern with SCE's continuation and growth of interruptible programs which states that "...both parties [SCE and CAISO] will continue to work together to develop a plan and a schedule to arrive at a solution that does not put the transmission system in Southern California in jeopardy." (emphasis added)³³ The CAISO is unclear as to the meaning of this statement and would ask SCE to clarify what this characterization means and specify what is at risk, and if SCE is referring to its operation of its distribution system (sub-ISO transmission) or to the CAISO's operation of the high voltage transmission system? If referring to the CAISO operated transmission system, then this is clearly a CAISO Grid Planning concern and part of the CAISO's responsibility to reliably operate the

³²³¹ Integrating Demand Resources into ISO Operations Presented by: Henry Yoshimura, Director, Demand Resource Strategy, John Norden, Manager, Renewable Resource Integration; May 29, 2008.

³³³² [SCE Testimony, Chapter 2 \(Witness: L. Olivia\), at p. SCE Pg. 15.](#)

CAISO controlled grid. As to the MW quantity needed from these interruptible programs to reasonably avoid involuntary firm load shedding, the CAISO has previously addressed this issue for the Commission in its Emergency DR filing.³⁴

Finally, the Commission should support all of SCE's proposals to prepare for operation under MRTU. SCE is proposing:

- Enhancements to allow regional dispatch of several DR programs
- A DR Portal to communicate with the CAISO concerning the status of programs
- The continuation of the spinning reserve pilot program

Energy Options Program:

Synopsis of CAISO Points
<ul style="list-style-type: none">▪ Support streamlining DR offerings▪ Support making Auto DR an integral part of the program▪ Make this a third-party aggregator delivered program▪ Move to clear price trigger and modify timelines consistent with wholesale markets

The CAISO appreciates SCE's efforts to streamline the DR program offerings, to minimize customer confusion, with the result of potential customer inaction. However, the CAISO sees the potential for continuing customer confusion given the program can be offered either through a third-party aggregator or directly through the utility. The Commission may want to apply PG&E's approach for CBP to this program to avoid potential competing interests between third-party aggregators and utility account managers, for instance, in the delivery of this program, with customers in the middle.

PG&E is transitioning its CBP program from a utility-delivered program to a third-party aggregator delivered program, and the Commission may want to explore this same delivery channel for this program, with Edison referring

³⁴ CAISO reference to filing

interested customers to review program information and then to select from a list of approved third-party aggregators to join. In addition, certain third-party aggregators can bring to bear their varied capabilities and experience acquired from their participation in other regions and wholesale electricity markets. Given these resources, the Energy Options Program could likely be modified so that it is structured to integrate in the CAISO's markets.

Separately, the CAISO notes that one modification Edison should make to the Energy Options Program is to the day-ahead notification time. Currently this stands at 12:00 PM. (noon). If this program is to be configured to fit into the CAISO's day-ahead market, then the notification time must be moved to a later time, namely 2:00 PM. This is because the CAISO's day-ahead forward energy market does not publish results until 1:00 PM, and, it is not until after this time that participating program customers could be notified, if the submitted bid of Energy Options Program were cleared.

Critical Peak Pricing:

Synopsis of CAISO Points
<ul style="list-style-type: none">▪ Highly encourage deployment of Auto DR capability▪ Locational dispatch capability▪ Clear price trigger tied to wholesale markets

The Commission should strongly encourage the deployment of Auto DR capability, in conjunction with CPP and other DR programs. As the Demand Response Research Center ("DRRC") has demonstrated, Commercial and Industrial (C/I) customers on CPP rates that employed Auto DR produced average load reductions of 8% versus C/I customers, without Auto DR, averaged -1% load

reduction.³⁵ Auto DR capability should provide a more persistent and sustainable response.

Real-time Pricing:

Synopsis of CAISO Points:

- Highly encourage deployment of Auto DR capability to ensure persistent and consistent response
- Move away from price profiles driven by temperature to price profiles driven by the CAISO's day-ahead forward energy market

The Commission should require Edison to develop pricing profiles based on the hourly Default LAP price for SCE that clears the CAISO's day-ahead forward energy market under MRTU. SCE could establish certain pricing profiles based on the hourly market clearing prices falling within certain price ranges as produced by the CAISO's day-ahead forward energy market.

