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Exhibit No.: SDG&E-
Witness: Joseph Pasquito
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SAN DIEGO GAS & ELECTRIC COMPANY
PREPARED REBUTTAL TESTIMONY
OF
JOSEPH PASQUITO

PUBLIC VERSION

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

October 24, 2017



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1 (b) has provided “insufficient information”⁴ for ORA to determine that SDG&E has met an
2 applicable standard are not only unsubstantiated and unjustified, but false.

3 Nowhere in ORA’s Testimony does ORA explain what “information” is “deficient.” As
4 will be discussed later, SDG&E maintains that it is unfair and unjust for ORA to inject these new
5 and vague terms into what is essentially a determination of compliance based on a fixed,
6 Commission-approved standard. In some cases, ORA is simply asking for information that it has
7 not previously requested in an SDG&E ERRA Compliance proceeding or is asking for
8 information that is out-of-scope.⁵ These trumped-up, make-weight allegations are ORA’s sole
9 basis for ORA’s recommendation that SDG&E incur the “maximum disallowance,” an
10 outrageous recommendation that SDG&E finds to be totally unjust, unexplained, unsupported
11 and highly suggestive of bad faith. SDG&E did – and should be able to – follow SDG&E’s
12 immediately past LCD and DR showings as a matter of compliance⁶ and not be subject to the
13 arbitrary, mercurial and unjustifiably harsh recommendation from not only the same entity,
14 ORA, but the same witnesses in that entity.

15 Notably, ORA’s Testimony makes no findings that SDG&E failed to achieve least-cost
16 dispatch. This central finding, taken alone, sufficiently contradicts ORA’s recommendation.
17 Considering that SDG&E’s testimony, workpapers, responses to ORA’s 40-page single-spaced
18 Master Data Request, and sixteen (16) additional sets of ORA-issued data request responses,
19 SDG&E provided a showing that was substantively identical to SDG&E’s Record Year 2015

⁴ ORA Testimony at 2-10, 2-13, 2-15.

⁵ ORA at 2-11. Throughout its testimony, ORA complains numerous times that it did not have sufficient time to do its work. However, ORA agreed to this procedural schedule at the August 1, 2017 Prehearing Conference. The fact that ORA did not complete its work in a timely basis or thoroughly review and accurately review SDG&E’s submissions does not mean that SDG&E should be faulted for ORA’s shortcomings.

⁶ See D.14-07-006; D.15-05-005; D.16-05-003; D.17-03-016.

1 showing with the types of data and details. Overall, SDG&E finds that ORA’s testimony
2 recklessly painted a false, unsubstantiated and misleading impression of SDG&E’s ERRA
3 Compliance showing, disregarding not only precedent but ORA’s own prior analyses, with no
4 support for its unjust and unfair maximum disallowance recommendation. This testimony will
5 demonstrate that SDG&E complied with the “showing” requirements of D.15-05-005,⁷ which
6 was a seminal ERRA compliance decision, applicable to all IOUs, setting forth the various
7 components that Investor-Owned Utilities (IOUs) must provide during the course of an ERRA
8 Compliance proceeding “for future showings.”⁸

9 **II. SUMMARY OF ORA’S TESTIMONY AND SDG&E’S RESPONSE**

10 In this section, SDG&E summarizes the following ORA recommendations applicable to
11 the Standard of Conduct for LCD and DR as well as SDG&E’s responses thereto. Section III of
12 this testimony addresses each of these issues in greater depth.⁹

13 **A. Assessment of Overall Forecasting Accuracy**

14 **ORA’s Position:**

15 “SDG&E’s load and price forecasting accuracy for Record Periods 2016 appear to be [REDACTED]
16 accurate than those in Record Year 2015. However, SDG&E did not provide enough historical
17 data or context to allow ORA to determine whether SDG&E met the reasonable manager
18 standard forecast accuracy...ORA recommends that the Commission require an independent
19 evaluation of SDG&E’s load and price forecast systems in order to determine their

⁷ *Decision Adopting Methodology and Closing Proceeding*, A.11-06-003 (issued May 14, 2015).

⁸ D.15-05-005 at 5-6.

⁹ In this Summary, SDG&E responds in same format and order of issues presented in ORA’s summary and testimony.

1 accuracy....ORA is also unable to verify [SDG&E's] business practices to determine whether the
2 errors and omissions reveal failures in SDG&E's overall LCD reporting system.”¹⁰

3 **SDG&E's Response:**

4 Each of ORA's allegations is seriously flawed, factually unsubstantiated, and inconsistent
5 with Commission precedent. First, in SDG&E's ERRR Compliance proceeding from last year,
6 ORA raised a nearly identical set of recommendations based on very similar allegations, and
7 after extensive testimony and briefing, in D.17-03-016, the Commission flatly rejected ORA's
8 position and recommendation.¹¹

9 Second, ORA fails to justify or explain with specificity the alleged purported deficiency
10 that SDG&E “did not provide enough historical data or context,”¹² how that allegation comports
11 with any number of prior Commission decisions, including D.15-05-005, and how ORA can
12 justify what SDG&E believes is an unprecedented request for information outside of the subject
13 Record Year of 2016 and therefore outside of the scope of this proceeding.

14 Third, ORA claims, without any support, that the Commission's “Reasonable Manager”
15 standard applies to the area of forecasting, a claim that SDG&E disputes as there is no precedent
16 to support it. Further, the methodology ORA utilized for reaching its conclusion that SDG&E's
17 forecasting is not grounded in any Commission requirement, nor is ORA's overly simplistic
18 analysis of a year-to-year comparison a valid or supported basis on which to assess forecasting
19 accuracy. ORA's position on SDG&E's “forecasting accuracy” – a central point in ORA's

¹⁰ ORA Testimony at 2-2.

¹¹ D.17-03-016 at 11-12. ORA's Testimony conspicuously omits any reference to or discussion of this very recent precedent and fails to justify its use of a recycled argument inconsistent with that precedent.

¹² ORA Testimony at 2-10.

1 Testimony – is totally baseless and provides no support for ORA’s overall baseless
2 recommendation.

3 **B. Load Bid Calculations**

4 **ORA’s Position:**

5 “A high proportion of load cleared in the day-ahead market [sic] indicates that SDG&E
6 has forecast and procured sufficient energy resources relative to consumer demand, and then
7 appropriately calculated the value of its resources and translated these values into bids that would
8 allow the resources to be economically dispatched. In Record Period 2016, █████ of SDG&E’s
9 load cleared in the day-ahead market. This is the █████ percentage as in Record Period 2015.”¹³

10 **SDG&E’s Response:**

11 This favorable determination by ORA on a key element of SDG&E’s overall showing is,
12 like other findings, evidence of the inappropriateness of ORA’s maximum disallowance
13 recommendation.

14 **C. Assessment of Thermal Resources**

15 **1. Commitment Cost Reporting**

16 **ORA’s Position:**

17 “ORA recommends that SDG&E significantly improve its commitment cost reporting in
18 compliance with D.15-05-005. SDG&E’s workpapers did not include the reasons for selecting
19 proxy or registered costs, despite the Commission’s clear requirement to do so.”¹⁴

¹³ ORA Testimony at 2-11-12. ORA’s Testimony also notes that on September 1, 2017, SDG&E corrected an error in a workpaper. Presumably ORA does not object to SDG&E’s correction of an error in its voluminous filing. *Id.* at 12.

¹⁴ ORA Testimony at 1-2.

1 **SDG&E’s Response:**

2 First, as ORA notes: “In the 2016 Record Period, SDG&E submitted █ proxy costs
3 elections and █ registered cost elections. Out of these █ elections, there were █ incorrect
4 submissions and █ cost impact.”¹⁵ In a data request, ORA asked for reasons for selecting proxy
5 or registered cost, and in response, SDG&E provided the methodology applicable to all
6 commitment cost selections which answers the question directly.¹⁶ The type and amount of
7 information we provided was identical to the type and of information we provided last year to
8 ORA, to which ORA had no objection.¹⁷ The Commission approved SDG&E’s LCD showing.¹⁸

9 However, as part of this testimony, SDG&E now submits the *new* information sought by
10 ORA as *Attachment F – 2016 Master File (RDT) Change Exceptions Revised 10-20-2017.xlsx*.¹⁹
11 Now that SDG&E understands that ORA will seek the new information as provided,²⁰ SDG&E
12 will provide it in future years in its initial ERRR Compliance application. The material does not
13 affect the reality that SDG&E did, in fact, operate its resources in a least-cost manner.

14 Regardless, this single reporting issue is just one very narrow aspect of SDG&E’s
15 voluminous LCD showing, and even absent the material now provided, it does not justify ORA
16 to extrapolate, without evidence, by making broad-brush negative statements about SDG&E’s
17 overall LCD performance and reporting.

¹⁵ ORA Testimony at 2-13.

¹⁶ Attachment 1: ORA Data Request, ORA-SDG&E DR-14, Question 3a.

¹⁷ Mr. Cunningham was ORA’s LCD witness in SDG&E’s previous ERRR Compliance proceeding.

¹⁸ D.17-03-016 at 7 and Conclusion of Law (COL) 2.

¹⁹ Attachment 3 to this testimony is discussed in detail in Section C.1 – Commitment Cost Decisions.

²⁰ Throughout the course of this proceeding, as in prior years, ORA has telephoned SDG&E to ask various questions, many of them substantive, about the proceeding and also to ask SDG&E’s experts for assistance in understanding certain issues outside of the proceeding. SDG&E is generally pleased to assist ORA. However, ORA could have offered SDG&E a similar brief courtesy and simply let SDG&E know, by telephone or otherwise, that it was seeking information that it did not require in SDG&E’s prior ERRR Compliance showing.

1 **D. Bidding Activity Reporting**

2 **ORA’s Position:**

3 “ORA recommends that SDG&E improve its bidding activity reporting to include
4 instances in which energy is not dispatched at all despite the bid price being lower than the
5 locational marginal price (LMP), according to the requirements of D.15-05-005.”²¹

6 **SDG&E Response:**

7 Similar to the forecasting accuracy point noted in Section A, above, ORA is rearguing the
8 same “zero dispatch” issue that it raised in SDG&E’s immediately prior ERRA Compliance
9 proceeding, which the Commission rejected in D.17-03-016.²² The Commission concluded that
10 SDG&E did, in fact, comply with the reporting requirements of D.15-05-005, and further:
11 “Imposing a new requirement on SDG&E is outside the scope of this proceeding. If ORA wants
12 to pursue this documentation in the future, it should seek to include it within the scope of a future
13 proceeding, or – preferably – file a Petition to Modify D.15-05-005.”²³ This issue, too, lends
14 absolutely no support to ORA’s overall recommendation.

15 **E. Self-Scheduling Reporting**

16 **ORA’s Position:**

17 “ORA recommends that SDG&E significantly improve its self-scheduling reporting,
18 including providing clear formulas and explanations of its calculations. While SDG&E’s self-
19 scheduling activities did not appear to negatively impact ratepayers, its reporting was difficult to

²¹ ORA Testimony at 2-3.

²² D.17-03-016 at 12-14.

²³ *Id.* at 14. ORA has provided no indication in this proceeding that it is seeking to reargue the requirements of D.15-05-005, or as in the prior reporting matter, applying the existing requirements in a new way to essentially the same showing.

1 interpret. ORA was unable to verify or replicate SDG&E’s cost impact calculations and SDG&E
2 did not address ORA’s discovery questions about additional unexplained self-schedule entries.”²⁴

3 **SDG&E’s Response:**

4 As ORA noted, SDG&E’s self-scheduling activities did not negatively affect ratepayers.
5 However, SDG&E disagrees with ORA’s claim that SDG&E’s self-scheduling reports were
6 “unexplained” or “difficult to interpret,” because SDG&E again provided the same type and
7 amount information in its self-schedule reports as SDG&E provided in its ERRA Compliance
8 application from last year, which were approved. It is unfair and unjust for ORA to create a
9 “moving target” for SDG&E to establish its compliance. SDG&E submitted complete and
10 accurate answers to ORA’s discovery in this area.²⁵ If ORA did not understand some aspect of
11 SDG&E’s answers, then ORA had an obligation to follow-up. SDG&E strongly disagrees with
12 ORA’s unsupported contention that SDG&E “did not address ORA’s discovery questions.”

13 **1. Assessment of Management of Hydroelectric Resources**

14 **ORA’s Position:**

15 “ORA recommends that the Commission require an independent review of SDG&E’s
16 hydro models and hydro bidding practices to determine their accuracy. SDG&E did not
17 demonstrate how it is able to optimize its dispatch based on its reported inputs.”²⁶

18 **SDG&E’s Response:**

19 ORA found that, “Overall, SDG&E demonstrated that it is bidding Lake Hodges for
20 dispatch according to LCD principles, generating energy during times when the price and value
21 of energy is high and pumping when prices are lower.”²⁷ As to ORA’s claim that SDG&E did

²⁴ ORA Testimony at 2-3.

²⁵ Attachment 2: ORA-SDG&E DR-16, Question 3.

²⁶ ORA Testimony at 2-3.

²⁷ ORA Testimony at 2-23.

1 not demonstrate how it is able to optimize dispatch, SDG&E submitted the same spreadsheet,
2 Attachment B, as it submitted in SDG&E's immediately prior ERRR Compliance proceeding.
3 ORA's Testimony does not explain why SDG&E's hydro reporting was adequate last year,
4 whereas ORA deemed the same showing this year not to demonstrate that SDG&E optimized
5 dispatch; at the same time, ORA's recommendation regarding an "independent review" appears
6 inconsistent with ORA's finding that: "SDG&E demonstrated that it is bidding Lake Hodges for
7 dispatch according to LCD principles, generating energy during times when the price and value
8 of energy is high and pumping when prices are lower."²⁸ SDG&E finds ORA's analysis, once
9 again, inconsistent from year-to-year, and also internally inconsistent. SDG&E dispatched its
10 hydro in full accord with LCD and also provided a clear report demonstrating that it did so.
11 Thus, ORA's recommendation is flawed and off-base.

12 **2. Assessment of Management of Renewable Resources**

13 **ORA's Position:**

14 "ORA recommends that the Commission should order SDG&E, PG&E and SCE to hold
15 a workshop in order to develop and standardize reporting requirements for economic renewable
16 curtailment."²⁹

17 **SDG&E's Response:**

18 ORA's forward-looking recommendation is not grounds for criticism of SDG&E's record
19 year activities or its reporting thereon. Additionally, it is not within the scope of this SDG&E-
20 specific proceeding for ORA to recommend an action that would affect another utility.

²⁸ ORA Testimony at 2-23.

²⁹ ORA Testimony at 2-4.

1 ORA is not at liberty simply to alter the Commission’s standards of review for ERRRA
2 Compliance Proceedings or required showing that SDG&E should make to establish its
3 compliance with existing standards. It cannot pursue such changes simply by filing testimony;
4 rather, as was noted in D.17-03-016, ORA should file a “Petition to Modify” pertaining to the
5 appropriate Commission Order or Orders.³⁰

6 **3. Assessment of Demand Response Programs**

7 **ORA’s Position:**

8 “ORA recommends that SDG&E examine and re-evaluate its forecasting methodologies
9 and procedures in order to identify areas for improvement. SDG&E did not report any instance
10 when it exercised its discretion to not dispatch its DR resources, but SDG&E also failed to report
11 and explain a significant amount of the instances when trigger conditions were met but no
12 dispatch occurred.”³¹

13 **SDG&E’s Response:**

14 While SDG&E seeks to improve its forecasting on an ongoing basis, ORA’s allegations
15 regarding SDG&E’s reporting are based on false assumptions and flawed metrics. Moreover, the
16 new utilization metric proposed by ORA is not based on any Commission determination,
17 including in D.15-05-005, and SDG&E disagrees that it is valid or appropriate methodology for
18 analyzing SDG&E’s demand response programs, as explained further below.

19 **ORA’S OVERALL RECOMMENDATION**

20 In the preceding summary, ORA addresses six areas of SDG&E’s LCD and DR
21 submission. In one area, Load Bid Calculations, ORA noted no issues of concern. In another,
22 Assessment of Demand Response Programs, ORA noted no issues of concern with SDG&E’s

³⁰ D.17-03-016 at 15.

³¹ ORA Testimony at 2-4.

1 submission but contained a general recommendation applicable to the three IOUs (which
2 SDG&E finds to be inappropriate). Regarding Forecast Accuracy, ORA attempts to re-litigate
3 the same issues as in SDG&E’s immediately prior ERRA Compliance filing and attempts to use
4 a new analysis that is not suggested or required by any Commission-approved decisions.³²

5 Of the remaining three areas, SDG&E also strongly disputes ORA’s allegations but will
6 demonstrate in this testimony the falsity of ORA’s overall recommendation that SDG&E “failed
7 to show compliance with Commission standards of least-cost dispatch,” which forms the basis of
8 ORA’s totally unsupported recommendation that the Commission impose the “maximum
9 disallowance for Standard of Conduct #4 of \$18.6 million.”³³ ORA should withdraw its
10 unfounded and outrageous maximum disallowance recommendation and, instead, propose a
11 constructive and reasonable list of the types of information that it will seek in future ERRA
12 Compliance Applications that it would find as “sufficient” that would supplement SDG&E’s
13 current LCD and DR showing that was, again, deemed “sufficient” last year and compliant with
14 existing requirements from D.15-05-005. ORA should seek only information that is justified by
15 Commission precedent and applicable law and apply its reviewing standards equally and fairly to
16 all IOUs.

17 As it stands, however, SDG&E will vigorously oppose this recommendation and will
18 challenge each of ORA’s specious, unsupported and false contentions.

19 SDG&E respectfully responds to ORA’s recommendations in detail, below.

³² See generally D.17-03-016 and D.15-05-005.

³³ ORA Testimony at 2-4.

1 **III. DISCUSSION**

2 **A. Overall Forecasting Accuracy**

3 ORA’s testimony in Chapter 2 contains a discussion and analysis of SDG&E’s
4 forecasting accuracy. At the outset, it should be noted that SDG&E’s forecasting methodology
5 and the general contents of SDG&E’s showing regarding its forecasting are virtually identical to
6 the forecasting methodology and showing that SDG&E provided in its 2015 Record Year ERR
7 Compliance proceeding. SDG&E provided this very same metric (absolute average hourly
8 difference) in its testimony last year which was approved by the Commission approximately six
9 months ago as an acceptable manner to report forecasting accuracy.³⁴ Last year’s Order states:
10 “The parties have agreed SDG&E should submit load and price forecast data in the same manner
11 as the attachment to Data Response #6 Question 2 to satisfy the similar requirement in D.15-05-
12 005. The Commission is not opposed to this request and adopts it.”³⁵ ORA’s testimony does not
13 explain why it should be entitled to seek more expansive and older data than the data authorized
14 by the Commission in D.17-03-016 and which ORA itself reviewed and did not object to.

