

Rulemaking: 12-03-014
(U 39 E)
Exhibit No.: _____
Date: September 30, 2013
Witness: Various

PACIFIC GAS AND ELECTRIC COMPANY

2012 LONG-TERM PROCUREMENT PLAN
TRACK 4 – LOCAL RELIABILITY NEEDS WITHOUT SONGS

PREPARED TESTIMONY



PACIFIC GAS AND ELECTRIC COMPANY
2012 LONG-TERM PROCUREMENT PLAN
TRACK 4 – LOCAL RELIABILITY NEEDS WITHOUT SONGS

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PACIFIC GAS AND ELECTRIC COMPANY
CHAPTER 1
INTRODUCTION AND RECOMMENDATIONS

PACIFIC GAS AND ELECTRIC COMPANY
CHAPTER 1
INTRODUCTION AND RECOMMENDATIONS

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1 **PACIFIC GAS AND ELECTRIC COMPANY**
2 **CHAPTER 1**
3 **INTRODUCTION AND RECOMMENDATIONS**

4 **A. Introduction**

5 Pacific Gas and Electric Company (PG&E) provides this testimony to the
6 California Public Utilities Commission (CPUC or Commission) in reply to
7 testimony submitted by the California Independent System Operator Corporation
8 (CAISO),¹ Southern California Edison Company (SCE), and San Diego Gas &
9 Electric Company (SDG&E)² in Track 4 of the 2012 Long-Term Procurement
10 Plan (LTPP) proceeding. Although Track 4 is focused on local reliability needs
11 in southern California given that the San Onofre Nuclear Generating Station
12 (SONGS) is no longer in operation, PG&E customers have a vested interest in
13 this track of the proceeding as an insufficient amount of generation in southern
14 California could have cascading impacts on the statewide electric grid.

15 **B. Background**

16 The May 21, 2013 Revised Scoping Ruling and Memo of the Assigned
17 Commissioner and Administrative Law Judge (Revised Scoping Ruling) added
18 Track 4 to the scope of the 2012 LTPP proceeding to identify the mid-term
19 (2018) and long-term (2022) local reliability impacts of SONGS no longer being
20 in operation. The Commission requested the following three separate cases be
21 modeled:

- 22 1) 2022 without SONGS
- 23 2) 2022 with SONGS
- 24 3) 2018 without SONGS

25 Attachment A of the Revised Scoping Ruling summarizes the key
26 assumptions to be used in the Track 4 studies. According to the Revised
27 Scoping Ruling, Track 4 studies will consider the local reliability impacts of
28 SONGS no longer in operation to help inform the Commission about the

1 CAISO Track 4 opening testimony of Robert Sparks submitted August 5, 2013.

2 SCE and SDG&E Track 4 opening testimony submitted August 26, 2013.

1 magnitude of Local Capacity Requirements (LCR) need, or local reliability
2 needs, with and without SONGS.³

3 To address the Revised Scoping Ruling, the CAISO performed power flow
4 studies for 2018 and 2022 to identify the magnitude of LCR with and without
5 SONGS. Additionally, SCE and SDG&E submitted separate opening testimony
6 on their power flow studies to assess the magnitude of LCR and potential
7 transmission solutions to address the LCR without SONGS. SDG&E's testimony
8 indicates that since these studies were initiated prior to the establishment of
9 Track 4 of this proceeding, certain study assumptions are different from the
10 Commission's requested assumptions for Track 4 studies.⁴

11 The following sections of this introduction to PG&E's reply testimony present
12 PG&E's recommendations for a need determination and procurement
13 authorization for southern California to meet its local reliability needs in the
14 absence of SONGS. Chapter 2, "Assessment of Local Reliability Needs in
15 Southern California Without SONGS," provides detailed support for each of the
16 recommendations introduced below.