Agricultural Pumping Interruptible:

Synopsis of CAISO Points:

- No new enrollment/recruitment into this program as configured until there is a clear policy on the treatment of emergency-triggered programs under the CPUC's RA program.
- The Commission should require SCE to explore how this program could be modified or, another agricultural pumping program developed, so that aggregated agricultural pumping load can participate directly in the CAISO's markets. CDWR's aggregated pumping loads integrate and participate actively in the CAISO's markets and will continue to do so under MRTU. Albeit, on a smaller scale than CDWR pumps, the CAISO doesn't see why agricultural pumps can't similarly aggregate and integrate into the CAISO's markets.

³⁵³⁴ Presentation, entitled "The Evolution of Demand Response Technologies" by Roger Levy representing the LBNL Demand Response Research Center given at a CEC Load Management Workshop on June 19, 2008, Slide 23 of 26. This presentation can be found at [http://www.energy.ca.gov/load_management/documents/2008-06-19_workshop/presentations/3_\(Roger_Levy\)_08-06-19_Roger_Levy_rev_1.pdf](http://www.energy.ca.gov/load_management/documents/2008-06-19_workshop/presentations/3_(Roger_Levy)_08-06-19_Roger_Levy_rev_1.pdf).

The DRRC was established by the California Energy Commission's Public Interest Energy Research (PIER) program, and is led by Lawrence Berkeley National Laboratory, which serves as the DRRC host. Information regarding the DRRC can be found on the Internet at drcc.lbl.gov/ (accessed July 7, 2008).

Base Interruptible Program:

Synopsis of CAISO Points
<ul style="list-style-type: none">▪ No new enrollment in this program as configured until there is a clear policy on the treatment of emergency▪ triggered programs under the CPUC's RA program▪ Third- party aggregators should not be allowed to enroll customers in BIP

The CAISO urges that the Commission not approve any new enrollment/recruitment into any type_of emergency-triggered DR program, like BIP, until after the Commission has established a clear policy for how such programs will be treated under the CPUC's RA program. Like PG&E's intent to transition BIP customers into its PeakChoice™ Program, the Commission should likewise direct SCE to transition customers on emergency-triggered programs into its Energy Options Program, as appropriate.

Further the CAISO submits that third party aggregator resources are misapplied when they are used to enroll customers in BIP, and that the Commission should not allow this practice to continue. It is better to apply the resource of the aggregator towards procuring a full-use rather a limited use DR resource – better to have them procure DR suitable for the wholesale electricity markets in the eastern ISOs. As such, it seems wasteful to apply the skill and capability of aggregators towards the effort of acquiring Stage 2-triggered interruptible DR resources which cannot be used to contribute to maintaining day-to-day grid reliability.

Summer Discount Plan:

Synopsis of CAISO Points

- Locational Dispatch Capability
- Support SCE's intent to transition to a price responsive load control program, but consider requiring a formal transition plan be developed outlining the details as to how this can be accomplished. The CAISO would look forward to supporting SCE in this effort.

Demand Response Resource Contracts:

The Commission should increase the participation and delivery of demand response resources by third-party aggregators and contracts:

Synopsis of CAISO Points

- "This "aggregated" approach is common for procuring supply-side resources..."³⁶ and, as such, fits nicely into the context of procuring capacity either through bi-lateral arrangements or, through a centralized capacity market, to satisfy resource adequacy requirements;
- "... "bundles" individual customer demand reductions as an aggregated portfolio of MWs, which is available to SCE under certain rules and conditions."³⁷ These rules and conditions incorporate performance as a basis for compensation under these contracts. Thus risk is borne by the third-party aggregator, not the ratepayer;
- "Can remove the direct consequences of individual customer variability of response"³⁸, i.e. an individual customer doesn't bear the entire risk of performance, the collective aggregation helps ensure performance by the fact that some customers will over-perform while others will under-perform.
- Employ the experience of providers that deliver demand response resources into other wholesale electricity markets.

Permanent Load Shifting:

Synopsis of CAISO Points

- Need to tie more directly to how such program will benefit the integration intermittent renewable resources
- Consider incorporating a dynamic load shifting component to this program whereby load shifting is tied to CAISO real-time prices and loads can increase or decrease based on price.