15 ORA now asserts, however, that SDG&E did not provide a “context or baseline” or
16 “historical” data to enable ORA to determine whether SDG&E met the reasonable standard for
17 forecast accuracy with respect to load and price forecasts.³⁶ ORA provides no support for this
18 unsupported and unspecified request for “historical data”; none is specified in D.15-05-005, and
19 to SDG&E’s knowledge, none otherwise exists. SDG&E finds this position curious as ORA has
20 not expressed this position previously, and ORA also has offered no clarification as to what these
21 three terms mean, from ORA’s point of view. On its face, ORA’s insistence on “historical”

³⁴ D.17-03-016 at 12 (issued March 23, 2016).

³⁵ D.17-03-016 at 12.

³⁶ ORA Testimony at 2-9-10.

1 information is outside of the unambiguous scope of this case which deals solely with Record
2 Year 2016. As noted by ORA, SDG&E also provided ORA with information regarding the
3 prior 2015 Record Year. This is the same information provided by SDG&E – and approved by
4 the Commission -- in the previous ERRA Compliance filing; however, SDG&E is now learning,
5 for the first time in ORA’s testimony, that it apparently seeks even older data, which SDG&E
6 believes is unsupported by precedent.³⁷

7 Second, when asked by ORA to provide an average mean absolute percentage error
8 (MAPE), SDG&E provided the absolute average hourly difference exactly as it did in the prior
9 year’s filing and which the Commission approved in D.17-03-016. However, ORA’s testimony
10 proposes the use of the Median Absolute Percentage Error (MAPE), which is a metric ORA
11 proposed last year as well, but which the Commission flatly rejected.³⁸ SDG&E simply compares
12 the absolute value of the nominal difference between actual and forecasted LMPs to keep the
13 magnitude of the error on consistent terms.

14 Third, SDG&E disagrees with ORA’s Testimony that the Record Year 2016 absolute
15 average hourly difference between forecast and actual price, which increased from ██████ to
16 ██████, warrants ORA’s inference that the “quality” of SDG&E’s forecast reporting is at issue.³⁹
17 Forecasting prices is not an exact science, and results vary from year-to-year even with the best

³⁷ ORA’s Testimony unfairly mischaracterizes the discussion between ORA and SDG&E as SDG&E spoke with ORA by phone to understand what additional data it was seeking. During a phone call initiated by SDG&E, SDG&E spoke on July 31, 2016 with ORA’s Mr. Cunningham, who requested that SDG&E provide to ORA “all” hourly forecast and actual data, including “raw” data – a voluminous amount of information that SDG&E did, in fact provide in SDG&E’s initial filing. However, in clarifying SDG&E’s substantive showing, ORA’s Testimony instead decided to refer to this information as a “data dump.” ORA Testimony at fn. 33. ORA cannot have it both ways: complaining that SDG&E provided too much information and simultaneously stating that SDG&E’s showing was somehow “insufficient.”

³⁸ D.17-03-016 at 12.

³⁹ ORA at 2-10.

1 of forecasts and in the most stable circumstances. Forecasting prices in a system with over
2 10,000 nodes, hundreds of generator bids, virtual bids and energy bids at interties is challenging
3 and prone to error even in ideal circumstances. In addition, the bidding behavior of market
4 participants may change frequently and without notice. This modest increase is statistically
5 insignificant and does not warrant ORA's broader claims regarding the quality of SDG&E's
6 forecasts.

7 Fourth, ORA's recommendation that "the Commission require SDG&E to perform an
8 independent evaluation of its load and price forecast systems"⁴⁰ is not justified either by a
9 modest change in the outcome in the forecast results based on ORA's unsupported metric, or by
10 ORA's request that SDG&E provide certain "historical" and other data that are unsupported by
11 Commission precedent. In D.17-03-016, the Commission stated: "... we do not adopt [ORA's]
12 proposal [for an independent evaluation] absent greater clarity as to the potential cost savings
13 from improved accuracy of forecasting, the parameters of any evaluation, and the anticipated
14 costs of it. Meanwhile, we support SDG&E's "ongoing self-evaluation" "to improve forecasting
15 accuracy."⁴¹ In this proceeding, ORA merely reargued its prior position that the Commission
16 rejected.

17 Fifth, SDG&E finds unsupported ORA's contention that the Commission's "reasonable
18 manager" standard is applicable to the area of utility forecasts. SDG&E's view is that no
19 Commission precedent supports ORA's position. In any event, SDG&E acted reasonably in its
20 forecasting.

⁴⁰ ORA Testimony at 2-11.

⁴¹ D.17-03-016 at 11-12.

1 Sixth, ORA noted that SDG&E submitted corrected workpapers that also clarified certain
2 undefined terms, and SDG&E identified and re-submitted the latter of these corrected
3 workpapers on September 1, 2017. ORA, however, appears dissatisfied that SDG&E's
4 workpapers had been corrected "less than one month before ORA's testimony [was] due" and,
5 according to ORA, these were "last-minute corrections."⁴² SDG&E finds it odd that ORA
6 should make such a point of SDG&E's self-corrected workpapers, in light of SDG&E's
7 voluminous filing. Even more strange is ORA's claim that SDG&E's corrections, which were
8 provided to ORA 27 days before ORA's testimony was due, are considered "last-minute." The
9 main point here, one apparently lost on ORA, is that SDG&E's showing does, in fact, provide
10 accurate RT load information in a section of Attachment A of the workpapers. ORA's complaint
11 does not assail SDG&E's compliance with SOC 4.

12 In sum, SDG&E's "overall forecasting accuracy" is consistent with Commission
13 precedent, and its methodology and results are no less solid than what the Commission
14 determined to be acceptable in D.17-03-016. Furthermore, ORA's flawed assessment of
15 SDG&E's forecasting accuracy provides no support for ORA's "maximum disallowance"
16 recommendation.

17 **B. Load Bid Calculations**

18 ORA's testimony states: "A high proportion of load cleared in the day-ahead market
19 indicates that SDG&E has forecast and procured sufficient energy resources relative to consumer
20 demand, and then appropriately calculated the value of its resources and translated these values
21 into bids that would allow the resources to be economically dispatched. In Record Period 2016,

⁴² ORA Testimony at 2-11. Twenty-seven days for ORA to evaluate a single correction made by SDG&E to one of its workpapers is more time than SDG&E had to evaluate the entirety of ORA's testimony, and prepare and submit this testimony. ORA's quibbling and pettiness over minute aspects of SDG&E's filing provide ORA with no grounds to disparage SDG&E's entire LCD and DR submission.

1 97% of SDG&E’s load cleared in the day-ahead market. This is the same percentage as in
2 Record Period 2015....”⁴³

3 SDG&E appreciates this favorable, central finding with respect to SDG&E’s overall
4 showing. SDG&E notes that this finding undermines ORA’s “maximum disallowance”
5 recommendation.

6 C. Management of Thermal Resources

7 1. Commitment Cost Decisions

8 SDG&E is required to submit to CAISO its expected costs for starting up resources and
9 running them at their minimum load, which are referred to as commitment costs. ORA’s
10 testimony states that, “In the 2016 Record Period, SDG&E submitted █ proxy cost elections and
11 █ registered cost elections. Out of these █ elections, there were █ incorrect submissions and
12 █ cost impact.”⁴⁴

13 ORA’s testimony noted, for the first time in this year’s ERRR Compliance application,
14 that SDG&E did not identify specific reasons for selecting proxy or registered cost in a summary
15 table and asked for specific reasons in a follow-up data request.⁴⁵ SDG&E found and still finds
16 its demonstrations for commitment costs to be sufficient. First, SDG&E had zero errors in the
17 submission of commitment costs. Second, SDG&E provided the same information in
18 Attachment F – 2016 Master File (RDT) Change Exceptions for 2016 as it did in its Record Year
19 2015 proceeding, to which ORA did not object, and which the Commission approved in D.17-

⁴³ ORA Testimony at 2-11-12. ORA’s Testimony also notes that on September 1, 2017, SDG&E corrected an error in a workpaper. Presumably ORA does not object to SDG&E’s correction of an error in its voluminous filing. *Id.* at 12.

⁴⁴ ORA Testimony at 2-13.

⁴⁵ ORA Testimony at 2-13.

1 03-016. Third, there were no cost impacts from our commitment cost submissions to the
2 CAISO. Fourth, the summary tables are not conducive for listing individual reasons.

3 In response to an ORA data request asking for reasons for its commitment cost selections,
4 SDG&E responded: “The reason SDG&E chooses the registered cost option is to account for
5 costs and constraints that are not fully captured using the proxy cost calculation. The registered
6 cost option allows SDG&E to apply a higher cost in order to capture non-fuel costs. If proxy
7 cost is sufficient to cover start-up and minimum load costs, proxy cost provides more flexibility
8 to change the gas price from day to day.”⁴⁶ SDG&E provided a singular explanation for the
9 registered or proxy cost option which applied to all selections during the record period. This
10 response was (and is) complete and accurate, and the described methodology applied in all
11 selections during the record period. When proxy is sufficient to cover costs, proxy is selected
12 because it provides more flexibility to change gas price which is a major component of start-up
13 and minimum load costs. Otherwise, SDG&E will select registered costs. This response
14 complies with the requirements of D.15-05-005.

15 While SDG&E maintains that its showing with respect to commitment costs was accurate
16 and sufficient, to eliminate this misunderstanding in future ERRA Compliance proceedings,
17 SDG&E proposes that, going forward, it will provide the reasons alongside all selections in
18 *Attachment F – Master File (RDT) change Exceptions*. Attachment 3 demonstrates how SDG&E
19 will provide this information going forward.⁴⁷ It bears mention that these repeated entries
20 provide no additional value in determining whether SDG&E failed to meet LCD.

⁴⁶ Attachment 1: ORA Data Request, ORA-SDG&E DR-14, Question 3a.

⁴⁷ Attachment 3: Attachment F – 2016 Master File (RDT) Change Exceptions.

1 As noted above, SDG&E provided the same information in the same manner in
2 SDG&E's immediately prior year's ERRR Compliance proceeding, to which ORA expressed no
3 concerns. Contrary to ORA's make-weight argument in this case, SDG&E has demonstrated
4 that it had no commitment cost submission errors and followed the requirements of D.15-05-005.
5 This issue, like the others discussed in this testimony, does not justify ORA's maximum
6 disallowance recommendation.

7 **2. Incremental Bid Cost Calculations**

8 SDG&E calculates the incremental costs of its resources based on the variable costs by
9 output level and operational constraints.⁴⁸ ORA's testimony states that SDG&E improved upon
10 the previous Record Period by reducing variances from ■■■ to ■■■, all of which occurred on one
11 day for one configuration of one facility. ORA also stated that the resource was not dispatched so
12 there was no cost impact.⁴⁹ These incremental bid cost calculations are another major
13 component in determining whether SDG&E was in compliance with LCD, and once again, no
14 compliance issues or deficiencies were reported. This positive finding also contradicts ORA's
15 recommendation for a maximum disallowance.

16 **3. Bidding Activity**

17 ORA stated that there were no occasions in Record Period 2016 when SDG&E did not
18 bid a unit into the market when it was available. ORA also stated that SDG&E did not include
19 instances in which energy was not dispatched despite the bid price being lower than the LMP. In
20 keeping with the convention SDG&E used in last year's ERRR filing, *Attachment C - 2016*
21 *Incremental Bid Cost Calculations.xlsx* did not include instances in which energy was not

⁴⁸ Prepared Direct Testimony of Joseph Pasquito at JP-14.

⁴⁹ ORA Testimony at 2-14.

1 dispatched at all because incremental bid calculations are only applicable when the unit is online
2 (dispatched above zero and not a “zero dispatch”) for the applicable hour. Thus, SDG&E
3 reported these hours in the same manner in which they were reported in SDG&E’s Record Year
4 2015 ERRA Compliance proceeding.

5 ORA raised this very same issue in SDG&E’s 2015 Record Year proceeding, in which it
6 recommended that “the Commission require SDG&E to make an additional showing, in future
7 ERRA compliance proceedings, explaining and documenting instances of “zero dispatch.”⁵⁰
8 ORA characterized this “zero dispatch” recommendation not as an additional requirement but as
9 “clarification” of the requirement adopted by D.15-05-005.⁵¹ The Commission responded by
10 rejecting ORA’s recommendation: “Whether one regards the proposed reporting as a
11 ‘clarification’ or ‘additional’ does not alter the fact that ORA proposes SDG&E report something
12 new. The requirements adopted by D.15-05-005 were founded on a Joint Utility proposal. The
13 Commission will not, under the guise of what ORA terms a “clarification,” broaden what was
14 previously jointly proposed by the utilities and subsequently adopted by the Commission.”⁵²

15 The Commission further stated, “Imposing a new requirement on SDG&E is outside the
16 scope of this proceeding. If ORA wants to pursue this documentation in the future, it should
17 seek to include it within the scope of a future proceeding, or – preferably – file a Petition to
18 Modify D.15-05-005.”⁵³

19 Accordingly, the Commission should reject ORA’s attempt in this proceeding to relitigate
20 its recently decided “zero dispatch” recommendation from last year’s proceeding. Moreover,

⁵⁰ D.17-03-016 at 12.

⁵¹ D.17-03-016 at 13.

⁵² D.17-03-016 at 13.

⁵³ D.17-03-016 at 14.

1 ORA’s recommendation provides no grounds on which to support ORA’s “maximum
2 disallowance” recommendation.

3 4. Self-Commitment

4 ORA’s testimony states that, “SDG&E self-scheduled dispatchable thermal resources
5 mostly for unit-testing purposes or as a result of fuel limitations.” In the entire 2016 Record
6 Year, there was only one occasion in which a resource was self-scheduled in error for only one
7 hour (HE24) on December 14, 2016. SDG&E’s initial assessment was that there was no cost
8 impact and later revised its assessment to indicate that there was a “minimal” cost impact of
9 [REDACTED] as indicated on tab 3ciii of *Attachment E - 2016 ERRR Comp - LCD Wrkpr 3c ii and iii*
10 *SS vs Bid Analysis FINAL.xlsx*. This figure represents a reduction in the cost of self-scheduling
11 errors from 2015. ORA claimed that SDG&E did not specify the reason for the self-scheduling
12 error.⁵⁴ However, SDG&E did, in fact, describe the error to ORA as “inadvertent” which is
13 another way of saying that the reason was “human error” – a factually accurate and complete
14 appraisal of what happened.

15 In a separate matter, ORA asked about a self-scheduling event in May 2016 concerning
16 SDG&E’s Desert Star generating unit and claimed that SDG&E insufficiently explained the
17 reason for the occurrence.⁵⁵ Not so. SDG&E already provided the reason in the original
18 workpapers in *Attachment D – 2016 ERRR Comp – Self Schedules Supp Data FINAL.xlsx* on tab
19 “All Detailed Support Data” in column S and were further summarized on tab “3ab”. This
20 reference clearly states that the reason for self-scheduling was due to fuel limitations which is
21 non-discretionary and intentionally submitted.

⁵⁴ ORA Testimony at 2-17.

⁵⁵ ORA Testimony at 2-16-17.

1 In summary, ORA recommends that SDG&E improve its self-schedule reporting which
2 did not differ in content no specificity from last year’s ERRA Compliance application, which
3 was approved by the Commission. However, for these isolated instances in which ORA
4 appeared to be confused by SDG&E’s statements, SDG&E proposes to work with ORA to
5 develop a protocol so that both parties can seek clarification on factual issues related to the
6 proceeding.

7 **D. Management of Hydro Resources**

8 Lake Hodges Units 1 and 2 represent a small portion (40 MW) of SDG&E’s overall
9 portfolio of resources. ORA’s testimony states that, “Overall, SDG&E demonstrated that it is
10 bidding Lake Hodges for dispatch according to LCD principles, generating energy during times
11 when the price and value of energy is high and pumping when prices are lower.”⁵⁶ ORA’s
12 testimony then claims that SDG&E did not demonstrate how it is able to optimize its dispatch.
13 Once again, SDG&E submitted *Attachment B - 2016 Hydro and Pump Storage*
14 *revised_CONF.xlsx*, a spreadsheet with the same data and in the same format as SDG&E’s
15 previous year’s testimony, to which ORA had no objections.

16 In direct testimony, SDG&E has described its hydro resource scheduling methodology in
17 the same manner as the previous year’s testimony.⁵⁷ San Diego County Water Authority
18 (SDCWA) provides daily availability limits for both generation (typically six hours) and
19 pumping (usually 8 hours), and SDG&E merely maintains water levels through pumping and
20 generating energy on a weekly basis and optimizes the value within those constraints and other
21 restrictions that are determined by the SDCWA. SDG&E uses a price forecast to determine the

⁵⁶ ORA Testimony at 2-23.

⁵⁷ Prepared Direct Testimony of Joe Pasquito at 18-19.

1 highest price hours to generate and the lowest price hours to pump within daily constraints.
2 SDG&E balances reservoir levels on a weekly basis and is not operationally or contractually
3 responsible for the overall water levels of the resevoirs.

4 ORA's testimony states that SDG&E dispatched Lake Hodges Units 1 and 2 at a [REDACTED]
5 percentage of the top 500 LMPs of Record Period 2016.⁵⁸ In ORA Data Request #16, ORA
6 asked what was the cause of the decrease. SDG&E replied that there are daily limits to how
7 many hours of generation (typically six) can be scheduled.⁵⁹ SDG&E explained that, in 2016,
8 there were more days (19) compared to 2015 (9) that contained more than six of the Top 500
9 LMPs. SDG&E further explained that SDG&E would not have been able to schedule generation
10 beyond six hours, which reduced SDG&E's ability in 2016 to capture the highest price hours.

11 ORA's testimony then stated that, "It is unclear how SDG&E can know what the top 500
12 LMPs in a year will be before the year is over."⁶⁰ This statement from ORA is at best perplexing
13 – it does not appear to follow from the facts that SDG&E provided regarding the parameters
14 within which this facility can be scheduled. Again, if there are more than six high LMPs within
15 a day (which occurred more frequently in 2016 than 2015), SDG&E would not be able to take
16 advantage of those higher LMPs because scheduling that facility is typically limited to six hours
17 of generation per day. It appears that, based on ORA's testimony, ORA misunderstands why it
18 would not be feasible for SDG&E to dispatch the unit when there were more than six high LMPs
19 within the same day. However, SDG&E maintains that its explanations have been clear,
20 accurate, and complete.

⁵⁸ ORA Testimony at 2-18.

⁵⁹ Attachment 4: ORA Data Request, ORA-SDG&E DR-16, Question 1d.

⁶⁰ ORA Testimony at 2-18.