17 C. Recommendations

18 PG&E makes the following recommendations for Track 4 of this LTPP
19 proceeding:

- 20 1) **The Commission should identify a total local resource need**
21 **determination for southern California of 5,070 megawatts (MW) by**
22 **2022.** This need determination is based on the need identified by SCE of
23 approximately 3,300 MW⁵ and the need identified by SDG&E of 1,770 MW,⁶
24 both prior to consideration of any procurement authorization made in the
25 recent 2012 LTPP Track 1 and SDG&E Purchased Power Tolling
26 Agreement decisions.⁷ The Commission should not reduce this need
27 determination based on conceptual or proposed transmission projects, the

3 Revised Scoping Ruling, p. 4.

4 SDG&E Track 4 opening testimony of Robert B. Anderson, p. 2.

5 See Figure II-1 of SCE Track 4 opening testimony, p. 8. This value is based on the Los Angeles Basin Generation scenario (2,802 MW) and recommended additional 500 MW of procurement authorization (see p. 7 of SCE Track 4 opening testimony).

6 See Table 3 of SDG&E Track 4 opening testimony of John M. Jontry, p. 12.

7 Decision 13-02-015 and Decision 13-03-029, respectively.

1 possible outcomes of SCE's "Living Pilot" program or other pilot programs,
2 or procurement authorizations made in prior proceedings.

3 **2) The Commission should provide a procurement authorization**
4 **sufficient to meet the full need determination of 5,070 MW, allocated in**
5 **a manner that is the most effective for the region.** PG&E is indifferent to
6 the allocation between SCE and SDG&E approved for the location of these
7 MW, as long as it results in adequate local reliability for the entirety of the
8 Los Angeles Basin and San Diego local areas and the costs are borne
9 solely by customers in southern California who benefit directly from these
10 additions. This treatment of cost allocation is consistent with the
11 procurement authorization decision in Track 1 of the 2012 LTPP for local
12 reliability needs in southern California as well as other prior Commission
13 decisions.⁸

14 **3) The Commission should make a need determination and procurement**
15 **authorization in this proceeding on the current schedule, sufficient to**
16 **meet the local reliability needs identified for 2018 and 2022,**
17 **respectively.** The Commission should not delay making a need
18 determination and procurement authorization until after the CAISO has
19 completed its 2013-2014 Transmission Planning Process studies as
20 proposed by the CAISO in its opening testimony.⁹ The Commission has
21 sufficient information at this time to make a need determination and
22 procurement authorization in Track 4 of this proceeding, and time is of the
23 essence in light of significant scheduled once-through cooling (OTC)
24 retirements in 2017 and 2020 in southern California.¹⁰

25 Chapter 2, "Assessment of Local Reliability Needs in Southern California
26 Without SONGS," of this testimony provides further support on each of the
27 above recommendations.

⁸ Decision 13-02-015, Ordering Paragraph 15, p. 136. PG&E's Track 1 cost allocation recommendations are summarized on page 105 of the decision with further discussion on cost allocation provided on pp. 106-114.

⁹ CAISO Track 4 opening testimony of Robert Sparks, p. 31.

¹⁰ Information regarding OTC power plants scheduled for retirement is located at:
http://www.swrcb.ca.gov/publications_forms/publications/factsheets/docs/once-through-cooling.pdf

1 **D. Conclusion**

2 For the reasons provided above and described further in Chapter 2,
3 “Assessment of Local Reliability Needs in Southern California Without SONGS,”
4 of this reply testimony, PG&E requests that the Commission adopt the
5 recommendations presented in this introductory chapter of PG&E’s Track 4 reply
6 testimony. Given that SONGS is no longer in operation, and the planned OTC
7 retirements, thousands of MW of generation are scheduled to retire in southern
8 California between now and 2022. Much work is needed to procure sufficient
9 resources to meet the local reliability needs identified in Track 4 of this
10 proceeding. PG&E urges the Commission to take action promptly to ensure the
11 continued reliability of the electric grid.

