

Docket No.: R.12-03-014

Exhibit No.: _____

Date: October 14, 2013

Witness: William A. Monsen

**REBUTTAL TESTIMONY OF WILLIAM A. MONSEN ON BEHALF OF THE
INDEPENDENT ENERGY PRODUCERS ASSOCIATION CONCERNING TRACK 4 OF
THE LONG-TERM PROCUREMENT PLAN PROCEEDING**

Table of Contents

I.	Introduction and Summary of Testimony	1
II.	Responses to September 30 Opening Testimony and Comments	4
A.	There is Broad Agreement that Interim Procurement is Needed As Soon As Possible	4
B.	It is not Reasonable to Rely on Curtailing Firm Loads to Mitigate Critical Contingencies Identified in the SONGS Study Area	7
C.	The Commission Should Proceed with a Timely Decision in Track 4 Based on the Results of Completed Analyses Using Adopted Standard Planning Assumptions .	16
III.	Conclusion	24

1 **I. Introduction and Summary of Testimony**

2

3 **Q. Please state your name and business address.**

4 A. My name is William A. Monsen. I am a Principal and Executive Vice-President at
5 MRW & Associates, LLC (MRW). My business address is 1814 Franklin Street,
6 Suite 720, Oakland, California.

7

8 **Q. Have you submitted testimony in Track 4 of this proceeding?**

9 A. Yes. My testimony in Track 4 of this proceeding was served to parties on
10 September 30, 2013, on behalf of the Independent Energy Producers Association
11 (IEP). In that testimony I presented IEP's position on Track 4 issues and
12 responded to the opening testimony of the California Independent System
13 Operator (CAISO), Southern California Edison (SCE) and San Diego Gas &
14 Electric (SDG&E).¹

15

16 **Q. What is the purpose of your rebuttal testimony in Track 4 of this
17 proceeding?**

18 A. The purpose of this testimony is to respond to the September 30 testimony and
19 comments of other parties in this proceeding. There are three main parts to this
20 rebuttal testimony. First, I note that there is broad support for some level of
21 interim procurement based on the modeling and analysis presented to date.

¹ Testimony Of William A. Monsen On Behalf Of The Independent Energy Producers Association Concerning Track 4 Of The Long-Term Procurement Plan Proceeding (IEP Monsen Track 4 testimony), served in R.12-03-014, September 30, 2013.

1 Second, I respond to proposals by the California Environmental Justice Alliance
2 (CEJA),² City of Redondo Beach,³ Division of Ratepayer Advocates (DRA),⁴
3 Sierra Club of California (Sierra Club),⁵ the California Large Energy Consumer's
4 Association (CLECA),⁶ and The Utility Reform Network (TURN)⁷ to rely on
5 curtailing firm load to address contingencies that threaten grid reliability. Third, I
6 respond to proposals by CEJA, Natural Resources Defense Council (NRDC),⁸ and
7 Sierra Club to change some of the standard planning assumptions that were
8 adopted as the basis for the Track 4 analyses.

9

10 **Q. Please summarize your responses to these proposals.**

11 A. As discussed in detail below, there is broad support for some form of interim
12 procurement by SCE and SDG&E based on the modeling results presented to
13 date. The parties do have different recommendations regarding the amount and
14 type of resources to be procured; however, many parties acknowledge that some

² Prepared Direct Testimony Of Julia May On Behalf Of The California Environmental Justice Alliance Regarding SONGS Retirement, Track IV (CEJA May Track 4 testimony), served in R.12-03-014, September 30, 2013.

³ Comments Of The City of Redondo Beach On The Administrative Law Judge's Questions From The Pre-Hearing Conference On September 4, 2013 (Redondo Beach Track 4 comments), filed in R.12-03-014, September 30, 2013.

⁴ Reply Testimony Of Robert M. Fagan On Behalf Of DRA (DRA Fagan Track 4 testimony), served in R.12-03-014, September 30, 2013.

⁵ Prepared Opening Testimony Of Bill Powers On Behalf Of Sierra Club California (Sierra Club Powers Track 4 testimony), served in R.12-03-014, September 30, 2013.

⁶ Comments Of The California Large Energy Consumers Association (CLECA Track 4 comments), filed in R.12-03-014, September 30, 2013.

⁷ Prepared Testimony Of Kevin Woodruff On Behalf Of The Utility Reform Network Regarding Track 4 - SONGS Retirement (TURN Woodruff Track 4 testimony), served in R.12-03-014, September 30, 2013.

⁸ Track 4 Opening Testimony Of The Natural Resources Defense Council (NRDC Martinez Track 4 testimony), served in R.12-03-014, September 30, 2013.

1 interim procurement is needed to ensure grid reliability. The Commission should
2 authorize interim procurement as soon as possible.