1 Based on ORA’s misunderstanding, ORA recommends that the Commission require
2 SDG&E to undergo an independent review of its hydro models and hydro bidding practices to
3 determine their accuracy.⁶¹ SDG&E respectfully points out, again, that ORA does not appear to
4 understand the operational and scheduling requirements of SDG&E’s hydro facility. SDG&E
5 would be willing to convene a discussion with ORA to alleviate any confusion. However,
6 ORA’s misunderstanding of the operation of SDG&E’s hydro unit provides no reason for the
7 Commission to approve an independent review.⁶²

8 **E. Management of Dispatchable Renewable Resources**

9 ORA’s testimony has no findings specific to SDG&E’s showing related to its
10 management of dispatchable renewable resources. However, ORA recommends that SDG&E
11 work together with PG&E and SCE to develop standardized renewable reporting to provide an
12 update to least-cost dispatch requirements to address economic curtailment.⁶³ SDG&E agrees to
13 work with ORA and the other utilities in this respect. However, if ORA wants to have a
14 directive issued in this proceeding applicable to a utility other than SDG&E, then ORA should
15 submit its request in an appropriate procedural vehicle so that all affected entities can consider
16 and opine on that recommendation.

⁶¹ ORA Testimony at 2-23.

⁶² Once again, ORA had a very similar “independent review” recommendation in SDG&E’s ERRA Compliance case from last year. The Commission rejected that request in D.17-03-016. If, however, the Commission agrees with ORA’s recommendation, SDG&E asks that the costs for this review be recovered through its ERRA account.

⁶³ ORA Testimony at 2-25.

1 **F. Management of Demand Response**

2 **1. SDG&E Disagrees with ORA’s Use of a Utilization Rate to Analyze if**
3 **SDG&E Correctly Operated its Capacity Bidding Program (CPB)**
4 **During 2016**

5 ORA’s testimony contends that SDG&E under-dispatched its Capacity Bidding Program
6 (CBP) during the 2016 Record Year based on a comparison of the actual energy dispatched to
7 the potential energy available.⁶⁴ ORA’s view appears to be based solely on its observation that
8 the actual energy SDG&E dispatched under the CBP was low as compared to the amount the
9 program could have dispatched. ORA also states that the amount of dispatches decreased
10 because of the heat rate trigger increasing from 15,000 Btu/kWh to 19,000 Btu/kWh.⁶⁵

11 Although SDG&E agrees that the heat rate increase had an impact on the decrease in
12 dispatches, SDG&E respectfully disagrees with ORA’s analysis that the CBP was underutilized
13 because the actual hours it was dispatched was low, compared to maximum dispatchable hours
14 over the entire demand response season. As directed in D.15-05-005,⁶⁶ SDG&E calculates in
15 *Attachment I* (Demand Response Metric 3) the percentage of CBP-DA dispatched compared to
16 the total available when triggers were met. *Attachment I* illustrates that SDG&E dispatched
17 CBP-DA 82% and 17% for CBP-DO of available energy when triggers were met in 2016.⁶⁷
18 Therefore, ORA’s utilization rate of 21.2% for CBP-DA and 10.6% for CPB-DO is not an
19 applicable or appropriate indication of whether LCD was achieved.

20 Further, ORA’s calculation of the utilization rate is inaccurate, because it included time
21 periods in which the CBP-DA program did not have capacity available. In 2016, the CBP

⁶⁴ *Id.* at 2-26-27.

⁶⁵ *Id.* at 2-27.

⁶⁶ D.15-05-005 at 1.

⁶⁷ Prepared Direct Testimony of Joseph Pasquito, Attachment I “Summary”, “CBP DA”, and “CBP DO” tabs.

1 accepted nominations on a monthly basis, and in May and June 2016, no aggregators chose to
2 nominate to the CDP-DA program. The utilization rate would have been approximately 32% for
3 CBP-DA had ORA calculated the rate over the times when capacity was available.

4 For these reasons, ORA's analysis of SDG&E's CBP is flawed, and thus ORA's
5 calculations of the "cost impact of reported non-dispatch during trigger conditions" are similarly
6 flawed.

7 **2. The Market Integration Progress Report is Not a Requirement of**
8 **D.15-05-005**

9 ORA states that SDG&E's Wholesale Market Integration Update report is missing data
10 for September and October.⁶⁸ The Market Integration Report was ordered by the Commission in
11 D.14-05-025, requiring the utilities to develop a reporting template to provide feedback on
12 experiences bidding into the CAISO energy markets during the 2015-2016 demand response
13 season.⁶⁹ The Market Integration Report was developed outside of the ERRA process, and is not
14 a requirement of D.15-05-005 or any other Commission directive to be used in a utility's ERRA
15 Compliance showing. According to D.14-05-025, the report is no longer required after 2016.⁷⁰

⁶⁸ ORA Testimony at 2-27.

⁶⁹ D.14-05-025, Ordering Paragraph (OP) 4.

⁷⁰ "4. Within 30 days of the issuance of this decision, Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E) and Southern California Edison Company (SCE) shall meet with the appropriate Commission Staff to discuss and develop a reporting template and timeline to provide feedback on the utilities' experience with bidding into the California Independent System Operators (CAISO) energy markets during the 2015-2016 demand response program cycle. Within 30 days of this initial meeting, PG&E, SDG&E and SCE shall each file a finalized reporting template and timeline for approval via a Tier One Advice Letter." D.14-05-025 at OP 4.

1 **3. ORA Falsely Claims SDG&E Failed to Explain 44 Instances of Non-**
2 **Dispatch**

3 SDG&E disagrees with ORA’s claim that SDG&E failed to explain and report 44
4 instances of non-dispatch of Capacity Bidding.⁷¹ SDG&E provides explanations for non-
5 dispatch when triggers are met, as is required by D.15-05-005.⁷²

6 Based on ORA’s claim that SDG&E failed to report 24 CBP-DA additional instances and
7 20 CBP-DO, SDG&E undertook a new, comprehensive review of Attachment K Demand
8 Response Metric 6_ORA Revised, “DLAP Heat Rate” tab⁷³ and determined that ORA’s claim is
9 grossly inaccurate. SDG&E verified that 22 of the 24 CBP-DA instances identified by ORA
10 occurred during May and June 2016.

11 As discussed above, SDG&E did not have any capacity to bid CBP-DA in May and June
12 of 2016 as the CBP-DA program did not receive any nominations from aggregators. As a result,
13 SDG&E had no exceptions to report for May and June. SDG&E did find two instances, on
14 October 19 and 21, 2016 that were excluded from the exception report. SDG&E excluded these
15 occurrences from the exception report because there was no market award from the CAISO in
16 the Day Ahead market, and thus SDG&E did not consider them to be exceptions.

17 SDG&E also verified that 17 of the 20 CBP-DO instances, which ORA incorrectly
18 indicated were exceptions, occurred on weekends. In accordance with the CBP tariff, the
19 program’s operational days are Monday through Friday, excluding utility holidays. There were
20 two days, July 7 and 19, 2016, that are, in fact, on the exception report. SDG&E did not account
21 for one day, only May 25, 2016,^h on the exception report.

⁷¹ ORA Testimony at 2-28.

⁷² Attachment 5: Attachment H_ERRA 2016 Demand Response Metric 1 revised October 20, 2017. This attachment includes 3 additional instances of non-dispatch and associated reasons not included in the original Attachment H.

⁷³ ORA Testimony at Attachment 2.27.

1 In total, based on its further thorough review, SDG&E failed to identify three exceptions.
2 ORA is incorrect in claiming SDG&E failed to report 44 instances, as stated in its testimony.
3 Contrary to ORA’s assertion, there was not “a high number of dispatch exceptions.”⁷⁴ SDG&E
4 has updated the following attachments which were revised on October 20, 2017; *Attachment H*
5 *ERRA 2016 Demand Response Metric 1*⁷⁵ and *Attachment K – ERRA Demand Response Metric*
6 *6*⁷⁶ to include the three instances and will continue to improve in future compliance filings. The
7 total impact for these three instances was \$74.25 and is illustrated in *Attachment J- ERRA 2016*
8 *Demand Response Metric 5-revised 10-20-2017.xlsx*.^{77,78}

9 **4. SDG&E Disagrees with ORA that SDG&E Failed to Forecast Trigger**
10 **Conditions that Led to a High Number of Dispatch Exceptions.**

11 ORA’s Table 2-2 Cost Impact Summary consists of a table that includes not only the
12 average net savings but also adds potential total net savings. As noted above, ORA alleges that
13 SDG&E failed to forecast trigger conditions that lead to a high number of dispatch exceptions.⁷⁹

14 ORA’s testimony fails to recognize that exceptions should be expected for the CBP-DO
15 program, because of the program limitations. The program must be dispatched by 9:00 AM
16 which prohibits the program from bidding into the CAISO market, and market conditions for the
17 typical hours of dispatch are uncertain at that time. Attachment 6 (attached) shows SDG&E
18 dispatched CBP-DO during times of most value, foregoing lower valued events to ensure
19 availability at times of greater demand. This is demonstrated by the savings of \$105.76/MWh

⁷⁴ ORA Testimony at 2-29.

⁷⁵ Attachment 5: Attachment H - ERRA 2016 Demand Response Metric 1.

⁷⁶ Attachment 6: Attachment K – ERRA Demand Response Metric 6.

⁷⁷ Attachment 7: Attachment J - ERRA 2016 Demand Response Metric 5.

⁷⁸ The two CBP-DA occurrences had little to no impact as the actual heat rate was 19,020 and 19,050 compared to the 19,000-heat rate trigger, with a total cost impact of \$6.58. Consistent with the tariff, SDG&E used its discretion not to call the CBP-DO program on this one day, with total cost impact of \$67.67.

⁷⁹ ORA Testimony at 2-29.

1 during events dispatched, compared to only \$68.74/MWh if SDG&E had dispatched every time
2 trigger conditions were met. Accordingly, ORA's analysis is flawed and its conclusions
3 incorrectly suggest that SDG&E was underutilizing this demand response resource.

4 **IV. CONCLUSION**

5 In this testimony, SDG&E has demonstrated that ORA's Testimony contains numerous
6 mistaken, misleading, inappropriate analyses and findings and recommendations that were
7 rejected by the Commission in SDG&E's Record Year 2015 proceeding, or new
8 recommendations that have no basis in a Commission requirement. SDG&E's Record Year
9 2016 LCD and DR showing was identical, with appropriate numerical updates, to its prior year's
10 proceeding, which the Commission approved in D.17-03-016. Given that SDG&E's instant
11 LCD and DR submission provided essentially the same contents and utilized the same
12 methodologies as its prior proceeding, which was approved, ORA's contention that SDG&E
13 provided "insufficient information" and "failed to carry its burden of proof" are patently invalid
14 claims.

15 Significantly, ORA made a few favorable and central findings. However, none of ORA's
16 contentions and recommendations provide any grounds for ORA's brazen, unsupported, and
17 unjust "maximum disallowance" recommendation. ORA should withdraw its unfounded and
18 outrageous maximum disallowance recommendation and, instead, propose a constructive and
19 reasonable list of the types of information that it will seek in future ERRA Compliance
20 Applications that it would find as "sufficient" that would supplement SDG&E's current LCD
21 and DR showing that was, again, deemed "sufficient" last year and compliant with existing
22 requirements from D.15-05-005. ORA should seek only information that is justified by

1 Commission precedent and applicable law and apply its reviewing standards equally and fairly to
2 all IOUs.

3 SDG&E objects to this recommendation in the strongest possible terms and will
4 vigorously oppose it in the remainder of this proceeding.

5 This concludes my prepared rebuttal testimony.

Attachment 1

SDG&E Response ORA-SDGE-A.17-06-006-14 Q3

**ORA DATA REQUEST
ORA-SDG&E DR-14
SDG&E Erra Compliance - A.17-06-006
SDG&E RESPONSE
DATE RECEIVED: August 18, 2017
DATE RESPONDED: September 1, 2017**

3. With respect to Attachment F – 2016 Master File (RDT) Change Exceptions, please provide the following information:
- a. In the written testimony (p. JP-28, lines 5-6), the author states that Table 3 [sic] “summarizes the number of times and the reasons for selecting proxy or registered costs.” This table is also present in Attachment F. Please indicate where and what are the reasons that proxy or registered costs were selected.
 - b. Despite CAISO’s Commitment Cost Enhancement initiative allowing scheduling coordinators to submit proxy cost bids at up to 1.5 times the CAISO proxy fuel cost calculation, SDG&E submitted 33 registered cost elections and 28 proxy cost elections.
 - i. Please demonstrate with calculations and any supporting documentation how it was necessary to submit registered elections rather than proxy elections and how the proxy cost upper limit was not sufficient to capture the necessary start-up and minimum load costs.

SDG&E Response to Request 3:

- a. The table that appears in the testimony of Joseph Pasquito and in Attachment F does not include specific reasons for selecting the proxy or registered costs option because the table is a yearly summary. The reason SDG&E chooses the registered cost option is to account for costs and constraints that are not fully captured using the proxy cost calculation. The registered cost option allows SDG&E to apply a higher cost in order to capture non-fuel costs. If proxy cost is sufficient to cover start-up and minimum load costs, proxy cost provides more flexibility to change the gas price from day to day.
- b. The CAISO’s Commitment Cost Enhancement initiative does not in fact allow for scheduling coordinators to submit proxy cost bids up to 1.5 times the CAISO proxy fuel cost calculation. The CAISO’s Business Practice Manual (BPM) for Market Instruments states on page 36, “The registered cost option may not exceed 150% of the of the units projected proxy cost for start-up and Minload costs.” This only applies if the Scheduling coordinator elects the registered cost option. If the proxy cost option is selected, then start-up and minimum load bids are limited to 125% of the proxy cost. While proxy cost allows for more flexibility to adjust on a daily basis, this option does not allow for greater costs.

In 2016, the CAISO implemented changes to address intra-day gas volatility related to Aliso Canyon due to natural gas storage facility limitations. The changes allowed for resources connected to SoCal Gas or SDG&E gas systems to revise start-up and minimum load costs for the current day if they were not awarded in the day ahead

**ORA DATA REQUEST
ORA-SDG&E DR-14
SDG&E ERRR COMPLIANCE - A.17-06-006
SDG&E RESPONSE
DATE RECEIVED: August 18, 2017
DATE RESPONDED: September 1, 2017**

market. As a result of these changes, SDG&E changed resources using registered cost to proxy cost.

Attachment 2

SDG&E Response ORA-SDGE-A.17-06-006-16 Q3

ORA DATA REQUEST
ORA-SDG&E DR-16
SDG&E ERRR COMPLIANCE - A.17-06-006
SDG&E RESPONSE
DATE RECEIVED: August 28, 2017
DATE RESPONDED: September 5, 2017

Request 3:

With respect to Attachments D and E regarding self-scheduling, please provide the following information:

- a. If, as SDG&E reports in its testimony, the only self-schedule that occurred in Record Period 2016 was for Desert Star in December¹, to what does the entry in Attachment D, Tab 3ci, line 3 refer?
 - i. Is this an occasion in which Desert Star was self-scheduled for reasons besides unit testing or fuel limitations?
- b. What does it mean that on 12/14/16 HE24 Desert Star was “awarded 205 MW above the self-schedule?”²
 - i. Did Desert Star generate 205 MWh or 280 MWh for that hour?
- c. The testimony states that this self-schedule event “had no cost impact.”³ However, Attachment D states that there was an energy award that was paid the LMP.⁴ Does SDG&E not consider this CAISO payment to be a cost impact, adverse or otherwise?
- d. Please explain what is a “hypothetical” non-self-schedule.⁵
- e. What does SDG&E’s reporting of hypothetical non-self-schedules imply or reveal about its LCD activities?

¹ Testimony, p. JP-27.

² Attachment D, Desert Star Cost Analysis Tab.

³ Testimony, p. JP-27.

⁴ Attachment D, Desert Star Cost Analysis Tab.

⁵ Attachment E, Tab 3ciii.

ORA DATA REQUEST
ORA-SDG&E DR-16
SDG&E ERRR COMPLIANCE - A.17-06-006
SDG&E RESPONSE
DATE RECEIVED: August 28, 2017
DATE RESPONDED: September 5, 2017

SDG&E Response to Request 3:

- a. SDG&E must first correct a misrepresentation contained in this question. SDG&E did not state the only self-schedule that occurred in Record Period 2016 was for Desert Star in December. SDG&E did state in the Direct Testimony of Joseph Pasquito on p. JP-27 that “There was one instance of an **inadvertent** self-schedule for one hour on December 14, 2016 with Desert Star Energy Center.” The entry in Attachment D, Tab 3ci, line 3 refers to a Monthly and Annual Table of self-schedules which *excluded non-discretionary reasons* such as unit testing. Decision 15-05-005, Appendix A, Question 3ci requires this table to be provided with its ERRR filing.
 - i. As stated in the Direct Testimony of Joseph Pasquito on p. JP-27, Desert Star was inadvertently self-scheduled for HE24 on 12/14/16 and therefore outside of unit testing or fuel limitation reasons.
- b. Desert Star was self-scheduled at 280MW for HE24 on 12/14/16. Desert Star received a DA award of 485MW for HE24 which is 205MW above the 280MW self-schedule.
 - i. Desert Star received a DA award of 485MW for HE24 on 12/14/16. The resource actually generated 425MW as dispatched by the CAISO in the Real Time Market.
- c. There are different ways to assess whether there was a cost impact in the circumstances of this matter. In the Direct Testimony of Joseph Pasquito, SDG&E made the assumption that because the resource awarded above the 280MW self-schedule, the resource would have been awarded at 485MW, regardless of the self-schedule. With the assumption that the resource would have been awarded at the 485MW level had it been bid, self-scheduling the resource would not have an impact under this assessment. However, SDG&E is now of the view that because Table 3-b shows costs of \$1,679 above revenues, the cost impact could be interpreted to be \$1,679 – a minimal cost impact. SDG&E will be submitting a revised version of JP-27 reflecting its revised opinion of the cost impact associated with this matter. SDG&E will soon be serving a copy of this revised version of JP-27 to the service list.
- d. In response to Decision 15-05-005, Appendix A, Question 3ciii, SDG&E is required to provide “The estimated schedule, estimated revenues, and estimated costs of the resource had it been bid into the market rather than self-committed, using the actual LMPs and resource bid costs.” Since these are estimates based on awards had the resource been bid into the market (a hypothetical condition), SDG&E named Table 3-b as Summary of 2016 Hypothetical Non-Self Schedules.
- e. Decision 15-05-015, Appendix A, Question 3ciii requires a hypothetical, hindsight review of the economic result had the resource been bid instead of self-scheduled. SDG&E’s reporting of hypothetical activity does not reveal or imply anything of relevance to our actual bidding and scheduling activity because we are depicting hypothetical, historical activity that did not, in fact, take place.

Attachment 3 (PUBLIC):

Attachment F - 2016 Master File (RDT) Change Exceptions

This file is intentionally omitted from the public version of Joseph Pasquito's 2016 ERRA Compliance Rebuttal Testimony as the entire file is confidential.