PACIFIC GAS AND ELECTRIC COMPANY
CHAPTER 2
ASSESSMENT OF LOCAL RELIABILITY NEEDS IN
SOUTHERN CALIFORNIA WITHOUT SONGS

PACIFIC GAS AND ELECTRIC COMPANY
CHAPTER 2
ASSESSMENT OF LOCAL RELIABILITY NEEDS IN
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1 **PACIFIC GAS AND ELECTRIC COMPANY**
2 **CHAPTER 2**
3 **ASSESSMENT OF LOCAL RELIABILITY NEEDS IN**
4 **SOUTHERN CALIFORNIA WITHOUT SONGS**

5 **A. Introduction**

6 This chapter presents to the California Public Utilities Commission (CPUC or
7 Commission) Pacific Gas and Electric Company's (PG&E) assessment of local
8 reliability needs in southern California based on opening testimony submitted by
9 the California Independent System Operator Corporation (CAISO),¹ Southern
10 California Edison Company (SCE), and San Diego Gas & Electric Company
11 (SDG&E)² in Track 4 of the 2012 Long-Term Procurement Plan (LTPP)
12 proceeding. These studies consider local reliability needs in the context of the
13 San Onofre Nuclear Generating Station (SONGS) no longer being in operation.

14 PG&E summarized its recommendations in Chapter 1 of this reply
15 testimony. This chapter provides further support for PG&E's recommendations
16 on meeting local reliability needs in southern California.

17 **B. PG&E's Track 4 Recommendations**

18 **1. The Commission Should Identify a Total Local Resource Need**
19 **Determination for Southern California of 5,070 Megawatts by 2022**

20 The Commission should identify a total local resource need
21 determination for southern California of 5,070 megawatts (MW) by 2022.

22 This resource need determination is based on the need identified by SCE of
23 approximately 3,300 MW³ and the need identified by SDG&E of 1,770 MW.⁴

24 These amounts are prior to consideration of any procurement authorization
25 made in the recent 2012 LTPP Track 1 and SDG&E Purchased Power
26 Tolling Agreement decisions.⁵ As discussed in Recommendation 2 below,

1 CAISO Track 4 opening testimony of Robert Sparks submitted August 5, 2013.

2 SCE and SDG&E Track 4 opening testimony submitted August 26, 2013.

3 See Figure II-1 of SCE Track 4 opening testimony, p. 8. This value is based on the LA Basin
Generation scenario (2,802 MW) and recommended additional 500 MW of procurement
authorization (see p. 7 of SCE Track 4 opening testimony).

4 See Table 3 of SDG&E Track 4 opening testimony of John M. Jontry, p. 12.

5 Decision 13-02-015 and Decision13-03-029, respectively.

1 amounts authorized in those proceedings could offset a portion of the
2 authorization amounts PG&E is recommending in Track 4 of this
3 proceeding.

4 With regards to timing, adequate resources should be procured to meet
5 identified needs as quickly as possible in light of the SONGS retirement and
6 the scheduled retirements of once-through cooling (OTC) units in southern
7 California by 2020.⁶

8 In respective Track 4 opening testimony submitted by the CAISO, SCE,
9 and SDG&E, each entity identifies a local reliability need that is relatively
10 close (within a few hundred MW) even though the assumptions in their
11 transmission power flow studies differ. Given the closeness of these results,
12 PG&E bases its recommended Track 4 need determination and
13 procurement authorization for the SONGS study area⁷ on the values
14 identified in SCE's and SDG&E's Track 4 opening testimony.⁸ Given that
15 these values are supported by SCE and SDG&E, and in line with the
16 CAISO's study results,⁹ these values provide an appropriate starting point
17 for a need determination and procurement authorization for SCE and
18 SDG&E in this track of the proceeding.

19 The Commission should not reduce the need determination based on
20 conceptual transmission projects proposed by SCE and SDG&E. Nor
21 should the Commission reduce the need determination based on a possible
22 outcome of SCE's "Living Pilot" program or other pilot programs, or
23 procurement authorizations made in prior decisions, but not yet
24 implemented. The need determination identified in Track 4 of this
25 proceeding is to establish a MW quantity for the capacity needed in the local
26 areas of southern California to maintain local reliability in 2018 and 2022.
27 While PG&E acknowledges the potential of preferred resources and

⁶ Information regarding once-through cooling power plants scheduled for retirement is located at: http://www.swrcb.ca.gov/publications_forms/publications/factsheets/docs/once-through-cooling.pdf.

⁷ Comprised of Los Angeles Basin (in SCE's service area) and San Diego local areas.