³⁶³⁵ SCE Testimony, Chapter 5 (Witness: M. Martinez), at p. 45. ~~SCE page 45.~~

³⁷³⁶ SCE Testimony, Chapter 5 (Witness: M. Martinez), at p. 45. ~~Id~~

³⁸³⁷ SCE Testimony, Chapter 5 (Witness: M. Martinez), at p. 49. ~~SCE page 49~~

Automated Demand Response:

Synopsis of CAISO Points

- Move away from further Auto DR “pilots” and Auto DR as a “program and, instead, employ Auto DR as a ubiquitous feature and application across the entire DR Program portfolio to ensure greater persistence and consistency in response

Spinning Reserves:

Synopsis of CAISO Points

- The Commission should continue to support this program and its objectives

Comments as to Application of San Diego Gas & Electric

Testimony of Mark Gaines

The CAISO’s Comments for San Diego track the sections in the Prepared Direct Testimony of Mark Gaines, which San Diego submitted in support of its Application. In this manner, our heading below (I. Purpose) discusses that portion of Mr. Gaines’ written submitted testimony, this portion corresponds to Page 1, lines 4 through 18 (p.18:4-18) of his testimony.

I. Purpose

SDGE notes that it has employed the following three “guiding principles” to develop its DR portfolio: 1) Simplify DR programs to facilitate customer participation; 2) Be comprehensive to maximize the opportunity for all customers to participate in DR programs and rates; and 3) Promote automated controls to maximize customer response and enhance the market value of DR resources. (Prepared Direct Testimony of Mark Gaines, at p. 1)

The CAISO agrees with these principles. It is especially appropriate and useful to begin with simplification as the first, and primary, overarching principle, because when industry participants discuss and comment on Demand Response, they sometimes begin with a two-fold lament—first, the observing that there are often too many programs, each having too many particularized details, and some of which are inappropriately duplicative to warrant continued separate existence. These characteristics can promote customer confusion, and/or create customer perception that it takes too much effort to join or to pick between programs. Secondly, California stakeholders in DR often note that there is no standardization of programs across the IOUs; this can be a barrier to entry into DR statewide national customers situated in California, or for aggregators seeking to integrate DR from California customers into a nation-wide business model.

As to the second principle, maximizing the opportunity for all customers to participate in DR, the CAISO notes that this is a worthwhile goal that will be further enabled by the deployment of AMI, home area networks, and the implementation of dynamic rates that are more tightly aligned with the marginal cost of energy.

As to the third principle, the CAISO strongly endorses the principle that DR should be automated to the fullest extent practicable, to advance the goal of making demand response as unobtrusive as possible for end-use customers, and as tailored as to practicable to customer preferences. Automation, tied to appropriately structured dynamic rates in which customers can respond to prices that reflect system conditions, will be key to advancing the second principle (maximizing opportunity for customer participation), and, ultimately, could reduce the need for retail DR “programs” in the future, because demand will respond automatically to address system needs.

Finally, the CAISO appreciates SDG&E’s approach of combining EE and DR program applications in order to promote simplification. Similarly, the CAISO appreciates SDG&E’s approach of integrating EE and DR market and outreach efforts “...to reinforce the economic and environmental benefits of both programs.”³⁹ The CAISO supports this effort, but encourages SDG&E to add to its marketing message, as the third prong, the important “reliability” benefits that these programs bring to customers.

III. SDG&E’s DR Portfolio is Comprehensive in Reach

The CAISO supports SDG&E’s objective to encourage customers to reduce their usage during peak demand periods by providing “...every customer with clear price signals that reflect higher system costs during peak hours and to provide customers with the tools and incentives to analyze their operations and implement changes that minimize their peak demand.”⁴⁰ However, the CAISO would encourage SDG&E to broaden its scope, to consider non-peak operating periods, where demand response resources also could be highly useful, for example, to assist the CAISO in i) integrating intermittent renewable resources, ii) balancing loads and resources. In sum, customer dynamic response to price signals should not be limited to only the peak hours.⁴¹

The CAISO agrees with SDG&E that the growth of “Smart Meter” installations is exciting, and that it will usher in new ancillary equipment and services to help customers better manage their energy use. However, the CAISO

³⁹³⁸ [SDGE Testimony, Chapter 1 \(Witness: Mark Gaines\), at p. 2, SDGE pg. 2](#)

⁴⁰³⁹ [SDGE Testimony, Chapter 1 \(Witness: Mark Gaines\), at p. 3, SDGE Mark Gaines pg. 3](#)

⁴¹⁴⁰ The CAISO understands certain regulatory and/or legislative barriers may exist today to realize this vision, but this should not limit SDG&E from projecting this as part of its overarching objective for DR.

would also urge SDG&E and the Commission to ascertain, through SDG&E pilots or demonstrations, how such ancillary equipment and technology can qualitatively improve and enhance the reliability of the grid and/or support the integration of greater amounts of intermittent renewable resources.