For questions, please contact the regulatory lead, Stacie Atkinson at satkinson@semprautiltites.com

Attachment 4

SDG&E Response ORA-SDGE-A.17-06-006-16 Q1d

ORA DATA REQUEST
ORA-SDG&E DR-16
SDG&E ERRA COMPLIANCE - A.17-06-006
SDG&E RESPONSE
DATE RECEIVED: August 28, 2017
DATE RESPONDED: September 5, 2017

Least-Cost Dispatch and Economically-Dispatched Demand Response (SDG&E Witness Joseph Pasquito)

Request 1:

With respect to SDG&E's Lake Hodges activity, please provide the following information:

- a. Why did Lake Hodges pump more absolute MWh than it generated?
- b. Why was more energy self-scheduled than it was bid into the day-ahead market?
- c. Are there any reasons that water would be pumped from the afterbay to the forebay other than for future generation purposes?
- d. Please provide an explanation as to why Lake Hodges was dispatched on fewer of the top 500 LMPs in 2016 than in 2015.
- e. Why was more energy self-scheduled in January, February, and March of 2016 than dispatched in the day-ahead market?
- f. Why was energy only self-scheduled in January 2016?

SDG&E Response to Request 1:

- a. SDG&E is required by contract with the San Diego County Water Authority (SDCWA) to pump sufficient water volumes after displacing water for generation dispatches to maintain weekly reservoir level balances. It takes approximately 1.32MWh of pump to yield 1MWh of generation due to pump efficiency. Therefore, Lake Hodges had more absolute MWh of pump than generation.
- b. SDG&E needed to self-schedule pump and generation hours more than it was bid into the Day Ahead Market to meet contractual obligations which require reservoir levels to be maintained on a weekly basis or to adjust water levels directed by the SDCWA.
- c. Under the Power Purchase Agreement (PPA), the SDCWA has the contractual rights to move water between reservoirs to maintain water operational levels or for emergencies.
- d. The SDCWA sends daily availability notices for Lake Hodges Pump Hydro Facility that typically limit the number of generation hours for a given day to maintain weekly water levels. If a day contains more DA LMPs listed in the Top 500 LMPs, SDG&E may be unable to generate for those hours. This condition occurred 19 times in 2016 and 9 times 2015. This response is also provided in Data Request 14.

ORA DATA REQUEST
ORA-SDG&E DR-16
SDG&E ERRR COMPLIANCE - A.17-06-006
SDG&E RESPONSE
DATE RECEIVED: August 28, 2017
DATE RESPONDED: September 5, 2017

- e. Prior to 2016, SDG&E self-scheduled pump and generation hours in the DA market based on SDG&E's forecast of the most economic hours. Self-scheduling provided the greatest certainty to meet the contractual balancing requirement. In February 2016, SDG&E began using a combination of bidding and self-scheduling to further optimize Lake Hodges Pump Storage Facility. Bidding in the DA Market continued for the rest of 2016, but self-scheduling was still required to meet the balancing requirement.
- f. As stated above in the response to 1e, SDG&E began bidding in the DA Market in February 2016.

Attachment 5

Attachment H_ERRA 2016 Demand Response Metric 1

Revised 10-20-2017

1	2	3	4	5	6	7	8	9	10	
Program or Contract	Condition Type (Trigger Condition and/or Actual Condition)	Potential Event Date	Potential Event Hour (HE)	Date condition was reached	Hour condition was reached	Trigger or Condition Value	Forecasted or Actual Value	Load Impact Forecast	MW of the program/contract not dispatched	Reason for Non-Dispatch
CBP-DO	Both	5/2/2016	HE 15-18	5/2/2016	9:00 AM	Day Of Heat Rate >15,000k	16.31K HR	2.9 mw	2.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	5/3/2016	HE 16-19	5/3/2016	9:00 AM	Day Of Heat Rate >15,000k	15.93K HR	2.9 mw	2.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	5/11/2016	HE 16-19	5/11/2016	9:00 AM	Day Of Heat Rate >15,000k	31.58K HR	2.9 MW	2.9 MW	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	5/13/2016	HE 16-19	5/13/2016	9:00 AM	Day Of Heat Rate >15,000k	29.26K HR	2.9 mw	2.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	5/17/2016	HE 16-19	5/17/2016	9:00 AM	Day Of Heat Rate >15,000k	18.36K HR	2.9 mw	2.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	5/20/2016	HE 16-19	5/20/2016	9:00 AM	Day Of Heat Rate >15,000k	34.01K HR	2.9 mw	2.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	5/24/2016	HE 13-16	5/24/2016	9:00 AM	Day Of Heat Rate >15,000k	16.43K HR	2.9 mw	2.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	5/25/2016	HE 13-16	5/24/2016	9:00 AM	Day Of Heat Rate >15,000k	17.94 HR	2.9 mw	2.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	5/30/2016	HE 16-19	5/30/2016	9:00 AM	Day Of Heat Rate >15,000k	33.62K HR	2.9 mw	2.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	6/1/2016	HE 16-19	6/1/2016	9:00 AM	Day Of Heat Rate >15,000k	24.99K HR	2.9 mw	2.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	6/2/2016	HE 15-18	6/2/2016	9:00 AM	Day Of Heat Rate >15,000k	42.25K HR	3.33 mw	3.3 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	6/3/2016	HE 12-15	6/3/2016	9:00 AM	Day Of Heat Rate >15,000k	25.82K HR	3.33 mw	3.3 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	6/10/2016	HE 15-18	6/10/2016	9:00 AM	Day Of Heat Rate >15,000k	97.41K HR	3.3 mw	3.3 MW	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	6/16/2016	HE 16-19	6/16/2016	9:00 AM	Day Of Heat Rate >19,000k	21.05K HR	3.3 mw	3.3 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	6/17/2016	HE 16-19	6/17/2016	9:00 AM	Day Of Heat Rate >19,000k	42.60K HR	3.3 mw	3.3 MW	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	6/24/2016	HE 16-19	6/24/2016	9:00 AM	Day Of Heat Rate >19,000k	21.36K HR	3.3 mw	3.3 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	6/27/2016	HE 16-19	6/27/2016	9:00 AM	Day Of Heat Rate >19,000k	34.92K HR	3.3 mw	3.3 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	6/28/2016	HE 15-18	6/28/2016	9:00 AM	Day Of Heat Rate >19,000k	46.83K HR	3.3 mw	3.3 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	7/1/2016	HE 16-19	7/1/2016	9:00 AM	Day Of Heat Rate >19,000k	22.27K HR	3.2 mw	3.2 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	7/7/2016	HE 14-17	7/7/2016	9:00 AM	Day Of Heat Rate >19,000k	27.82K HR	3.2 mw	3.2 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	7/13/2016	HE 14-17	7/13/2016	9:00 AM	Day Of Heat Rate >19,000k	44.00K HR	3.2 mw	3.2 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	7/15/2016	HE 16-19	7/15/2016	9:00 AM	Day Of Heat Rate >19,000k	41.68K HR	3.2 mw	3.2 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	7/19/2016	HE 14-17	7/19/2016	9:00 AM	Day Of Heat Rate >19,000k	32.12K HR	3.2 mw	3.2 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	7/26/2016	HE 13-16	7/26/2016	9:00 AM	Day Of Heat Rate >19,000k	22.61K HR	3.2 mw	3.2 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	7/27/2016	HE 16-19	7/27/2016	9:00 AM	Day Of Heat Rate >19,000k	20.47K HR	3.2 mw	3.2 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	7/28/2016	HE 12-15	7/28/2016	9:00 AM	Day Of Heat Rate >19,000k	25.19K HR	3.2 mw	3.2 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	8/1/2016	HE 14-17	8/1/2016	9:00 AM	Day Of Heat Rate >19,000k	19.03K HR	3.2 mw	3.2 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	8/2/2016	HE 12-15	8/2/2016	9:00 AM	Day Of Heat Rate >19,000k	36.95K HR	3.2 mw	3.2 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	8/9/2016	HE 16-19	8/9/2016	9:00 AM	Day Of Heat Rate >19,000k	57.06K HR	5.1 MW	5.1 MW	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	8/11/2016	HE 16-19	8/11/2016	9:00 AM	Day Of Heat Rate >19,000k	29.22K HR	5.1 mw	5.1 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.

1	2	3	4	5	6	7	8	9	10	
CBP-DO	Both	8/12/2016	HE 15-18	8/12/2016	9:00 AM	Day Of Heat Rate >19,000k	19.56K HR	5.1 mw	5.1 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DA	Both	8/15/2016	HE 16-19	8/12/2016	2:30 PM	Day Ahead Heat Rate >19,000k	22.84K	7 mw	7 mw	Program Limitations- Needed to be triggered by 3PM on Friday for Monday. We do not know DA market prices until Sunday for Monday
CBP-DO	Both	8/16/2016	HE 16-19	8/16/2016	9:00 AM	Day Of Heat Rate >19,000k	121.38K HR	5.1 mw	5.1 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	8/17/2016	He 15-18	8/17/2016	9:00 AM	Day Of Heat Rate >19,000k	20.38K HR	5.1 mw	5.1 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	8/18/2016	HE 16-19	8/18/2016	9:00 AM	Day Of Heat Rate >19,000k	48.59K HR	5.1 mw	5.1 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	8/19/2016	HE 16-19	8/19/2016	9:00 AM	Day Of Heat Rate >19,000k	26.22K HR	5.1 mw	5.1 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	8/22/2016	HE 16-19	8/22/2016	9:00 AM	Day Of Heat Rate >19,000k	24.83K HR	5.1 mw	5.1 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	8/31/2016	HE 15-18	8/31/2016	9:00 AM	Day Of Heat Rate >19,000k	106.79K HR	5.1 mw	5.1 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DA	Both	8/31/2016	HE 16-19	8/30/2016	2:30 PM	Day Ahead Heat Rate >19,000k	19.69K HR	7.0 mw	7.0 mw	Unable to trigger due to Network Issues
CBP-DO	Both	9/2/2016	HE 16-19	9/2/2016	9:00 AM	Day Of Heat Rate >19,000k	48.06K HR	3.9 mw	3.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	9/6/2016	HE 16-19	9/6/2016	9:00 AM	Day Of Heat Rate >19,000k	28.69K HR	3.9 mw	3.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	9/7/2016	HE 16-19	9/7/2016	9:00 AM	Day Of Heat Rate >19,000k	30.15K HR	3.9 mw	3.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	9/19/2016	HE 15-18	9/19/2016	9:00 AM	Day Of Heat Rate >19,000k	100.33K HR	3.9 mw	3.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	9/20/2016	HE 16-19	9/20/2016	9:00 AM	Day Of Heat Rate >19,000k	28.70K HR	3.9 mw	3.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	9/21/2016	HE 15-18	9/21/2016	9:00 AM	Day Of Heat Rate >19,000k	68.73K HR	3.9 mw	3.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	9/28/2016	HE 15-18	9/28/2016	9:00 AM	Day Of Heat Rate >19,000k	19.26K HR	3.9 mw	3.9 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	10/3/2016	He 16-19	10/3/2016	9:00 AM	Day Of Heat Rate >19,000k	48.35K HR	2.7 mw	2.7 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	10/10/2016	HE 16-19	10/10/2016	9:00 AM	Day Of Heat Rate >19,000k	25.48K HR	2.7 mw	2.7 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	10/13/2016	HE 15-18	10/13/2016	9:00 AM	Day of Heat Rate > Trigger HR	80.38K HR	2.7 mw	2.7 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DA	Both	10/19/2016	HE 16-19	10/18/2017	9:00 AM	Day of Heat Rate > Trigger HR	19.02 HR	2.7 mw	2.7 mw	NO CAISO Market Awards
CBP-DA	Both	10/21/2016	HE 16-19	10/20/2017	9:00 AM	Day of Heat Rate > Trigger HR	19.05 HR	2.7 mw	2.7 mw	NO CAISO Market Awards
CBP-DO	Both	10/14/2016	HE 16-19	10/14/2016	9:00 AM	Day of Heat Rate > Trigger HR	27.39K HR	2.7 mw	2.7 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	10/17/2016	HE 16-19	10/17/2016	9:00 AM	Day of Heat Rate > Trigger HR	32.71K HR	2.7 mw	2.7 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	10/24/2016	HE 14-17	10/24/2016	9:00 AM	Day Of Heat Rate >19,000k	72.54K HR	2.7 mw	2.7 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	10/25/2016	HE 16-19	10/25/2016	9:00 AM	Day Of Heat Rate >19,000k	19.95K HR	2.7 mw	2.7 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	10/26/2016	HE 16-19	10/26/2016	9:00 AM	Day Of Heat Rate >19,000k	36.38K HR	2.7 mw	2.7 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.
CBP-DO	Both	10/27/2016	HE 14-17	10/27/2016	9:00 AM	Day Of Heat Rate >19,000k	50.35K HR	2.7 mw	2.7 mw	Program Limitations- Market Conditions not expected to hit triggers by 9am deadline.

2016 Event Summary						
Program Category	Date	Event Beginning:End	Program Tolled Hours (Annual)	Triggered	Load impact forecast (mw)	Load not dispatched (mw)
Capacity Bidding Program - Day Of	6/20/2016	3:00 PM to 7:00 PM	4	Triggered	3.3	0
Capacity Bidding Program -(Day Ahead)	7/20/2016	3:00 PM to 7:00 PM	4	Triggered	0.4	0
Capacity Bidding Program - Day Of	7/20/2016	3:00 PM to 7:00 PM	4	Triggered	3.2	0
Capacity Bidding Program -(Day Ahead)	7/21/2016	3:00 PM to 7:00 PM	4	Triggered	0.4	0
Capacity Bidding Program - Day Of	7/21/2016	3:00 PM to 7:00 PM	4	Triggered	3.2	0
Capacity Bidding Program -(Day Ahead)	7/22/2016	3:00 PM to 7:00 PM	4	Triggered	0.4	0
Capacity Bidding Program - Day Of	7/22/2016	3:00 PM to 7:00 PM	4	Triggered	3.2	0
Capacity Bidding Program -(Day Ahead)	7/26/2016	3:00 PM to 7:00 PM	4	Triggered	0.4	0
Capacity Bidding Program -(Day Ahead)	7/27/2016	3:00 PM to 7:00 PM	4	Triggered	0.4	0
Capacity Bidding Program -(Day Ahead)	7/28/2016	3:00 PM to 7:00 PM	4	Triggered	0.4	0
Capacity Bidding Program -(Day Ahead)	7/29/2016	3:00 PM to 7:00 PM	4	Triggered	0.4	0
Capacity Bidding Program - Day Of	8/15/2016	3:00 PM to 7:00 PM	4	Triggered	5.1	0
Capacity Bidding Program -(Day Ahead)	8/16/2016	3:00 PM to 7:00 PM	4	Triggered	7	0
Capacity Bidding Program -(Day Ahead)	8/18/2016	3:00 PM to 7:00 PM	4	Triggered	7	0
Capacity Bidding Program -(Day Ahead)	8/19/2016	3:00 PM to 7:00 PM	4	Triggered	7	0
Capacity Bidding Program -(Day Ahead)	9/26/2016	3:00 PM to 7:00 PM	4	Triggered	7.5	0.7
Capacity Bidding Program - Day Of	9/26/2016	3:00 PM to 7:00 PM	4	Triggered	3.9	1
Capacity Bidding Program -(Day Ahead)	9/27/2016	3:00 PM to 7:00 PM	4	Triggered	7.5	0
Capacity Bidding Program - Day Of	9/27/2016	3:00 PM to 7:00 PM	4	Triggered	3.9	0
Capacity Bidding Program -(Day Ahead)	9/28/2016	3:00 PM to 7:00 PM	4	Triggered	7.5	0.3
Capacity Bidding Program -(Day Ahead)	10/20/2016	3:00 PM to 7:00 PM	4	Triggered	7.3	3.2

2015 Total Hours Dispatch

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Capacity Bidding Program - Day Of	9/26/2016	3:00 PM to 7:00 PM	4	Triggered
Capacity Bidding Program -(Day Ahead)	9/27/2016	3:00 PM to 7:00 PM	4	Triggered
Capacity Bidding Program - Day Of	9/27/2016	3:00 PM to 7:00 PM	4	Triggered
Capacity Bidding Program -(Day Ahead)	9/28/2016	3:00 PM to 7:00 PM	4	Triggered
Capacity Bidding Program - Day Of	9/28/2016	2:00 PM to 6:00 PM	4	Conditions met but not triggered
Capacity Bidding Program - Day Of	10/3/2016	3:00 PM to 7:00 PM	4	Conditions met but not triggered
Capacity Bidding Program - Day Of	10/10/2016	3:00 PM to 7:00 PM	4	Conditions met but not triggered
Capacity Bidding Program - Day Of	10/13/2016	3:00 PM to 7:00 PM	4	Conditions met but not triggered
Capacity Bidding Program - Day Of	10/14/2016	3:00 PM to 7:00 PM	4	Conditions met but not triggered
Capacity Bidding Program - Day Of	10/17/2016	3:00 PM to 7:00 PM	4	Conditions met but not triggered
Capacity Bidding Program -(Day Ahead)	10/19/2016	3:00 PM to 7:00 PM	4	Conditions met but not triggered
Capacity Bidding Program -(Day Ahead)	10/20/2016	3:00 PM to 7:00 PM	4	Triggered
Capacity Bidding Program -(Day Ahead)	10/21/2016	3:00 PM to 7:00 PM	4	Conditions met but not triggered
Capacity Bidding Program - Day Of	10/24/2016	1:00 PM to 5:00 PM	4	Conditions met but not triggered
Capacity Bidding Program - Day Of	10/25/2016	3:00 PM to 7:00 PM	4	Conditions met but not triggered
Capacity Bidding Program - Day Of	10/26/2016	2:00 PM to 6:00 PM	4	Conditions met but not triggered
Capacity Bidding Program - Day Of	10/27/2016	1:00 PM to 5:00 PM	4	Conditions met but not triggered

2016 Total Trigger Conditions Forecast and Met

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Attachment 6

Attachment K - ERRA 2016 Demand Response Metric 6

Revised 10-20-17

Attachment K

Average Hourly Net Cost

Program	Average hourly net cost from actual dispatch events(\$/MWh)	Average hourly potential net cost from all times when trigger conditions were forecast(Dispatched or Not) (\$/MWh)	\$(A)-(B)	(A)/B (%)
CPB-DA	\$ (8.80)	\$ (6.92)	\$ (1.88)	127%
CPB-DO	\$ (105.76)	\$ (67.87)	\$ (37.88)	156%