3

4 It is inappropriate to rely on curtailment of firm load as a resource planning tool
5 for mitigating contingencies that threaten local grid reliability. Both the real direct
6 and indirect costs and the threat to health and safety associated with interrupting
7 firm electric supply to customers in the heavily developed region affected by the
8 San Onofre Nuclear Generating Station (SONGS) shutdown are too great.

9 Advocates of using curtailment of firm load as a planning tool ignore the costs of
10 such curtailments, making their contentions about the economic benefits of
11 curtailment meaningless. In addition, the issue of the appropriate reliability
12 criteria to be used for utility resource planning and the use of firm load shedding
13 to meet an N-1-1 critical contingency have been previously litigated in other
14 Commission proceedings and decided in favor of the approach used by the
15 CAISO in this proceeding.

16

17 Regarding proposals to change the assumptions underlying the Track 4 analyses
18 performed by the CAISO, SCE, and SDG&E (e.g., to use a new demand forecast,
19 assume higher levels of storage, or to increase the amounts of other preferred
20 resources assumed in the local area), the Commission should re-assert the
21 approach adopted in D.12-12-010 to fix the standard planning assumptions as of a
22 particular date and proceed to a procurement authorization on that basis. The
23 Assigned Commissioner and Administrative Law Judge (ALJ) updated the 2012

1 Long-Term Procurement Plan (LTPP) standard planning assumptions in the
2 revised scoping memorandum for Track 4 issued on May 21, 2013. Parties then
3 commenced a months-long period of analysis based on those adopted
4 assumptions. There will always be updates to assumptions that occur after
5 analyses are underway or completed. The appropriate time to consider updated
6 assumptions is in subsequent phases of this proceeding or in the next LTPP
7 proceeding. If new assumptions were continuously inserted into the analyses, the
8 required studies would never be completed and the Commission would not have a
9 basis for making the resource planning decisions necessary to ensure continued
10 reliability of the electrical system in the SONGS area.

11

12 **II. Responses to September 30 Opening Testimony and** 13 **Comments**

14

15 **A. There is Broad Agreement that Interim Procurement is**
16 **Needed As Soon As Possible**

17

18 **Q. Have parties acknowledged that there is a need for some form of interim**
19 **procurement resulting from the permanent shutdown of SONGS and the**
20 **expected retirement of OTC and non-OTC units?**

21 **A.** Yes. There is broad agreement that an interim procurement of new resources is
22 needed. The following parties recommend that the Commission authorize some
23 form of interim procurement:

24

Table 1 - Parties Supporting Interim Procurement

Party	Rationale for Interim Procurement
SCE	Expedited procurement action is warranted given permanent closure of SONGS; the results of CAISO's additional analysis will be known before individual contracts are approved. ⁱ
SDG&E	"A complete halt to LCR procurement authorization is highly imprudent given the magnitude of the need in a combined OTC [once-through cooling] shutdown and SONGS-out environment. Instead, the Commission should take a compromise approach of authorizing SDG&E to move ahead with some long lead time procurement while leaving a portion of the need open for refinement as additional studies are undertaken." ⁱⁱ
CAISO	CAISO would not object to an interim decision concerning SCE's and SDG&E's request for immediate procurement authorization, provided the interim procurement authorization is contingent upon CAISO transmission study results. ⁱⁱⁱ
Pacific Gas and Electric Company (PG&E)	The Commission has sufficient information at this time to make a need determination and procurement authorization in Track 4 of this proceeding, and time is of the essence in light of significant scheduled once-through cooling (OTC) retirements in 2017 and 2020 in southern California. ^{iv}
TURN	"I recommend the Commission authorize both SCE and SDG&E to solicit an additional 500 MW each of local resources on an 'all source' basis..." ^v
AES Southland	Studies performed for AES Southland confirm that at least the amounts requested for interim procurement by SCE and SDG&E will be needed in the SONGS study area. ^{vi}
NRG Energy	"Loss of SONGS Units 2 and 3 Creates An Immediate and Significant Need for New Reliability Services... While the CAISO's August 5 testimony in this proceeding identifies a need for 520 MW of new generation in Northwest San Diego County in 2018, the San Diego area already lacks the generation it needs to meet CAISO reliability criteria in 2013." ^{vii}
Wellhead	Recommends that procurement authorization proceed according to the current procedural schedule, with SCE's interim procurement incorporated into SCE's Track 1 Request for Offers (RFO) to promote efficiency. ^{viii}
Western Power Trading Forum (WPTF)	"SCE's recommendation to combine the Track 4 500 MW with its already authorized Track 1 procurement will serve to accelerate achieving a solution to the SONGS retirement that is timely and cost effective." ^{ix}
IEP	SCE and SDG&E should be authorized to procure a "no regrets" level of resources at the conclusion of the initial phase of Track 4, with additional procurement considered in a subsequent phase. ^x

ⁱ Track 4 Testimony Of Southern California Edison Company (SCE Track 4 testimony), served in R.12-03-014, August 26, 2013, p. 4.