⁸ See Table 3 of SDG&E Track 4 opening testimony of John M. Jontry, p. 12, and Figure II-1 of SCE Track 4 opening testimony, p. 8. For SCE, PG&E uses the LA Basin Generation scenario and recommended additional 500 MW of procurement authorization (see p. 7 of SCE Track 4 opening testimony) as the identified need.

⁹ See Table 13 in CAISO Track 4 opening testimony of Robert Sparks, p. 26.

1 transmission solutions to contribute toward local reliability needs, the need
2 determination in this proceeding should identify the full amount of effective
3 MW required in each local area to ensure local reliability in 2018 and 2022,
4 respectively.

5 SCE acknowledges in its Track 4 opening testimony that, “there are
6 risks associated with pursuing both a transmission project and a Preferred
7 Resources strategy that could place LA [Los Angeles] Basin reliability at risk
8 in the future.”¹⁰ PG&E shares these concerns and recommends that the
9 Commission make a need determination that will fulfill the local reliability
10 need identified in SCE and SDG&E’s Track 4 studies, without assuming that
11 transmission solutions and incremental preferred resources will definitely
12 materialize. To the extent that these alternatives do materialize, this can
13 help reduce the eventual approval of new procurement authorized in this
14 proceeding, as discussed in the following recommendation on procurement
15 authorization.

16 **2. The Commission Should Provide a Procurement Authorization**
17 **Sufficient to Meet the Full Need Determination of 5,070 MW, Allocated**
18 **in a Manner That Is the Most Effective for the Region**

19 As stated above, PG&E recommends that a reasonable starting point for
20 the need determination is set forth in SCE and SDG&E’s testimony, and
21 totals 5,070 MW for southern California. The basis of this recommendation,
22 identified for SCE and SDG&E, is provided in Table 2-1 below.

¹⁰ SCE opening testimony, p. 5.

**TABLE 2-1
PACIFIC GAS AND ELECTRIC COMPANY
BASIS OF PG&E'S TRACK 4 NEED DETERMINATION RECOMMENDATION**

| Southern California Edison Company(a) | | | |
|---------------------------------------|------------------------------|--|-------|
| Line No. | LA Basin Generation Scenario | Residual Need to Meet CAISO Reliability Requirements | Total |
| 1 | 2,802 | 500 | 3,302 |
| SDG&E(b) | | | |
| | Conventional Generation Case | Additional Need Assumed Met w/Pio Pico | Total |
| 2 | 1,470 | 300 | 1,770 |

- (a) See Figure II-1 of SCE Track 4 opening testimony, p. 8. For SCE, PG&E uses the LA Basin Generation scenario and recommended additional 500 MW of procurement authorization as the identified need.
- (b) See Table 3 of SDG&E Track 4 opening testimony of John M. Jontry, p. 12.

1 PG&E is indifferent to the allocation between SCE and SDG&E
2 approved for the location of these MW, as long as it results in adequate local
3 reliability for the entirety of the Los Angeles (LA) Basin and San Diego local
4 areas and the costs are borne solely by customers in southern California
5 who benefit directly from these generation additions and not PG&E
6 customers. This treatment of cost allocation is consistent with the
7 procurement authorization decision in Track 1 of the 2012 LTPP for local
8 reliability needs in southern California as well as other prior Commission
9 decisions.¹¹

10 **a. Recommendations for SCE**

11 PG&E recommends that SCE be authorized to procure 3,300 MW of
12 electric generation capacity in the LA basin to meet long-term Local
13 Capacity Requirements (LCR), or local reliability needs, in southern
14 California, by 2022 at the latest. As identified above, this
15 recommendation is based on SCE's studies and analysis in Track 4 of

¹¹ Decision13-02-015, Ordering Paragraph (OP) 15, p. 136. PG&E's Track 1 cost allocation recommendations are summarized on page 105 of the decision with further discussion on cost allocation provided on pages 106-114.

1 this proceeding, and is also generally consistent with the CAISO's
2 Track 4 study results.