2016	Average DLAI	CBP Heat Rate	Socal Citygate Price	Average DLAP Price	CPB Energy Price	Number of Hours	Energy Available	Average Hourly Net Cost	Weighted Average Hourly Net Cost
7/20/2016	19.5420384	19 \$	2.91 \$	56.95 \$	55.37	4	0.40 \$	(1.58) \$	(0.63)
7/21/2016	22.4308634	19 \$	3.02 \$	67.81 \$	57.44	4	0.40 \$	(10.37) \$	(4.15)
7/22/2016	22.8620407	19 \$	3.05 \$	69.68 \$	57.91	4	0.40 \$	(11.77) \$	(4.71)
7/26/2016	20.8158322	19 \$	3.08 \$	64.03 \$	58.44	4	0.40 \$	(5.59) \$	(2.23)
7/27/2016	26.747238	19 \$	3.17 \$	84.74 \$	60.19	4	0.40 \$	(24.54) \$	(9.82)
7/28/2016	28.6055946	19 \$	3.41 \$	97.66 \$	64.87	4	0.40 \$	(32.79) \$	(13.12)
7/29/2016	29.3854264	19 \$	3.20 \$	94.06 \$	60.82	4	0.40 \$	(33.24) \$	(13.30)
8/15/2016	22.8396477	19 \$	3.01 \$	68.72 \$	57.17	4	7.00 \$	(11.55) \$	(80.87)
8/16/2016	19.5729695	19 \$	3.55 \$	69.41 \$	67.37	4	7.00 \$	(2.03) \$	(14.22)
8/18/2016	22.3785784	19 \$	3.07 \$	68.79 \$	58.41	4	7.00 \$	(10.39) \$	(72.70)
8/19/2016	20.0652758	19 \$	2.79 \$	56.02 \$	53.05	4	7.00 \$	(2.97) \$	(20.82)
8/31/2016	19.6866883	19 \$	3.08 \$	60.64 \$	58.52	4	7.00 \$	(2.11) \$	(14.81)
9/26/2016	29.1722586	19 \$	3.06 \$	89.12 \$	58.05	4	7.50 \$	(31.08) \$	(233.07)
9/27/2016	19.5378437	19 \$	3.24 \$	63.24 \$	61.50	4	7.50 \$	(1.74) \$	(13.06)
9/28/2016	19.1798117	19 \$	3.08 \$	59.09 \$	58.54	4	7.50 \$	(0.55) \$	(4.15)
10/19/2016	19.0210719	19 \$	3.14 \$	59.80 \$	59.74	4	7.30 \$	(0.07) \$	(0.48)
10/20/2016	21.7604007	19 \$	3.27 \$	71.13 \$	62.11	4	7.30 \$	(9.02) \$	(65.87)
10/21/2016	19.0501575	19 \$	3.18 \$	60.48 \$	60.33	4	7.30 \$	(0.16) \$	(1.16)

Average hourly net cost from actual dispatch events(\$/MWh)	53.60 \$	(8.80)	-471.86
Average hourly potential net cost from all times when trigger conditions were forecast(Dispatched or Not) (\$/MWh)	82.20 \$	(6.92)	-569.18

*****- Dates in Bold are times when SDG&E did not call the event when Triggers were met.

2016	Average DLAP Heat Rate	CBP Heat Rate	Socal Citygate Price	Average DLAP Price	CPB Energy Price	Number of Hours	Energy Available	Average Hourly Net Cost	Weighted Average Hourly Net Cost
5/2/2016	16.31279559	15 \$	1.90 \$	31.04 \$	28.55	4	2.9 \$	(2.50) \$	(7.24)
5/3/2016	15.93296569	15 \$	2.04 \$	32.50 \$	30.60	4	2.9 \$	(1.90) \$	(5.52)
5/11/2016	31.57826888	15 \$	2.17 \$	68.59 \$	32.58	4	2.9 \$	(36.01) \$	(104.42)
5/13/2016	29.26313953	15 \$	2.15 \$	62.92 \$	32.25	4	2.9 \$	(30.67) \$	(88.93)
5/17/2016	18.36425061	15 \$	2.04 \$	37.37 \$	30.53	4	2.9 \$	(6.85) \$	(19.85)
5/20/2016	34.01388147	15 \$	1.87 \$	63.71 \$	28.10	4	2.9 \$	(35.61) \$	(103.28)
5/24/2016	16.43026961	15 \$	2.04 \$	33.52 \$	30.60	4	2.9 \$	(2.92) \$	(8.46)
5/25/2016	17.93731118	15 \$	1.99 \$	35.62 \$	29.79	4	2.9 \$	(5.83) \$	(16.92)
5/30/2016	33.61699839	15 \$	1.86 \$	62.49 \$	27.89	4	2.9 \$	(34.61) \$	(100.37)
6/1/2016	24.98971554	15 \$	2.29 \$	57.10 \$	34.28	4	2.9 \$	(22.83) \$	(66.20)
6/2/2016	42.25238194	15 \$	2.41 \$	102.00 \$	36.21	4	3.3 \$	(65.79) \$	(217.10)
6/3/2016	25.81604158	15 \$	2.45 \$	63.33 \$	36.80	4	3.3 \$	(26.53) \$	(87.55)
6/10/2016	97.41319882	15 \$	2.38 \$	231.75 \$	35.69	4	3.3 \$	(196.06) \$	(647.00)
6/16/2016	21.05378997	19 \$	2.53 \$	53.33 \$	48.13	4	3.3 \$	(5.20) \$	(17.17)
6/17/2016	42.60374084	19 \$	2.59 \$	110.47 \$	49.27	4	3.3 \$	(61.20) \$	(201.97)
6/20/2016	69.16589481	19 \$	3.02 \$	209.09 \$	57.44	4	3.3 \$	(151.65) \$	(500.45)
6/24/2016	21.3623137	19 \$	2.82 \$	60.20 \$	53.54	4	3.3 \$	(6.66) \$	(21.97)
6/27/2016	34.92280056	19 \$	2.85 \$	99.63 \$	54.21	4	3.3 \$	(45.43) \$	(149.91)
6/28/2016	46.82631748	19 \$	3.11 \$	145.72 \$	59.13	4	3.3 \$	(86.60) \$	(285.77)
7/1/2016	22.26700855	19 \$	2.93 \$	65.13 \$	55.58	4	3.2 \$	(9.56) \$	(30.58)
7/7/2016	27.82112419	19 \$	2.46 \$	68.55 \$	46.82	4	3.2 \$	(21.74) \$	(69.55)
7/13/2016	44.00346842	19 \$	2.74 \$	120.53 \$	52.04	4	3.2 \$	(68.48) \$	(219.15)
7/15/2016	41.68386864	19 \$	2.77 \$	115.51 \$	52.65	4	3.2 \$	(62.86) \$	(201.14)
7/19/2016	32.12427001	19 \$	2.91 \$	93.51 \$	55.31	4	3.2 \$	(38.20) \$	(122.26)
7/20/2016	65.72091627	19 \$	2.91 \$	191.51 \$	55.37	4	3.2 \$	(136.14) \$	(435.66)
7/21/2016	14.32864704	19 \$	3.02 \$	43.32 \$	57.44	4	3.2 \$	14.12 \$	45.19
7/22/2016	55.17478675	19 \$	3.05 \$	168.17 \$	57.91	4	3.2 \$	(110.26) \$	(352.83)
7/26/2016	22.60833875	19 \$	3.08 \$	69.54 \$	58.44	4	3.2 \$	(11.10) \$	(35.52)
7/27/2016	20.47174874	19 \$	3.17 \$	64.85 \$	60.19	4	3.2 \$	(4.66) \$	(14.92)
7/28/2016	25.19075864	19 \$	3.41 \$	86.00 \$	64.87	4	3.2 \$	(21.14) \$	(67.63)
8/1/2016	19.0293435	19 \$	3.02 \$	57.39 \$	57.30	4	3.2 \$	(0.09) \$	(0.28)
8/2/2016	36.95155769	19 \$	2.92 \$	107.94 \$	55.50	4	3.2 \$	(52.44) \$	(167.80)
8/9/2016	57.05969125	19 \$	2.92 \$	166.33 \$	55.39	4	5.1 \$	(110.94) \$	(565.81)
8/11/2016	29.2201275	19 \$	2.75 \$	80.21 \$	52.16	4	5.1 \$	(28.05) \$	(143.08)
8/12/2016	19.5564695	19 \$	2.71 \$	52.90 \$	51.40	4	5.1 \$	(1.51) \$	(7.68)
8/15/2016	46.5704553	19 \$	3.01 \$	140.13 \$	57.17	4	5.1 \$	(82.96) \$	(423.09)
8/16/2016	121.3847293	19 \$	3.55 \$	430.43 \$	67.37	4	5.1 \$	(363.06) \$	(1,851.59)
8/17/2016	20.37698413	19 \$	3.40 \$	69.32 \$	64.64	4	5.1 \$	(4.68) \$	(23.89)
8/18/2016	48.58750813	19 \$	3.07 \$	149.36 \$	58.41	4	5.1 \$	(90.95) \$	(463.86)
8/19/2016	26.2198245	19 \$	2.79 \$	73.21 \$	53.05	4	5.1 \$	(20.16) \$	(102.80)
8/22/2016	24.83085714	19 \$	2.63 \$	65.18 \$	49.88	4	5.1 \$	(15.31) \$	(78.06)
8/31/2016	106.7926948	19 \$	3.08 \$	328.92 \$	58.52	4	5.1 \$	(270.40) \$	(1,379.05)
9/2/2016	48.06232687	19 \$	2.89 \$	138.80 \$	54.87	4	3.9 \$	(83.93) \$	(327.33)
9/6/2016	28.69283825	19 \$	2.65 \$	75.92 \$	50.27	4	3.9 \$	(25.65) \$	(100.02)
9/7/2016	30.15096452	19 \$	2.90 \$	87.53 \$	55.16	4	3.9 \$	(32.37) \$	(126.25)
9/19/2016	100.325054	19 \$	2.78 \$	278.70 \$	52.78	4	3.9 \$	(225.92) \$	(881.09)
9/20/2016	28.69755534	19 \$	3.03 \$	86.87 \$	57.51	4	3.9 \$	(29.35) \$	(114.48)
9/21/2016	68.72554972	19 \$	3.05 \$	209.41 \$	57.89	4	3.9 \$	(151.51) \$	(590.90)
9/26/2016	96.15081833	20 \$	3.06 \$	293.74 \$	61.10	4	3.9 \$	(232.64) \$	(907.30)
9/27/2016	33.22760272	21 \$	3.24 \$	107.56 \$	67.98	4	3.9 \$	(39.58) \$	(154.36)
9/28/2016	19.25689711	19 \$	3.08 \$	59.33 \$	58.54	4	3.9 \$	(0.79) \$	(3.09)
10/3/2016	48.35018215	19 \$	2.75 \$	132.72 \$	52.16	4	2.7 \$	(80.57) \$	(217.53)
10/10/2016	25.48581081	19 \$	2.96 \$	75.44 \$	56.24	4	2.7 \$	(19.20) \$	(51.83)
10/13/2016	80.37780899	19 \$	3.03 \$	243.22 \$	57.49	4	2.7 \$	(185.73) \$	(501.47)
10/14/2016	27.39122394	19 \$	2.97 \$	81.46 \$	56.51	4	2.7 \$	(24.96) \$	(67.38)
10/17/2016	32.71005108	19 \$	2.74 \$	89.66 \$	52.08	4	2.7 \$	(37.58) \$	(101.46)
10/24/2016	72.53869565	19 \$	2.88 \$	208.55 \$	54.63	4	2.7 \$	(153.92) \$	(415.59)
10/25/2016	19.94597641	19 \$	2.88 \$	57.50 \$	54.78	4	2.7 \$	(2.73) \$	(7.36)
10/26/2016	36.37987589	19 \$	2.82 \$	102.59 \$	53.58	4	2.7 \$	(49.01) \$	(132.33)
10/27/2016	50.34790271	19 \$	2.84 \$	142.84 \$	53.90	4	2.7 \$	(88.93) \$	(240.12)

Average hourly net cost from actual dispatch events(\$/MWh) 25.8 \$ (105.76) -2728.5

Average hourly potential net cost from all times when trigger conditions were forecast(Dispatched or Not) (\$/MWh) 210.7 \$ (67.87) -14301.1

*****- Dates in Bold are times when SDG&E did not call the event when Triggers were met.

Date	Socal Citygate (\$/Mmbtu)
5/1/2016	\$1.90
5/2/2016	\$1.90
5/3/2016	\$2.04
5/4/2016	\$2.11
5/5/2016	\$2.16
5/6/2016	\$2.16
5/7/2016	\$1.86
5/8/2016	\$1.86
5/9/2016	\$1.86
5/10/2016	\$2.13
5/11/2016	\$2.17
5/12/2016	\$2.14
5/13/2016	\$2.15
5/14/2016	\$1.86
5/15/2016	\$1.86
5/16/2016	\$1.86
5/17/2016	\$2.04
5/18/2016	\$2.03
5/19/2016	\$1.98
5/20/2016	\$1.87
5/21/2016	\$1.77
5/22/2016	\$1.77
5/23/2016	\$1.77
5/24/2016	\$2.04
5/25/2016	\$1.99
5/26/2016	\$1.85
5/27/2016	\$1.81
5/28/2016	\$1.86
5/29/2016	\$1.86
5/30/2016	\$1.86
5/31/2016	\$1.86
6/1/2016	\$2.29
6/2/2016	\$2.41
6/3/2016	\$2.45
6/4/2016	\$2.37
6/5/2016	\$2.37
6/6/2016	\$2.37
6/7/2016	\$2.39
6/8/2016	\$2.36
6/9/2016	\$2.40
6/10/2016	\$2.38
6/11/2016	\$2.32
6/12/2016	\$2.32
6/13/2016	\$2.32
6/14/2016	\$2.49
6/15/2016	\$2.46
6/16/2016	\$2.53
6/17/2016	\$2.59
6/18/2016	\$3.02
6/19/2016	\$3.02
6/20/2016	\$3.02
6/21/2016	\$3.14
6/22/2016	\$3.07
6/23/2016	\$2.99
6/24/2016	\$2.82
6/25/2016	\$2.85
6/26/2016	\$2.85
6/27/2016	\$2.85

Date	Socal Citygate (\$/Mmbtu)
6/28/2016	\$3.11
6/29/2016	\$3.21
6/30/2016	\$3.28
7/1/2016	\$2.93
7/2/2016	\$2.68
7/3/2016	\$2.68
7/4/2016	\$2.68
7/5/2016	\$2.68
7/6/2016	\$2.62
7/7/2016	\$2.46
7/8/2016	\$2.59
7/9/2016	\$2.63
7/10/2016	\$2.63
7/11/2016	\$2.63
7/12/2016	\$2.76
7/13/2016	\$2.74
7/14/2016	\$2.86
7/15/2016	\$2.77
7/16/2016	\$2.56
7/17/2016	\$2.56
7/18/2016	\$2.56
7/19/2016	\$2.91
7/20/2016	\$2.91
7/21/2016	\$3.02
7/22/2016	\$3.05
7/23/2016	\$3.65
7/24/2016	\$3.65
7/25/2016	\$3.65
7/26/2016	\$3.08
7/27/2016	\$3.17
7/28/2016	\$3.41
7/29/2016	\$3.20
7/30/2016	\$3.20
7/31/2016	\$3.20
8/1/2016	\$3.02
8/2/2016	\$2.92
8/3/2016	\$2.86
8/4/2016	\$2.79
8/5/2016	\$2.88
8/6/2016	\$2.74
8/7/2016	\$2.74
8/8/2016	\$2.74
8/9/2016	\$2.92
8/10/2016	\$2.77
8/11/2016	\$2.75
8/12/2016	\$2.71
8/13/2016	\$3.01
8/14/2016	\$3.01
8/15/2016	\$3.01
8/16/2016	\$3.55
8/17/2016	\$3.40
8/18/2016	\$3.07
8/19/2016	\$2.79
8/20/2016	\$2.63
8/21/2016	\$2.63
8/22/2016	\$2.63
8/23/2016	\$2.93
8/24/2016	\$2.77

Date	Socal Citygate (\$/Mmbtu)
8/25/2016	\$2.78
8/26/2016	\$2.80
8/27/2016	\$2.69
8/28/2016	\$2.69
8/29/2016	\$2.69
8/30/2016	\$3.09
8/31/2016	\$3.08
9/1/2016	\$2.98
9/2/2016	\$2.89
9/3/2016	\$2.65
9/4/2016	\$2.65
9/5/2016	\$2.65
9/6/2016	\$2.65
9/7/2016	\$2.90
9/8/2016	\$2.78
9/9/2016	\$2.77
9/10/2016	\$2.72
9/11/2016	\$2.72
9/12/2016	\$2.72
9/13/2016	\$2.88
9/14/2016	\$2.92
9/15/2016	\$2.95
9/16/2016	\$2.87
9/17/2016	\$2.78
9/18/2016	\$2.78
9/19/2016	\$2.78
9/20/2016	\$3.03
9/21/2016	\$3.05
9/22/2016	\$3.09
9/23/2016	\$3.05
9/24/2016	\$3.06
9/25/2016	\$3.06
9/26/2016	\$3.06
9/27/2016	\$3.24
9/28/2016	\$3.08
9/29/2016	\$2.99
9/30/2016	\$2.92
10/1/2016	\$2.75
10/2/2016	\$2.75
10/3/2016	\$2.75
10/4/2016	\$2.86
10/5/2016	\$2.86
10/6/2016	\$2.90
10/7/2016	\$3.05
10/8/2016	\$2.96
10/9/2016	\$2.96
10/10/2016	\$2.96
10/11/2016	\$3.20
10/12/2016	\$3.05
10/13/2016	\$3.03
10/14/2016	\$2.97
10/15/2016	\$2.74
10/16/2016	\$2.74
10/17/2016	\$2.74
10/18/2016	\$3.05
10/19/2016	\$3.14
10/20/2016	\$3.27
10/21/2016	\$3.18

Date	Socal Citygate (\$/Mmbtu)	
10/22/2016		\$2.88
10/23/2016		\$2.88
10/24/2016		\$2.88
10/25/2016		\$2.88
10/26/2016		\$2.82
10/27/2016		\$2.84
10/28/2016		\$2.86
10/29/2016		\$2.64
10/30/2016		\$2.64
10/31/2016		\$2.64