ⁱⁱ Prepared Track 4 Direct Testimony Of San Diego Gas & Electric Company (SDG&E Anderson Track 4 testimony), served in R.12-03-014, August 26, 2013, p. 4.

ⁱⁱⁱ Comments Of The California Independent System Operator Corporation On Proposed Track 2 and Track 4 Procedural Schedules (CAISO Track 4 comments), filed in R.12-03-014, September 10, 2013, p. 4.

^{iv} 2012 Long-Term Procurement Plan Track 4 – Local Reliability Needs Without SONGS Prepared Testimony, served in R.12-03-014, September 30, 2013, pp. 1-3.

^v TURN Woodruff Track 4 testimony, p. 3.

^{vi} Track 4 Prepared Testimony Of Hala N. Ballouz On Behalf Of AES Southland, served in R.12-03-014, September 30, 2013, pp. 2-4.

^{vii} Track 4 Testimony Of Brian Theaker On Behalf of NRG Energy, Inc., served in R.12-03-014, September 30, 2013, p. 5.

^{viii} Opening Testimony Of Douglas E. Davie On Behalf of Wellhead Electric Company, Inc., served in R.12-03-014, September 30, 2013, p. 3.

^{ix} Testimony Of The Western Power Trading Forum on Track 4 Issues, served in R.12-03-014, September 30, 2013, p. 4.

^x IEP Monsen Track 4 testimony, p. 8.

1

2 **Q. Do these parties agree regarding the amount of capacity to be procured or**
3 **the types of capacity to be obtained in an interim procurement?**

4 A. No. Some parties recommend using all-source solicitations for the interim
5 procurements (e.g., SCE, SDG&E, TURN, Wellhead, WPTF, and IEP) and some parties
6 explain how specific projects that they are developing can help meet the immediate need
7 (e.g., AES Southland, NRG Energy). There is some disagreement regarding the
8 recommended level of procurement by SCE and SDG&E through the interim
9 procurement but all parties mentioned in

1 Table 1 support interim procurement levels at least as large as recommended by SCE and
2 SDG&E.

3

4 **Q. What do you conclude?**

5 A. While there may be differences between parties regarding the level of
6 procurement and the types of resources to be procured, there is broad agreement
7 among parties with widely different perspectives that the Commission should act
8 expeditiously to mitigate the risk of future resource shortfalls and order an interim
9 procurement based on the modeling and analysis presented to date.

10

11 **B. It is not Reasonable to Rely on Curtailing Firm Loads to**
12 **Mitigate Critical Contingencies Identified in the SONGS Study Area**

13

14 **Q. What is the primary reliability constraint in the SONGS study area**
15 **identified by the CAISO?**

16 A. According to CAISO witness Robert Sparks, “The primary reliability constraint
17 that drives resource needs [in the SONGS Study Area] is the post-transient
18 voltage instability concern under the most critical Category C overlapping outage
19 (N-1-1) of the Sunrise Powerlink, system readjusted, and then followed by the
20 outage of the Southwest Powerlink line.”⁹

21

22 **Q. Have certain parties proposed that curtailing firm load should be used to**
23 **mitigate the critical contingency identified by CAISO?**

⁹ Track 4 Testimony Of Robert Sparks On Behalf Of The California Independent System Operator Corporation (CAISO Sparks Track 4 testimony), served in R.12-03-014, August 6, 2013, p. 18.

1 A. Yes. The reply testimony served by CEJA, DRA, Sierra Club, and TURN, as well
2 as comments filed by the City of Redondo Beach and CLECA all suggest that the
3 N-1-1 critical contingency identified by CAISO can or should be mitigated by
4 shedding firm loads.¹⁰

5

6 **Q. Please summarize your understanding of the arguments made by these**
7 **parties that support the use of load shedding to mitigate the identified N-1-1**
8 **critical contingency.**

¹⁰ CEJA May Track 4 testimony, p. 36; DRA Fagan Track 4 testimony, p. 11; Sierra Club Powers Track 4 testimony, p. 1; TURN Woodruff Track 4 testimony, p. 3; Redondo Beach Track 4 comments, p. 4; CLECA Track 4 comments, pp. 10-11.