IV. SDG&E's DR Portfolio Promotes Automated Controls

The CAISO appreciates that SDG&E's has embraced the concept of maximizing the use of automated controls. The CAISO agrees with SDG&E's assessment that there is "overwhelming evidence that automation increases DR significantly over non-automated behavior adjustments."⁴² As such, the CAISO encourages the Commission to emphasize automation as a ubiquitous DR program feature that is applied, whenever and wherever feasible, across the IOU programs. The CAISO also agrees that automation will help DR resources better align with MRTU "...by making DR resources more closely mimic generation resources in reliability and response rates."⁴³ SDG&E explains that this will happen over the next few years. The CAISO would encourage SDG&E to increase its efforts in this area so that the benefits from automation can occur sooner, if possible. Having said this, the CAISO is mindful that technology is ever changing, and that increasing use of automation technology must be accompanied by increasing awareness of potential cost stranding. The CAISO submits that, if there is emphasis on open architecture technology and a no-regrets approach to cost evaluation, then the benefits of increased automation can outweigh the costs.

⁴²[41 SDGE Testimony, Chapter 1 \(Witness: Mark Gaines\), at p. 5, SDGE Mark Gaines pg. 5](#)

⁴³[42 SDGE Testimony, Chapter 1 \(Witness: Mark Gaines\), at p. 5, SDGE Mark Gaines pg. 5](#)

VI. SDGE Solicited DR Program Through Request for Offers

The CAISO supports the procurement of demand response resources through performance-based contracts, and we would like to see greater amounts of demand response resources procured in this manner. However, the CAISO includes the caveat that the Commission must ensure that terms stated in the IOUs' RFO's have clear alignment with wholesale electricity markets, and that these RFOs include the three important components of price, quantity and location. In addition, the programs that derived from RFO-procured contracts should be structured so that they are dispatchable "economically" within the CAISO's day-ahead and/or real-time market timeframes and the resources contracted for should not be constrained to just peak-hours and weekdays.

Testimony of Mark Ward

Capacity Bidding Program

Synopsis of CAISO Points
<ul style="list-style-type: none">▪ Move to a clear price trigger▪ Allow enrollment as CAISO Participating Load

The CAISO would petition SDG&E to move the CBP program from a heat rate trigger to a clear price trigger. In addition, the program parameters should be restructured, such that the program can tie directly to the CAISO's participating load program, with a bid in the DA forward energy market or in the real-time market under MRTU.

Like PG&E, SDG&E should also consider transitioning its CBP program from a utility-delivered program to a third-party aggregator delivered program, with SDG&E referring interested customers to review program information and a list of approved third-party aggregators. In addition, certain third-party

aggregators can bring to bear their varied capabilities and experience acquired from their participation in other regions and wholesale electricity markets.

Base Interruptible Program

Synopsis of CAISO Points
<ul style="list-style-type: none">▪ No new enrollment until clear policy on RA counting is decided▪ Third-party aggregators should not be allowed to enroll customers in BIP

The Commission should not approve any new enrollment/recruitment into any type of emergency-triggered DR program, like BIP, until the Commission has established a clear policy for how such programs will be treated under the CPUC's RA program. The Commission should encourage SDG&E to follow PG&E's lead to transition BIP into a price-responsive program, as appropriate.

Further the CAISO submits that third party aggregator resources are misapplied when they are used to enroll customers in BIP, and that the Commission should not allow this practice to continue. It is better to apply the resource of the aggregator towards procuring a full-use rather an limited use DR resource—better to have them procure DR suitable for the wholesale electricity market. Third-party aggregators have demonstrated their capabilities to actively participate in wholesale electricity markets in the eastern ISOs. As such, it seems wasteful to apply the skill and capability of aggregators towards the effort of acquiring Stage 2-triggered interruptible DR resources.

Dated: July 9, 2009

Respectfully submitted,

CALIFORNIA INDEPENDENT SYSTEM
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