CAISO.DLAP_SDGEAPND.DAM
LmpVal

CAISO.DLAP_SDGEAPND.RTM
LmpVal

ICE.SOCALCITYGATE.FLOW
Daily Index

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Socal-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
5/1/2016	12	\$10.97	\$12.07	\$1.90	5.764056752	6.339989	5/1/2016	12	5.764057	6.339989	12.20	16.86
5/1/2016	13	\$12.12	\$18.98	\$1.90	6.36941671	9.971624	5/1/2016	13	6.369417	9.971624		
5/1/2016	14	\$13.07	\$47.34	\$1.90	6.866001051	24.87546	5/1/2016	14	6.866001	24.87546		
5/1/2016	15	\$14.22	\$30.24	\$1.90	7.470835523	15.89017	5/1/2016	15	7.470836	15.89017		
5/1/2016	16	\$18.30	\$17.71	\$1.90	9.614818707	9.307409	5/1/2016	16	9.614819	9.307409		
5/1/2016	17	\$20.34	\$33.02	\$1.90	10.68838676	17.34892	5/1/2016	17	10.68839	17.34892		
5/1/2016	18	\$23.07	\$44.15	\$1.90	12.12506569	23.19811	5/1/2016	18	12.12507	23.19811		
5/1/2016	19	\$31.15	\$26.07	\$1.90	16.37099317	13.69837	5/1/2016	19	16.37099	13.69837		
5/2/2016	12	\$22.03	\$17.68	\$1.90	11.57698371	9.290594	5/2/2016	12	11.57698	9.290594	15.92	16.31
5/2/2016	13	\$23.91	\$24.32	\$1.90	12.56384656	12.77877	5/2/2016	13	12.56385	12.77877		
5/2/2016	14	\$23.56	\$23.97	\$1.90	12.38202838	12.59695	5/2/2016	14	12.38203	12.59695		
5/2/2016	15	\$24.22	\$32.03	\$1.90	12.72937467	16.82869	5/2/2016	15	12.72937	16.82869		
5/2/2016	16	\$25.66	\$28.88	\$1.90	13.48554913	15.17551	5/2/2016	16	13.48555	15.17551		
5/2/2016	17	\$28.01	\$30.90	\$1.90	14.71728849	16.23752	5/2/2016	17	14.71729	16.23752		
5/2/2016	18	\$30.98	\$32.37	\$1.90	16.28060956	17.00946	5/2/2016	18	16.28061	17.00946		
5/2/2016	19	\$36.51	\$25.25	\$1.90	19.18392013	13.26695	5/2/2016	19	19.18392	13.26695		
5/3/2016	12	\$20.31	\$19.48	\$2.04	9.954411765	9.548529	5/3/2016	12	9.954412	9.548529	14.97	15.93
5/3/2016	13	\$23.15	\$19.29	\$2.04	11.34803922	9.456863	5/3/2016	13	11.34804	9.456863		
5/3/2016	14	\$21.51	\$18.27	\$2.04	10.54264706	8.955392	5/3/2016	14	10.54265	8.955392		
5/3/2016	15	\$25.85	\$21.49	\$2.04	12.66960784	10.53627	5/3/2016	15	12.66961	10.53627		
5/3/2016	16	\$25.48	\$26.32	\$2.04	12.48872549	12.90294	5/3/2016	16	12.48873	12.90294		
5/3/2016	17	\$29.07	\$27.53	\$2.04	14.24852941	13.49265	5/3/2016	17	14.24853	13.49265		
5/3/2016	18	\$30.72	\$49.58	\$2.04	15.05833333	24.30588	5/3/2016	18	15.05833	24.30588		
5/3/2016	19	\$36.91	\$26.58	\$2.04	18.09411765	13.03039	5/3/2016	19	18.09412	13.03039		
5/4/2016	12	\$22.23	\$24.39	\$2.11	10.52462121	11.54593	5/4/2016	12	10.52462	11.54593	12.26	13.41
5/4/2016	13	\$21.90	\$15.25	\$2.11	10.37026515	7.221117	5/4/2016	13	10.37027	7.221117		
5/4/2016	14	\$22.77	\$16.73	\$2.11	10.78267045	7.922348	5/4/2016	14	10.78267	7.922348		
5/4/2016	15	\$23.89	\$17.79	\$2.11	11.31344697	8.424716	5/4/2016	15	11.31345	8.424716		
5/4/2016	16	\$22.38	\$21.06	\$2.11	10.59564394	9.973485	5/4/2016	16	10.59564	9.973485		
5/4/2016	17	\$23.92	\$27.27	\$2.11	11.32386364	12.91288	5/4/2016	17	11.32386	12.91288		
5/4/2016	18	\$26.58	\$32.26	\$2.11	12.58664773	15.27557	5/4/2016	18	12.58665	15.27557		
5/4/2016	19	\$30.68	\$32.70	\$2.11	14.52556818	15.48153	5/4/2016	19	14.52557	15.48153		
5/5/2016	12	\$19.75	\$25.30	\$2.16	9.140675613	11.70801	5/5/2016	12	9.140676	11.70801	10.86	12.13
5/5/2016	13	\$19.73	\$19.98	\$2.16	9.129569644	9.246645	5/5/2016	13	9.12957	9.246645		
5/5/2016	14	\$19.66	\$15.83	\$2.16	9.096714484	7.326238	5/5/2016	14	9.096714	7.326238		
5/5/2016	15	\$19.04	\$13.41	\$2.16	8.808422027	6.20546	5/5/2016	15	8.808422	6.20546		
5/5/2016	16	\$18.84	\$17.70	\$2.16	8.717260528	8.191578	5/5/2016	16	8.717261	8.191578		
5/5/2016	17	\$20.15	\$21.35	\$2.16	9.323924109	9.880148	5/5/2016	17	9.323924	9.880148		
5/5/2016	18	\$25.00	\$34.46	\$2.16	11.56871819	15.94817	5/5/2016	18	11.56872	15.94817		
5/5/2016	19	\$29.85	\$31.30	\$2.16	13.81397501	14.48172	5/5/2016	19	13.81398	14.48172		
5/6/2016	12	\$23.05	\$19.50	\$2.16	10.65649561	9.015719	5/6/2016	12	10.6565	9.015719	11.57	9.78
5/6/2016	13	\$21.78	\$18.22	\$2.16	10.06749884	8.424411	5/6/2016	13	10.0675	8.424411		
5/6/2016	14	\$21.29	\$19.06	\$2.16	9.840961627	8.813685	5/6/2016	14	9.840962	8.813685		
5/6/2016	15	\$21.89	\$11.35	\$2.16	10.12159038	5.24503	5/6/2016	15	10.12159	5.24503		
5/6/2016	16	\$22.19	\$21.54	\$2.16	10.26074896	9.956542	5/6/2016	16	10.26075	9.956542		
5/6/2016	17	\$22.30	\$22.87	\$2.16	10.31067961	10.57374	5/6/2016	17	10.31068	10.57374		
5/6/2016	18	\$26.82	\$20.62	\$2.16	12.39852057	9.532594	5/6/2016	18	12.39852	9.532594		
5/6/2016	19	\$28.77	\$19.55	\$2.16	13.30143319	9.03791	5/6/2016	19	13.30143	9.03791		
5/7/2016	12	\$19.97	\$22.90	\$1.86	10.71712292	12.29147	5/7/2016	12	10.71712	12.29147	11.95	12.40
5/7/2016	13	\$18.66	\$29.69	\$1.86	10.01449275	15.93612	5/7/2016	13	10.01449	15.93612		
5/7/2016	14	\$17.16	\$26.86	\$1.86	9.209339775	14.416	5/7/2016	14	9.20934	14.416		
5/7/2016	15	\$18.37	\$12.94	\$1.86	9.862587225	6.944713	5/7/2016	15	9.862587	6.944713		
5/7/2016	16	\$19.02	\$9.11	\$1.86	10.21148685	4.891573	5/7/2016	16	10.21149	4.891573		
5/7/2016	17	\$20.68	\$17.41	\$1.86	11.09822866	9.346753	5/7/2016	17	11.09823	9.346753		
5/7/2016	18	\$22.04	\$10.67	\$1.86	11.83091787	5.725174	5/7/2016	18	11.83092	5.725174		
5/7/2016	19	\$27.29	\$18.78	\$1.86	14.65002684	10.07837	5/7/2016	19	14.65003	10.07837		
5/8/2016	12	\$5.12	-\$15.20	\$1.86	2.748255502	-8.16103	5/8/2016	12	2.748256	-8.16103	6.76	-8.06
5/8/2016	13	\$4.75	-\$12.79	\$1.86	2.5496511	-6.86581	5/8/2016	13	2.549651	-6.86581		
5/8/2016	14	\$4.67	-\$16.00	\$1.86	2.508856683	-8.58722	5/8/2016	14	2.508857	-8.58722		
5/8/2016	15	\$3.12	-\$16.04	\$1.86	1.674181428	-8.60762	5/8/2016	15	1.674181	-8.60762		
5/8/2016	16	\$2.09	-\$16.16	\$1.86	1.123993559	-8.67311	5/8/2016	16	1.123994	-8.67311		
5/8/2016	17	\$9.78	-\$41.47	\$1.86	5.249597424	-22.2582	5/8/2016	17	5.249597	-22.2582		
5/8/2016	18	\$15.59	-\$45.63	\$1.86	8.365539452	-24.4928	5/8/2016	18	8.365539	-24.4928		
5/8/2016	19	\$22.89	\$2.22	\$1.86	12.28502415	1.19109	5/8/2016	19	12.28502	1.19109		
5/9/2016	12	\$20.86	\$7.96	\$1.86	11.19645733	4.272142	5/9/2016	12	11.19646	4.272142	12.50	2.24
5/9/2016	13	\$22.18	\$10.72	\$1.86	11.90660225	5.75416	5/9/2016	13	11.9066	5.75416		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
5/9/2016	14	\$22.00	\$6.27	\$1.86	11.80837359	3.362856	5/9/2016	14	11.80837	3.362856		
5/9/2016	15	\$19.97	-\$8.22	\$1.86	10.71980676	-4.41224	5/9/2016	15	10.71981	-4.41224		
5/9/2016	16	\$18.33	-\$15.31	\$1.86	9.840042941	-8.21632	5/9/2016	16	9.840043	-8.21632		
5/9/2016	17	\$21.42	-\$12.31	\$1.86	11.49919485	-6.60548	5/9/2016	17	11.49919	-6.60548		
5/9/2016	18	\$23.93	\$2.82	\$1.86	12.84487386	1.515835	5/9/2016	18	12.84487	1.515835		
5/9/2016	19	\$29.45	\$16.68	\$1.86	15.80515298	8.953301	5/9/2016	19	15.80515	8.953301		
5/10/2016	12	\$35.35	\$20.22	\$2.13	16.57477731	9.480075	5/10/2016	12	16.57478	9.480075	15.90	9.37
5/10/2016	13	\$35.18	\$20.20	\$2.13	16.49367089	9.470699	5/10/2016	13	16.49367	9.470699		
5/10/2016	14	\$35.32	\$12.55	\$2.13	16.56071261	5.882325	5/10/2016	14	16.56071	5.882325		
5/10/2016	15	\$29.80	\$14.15	\$2.13	13.96905767	6.633849	5/10/2016	15	13.96906	6.633849		
5/10/2016	16	\$24.58	\$17.92	\$2.13	11.52461322	8.399906	5/10/2016	16	11.52461	8.399906		
5/10/2016	17	\$24.33	\$19.46	\$2.13	11.40412564	9.124707	5/10/2016	17	11.40413	9.124707		
5/10/2016	18	\$26.32	\$19.85	\$2.13	12.33708392	9.308017	5/10/2016	18	12.33708	9.308017		
5/10/2016	19	\$32.19	\$22.75	\$2.13	15.09188936	10.66573	5/10/2016	19	15.09189	10.66573		
5/11/2016	12	\$33.06	-\$2.32	\$2.17	15.22099448	-1.06952	5/11/2016	12	15.22099	-1.06952	20.80	31.58
5/11/2016	13	\$32.21	\$5.89	\$2.17	14.82734807	2.710866	5/11/2016	13	14.82735	2.710866		
5/11/2016	14	\$35.88	\$17.30	\$2.17	16.5179558	7.963168	5/11/2016	14	16.51796	7.963168		
5/11/2016	15	\$35.54	\$18.12	\$2.17	16.36464088	8.344383	5/11/2016	15	16.36464	8.344383		
5/11/2016	16	\$37.92	\$49.68	\$2.17	17.45672192	22.87155	5/11/2016	16	17.45672	22.87155		
5/11/2016	17	\$39.01	\$32.55	\$2.17	17.95902394	14.98527	5/11/2016	17	17.95902	14.98527		
5/11/2016	18	\$56.92	\$70.26	\$2.17	26.20718232	32.34899	5/11/2016	18	26.20718	32.34899		
5/11/2016	19	\$46.82	\$121.87	\$2.17	21.55755064	56.10727	5/11/2016	19	21.55755	56.10727		
5/12/2016	12	\$38.55	-\$6.04	\$2.14	17.98973402	-2.81848	5/12/2016	12	17.98973	-2.81848	21.36	11.42
5/12/2016	13	\$39.35	\$11.30	\$2.14	18.36024265	5.271582	5/12/2016	13	18.36024	5.271582		
5/12/2016	14	\$44.39	\$17.13	\$2.14	20.71208586	7.993934	5/12/2016	14	20.71209	7.993934		
5/12/2016	15	\$42.70	\$18.52	\$2.14	19.92673822	8.640224	5/12/2016	15	19.92674	8.640224		
5/12/2016	16	\$42.24	\$35.80	\$2.14	19.7125525	16.70462	5/12/2016	16	19.71255	16.70462		
5/12/2016	17	\$45.90	\$19.18	\$2.14	21.41670555	8.951937	5/12/2016	17	21.41671	8.951937		
5/12/2016	18	\$47.31	\$20.02	\$2.14	22.07512832	9.34251	5/12/2016	18	22.07513	9.34251		
5/12/2016	19	\$47.64	\$22.92	\$2.14	22.23238451	10.69389	5/12/2016	19	22.23238	10.69389		
5/13/2016	12	\$26.81	\$12.89	\$2.15	12.46837209	5.994884	5/13/2016	12	12.46837	5.994884	18.32	29.26
5/13/2016	13	\$34.29	\$16.79	\$2.15	15.94930233	7.810233	5/13/2016	13	15.9493	7.810233		
5/13/2016	14	\$37.92	\$18.18	\$2.15	17.63813953	8.454419	5/13/2016	14	17.63814	8.454419		
5/13/2016	15	\$39.58	\$22.30	\$2.15	18.40790698	10.37302	5/13/2016	15	18.40791	10.37302		
5/13/2016	16	\$37.00	\$28.88	\$2.15	17.20930233	13.43116	5/13/2016	16	17.2093	13.43116		
5/13/2016	17	\$43.02	\$60.79	\$2.15	20.00697674	28.27488	5/13/2016	17	20.00698	28.27488		
5/13/2016	18	\$30.16	\$22.79	\$2.15	14.02744186	10.59953	5/13/2016	18	14.02744	10.59953		
5/13/2016	19	\$35.72	\$139.21	\$2.15	16.61534884	64.74698	5/13/2016	19	16.61535	64.74698		
5/14/2016	12	\$6.79	\$7.23	\$1.86	3.642512077	3.880837	5/14/2016	12	3.642512	3.880837	7.96	5.96
5/14/2016	13	\$6.36	\$3.61	\$1.86	3.415995706	1.935051	5/14/2016	13	3.415996	1.935051		
5/14/2016	14	\$5.92	\$11.63	\$1.86	3.175523349	6.243156	5/14/2016	14	3.175523	6.243156		
5/14/2016	15	\$5.51	\$0.01	\$1.86	2.958132045	0.005904	5/14/2016	15	2.958132	0.005904		
5/14/2016	16	\$5.54	-\$0.32	\$1.86	2.97208803	-0.17016	5/14/2016	16	2.972088	-0.17016		
5/14/2016	17	\$9.83	\$6.70	\$1.86	5.278582931	3.594203	5/14/2016	17	5.278583	3.594203		
5/14/2016	18	\$17.21	\$10.08	\$1.86	9.239398819	5.410091	5/14/2016	18	9.239399	5.410091		
5/14/2016	19	\$26.75	\$27.94	\$1.86	14.35587762	14.99839	5/14/2016	19	14.35588	14.99839		
5/15/2016	12	\$0.02	-\$10.91	\$1.86	0.009125067	-5.85561	5/15/2016	12	0.009125	-5.85561	5.05	15.21
5/15/2016	13	-\$0.02	\$0.20	\$1.86	-0.011272142	0.109501	5/15/2016	13	-0.01127	0.109501		
5/15/2016	14	-\$0.70	\$8.95	\$1.86	-0.377348363	4.803543	5/15/2016	14	-0.37735	4.803543		
5/15/2016	15	-\$0.02	\$11.94	\$1.86	-0.00805153	6.410091	5/15/2016	15	-0.00805	6.410091		
5/15/2016	16	\$0.98	\$28.50	\$1.86	0.52603328	15.29952	5/15/2016	16	0.526033	15.29952		
5/15/2016	17	\$5.50	\$22.02	\$1.86	2.953301127	11.81696	5/15/2016	17	2.953301	11.81696		
5/15/2016	18	\$10.28	\$25.49	\$1.86	5.516908213	13.68331	5/15/2016	18	5.516908	13.68331		
5/15/2016	19	\$20.86	\$37.31	\$1.86	11.19806763	20.02523	5/15/2016	19	11.19807	20.02523		
5/16/2016	12	\$19.66	\$15.11	\$1.86	10.55340848	8.109501	5/16/2016	12	10.55341	8.109501	10.92	6.91
5/16/2016	13	\$18.23	\$19.86	\$1.86	9.786366076	10.65808	5/16/2016	13	9.786366	10.65808		
5/16/2016	14	\$17.33	\$7.50	\$1.86	9.302200751	4.023618	5/16/2016	14	9.302201	4.023618		
5/16/2016	15	\$17.25	\$9.07	\$1.86	9.257648953	4.866345	5/16/2016	15	9.257649	4.866345		
5/16/2016	16	\$17.26	\$5.26	\$1.86	9.262479871	2.82394	5/16/2016	16	9.26248	2.82394		
5/16/2016	17	\$15.75	-\$4.70	\$1.86	8.45410628	-2.52496	5/16/2016	17	8.454106	-2.52496		
5/16/2016	18	\$20.35	-\$5.83	\$1.86	10.92324208	-3.13097	5/16/2016	18	10.92324	-3.13097		
5/16/2016	19	\$27.99	\$9.63	\$1.86	15.02147075	5.167472	5/16/2016	19	15.02147	5.167472		
5/17/2016	12	\$21.74	\$24.09	\$2.04	10.68157248	11.83735	5/17/2016	12	10.68157	11.83735	13.75	18.36
5/17/2016	13	\$22.00	\$22.35	\$2.04	10.81130221	10.98182	5/17/2016	13	10.8113	10.98182		
5/17/2016	14	\$23.57	\$33.80	\$2.04	11.58230958	16.60885	5/17/2016	14	11.58231	16.60885		
5/17/2016	15	\$24.12	\$20.44	\$2.04	11.85307125	10.04226	5/17/2016	15	11.85307	10.04226		
5/17/2016	16	\$24.95	\$34.49	\$2.04	12.26240786	16.94644	5/17/2016	16	12.26241	16.94644		
5/17/2016	17	\$25.03	\$33.04	\$2.04	12.2972973	16.23489	5/17/2016	17	12.2973	16.23489		
5/17/2016	18	\$28.01	\$30.31	\$2.04	13.76167076	14.89435	5/17/2016	18	13.76167	14.89435		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR	
5/17/2016	19	\$33.98	\$33.98	\$51.65	\$2.04	16.6963145	25.38133	5/17/2016	19	16.69631	25.38133		
5/18/2016	12	\$23.00	\$23.00	\$18.58	\$2.03	11.33004926	9.152709	5/18/2016	12	11.33005	9.152709	13.03	11.77
5/18/2016	13	\$21.79	\$21.79	\$17.10	\$2.03	10.73448276	8.424138	5/18/2016	13	10.73448	8.424138		
5/18/2016	14	\$21.38	\$21.38	\$22.08	\$2.03	10.53251232	10.87783	5/18/2016	14	10.53251	10.87783		
5/18/2016	15	\$21.68	\$21.68	\$23.94	\$2.03	10.68078818	11.79113	5/18/2016	15	10.68079	11.79113		
5/18/2016	16	\$22.90	\$22.90	\$23.95	\$2.03	11.27980296	11.8	5/18/2016	16	11.2798	11.8		