1 A. The parties arguing in favor of the use of curtailing firm load to address the
2 identified N-1-1 contingency claim that the CAISO and SDG&E analyses assume
3 a severe contingency scenario that exceeds the requirements of the North
4 American Electric Reliability Corporation (NERC). The witnesses claim that
5 NERC allows an N-1-1 contingency of this type to be mitigated with controlled
6 load shedding (i.e., by interrupting firm service to certain areas of SDG&E's
7 service territory until the contingencies are resolved). Rather than planning for an
8 N-1-1 contingency, the witnesses suggest that planning for local reliability should
9 meet only an N-1 contingency (i.e., outage of the Sunrise Powerlink), and the risk
10 of any multiple contingencies (i.e., N-1-1) would be mitigated through load
11 shedding.

12

13 **Q. Has the CAISO previously addressed critiques of its use of the N-1-1**
14 **contingency without load shedding for the purpose of determining resource**
15 **needs to ensure local reliability?**

16 A. Yes. Criticisms of CAISO's reliability standard were previously raised by CEJA
17 and DRA in SDG&E's Application (A.) 11-05-023, which concerned SDG&E's
18 authority to enter into power purchase tolling agreements with Escondido Energy
19 Center, Pio Pico Energy Center and Quail Brush Power.¹¹

20

21 **Q. Did the CAISO address those critiques in A.11-05-023?**

¹¹ Prepared Direct Testimony Of Jaleh Firooz On Behalf of the California Environmental Justice Alliance, served in A.11-05-023, May 18, 2012, pp. 8-9 (see Attachment A for excerpt); Supplemental Testimony Of Robert M. Fagan On Behalf of DRA, served in A.11-05-023, May 18, 2012, pp. 19-25 (see Attachment B for excerpt).

1 A. Yes. The rebuttal testimony of CAISO witness Robert Sparks and the opening and
2 reply briefs of the CAISO explain the reasons why it is unreasonable to rely on
3 load shedding for the specific N-1-1 contingency.¹²
4

5 **Q. Why did the CAISO conclude in A.11-05-023 that it is appropriate to use the**
6 **N-1-1 critical contingency?**

7 A. In A.11-05-023, the CAISO had initially evaluated San Diego local capacity
8 requirements with the most limiting critical contingency being the simultaneous
9 outage of the 500 kV Sunrise Powerlink and the Imperial Valley-ECO 500 kV
10 line overlapping with an outage of the Otay Mesa combined-cycle power plant
11 (G-1/N-2). Subsequent to presenting its opening testimony, CAISO was informed
12 of a change in Western Electric Coordinating Council (WECC) reliability criteria
13 that meant the G-1/N-2 contingency that CAISO had originally used was
14 considered a severe (Category D) contingency that could be mitigated by an
15 automated load shedding scheme. With the change in WECC criteria, the CAISO
16 determined that the most limiting contingency for San Diego sub-area is the loss
17 of Imperial Valley-Suncrest 500 kV line, system adjusted, and then the loss of
18 ECO-Miguel 500 kV line (N-1-1).
19

¹² Rebuttal Testimony Of Robert Sparks On Behalf Of The California Independent System Operator Corporation, served in A.11-05-023, June 6, 2012, pp. 8-12 (see Attachment C for excerpt); Opening Brief Of The California Independent System Operator Corporation (CAISO opening brief), filed in A.11-05-023, July 13, 2012, pp. 16-18 (see Attachment D for excerpt); Reply Brief Of The California Independent System Operator, filed in A.11-05-023, July 27, 2012, pp.7-9 (see Attachment E for excerpt).

1 **Q. Why did the CAISO conclude in A.11-05-023 that it is not appropriate to use**
2 **automated load shedding to mitigate the limiting N-1-1 critical contingency?**

3 A. Although load shedding can be used to mitigate the G-1/N-2 contingency,
4 “...with the more likely N-1-1 contingency [the CAISO] did not think it would be
5 prudent to plan the system that would rely on the same type of load shedding SPS
6 [Special Protection System].”¹³ During hearings in A.11-05-023, CAISO witness
7 Sparks clarified that while the CAISO wouldn’t necessarily rule out load shedding
8 to mitigate N-1-1 contingencies in all cases, in this case, given the history of fires
9 around the Imperial Valley substation, equipment failures, and the critical reliance
10 on that substation by SDG&E, the Imperial Irrigation District (IID) and Comisión
11 Federal de Electricidad (CFE), it was CAISO’s engineering judgment that load
12 shedding is not an appropriate mitigation to address this particular outage
13 scenario. Furthermore, given that approximately 370 MW of load shedding would
14 be required to mitigate the effects of the N-1-1 critical contingency, load shedding
15 could affect well over 300,000 homes in San Diego.¹⁴

16

17 **Q. What was the outcome of A.11-05-023?**

18 A. In D.13-03-029 the Commission approved the contract for the Escondido Energy
19 Center and identified a 298 MW local capacity resource need based on the results
20 of the CAISO’s local capacity requirements study in which the CAISO used the
21 N-1-1 critical contingency. In its decision, the Commission stated: “We are not

¹³ Supplemental Testimony Of Robert Sparks On Behalf Of The California Independent System Operator Corporation served in A.11-05-023, April 6, 2012, p. 4 (see Attachment F for excerpt).