3 To the extent that the SCE procurement authorized in Track 1 of this
4 proceeding can offset the LCR requirements identified by the studies of
5 the CAISO, SCE, and SDG&E in this track of the proceeding, then the
6 total amount SCE is authorized to procure as a result of this track of the
7 proceeding should be reduced accordingly. If, for example, SCE
8 procures the upper limit of 1,800 MW in Track 1 of this proceeding, and
9 all of those MW are fully effective in meeting the long-term LCR needs
10 identified in this track of the proceeding, then SCE should be authorized
11 to procure an additional 1,500 MW of effective LCR capacity to meet the
12 identified local reliability needs found in Track 4 of this proceeding. On
13 the other hand, if none of the resources that SCE procures pursuant to
14 its Track 1 authorization have any effect in reducing the LCR needs
15 identified in this track, then SCE should be authorized to procure an
16 additional 3,300 MW of effective LCR capacity to meet the local
17 reliability needs identified in Track 4 of this proceeding.

18 Consistent with the approach taken in Track 1, SCE should submit a
19 procurement plan to the Energy Division (ED) prior to moving forward
20 with its public procurement process, and an application for approval of
21 any contracts entered into as a result of the procurement process
22 authorized as a result of Track 4 of this proceeding.¹² That application
23 should describe how the MW SCE proposes to obtain as a result of
24 Track 4 and Track 1 address the LCR needs that have been identified in
25 both of these tracks.

26 Because a number of OTC retirements in SCE's service territory are
27 scheduled for 2020, time is of the essence. SCE's Track 4 procurement
28 plan should be developed quickly, and its procurement process initiated
29 as soon as is practical thereafter.

30 With respect to preferred resources, PG&E supports SCE's concept
31 of a "Living Pilot"¹³ as PG&E believes that pilots can be informative and

¹² D.13-02-015, OPs 5-7, 11; pp. 133-135.

¹³ SCE opening testimony, pp. 49-54.

1 minimize ratepayer costs when new technology or the likelihood of
2 success of new proposals are unknown or have increased risks.
3 However, the needs identified for 2018 and 2022 should not wait until
4 the outcome of this and other potential pilot programs become known.

5 **b. Recommendations for SDG&E**

6 PG&E recommends that SDG&E be authorized to procure
7 1,770 MW of electric generation capacity in the SDG&E service territory
8 to meet long-term LCR in southern California, by 2022 at the latest. As
9 identified above, this recommendation is based on SDG&E's studies
10 and analysis in Track 4 of this proceeding, and is also generally
11 consistent with the CAISO's Track 4 study results.¹⁴ Consistent with the
12 approach taken with respect to SCE in Track 1 of this proceeding,
13 SDG&E should submit a procurement plan to the ED prior to moving
14 forward with its public procurement process, and an application for
15 approval of any contracts entered into as a result of the procurement
16 process authorized as a result of Track 4 of the proceeding.¹⁵ In that
17 application, SDG&E should describe how the MW SDG&E proposes to
18 obtain as a result of Track 4 address the LCR needs that have been
19 identified in Track 4 of this proceeding.

20 As with SCE, time is of the essence, as an OTC retirement of the
21 Encina Power Station in SDG&E's service territory is scheduled for
22 2017. SDG&E's Track 4 procurement plan should be developed quickly,
23 and its procurement process initiated as soon as is practical thereafter.

24 **3. The Commission Should Make a Need Determination and Procurement**
25 **Authorization in This Proceeding on the Current Schedule, Sufficient to**
26 **Meet the Local Reliability Needs Identified for 2018 and 2022,**
27 **Respectively**

28 The Commission should not delay making a need determination and
29 procurement authorization until after the CAISO has completed its
30 2013-2014 transmission planning process (TPP) studies as proposed by the

¹⁴ This number includes SDG&E's proposed 300 MW Pio Pico Project as this project has not yet been approved and constructed.

¹⁵ Decision 13-02-015, OPs 5-7, 11; pp. 133-135.

1 CAISO in its opening testimony.¹⁶ The Commission has sufficient
2 information at this time to make a need determination and procurement
3 authorization in Track 4 of this proceeding. Given the upcoming OTC
4 retirements in southern California in 2017 and 2020, timing is critical to
5 ensure that there will be sufficient time for SCE and SDG&E to develop a
6 procurement plan and initiate their procurement processes as quickly as
7 possible.