5/18/2016	17	\$24.35	\$24.35	\$21.59	\$2.03	11.99704433	10.6335	5/18/2016	17	11.99704	10.6335		
5/18/2016	18	\$26.33	\$26.33	\$25.54	\$2.03	12.96896552	12.58325	5/18/2016	18	12.96897	12.58325		
5/18/2016	19	\$32.19	\$32.19	\$24.47	\$2.03	15.8546798	12.05222	5/18/2016	19	15.85468	12.05222		
5/19/2016	12	\$19.00	\$19.00	\$5.67	\$1.98	9.581442259	2.860817	5/19/2016	12	9.581442	2.860817	12.38	4.15
5/19/2016	13	\$22.09	\$22.09	\$9.82	\$1.98	11.1412002	4.952093	5/19/2016	13	11.1412	4.952093		
5/19/2016	14	\$20.34	\$20.34	\$3.77	\$1.98	10.25920323	1.899143	5/19/2016	14	10.2592	1.899143		
5/19/2016	15	\$22.13	\$22.13	\$0.10	\$1.98	11.16086737	0.052446	5/19/2016	15	11.16087	0.052446		
5/19/2016	16	\$19.29	\$19.29	\$0.10	\$1.98	9.726676752	0.052446	5/19/2016	16	9.726677	0.052446		
5/19/2016	17	\$23.00	\$23.00	\$4.01	\$1.98	11.598588	2.022189	5/19/2016	17	11.59859	2.022189		
5/19/2016	18	\$26.02	\$26.02	\$11.66	\$1.98	13.1190116	5.87998	5/19/2016	18	13.11901	5.87998		
5/19/2016	19	\$29.86	\$29.86	\$17.17	\$1.98	15.06001009	8.660615	5/19/2016	19	15.06001	8.660615		
5/20/2016	12	\$18.29	\$18.29	\$18.57	\$1.87	9.766684463	9.914042	5/20/2016	12	9.766684	9.914042	9.98	34.01
5/20/2016	13	\$16.96	\$16.96	\$17.09	\$1.87	9.057127603	9.124933	5/20/2016	13	9.057128	9.124933		
5/20/2016	14	\$15.96	\$15.96	\$13.25	\$1.87	8.519487453	7.072077	5/20/2016	14	8.519487	7.072077		
5/20/2016	15	\$16.98	\$16.98	\$14.94	\$1.87	9.067805659	7.973839	5/20/2016	15	9.067806	7.973839		
5/20/2016	16	\$16.99	\$16.99	\$12.14	\$1.87	9.068873465	6.479979	5/20/2016	16	9.068873	6.479979		
5/20/2016	17	\$16.73	\$16.73	\$13.68	\$1.87	8.931126535	7.305926	5/20/2016	17	8.931127	7.305926		
5/20/2016	18	\$17.87	\$17.87	\$68.57	\$1.87	9.538707955	36.61132	5/20/2016	18	9.538708	36.61132		
5/20/2016	19	\$23.19	\$23.19	\$160.44	\$1.87	12.37907101	85.6583	5/20/2016	19	12.37907	85.6583		
5/21/2016	12	\$5.39	\$5.39	-\$11.89	\$1.77	3.04121965	-6.71146	5/21/2016	12	3.04122	-6.71146	5.44	-5.04
5/21/2016	13	\$4.88	\$4.88	-\$5.68	\$1.77	2.755505364	-3.20497	5/21/2016	13	2.755505	-3.20497		
5/21/2016	14	\$2.94	\$2.94	-\$5.61	\$1.77	1.658385093	-3.16883	5/21/2016	14	1.658385	-3.16883		
5/21/2016	15	\$2.71	\$2.71	-\$16.13	\$1.77	1.532467532	-9.10954	5/21/2016	15	1.532468	-9.10954		
5/21/2016	16	\$3.55	\$3.55	-\$11.41	\$1.77	2.006775833	-6.43986	5/21/2016	16	2.006776	-6.43986		
5/21/2016	17	\$5.45	\$5.45	-\$12.02	\$1.77	3.079051383	-6.786	5/21/2016	17	3.079051	-6.786		
5/21/2016	18	\$12.01	\$12.01	-\$15.33	\$1.77	6.779785432	-8.65556	5/21/2016	18	6.779785	-8.65556		
5/21/2016	19	\$17.54	\$17.54	\$3.04	\$1.77	9.906267645	1.71598	5/21/2016	19	9.906268	1.71598		
5/22/2016	12	\$3.13	\$3.13	\$16.99	\$1.77	1.764539808	9.595709	5/22/2016	12	1.76454	9.595709	5.27	7.38
5/22/2016	13	\$3.31	\$3.31	\$10.92	\$1.77	1.869000565	6.167137	5/22/2016	13	1.869001	6.167137		
5/22/2016	14	\$2.21	\$2.21	\$10.89	\$1.77	1.24957651	6.147939	5/22/2016	14	1.249577	6.147939		
5/22/2016	15	\$1.98	\$1.98	\$13.48	\$1.77	1.118577075	7.608696	5/22/2016	15	1.118577	7.608696		
5/22/2016	16	\$3.11	\$3.11	\$7.11	\$1.77	1.754940711	4.011858	5/22/2016	16	1.754941	4.011858		
5/22/2016	17	\$5.22	\$5.22	\$3.70	\$1.77	2.94635799	2.091474	5/22/2016	17	2.946358	2.091474		
5/22/2016	18	\$10.93	\$10.93	-\$5.47	\$1.77	6.172219085	-3.08752	5/22/2016	18	6.172219	-3.08752		
5/22/2016	19	\$18.09	\$18.09	\$6.79	\$1.77	10.21230943	3.835121	5/22/2016	19	10.21231	3.835121		
5/23/2016	12	\$28.65	\$28.65	-\$4.60	\$1.77	16.17843027	-2.59966	5/23/2016	12	16.17843	-2.59966	15.74	7.36
5/23/2016	13	\$26.97	\$26.97	\$12.57	\$1.77	15.22755505	7.097685	5/23/2016	13	15.22756	7.097685		
5/23/2016	14	\$26.95	\$26.95	\$13.16	\$1.77	15.21852061	7.428571	5/23/2016	14	15.21852	7.428571		
5/23/2016	15	\$27.81	\$27.81	\$13.38	\$1.77	15.70299266	7.555618	5/23/2016	15	15.70299	7.555618		
5/23/2016	16	\$28.98	\$28.98	\$13.02	\$1.77	16.36250706	7.352343	5/23/2016	16	16.36251	7.352343		
5/23/2016	17	\$27.73	\$27.73	-\$11.21	\$1.77	15.65669113	-6.33032	5/23/2016	17	15.65669	-6.33032		
5/23/2016	18	\$22.44	\$22.44	-\$1.73	\$1.77	12.6691135	-0.97798	5/23/2016	18	12.66911	-0.97798		
5/23/2016	19	\$21.92	\$21.92	\$5.66	\$1.77	12.37944664	3.194241	5/23/2016	19	12.37945	3.194241		
5/24/2016	12	\$16.93	\$16.93	\$16.30	\$2.04	8.300490196	7.987745	5/24/2016	12	8.30049	7.987745	9.46	16.43
5/24/2016	13	\$18.23	\$18.23	\$32.97	\$2.04	8.937254902	16.16029	5/24/2016	13	8.937255	16.16029		
5/24/2016	14	\$16.75	\$16.75	\$37.86	\$2.04	8.211764706	18.55882	5/24/2016	14	8.211765	18.55882		
5/24/2016	15	\$16.95	\$16.95	\$44.10	\$2.04	8.307843137	21.61765	5/24/2016	15	8.307843	21.61765		
5/24/2016	16	\$17.68	\$17.68	\$19.14	\$2.04	8.666176471	9.384314	5/24/2016	16	8.666176	9.384314		
5/24/2016	17	\$18.43	\$18.43	\$18.45	\$2.04	9.034313725	9.044608	5/24/2016	17	9.034314	9.044608		
5/24/2016	18	\$18.34	\$18.34	\$17.82	\$2.04	8.990196078	8.732843	5/24/2016	18	8.990196	8.732843		
5/24/2016	19	\$22.78	\$22.78	\$27.51	\$2.04	11.16666667	13.48627	5/24/2016	19	11.16667	13.48627		
5/25/2016	12	\$17.94	\$17.94	\$1.82	\$1.99	9.035246727	0.913897	5/25/2016	12	9.035247	0.913897	8.78	17.94
5/25/2016	13	\$14.77	\$14.77	\$27.35	\$1.99	7.439073515	13.76888	5/25/2016	13	7.439074	13.76888		
5/25/2016	14	\$14.15	\$14.15	\$40.95	\$1.99	7.124370594	20.62135	5/25/2016	14	7.124371	20.62135		
5/25/2016	15	\$13.70	\$13.70	\$40.72	\$1.99	6.895770393	20.50352	5/25/2016	15	6.89577	20.50352		
5/25/2016	16	\$15.74	\$15.74	\$7.41	\$1.99	7.926988922	3.729607	5/25/2016	16	7.926989	3.729607		
5/25/2016	17	\$15.95	\$15.95	\$10.79	\$1.99	8.028700906	5.432528	5/25/2016	17	8.028701	5.432528		
5/25/2016	18	\$16.84	\$16.84	\$9.39	\$1.99	8.480866062	4.728097	5/25/2016	18	8.480866	4.728097		
5/25/2016	19	\$21.25	\$21.25	\$114.91	\$1.99	10.69838872	57.85901	5/25/2016	19	10.69839	57.85901		
5/26/2016	12	\$24.08	\$24.08	\$12.56	\$1.85	13.03844071	6.802382	5/26/2016	12	13.03844	6.802382	13.29	6.35
5/26/2016	13	\$23.18	\$23.18	\$13.81	\$1.85	12.54791554	7.475365	5/26/2016	13	12.54792	7.475365		
5/26/2016	14	\$25.00	\$25.00	\$10.94	\$1.85	13.53546291	5.920411	5/26/2016	14	13.53546	5.920411		
5/26/2016	15	\$25.00	\$25.00	\$9.64	\$1.85	13.53546291	5.21765	5/26/2016	15	13.53546	5.21765		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR	
5/26/2016	16	\$23.36	\$23.36	\$1.07	\$1.85	12.64861938	0.581483	5/26/2016	16	12.64862	0.581483		
5/26/2016	17	\$24.79	\$24.79	-\$0.83	\$1.85	13.42176502	-0.44775	5/26/2016	17	13.42177	-0.44775		
5/26/2016	18	\$18.89	\$18.89	-\$3.93	\$1.85	10.2252301	-2.12507	5/26/2016	18	10.22523	-2.12507		
5/26/2016	19	\$21.60	\$21.60	\$3.93	\$1.85	11.6930157	2.128858	5/26/2016	19	11.69302	2.128858		
5/27/2016	12	\$19.51	\$19.51	\$14.53	\$1.81	10.77084484	8.020431	5/27/2016	12	10.77084	8.020431	12.65	13.62
5/27/2016	13	\$20.28	\$20.28	\$12.88	\$1.81	11.19933738	7.109884	5/27/2016	13	11.19934	7.109884		
5/27/2016	14	\$21.24	\$21.24	\$13.14	\$1.81	11.72832689	7.25566	5/27/2016	14	11.72833	7.25566		
5/27/2016	15	\$24.26	\$24.26	\$19.34	\$1.81	13.39370514	10.67863	5/27/2016	15	13.39371	10.67863		
5/27/2016	16	\$23.49	\$23.49	\$17.41	\$1.81	12.9707344	9.614578	5/27/2016	16	12.97073	9.614578		
5/27/2016	17	\$22.67	\$22.67	\$21.61	\$1.81	12.51518498	11.93319	5/27/2016	17	12.51518	11.93319		
5/27/2016	18	\$19.61	\$19.61	\$33.42	\$1.81	10.82606295	18.45555	5/27/2016	18	10.82606	18.45555		
5/27/2016	19	\$23.36	\$23.36	\$26.25	\$1.81	12.90005522	14.49531	5/27/2016	19	12.90006	14.49531		
5/28/2016	12	\$17.18	\$17.18	\$13.23	\$1.86	9.242065627	7.118343	5/28/2016	12	9.242066	7.118343	12.82	15.97
5/28/2016	13	\$18.81	\$18.81	\$17.00	\$1.86	10.11941904	9.144701	5/28/2016	13	10.11942	9.144701		
5/28/2016	14	\$19.11	\$19.11	\$20.00	\$1.86	10.28079613	10.76062	5/28/2016	14	10.2808	10.76062		
5/28/2016	15	\$21.55	\$21.55	\$18.04	\$1.86	11.59117805	9.705756	5/28/2016	15	11.59118	9.705756		
5/28/2016	16	\$22.28	\$22.28	\$31.82	\$1.86	11.98278644	17.11458	5/28/2016	16	11.98279	17.11458		
5/28/2016	17	\$22.31	\$22.31	\$32.49	\$1.86	12	17.47445	5/28/2016	17	12	17.47445		
5/28/2016	18	\$23.72	\$23.72	\$28.43	\$1.86	12.76062399	15.29155	5/28/2016	18	12.76062	15.29155		
5/28/2016	19	\$27.04	\$27.04	\$26.00	\$1.86	14.54545455	13.98655	5/28/2016	19	14.54545	13.98655		
5/29/2016	12	\$17.27	\$17.27	\$40.80	\$1.86	9.291554599	21.94621	5/29/2016	12	9.291555	21.94621	11.47	13.41
5/29/2016	13	\$16.36	\$16.36	\$26.14	\$1.86	8.800968263	14.06294	5/29/2016	13	8.800968	14.06294		
5/29/2016	14	\$17.38	\$17.38	\$27.34	\$1.86	9.346960732	14.70576	5/29/2016	14	9.346961	14.70576		
5/29/2016	15	\$17.19	\$17.19	\$5.47	\$1.86	9.244755245	2.942442	5/29/2016	15	9.244755	2.942442		
5/29/2016	16	\$18.94	\$18.94	\$4.19	\$1.86	10.18612157	2.252824	5/29/2016	16	10.18612	2.252824		
5/29/2016	17	\$19.29	\$19.29	\$2.03	\$1.86	10.37439484	1.093599	5/29/2016	17	10.37439	1.093599		
5/29/2016	18	\$21.24	\$21.24	\$8.42	\$1.86	11.42711135	4.531469	5/29/2016	18	11.42711	4.531469		
5/29/2016	19	\$25.84	\$25.84	\$18.27	\$1.86	13.90155998	9.826251	5/29/2016	19	13.90156	9.826251		
5/30/2016	12	\$18.22	\$18.22	\$17.89	\$1.86	9.799354492	9.622916	5/30/2016	12	9.799354	9.622916	11.67	33.62
5/30/2016	13	\$18.52	\$18.52	\$17.93	\$1.86	9.960193653	9.646584	5/30/2016	13	9.960194	9.646584		
5/30/2016	14	\$19.66	\$19.66	\$15.67	\$1.86	10.57611619	8.431415	5/30/2016	14	10.57612	8.431415		
5/30/2016	15	\$18.57	\$18.57	\$15.58	\$1.86	9.987089833	8.381388	5/30/2016	15	9.98709	8.381388		
5/30/2016	16	\$20.03	\$20.03	\$17.52	\$1.86	10.77245831	9.426573	5/30/2016	16	10.77246	9.426573		
5/30/2016	17	\$20.42	\$20.42	\$18.34	\$1.86	10.98547606	9.867133	5/30/2016	17	10.98548	9.867133		
5/30/2016	18	\$20.79	\$20.79	\$20.57	\$1.86	11.18181818	11.06401	5/30/2016	18	11.18182	11.06401		
5/30/2016	19	\$25.55	\$25.55	\$193.54	\$1.86	13.74394836	104.1103	5/30/2016	19	13.74395	104.1103		
5/31/2016	12	\$22.58	\$22.58	\$22.09	\$1.86	12.14685315	11.88004	5/31/2016	12	12.14685	11.88004	15.59	12.99
5/31/2016	13	\$24.37	\$24.37	\$24.06	\$1.86	13.11081226	12.93975	5/31/2016	13	13.11081	12.93975		
5/31/2016	14	\$26.65	\$26.65	\$18.52	\$1.86	14.33781603	9.963959	5/31/2016	14	14.33782	9.963959		
5/31/2016	15	\$29.78	\$29.78	\$20.34	\$1.86	16.02097902	10.94137	5/31/2016	15	16.02098	10.94137		
5/31/2016	16	\$25.41	\$25.41	\$21.83	\$1.86	13.66594944	11.74233	5/31/2016	16	13.66595	11.74233		
5/31/2016	17	\$28.19	\$28.19	\$18.43	\$1.86	15.16137708	9.911243	5/31/2016	17	15.16138	9.911243		
5/31/2016	18	\$29.33	\$29.33	\$24.91	\$1.86	15.77783755	13.40183	5/31/2016	18	15.77784	13.40183		
5/31/2016	19	\$32.99	\$32.99	\$31.40	\$1.86	17.74825175	16.8908	5/31/2016	19	17.74825	16.8908		
6/1/2016	12	\$56.60	\$56.60	\$52.96	\$2.29	24.76980306	23.17505	6/1/2016	12	24.7698	23.17505	24.63	24.99
6/1/2016	13	\$59.46	\$59.46	\$46.82	\$2.29	26.02013129	20.48928	6/1/2016	13	26.02013	20.48928		
6/1/2016	14	\$54.13	\$54.13	\$51.83	\$2.29	23.68884026	22.68403	6/1/2016	14	23.68884	22.68403		
6/1/2016	15	\$54.97	\$54.97	\$60.52	\$2.29	24.05776805	26.48709	6/1/2016	15	24.05777	26.48709		
6/1/2016	16	\$52.72	\$52.72	\$44.56	\$2.29	23.07002188	19.50153	6/1/2016	16	23.07002	19.50153		
6/1/2016	17	\$57.84	\$57.84	\$42.38	\$2.29	25.31334792	18.54836	6/1/2016	17	25.31335	18.54836		
6/1/2016	18	\$43.72	\$43.72	\$27.63	\$2.29	19.13260394	12.09278	6/1/2016	18	19.1326	12.09278		
6/1/2016	19	\$43.99	\$43.99	\$113.83	\$2.29	19.25164114	49.81619	6/1/2016	19	19.25164	49.81619		
6/2/2016	12	\$62.16	\$62.16	\$45.41	\$2.41	25.75144988	18.81276	6/2/2016	12	25.75145	18.81276	26.85	42.25
6/2/2016	13	\$63.62	\$63.62	\$44.07	\$2.41	26.35459818	18.25684	6/2/2016	13	26.3546	18.25684		
6/2/2016	14	\$63.08	\$63.08	\$42.77	\$2.41	26.13256007	17.71624	6/2/2016	14	26.13256	17.71624		
6/2/2016	15	\$67.00	\$67.00	\$48.18	\$2.41	27.75476388	19.9594	6/2/2016	15	27.75476	19.9594		
6/2/2016	16	\$65.60	\$65.60	\$89.67	\$2.41	27.17398509	37.14623	6/2/2016	16	27.17399	37.14623		
6/2/2016	17	\$59.68	\$59.68	\$71.55	\$2.41	24.72079536	29.6396	6/2/2016	17	24.7208	29.6396		
6/2/2016	18	\$54.68	\$54.68	\$198.59	\$2.41	22.65120133	82.26429	6/2/2016	18	22.6512	82.26429		
6/2/2016	19	\$50.04	\$50.04	\$38.39	\$2.41	20.72700911	15.90182	6/2/2016	19	20.72701	15.90182		
6/3/2016	12	\$55.88	\$55.88	\$33.82	\$2.45	22.77945373	13.78801	6/3/2016	12	22.77945	13.78801	27.13	25.82
6/3/2016	13	\$57.71	\$57.71	\$38.96	\$2.45	23.526702	15.883	6/3/2016	13	23.5267	15.883		
6/3/2016	14	\$61.99	\$61.99	\$43.02	\$2.45	25.27191194	17.53934	6/3/2016	14	25.27191	17.53934		
6/3/2016	15	\$70.00	\$70.00	\$137.50	\$2.45	28.53648594	56.05381	6/3/2016	15	28.53649	56.05381		
6/3/2016	16	\$66.20	\$66.20	\$32.42	\$2.45	26.98736241	13.21565	6/3/2016	16	26.98736	13.21565		
6/3/2016	17	\$67.99	\$67.99	\$34.20	\$2.45	27.7162658	13.94293	6/3/2016	17	27.71627	13.94293		
6/3/2016	18	\$59.48	\$59.48	\$33.58	\$2.45	24.24949042	13.68773	6/3/2016	18	24.24949	13.68773		
6/3/2016	19	\$55.83	\$55.83	\$47.52	\$2.45	22.76070118	19.37138	6/3/2016	19	22.7607	19.37138		
6/4/2016	12	\$32.39	\$32.39	\$22.30	\$2.37	13.67694257	9.418074	6/4/2016	12	13.67694	9.418074	23.01	17.21