¹⁴ CAISO opening brief, pp.19-21 (see Attachment D for excerpt).

1 persuaded that the LCR requirement should be determined on the basis of such
2 potential eventualities [i.e., potential future energy storage or transmission
3 upgrades, or load shedding or other non-resource mitigation schemes].”¹⁵ Thus, in
4 A.11-05-023, the Commission endorsed the CAISO’s reliability standard based
5 on an N-1-1 critical contingency with no load shedding for use in determining
6 local capacity requirements.

7

8 **Q. Is the CAISO’s reliability assessment in this proceeding the same as the one**
9 **it used in A.11-05-023?**

10 A. Yes. The CAISO has used the same modeling approach in its Track 4 testimony
11 as it used in A.11-05-023.

12

13 **Q. Has the validity of the CAISO’s use of the N-1-1 critical contingency been**
14 **raised in any other proceedings since the issuance of D.13-03-029?**

15 A. Yes. In SDG&E’s application for the approval of a Power Purchase Tolling
16 Agreement (PPTA) with the Pio Pico Energy Center,¹⁶ the issue of the appropriate
17 critical contingency was raised in the testimony of Mr. William Powers on behalf
18 of Sierra Club, CEJA, and Protect Our Communities Foundation (POC).¹⁷ POC

¹⁵ D.13-03-029, p. 7.

¹⁶ Application Of San Diego Gas & Electric Company (U 902 E) To Fill Local Capacity Requirement Need Identified in D.13-03-029, filed in A.13-06-015, June 21, 2013 (see Attachment G for excerpt).

¹⁷ Prepared Direct Testimony Of Bill Powers On Behalf Of Sierra Club, The California Environmental Justice Alliance, and Protect Our Communities Foundation, served in A.13-06-015, September 20, 2013, pp. 13-14 (see Attachment H for excerpt).

1 also discussed these issues in the testimony of Mr. David Peffer on behalf of
2 POC.¹⁸

3

4 **Q. How did the CAISO respond to the recommendation by Mr. Powers and Mr.**
5 **Peffer that load shedding should be used to mitigate N-1-1 critical**
6 **contingencies?**

7 A. The CAISO moved to strike the testimony of witnesses Powers and Peffer as
8 outside of the scope of A.13-06-015. At the same time, the CAISO also submitted
9 rebuttal testimony responding to the testimony of witnesses Powers and Peffer.

10 CAISO witness Sparks stated in this rebuttal testimony that:

11 The ISO's position is that load shedding in the densely populated San
12 Diego area should not be used as a transmission planning tool for the N-1-
13 1 NERC Category C contingency of the 500 kV lines between the Imperial
14 Valley, Miguel and Suncrest substations. This is due to the significant
15 amount of load that would be subject to load shedding, the sensitivity of
16 urban loads to large blocks of shedding, the complexity of operating
17 arrangements in the area, and the proximity of the particular transmission
18 lines.¹⁹
19

20 **Q. Do you agree with the CAISO's position regarding the appropriate reliability**
21 **criteria and use of load shedding?**

22 A. Yes. Unlike the parties who oppose the N-1-1 criterion and who propose to rely
23 on load shedding to address multiple contingencies, the CAISO has the statutory
24 responsibility to maintain the "reliable operation of the transmission grid."²⁰ The

¹⁸ Prepared Direct Testimony Of David Peffer On Behalf Of The Protect Our Communities Foundation, served in A.13-06-015, September 20, 2013, pp. 7-14 (see Attachment I for excerpt).

¹⁹ Rebuttal Testimony Of Robert Sparks On Behalf Of The California Independent System Operator Corporation, served in A.13-06-015, October 4, 2013, p. 7 (see Attachment J for excerpt).

²⁰ California Public Utilities Code, Section 345 (see Attachment K for excerpt).

1 CAISO is the entity in the best position to evaluate risks of various transmission
2 contingencies and determine the appropriate mitigation to those contingencies.
3 Based on my understanding of the high societal costs that result from the loss of
4 load (either from controlled load shedding or from uncontrolled blackouts), it is
5 appropriate for the CAISO to take a conservative approach when establishing
6 reliability criteria for resource planning purposes. Such an approach is appropriate
7 for the densely populated SONGS study area.