8 As discussed in Recommendation 1 above, PG&E proposes that a need
9 determination of 5,070 MW be approved by the Commission at this time.
10 The level of need can be determined without waiting until the results of the
11 2013-2014 TPP.

12 **C. Conclusion**

13 The detail provided in this chapter of reply testimony supports PG&E's
14 recommendations for identifying need and authorizing procurement in Track 4 of
15 this proceeding. It is imperative that the Commission act quickly to address local
16 reliability needs in both 2018 and 2022 in southern California. The Commission
17 should authorize procurement at the level of the identified need.

¹⁶ CAISO Track 4 opening testimony of Robert Sparks, p. 31.

PACIFIC GAS AND ELECTRIC COMPANY
APPENDIX A
STATEMENTS OF QUALIFICATIONS

1 **PACIFIC GAS AND ELECTRIC COMPANY**
2 **STATEMENT OF QUALIFICATIONS OF**
3 **JANICE Y. FRAZIER-HAMPTON**

4 Q 1 Please state your name and business address.

5 A 1 My name is Janice Y. Frazier-Hampton, and my business address is Pacific
6 Gas and Electric Company, 245 Market Street, San Francisco, California.

7 Q 2 Briefly describe your responsibilities at Pacific Gas and Electric Company
8 (PG&E).

9 A 2 I am director of Integrated Resource Planning within the Energy Policy,
10 Planning and Analysis Department of PG&E's Energy Procurement
11 organization. My department is responsible for long term planning for
12 energy procurement.

13 Q 3 Please summarize your educational and professional background.

14 A 3 I have a bachelor of business administration degree in finance from
15 Northeast Louisiana University, Monroe, Louisiana, and a master of
16 business administration degree with a concentration in finance from Golden
17 Gate University, San Francisco.

18 I joined PG&E in 1982 and have held various positions of increasing
19 responsibility in the Finance, Regulatory Relations and Energy Procurement
20 organizations. I was promoted to director in 2001. I assumed my current
21 position in March 2010.

22 Q 4 What is the purpose of your testimony?

23 A 4 I am sponsoring the following chapter in PG&E's Opening Testimony in
24 Track 4 of the 2012 Long-Term Procurement Plan proceeding:

- 25 • Chapter 1, "Introduction and Recommendations."

26 Q 5 Does this conclude your statement of qualifications?

27 A 5 Yes, it does.

1 **PACIFIC GAS AND ELECTRIC COMPANY**
2 **STATEMENT OF QUALIFICATIONS OF CURTIS A. HATTON**

3 Q 1 Please state your name and business address.

4 A 1 My name is Curtis A. Hatton, and my business address is Pacific Gas and
5 Electric Company, 245 Market Street, San Francisco, California.

6 Q 2 Briefly describe your responsibilities at Pacific Gas and Electric Company
7 (PG&E).

8 A 2 My current position at PG&E is manager in Integrated Resource Planning
9 within the Energy Policy, Planning and Analysis Department of PG&E's
10 Energy Procurement organization. In this position, my responsibilities
11 include performing market assessments of the California Independent
12 System Operator Corporation electric power market and examining
13 transmission issues from an electric procurement perspective.

14 Q 3 Please summarize your educational and professional background.

15 A 3 I received a bachelor of science degree in mechanical engineering in 1983
16 and a master of science degree in engineering management in 1989, both
17 from Stanford University. I joined PG&E in 1989, and have held positions in
18 various resource planning and market assessment capacities. From 1998 to
19 2003, I worked at the PG&E National Energy Group, the unregulated affiliate
20 of PG&E, as a manager involved with Western Electricity Coordinating
21 Council market assessment. In 2003, I returned to work at the regulated
22 PG&E utility where I have had several positions dealing with market
23 assessment including my latest position as manager in Integrated Resource
24 Planning.

25 Q 4 What is the purpose of your testimony?

26 A 4 I am sponsoring the following chapter in PG&E's Opening Testimony in
27 Track 4 of the 2012 Long-Term Procurement Plan proceeding:

- 28 • Chapter 2, "Assessment of Local Reliability Needs in Southern
29 California Without SONGS."

30 Q 5 Does this conclude your statement of qualifications?

31 A 5 Yes, it does.