8

9 **Q. Has any new information been introduced in Track 4 of this proceeding**
10 **regarding the alleged benefits of using curtailment of firm load as a resource**
11 **planning option?**

12 A. Yes. TURN's testimony in Track 4 attempts to quantify the reduction in costs if
13 the CAISO were to use curtailment of firm load to maintain grid reliability.
14 TURN estimates that the use of the CAISO's proposed critical contingency
15 (rather than an N-1 contingency) would result in an increase in "net costs" for
16 SCE and SDG&E of between \$196 million and \$788 million (2013 NPV).²¹

17

18 **Q. What are "net costs" as used by SCE and TURN?**

19 A. TURN and SCE define net costs as the difference between the costs and benefits
20 resulting from different scenarios.²² Costs are the capital and operating costs of
21 the resources included in each scenario, while benefits are the capacity, ancillary

²¹ TURN Woodruff Track 4 testimony, p. 17.

²² TURN Woodruff Track 4 testimony, Attachment 4 (SCE's Response to 5th Question of Energy Division's 2nd Data Request), p. 2.

1 services, and energy revenues. These “net costs” do not include societal costs
2 associated with curtailment of firm load as a response to a critical contingency.

3

4 **Q. Does TURN indicate that there could be additional costs associated with use
5 of curtailment of firm load to maintain grid reliability?**

6 A. No. Other parties do not mention the potential costs associated with curtailment of
7 firm load to maintain grid reliability, either.

8

9 **Q. Would customers incur costs if the CAISO were to rely on curtailment of
10 firm load to maintain grid reliability?**

11 A. Yes. If firm load is curtailed, the curtailed customers suffer from a loss of service,
12 and this loss of service has a real, direct cost. Such direct costs include spoilage,
13 lost production time, and lost sales. There are also other societal costs that would
14 result from the curtailment of firm load such as interruptions to or shutdowns of
15 essential public services, increased traffic congestion or accidents if street lights
16 are not working, and potential medical problems if back-up power supplies are
17 not able to provide fully reliable service through the duration of the outage.

18

19 **Q. How do TURN’s estimates of increased net costs compare to the magnitude
20 of costs associated with the loss of service resulting from the curtailment of
21 firm load?**

22 A. The costs of curtailment of firm load depend on the frequency and duration of
23 curtailments, the amount of capacity curtailed, and the value of service for

1 customers. However, if there is curtailment of firm load of a comparable duration
2 and severity as was seen in California during 2001²³, this would result in costs of
3 over \$215 million, which is approximately equal to TURN's estimate of increased
4 net costs resulting from use of the CAISO's reliability criteria for SCE's LA
5 Basin Generation scenario.

6

7 **Q. What do you conclude about TURN's assessment of incremental costs**
8 **resulting from relying on the CAISO's current reliability criteria?**

9 A. TURN's analysis fails to include the significant costs that would be incurred by
10 customers if their firm loads are curtailed in order to maintain grid reliability.
11 These costs could be as large as or larger than any net cost savings resulting from
12 the CAISO using a less stringent reliability criterion.

13

14 **C. The Commission Should Proceed with a Timely Decision in**
15 **Track 4 Based on the Results of Completed Analyses Using**
16 **Adopted Standard Planning Assumptions**
17

18 **Q. Has the Commission adopted planning assumptions to be used by parties**
19 **performing studies of local capacity resource needs in Track 4 of this**
20 **proceeding?**

21 A. Yes. The Commission initially adopted standard planning assumptions for Track
22 2 of the LTPP in D.12-12-010. When the Assigned Commissioner and ALJ added
23 Track 4 to this proceeding (to consider resource needs in the absence of SONGS)

²³ Weare, Christopher. "The California Electricity Crisis: Causes and Policy Options." Public Policy Institute of California, 2003, p. 2 (see Attachment L for excerpt).

1 on May 21, 2013, the revised Scoping Ruling also included updated standard
2 planning assumptions for use in Track 4.

3

4 **Q. Have parties that presented modeling results in Track 4 relied on the**
5 **assumptions specified in the revised Scoping Ruling?**

6 A. Yes. The CAISO has relied on these assumptions to perform the reliability studies
7 presented in its opening testimony.²⁴ SCE and SDG&E have also largely relied on
8 the revised assumptions to perform the studies presented in their opening
9 testimony.²⁵

10

11 **Q. Have parties suggested that the studies presented in the opening testimony of**
12 **CAISO, SCE and SDG&E should be revised to reflect changes to the**
13 **assumptions adopted for use in this proceeding?**

14 A. Yes. Various parties have suggested that the planning assumptions should be
15 revised prior to the Commission determining resource needs in Track 4 of this
16 proceeding. For example, NRDC witness Sierra Martinez calls for the needs
17 identified by CAISO, SCE and SDG&E for the SONGS study area to be reduced
18 by 885 MW to reflect additional energy efficiency not included in the standard
19 planning assumptions.²⁶ Likewise, CEJA, NRDC, and Sierra Club propose using
20 the California Energy Commission's (CEC's) September 2013 draft revised
21 demand forecast rather than the forecast adopted as part of the LTPP standard

²⁴ CAISO Sparks Track 4 testimony, p.3.

²⁵ SCE Track 4 testimony, p. 13; SDG&E Anderson Track 4 testimony, p. 5.

²⁶ NRDC Martinez Track 4 testimony, p. 4.

1 planning assumptions.²⁷ Finally, various parties including CEJA and Sierra Club
2 advocate increasing the assumed quantity of storage resources in the SONGS
3 study area based on storage targets specified in the proposed decision in the
4 ongoing Storage Rulemaking (R.10-12-007.)²⁸

5

6 **Q. Should the CAISO, SCE, and SDG&E have considered changes to the**
7 **standard planning assumptions when completing the studies presented in**
8 **their respective opening testimony?**

9 A. No. It was appropriate for the CAISO, SCE, and SDG&E to perform the
10 reliability studies using the standard planning assumptions specified by the
11 Assigned Commissioner and ALJ for use in Track 4 of this proceeding. It is
12 unreasonable to suggest that either 1) the CAISO, SCE, or SDG&E should have
13 unilaterally changed the adopted planning assumptions for Track 4 or 2) the
14 studies should now be revised and a Track 4 decision delayed until after the
15 revised studies can be completed and subject to review.

16

17 **Q. If changes to planning assumptions are to be considered, when would be the**
18 **appropriate time to address such changes?**

19 A. The Assigned Commissioner and ALJ's Ruling on Track 2 and Track 4 schedules
20 stated that the results of the CAISO transmission planning process (TPP) would
21 not be considered in the current phase of Track 4, but could be the subject of a

²⁷ CEJA May Track 4 testimony, p.45; NRDC Martinez Track 4 testimony, p. 13; Sierra Club Powers Track 4 testimony, p. 1

²⁸ CEJA May Track 4 testimony, p.5; Sierra Club Powers Track 4 testimony, p. 1.

1 subsequent phase or considered in the next LTPP proceeding.²⁹ Thus, updates to
2 input assumptions that have occurred since the updated Track 4 standard planning
3 assumptions were issued should be considered at the same time that CAISO
4 incorporates the TPP results into the local reliability studies it performs. After
5 authorizing interim procurement for SCE and SDG&E, if the Commission decides
6 to proceed with a subsequent phase of Track 4, that would be the time to consider
7 updates to assumptions and, possibly, even revisions to reliability studies.
8 Otherwise, any changes to assumptions should be considered in the next LTPP
9 proceeding.

10

11 **Q. Why do you recommend using the current set of assumptions in this phase of**
12 **Track 4?**

13 A. If the Commission were to require additional reliability studies based on revised
14 assumptions, there would be no way to meet the current schedule for Track 4,
15 which calls for hearings at the end of October 2013 and a proposed decision by
16 the first quarter 2014. To implement the proposed changes would require a
17 process to establish the revised assumptions and then the CAISO (and presumably
18 SCE and SDG&E) would need to perform a new set of power flow studies to
19 determine local capacity requirements in the SONGS study area using the revised
20 assumptions.

21

²⁹ Assigned Commissioner and Administrative Law Judge's Ruling Regarding Track 2 And Track 4 Schedules, filed in R.12-03-014, September 16, 2013, pp. 3-4.

1 **Q. Would you expect the process to establish revised assumptions to be**
2 **straightforward?**

3 A. No. I would expect there to be disagreement over what the revised input
4 assumptions should be. For example, CEJA, NRDC, and Sierra Club suggest that
5 the Commission incorporate the September 2013 draft revised demand forecast,
6 which is currently being considered at the CEC, into the Track 4 studies.³⁰
7 Ignoring that this new forecast is being issued well after the time that standard
8 planning assumptions were established for Track 4 of the LTPP, the September
9 2013 draft revised demand forecast to which NRDC refers is a CEC Staff draft
10 that has not yet been adopted by the CEC.³¹ NRDC also makes specific
11 recommendations about assumed amounts of “Additional Available Energy
12 Efficiency” (AAEE) that should be assumed in the draft revised demand forecast.
13 Because the CEC has not yet adopted the AAEE amounts for the 2013 IEPR
14 demand forecast, it is premature to adjust the amount of AAEE in the demand
15 forecast.

16

17 **Q. Are there other reasons that revising the level of AAEE is inappropriate in**
18 **this phase of Track 4?**

19 A. Yes. It is important to note that AAEE is an uncommitted resource. IEP’s position
20 is that only committed energy efficiency, demand response, transmission projects,
21 and supply resources and should be included when determining input assumptions

³⁰ CEJA May Track 4 testimony, p. 45; NRDC Martinez Track 4 testimony, p. 12; Sierra Club Powers Track 4 testimony, p. 1.

³¹ In fact, comments on the Staff draft are due on October 15, 2013, which is one day after this rebuttal testimony is due.

1 to the local area reliability studies. Revising the level of AAEE would, by
2 definition, pick the winners and losers of the competition between all resource
3 types in the solicitations that will result from the Commission’s Track 4 decision.
4

5 **Q. In the absence of revising the assumptions for local area studies and**
6 **performing new power flow studies to determine local resource requirements**
7 **in the SONGS study area, is it appropriate to use changes in input**
8 **assumptions to adjust the results of the existing studies?**

9 A. No. NRDC argues that the resource needs in the SONGS study area can be
10 reduced by an amount equal to the amount of AAEE that NRDC believes was
11 omitted from the demand forecast used by the CAISO when performing the power
12 flow studies. As discussed below, this contention overstates the impact of any
13 additional AAEE on the need for new resources.
14

15 **Q. Why would reducing resource need by an amount equal to an increase in the**
16 **amount of AAEE be inappropriate?**

17 A. The resource needs identified by the CAISO assume that new resources used to
18 maintain grid reliability are located in the most effective locations to mitigate the
19 contingencies identified by the power flow studies. An increase in AAEE would
20 almost certainly not result in a reduction in load at the most effective locations on
21 the grid. Thus, there would not be a one-to-one reduction in resource need based
22 on an increase in AAEE.
23

1 **Q. Why would uncommitted AAEE not be located at the most effective points on**
2 **the grid?**

3 A. Energy efficiency, even if it is successfully developed in a specific local
4 reliability area such as the west LA Basin or San Diego, is a dispersed resource;
5 the load reductions associated with energy efficiency would occur across the local
6 area and not at one specific location as would be the case with a generation
7 project. Since the CAISO assumes that the incremental generators it adds to the
8 system modeling to maintain grid reliability are located at the most effective
9 locations, increases in the levels of AAEE would have less of an impact than
10 generation resources located at those most effective locations.

11

12 **Q. Should the proposed decision to establish a procurement program for energy**
13 **storage in R.10-12-007 be considered in the Track 4 studies?**

14 A. No. As of the date of this testimony, the proposed decision in the storage
15 proceeding has not been adopted by the Commission. Once adopted, it would be
16 appropriate to evaluate the local resource implications of the storage procurement
17 requirements established by the decision in future updates to LTPP planning
18 assumptions. To do that, however, it will be necessary to determine how the
19 procurement resulting from any adopted storage procurement program will be
20 implemented at a local level.

21

22 **Q. What is another way that procurement of energy storage resources can be**
23 **considered in the context of LTPP Track 4?**

1 A. As proposed in my opening testimony, the Commission should authorize SCE and
2 SDG&E to procure the resource needs identified in Track 4 through solicitations
3 open to all resources able to meet specified criteria (i.e., “all-source”
4 solicitations).³² Energy storage resources that meet these criteria would be able to
5 bid into the all-source solicitation. Selection of resources would be based on
6 Commission-approved least-cost, best-fit evaluation protocols. Any energy
7 storage resources procured to meet local reliability needs in the SONGS study
8 area should count towards meeting any statewide energy storage procurement
9 requirements that might ultimately be established in R.10-12-007.

10
11 **Q. What other resource assumption changes could be addressed through all-**
12 **source procurement authorized in Track 4?**

13 A. Various parties have proposed that higher levels of preferred resources be
14 assumed in the SONGS study area before determining resource needs to ensure
15 local reliability, with some arguing that there is no need for additional capacity
16 beyond the preferred resources that are assumed to appear. Simply assuming
17 greater levels of preferred resources, including uncommitted energy efficiency,
18 distributed generation and demand response, does not necessarily ensure that they
19 appear in the amounts and locations needed to maintain reliable operation of the
20 electrical system. Instead, resource needs should be established assuming only
21 those resources that are committed and reasonably expected to occur. Once the
22 level of need is determined using those assumptions, the Commission should

³² IEP Monsen Track 4 testimony, p. 7.

1 authorize all resources, including the preferred resources advocated by the various
2 parties to this proceeding, to bid into all-source solicitations to attempt to meet the
3 identified need. Based on the costs and characteristics of the resources that are
4 bid, the utilities can then determine the portfolio of resources having the best fit at
5 the least cost.

6

7 **III. Conclusion**

8

9

10 **Q. Does this conclude your rebuttal testimony?**

11 A. Yes.