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR	
6/4/2016	13	\$33.68	\$33.68	\$22.79	\$2.37	14.22339527	9.622889	6/4/2016	13	14.2234	9.622889		
6/4/2016	14	\$38.19	\$38.19	\$25.11	\$2.37	16.12880068	10.60557	6/4/2016	14	16.1288	10.60557		
6/4/2016	15	\$45.85	\$45.85	\$45.20	\$2.37	19.36064189	19.08573	6/4/2016	15	19.36064	19.08573		
6/4/2016	16	\$51.39	\$51.39	\$39.94	\$2.37	21.70143581	16.86444	6/4/2016	16	21.70144	16.86444		
6/4/2016	17	\$64.02	\$64.02	\$35.55	\$2.37	27.03547297	15.01182	6/4/2016	17	27.03547	15.01182		
6/4/2016	18	\$50.04	\$50.04	\$37.96	\$2.37	21.13091216	16.02914	6/4/2016	18	21.13091	16.02914		
6/4/2016	19	\$52.51	\$52.51	\$49.58	\$2.37	22.17609797	20.93666	6/4/2016	19	22.1761	20.93666		
6/5/2016	12	\$27.32	\$27.32	-\$3.11	\$2.37	11.53673986	-1.31503	6/5/2016	12	11.53674	-1.31503	16.76	11.45
6/5/2016	13	\$30.69	\$30.69	\$7.62	\$2.37	12.95903716	3.216639	6/5/2016	13	12.95904	3.216639		
6/5/2016	14	\$31.22	\$31.22	\$19.00	\$2.37	13.18496622	8.024071	6/5/2016	14	13.18497	8.024071		
6/5/2016	15	\$34.01	\$34.01	\$23.65	\$2.37	14.36190878	9.987331	6/5/2016	15	14.36191	9.987331		
6/5/2016	16	\$31.92	\$31.92	\$25.27	\$2.37	13.47804054	10.67314	6/5/2016	16	13.47804	10.67314		
6/5/2016	17	\$37.11	\$37.11	\$26.27	\$2.37	15.66976351	11.09502	6/5/2016	17	15.66976	11.09502		
6/5/2016	18	\$40.86	\$40.86	\$26.31	\$2.37	17.25548986	11.11106	6/5/2016	18	17.25549	11.11106		
6/5/2016	19	\$48.83	\$48.83	\$30.57	\$2.37	20.62246622	12.91005	6/5/2016	19	20.62247	12.91005		
6/6/2016	12	\$36.38	\$36.38	\$21.39	\$2.37	15.36486486	9.031672	6/6/2016	12	15.36486	9.031672	19.46	10.39
6/6/2016	13	\$34.53	\$34.53	\$19.46	\$2.37	14.58150338	8.216639	6/6/2016	13	14.5815	8.216639		
6/6/2016	14	\$37.37	\$37.37	\$20.76	\$2.37	15.7808277	8.765203	6/6/2016	14	15.78083	8.765203		
6/6/2016	15	\$38.76	\$38.76	\$29.15	\$2.37	16.36824324	12.30997	6/6/2016	15	16.36824	12.30997		
6/6/2016	16	\$39.36	\$39.36	\$23.02	\$2.37	16.62288851	9.719172	6/6/2016	16	16.62289	9.719172		
6/6/2016	17	\$45.31	\$45.31	\$22.41	\$2.37	19.13344595	9.464949	6/6/2016	17	19.13345	9.464949		
6/6/2016	18	\$46.91	\$46.91	\$23.87	\$2.37	19.80827703	10.07813	6/6/2016	18	19.80828	10.07813		
6/6/2016	19	\$52.75	\$52.75	\$23.52	\$2.37	22.27660473	9.931588	6/6/2016	19	22.2766	9.931588		
6/7/2016	12	\$25.00	\$25.00	\$20.78	\$2.39	10.46025105	8.693305	6/7/2016	12	10.46025	8.693305	15.99	12.14
6/7/2016	13	\$29.47	\$29.47	\$23.48	\$2.39	12.33138075	9.822594	6/7/2016	13	12.33138	9.822594		
6/7/2016	14	\$30.71	\$30.71	\$25.42	\$2.39	12.84937238	10.63556	6/7/2016	14	12.84937	10.63556		
6/7/2016	15	\$29.77	\$29.77	\$25.65	\$2.39	12.45732218	10.73305	6/7/2016	15	12.45732	10.73305		
6/7/2016	16	\$33.23	\$33.23	\$32.32	\$2.39	13.90251046	13.52301	6/7/2016	16	13.90251	13.52301		
6/7/2016	17	\$35.58	\$35.58	\$25.92	\$2.39	14.88661088	10.84644	6/7/2016	17	14.88661	10.84644		
6/7/2016	18	\$39.01	\$39.01	\$27.31	\$2.39	16.32008368	11.42762	6/7/2016	18	16.32008	11.42762		
6/7/2016	19	\$45.04	\$45.04	\$30.51	\$2.39	18.84309623	12.76695	6/7/2016	19	18.8431	12.76695		
6/8/2016	12	\$26.02	\$26.02	\$18.52	\$2.36	11.01397121	7.839543	6/8/2016	12	11.01397	7.839543	15.62	9.43
6/8/2016	13	\$28.71	\$28.71	\$17.14	\$2.36	12.15622354	7.256562	6/8/2016	13	12.15622	7.256562		
6/8/2016	14	\$28.48	\$28.48	\$18.70	\$2.36	12.05546147	7.915326	6/8/2016	14	12.05546	7.915326		
6/8/2016	15	\$30.67	\$30.67	\$19.73	\$2.36	12.98391194	8.353514	6/8/2016	15	12.98391	8.353514		
6/8/2016	16	\$30.66	\$30.66	\$20.45	\$2.36	12.98052498	8.6558	6/8/2016	16	12.98052	8.6558		
6/8/2016	17	\$32.60	\$32.60	\$21.22	\$2.36	13.80355631	8.983489	6/8/2016	17	13.80356	8.983489		
6/8/2016	18	\$34.77	\$34.77	\$24.51	\$2.36	14.71930567	10.37807	6/8/2016	18	14.71931	10.37807		
6/8/2016	19	\$49.55	\$49.55	\$22.89	\$2.36	20.97671465	9.692633	6/8/2016	19	20.97671	9.692633		
6/9/2016	12	\$40.57	\$40.57	\$39.46	\$2.40	16.8971262	16.43648	6/9/2016	12	16.89713	16.43648	16.88	12.85
6/9/2016	13	\$36.16	\$36.16	\$22.44	\$2.40	15.06164098	9.344023	6/9/2016	13	15.06164	9.344023		
6/9/2016	14	\$38.39	\$38.39	\$27.92	\$2.40	15.98875469	11.62641	6/9/2016	14	15.98875	11.62641		
6/9/2016	15	\$38.46	\$38.46	\$33.07	\$2.40	16.01624323	13.77426	6/9/2016	15	16.01624	13.77426		
6/9/2016	16	\$36.00	\$36.00	\$35.71	\$2.40	14.9937526	14.87464	6/9/2016	16	14.99375	14.87464		
6/9/2016	17	\$40.12	\$40.12	\$26.68	\$2.40	16.70762182	11.11079	6/9/2016	17	16.70762	11.11079		
6/9/2016	18	\$43.37	\$43.37	\$20.19	\$2.40	18.06413994	8.410662	6/9/2016	18	18.06414	8.410662		
6/9/2016	19	\$42.62	\$42.62	\$21.52	\$2.40	17.75010412	8.963765	6/9/2016	19	17.7501	8.963765		
6/10/2016	12	\$27.06	\$27.06	\$19.67	\$2.38	11.37242539	8.266919	6/10/2016	12	11.37243	8.266919	13.77	97.41
6/10/2016	13	\$25.40	\$25.40	\$22.39	\$2.38	10.67591425	9.412778	6/10/2016	13	10.67591	9.412778		
6/10/2016	14	\$27.41	\$27.41	\$26.92	\$2.38	11.52290879	11.31442	6/10/2016	14	11.52291	11.31442		
6/10/2016	15	\$25.41	\$25.41	\$444.52	\$2.38	10.68095839	186.8495	6/10/2016	15	10.68096	186.8495		
6/10/2016	16	\$28.96	\$28.96	\$287.41	\$2.38	12.17486339	120.8104	6/10/2016	16	12.17486	120.8104		
6/10/2016	17	\$29.66	\$29.66	\$68.96	\$2.38	12.46868432	28.98781	6/10/2016	17	12.46868	28.98781		
6/10/2016	18	\$34.28	\$34.28	\$126.10	\$2.38	14.407314	53.00504	6/10/2016	18	14.40731	53.00504		
6/10/2016	19	\$38.09	\$38.09	\$210.34	\$2.38	16.01219	88.4132	6/10/2016	19	16.01219	88.4132		
6/11/2016	12	\$20.27	\$20.27	\$18.42	\$2.32	8.727820844	7.933247	6/11/2016	12	8.727821	7.933247	11.36	10.81
6/11/2016	13	\$20.33	\$20.33	\$20.85	\$2.32	8.75667528	8.977175	6/11/2016	13	8.756675	8.977175		
6/11/2016	14	\$22.19	\$22.19	\$28.23	\$2.32	9.557278208	12.15719	6/11/2016	14	9.557278	12.15719		
6/11/2016	15	\$21.80	\$21.80	\$29.73	\$2.32	9.388027562	12.80276	6/11/2016	15	9.388028	12.80276		
6/11/2016	16	\$22.89	\$22.89	\$21.57	\$2.32	9.856589147	9.290267	6/11/2016	16	9.856589	9.290267		
6/11/2016	17	\$23.77	\$23.77	\$18.98	\$2.32	10.2377261	8.172265	6/11/2016	17	10.23773	8.172265		
6/11/2016	18	\$26.38	\$26.38	\$19.70	\$2.32	11.36175711	8.484065	6/11/2016	18	11.36176	8.484065		
6/11/2016	19	\$32.45	\$32.45	\$21.54	\$2.32	13.97416021	9.275624	6/11/2016	19	13.97416	9.275624		
6/12/2016	12	\$18.00	\$18.00	\$17.01	\$2.32	7.753660637	7.326012	6/12/2016	12	7.753661	7.326012	10.75	9.00
6/12/2016	13	\$17.71	\$17.71	\$17.62	\$2.32	7.62833764	7.586133	6/12/2016	13	7.628338	7.586133		
6/12/2016	14	\$18.85	\$18.85	\$18.53	\$2.32	8.117140396	7.981912	6/12/2016	14	8.11714	7.981912		
6/12/2016	15	\$19.01	\$19.01	\$14.23	\$2.32	8.185615848	6.128768	6/12/2016	15	8.185616	6.128768		
6/12/2016	16	\$20.50	\$20.50	\$20.14	\$2.32	8.826442722	8.67528	6/12/2016	16	8.826443	8.67528		
6/12/2016	17	\$23.08	\$23.08	\$14.73	\$2.32	9.939707149	6.345392	6/12/2016	17	9.939707	6.345392		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
6/12/2016	18	\$26.31	\$23.81	\$2.32	11.33074935	10.25409	6/12/2016	18	11.33075	10.25409		
6/12/2016	19	\$29.98	\$24.92	\$2.32	12.91085271	10.73127	6/12/2016	19	12.91085	10.73127		
6/13/2016	12	\$23.53	\$5.35	\$2.32	10.13264427	2.302326	6/13/2016	12	10.13264	2.302326	11.81	7.51
6/13/2016	13	\$21.46	-\$1.52	\$2.32	9.240740741	-0.65245	6/13/2016	13	9.240741	-0.65245		
6/13/2016	14	\$22.06	\$10.65	\$2.32		9.5 4.584841	6/13/2016	14	9.5	4.584841		
6/13/2016	15	\$23.01	\$13.28	\$2.32	9.909560724	5.719638	6/13/2016	15	9.909561	5.719638		
6/13/2016	16	\$25.32	\$18.27	\$2.32	10.90482343	7.86994	6/13/2016	16	10.90482	7.86994		
6/13/2016	17	\$26.49	\$8.70	\$2.32	11.4086994	3.745047	6/13/2016	17	11.4087	3.745047		
6/13/2016	18	\$26.86	\$14.29	\$2.32	11.56804479	6.153747	6/13/2016	18	11.56804	6.153747		
6/13/2016	19	\$31.04	\$28.45	\$2.32	13.36735573	12.25194	6/13/2016	19	13.36736	12.25194		
6/14/2016	12	\$20.97	-\$3.33	\$2.49	8.421686747	-1.33695	6/14/2016	12	8.421687	-1.33695	10.45	3.29
6/14/2016	13	\$20.91	-\$3.57	\$2.49	8.396385542	-1.43454	6/14/2016	13	8.396386	-1.43454		
6/14/2016	14	\$20.16	-\$16.32	\$2.49	8.094779116	-6.55221	6/14/2016	14	8.094779	-6.55221		
6/14/2016	15	\$21.84	-\$3.86	\$2.49	8.772289157	-1.549	6/14/2016	15	8.772289	-1.549		
6/14/2016	16	\$22.92	-\$10.31	\$2.49	9.204417671	-4.14016	6/14/2016	16	9.204418	-4.14016		
6/14/2016	17	\$25.32	-\$1.58	\$2.49	10.16907631	-0.63574	6/14/2016	17	10.16908	-0.63574		
6/14/2016	18	\$25.28	\$14.10	\$2.49	10.15301205	5.662651	6/14/2016	18	10.15301	5.662651		
6/14/2016	19	\$30.59	\$30.52	\$2.49	12.28674699	12.25663	6/14/2016	19	12.28675	12.25663		
6/15/2016	12	\$23.23	\$6.31	\$2.46	9.433211531	2.562322	6/15/2016	12	9.433212	2.562322	10.91	4.61
6/15/2016	13	\$21.38	\$5.99	\$2.46	8.682095006	2.431994	6/15/2016	13	8.682095	2.431994		
6/15/2016	14	\$22.04	-\$13.81	\$2.46	8.948030857	-5.60617	6/15/2016	14	8.948031	-5.60617		
6/15/2016	15	\$21.79	-\$1.20	\$2.46	8.844904588	-0.48802	6/15/2016	15	8.844905	-0.48802		
6/15/2016	16	\$24.40	-\$2.79	\$2.46	9.906211937	-1.13317	6/15/2016	16	9.906212	-1.13317		
6/15/2016	17	\$24.73	\$6.17	\$2.46	10.03857085	2.504669	6/15/2016	17	10.03857	2.504669		
6/15/2016	18	\$25.52	\$15.34	\$2.46	10.3593179	6.228177	6/15/2016	18	10.35932	6.228177		
6/15/2016	19	\$32.84	\$26.66	\$2.46	13.33373934	10.82501	6/15/2016	19	13.33374	10.82501		
6/16/2016	12	\$30.00	\$47.72	\$2.53	11.84366364	18.83735	6/16/2016	12	11.84366	18.83735	11.59	21.05
6/16/2016	13	\$26.39	\$47.23	\$2.53	10.41689696	18.64508	6/16/2016	13	10.4169	18.64508		
6/16/2016	14	\$25.28	\$23.17	\$2.53	9.979470983	9.148441	6/16/2016	14	9.979471	9.148441		
6/16/2016	15	\$25.11	\$34.38	\$2.53	9.912356889	13.57126	6/16/2016	15	9.912357	13.57126		
6/16/2016	16	\$27.47	\$23.86	\$2.53	10.84326885	9.420055	6/16/2016	16	10.84327	9.420055		
6/16/2016	17	\$28.37	\$25.56	\$2.53	11.20134228	10.09238	6/16/2016	17	11.20134	10.09238		
6/16/2016	18	\$28.70	\$20.98	\$2.53	11.32925385	8.283458	6/16/2016	18	11.32925	8.283458		
6/16/2016	19	\$32.91	\$142.91	\$2.53	12.99210422	56.41927	6/16/2016	19	12.9921	56.41927		
6/17/2016	12	\$30.24	\$35.48	\$2.59	11.66332433	13.68454	6/17/2016	12	11.66332	13.68454	12.14	42.60
6/17/2016	13	\$26.25	\$31.34	\$2.59	10.12263787	12.086	6/17/2016	13	10.12264	12.086		
6/17/2016	14	\$26.96	\$38.59	\$2.59	10.39568068	14.88122	6/17/2016	14	10.39568	14.88122		
6/17/2016	15	\$27.65	\$34.62	\$2.59	10.66332433	13.35094	6/17/2016	15	10.66332	13.35094		
6/17/2016	16	\$30.16	\$49.22	\$2.59	11.63092943	18.98149	6/17/2016	16	11.63093	18.98149		
6/17/2016	17	\$30.38	\$116.72	\$2.59	11.7169302	45.01504	6/17/2016	17	11.71693	45.01504		
6/17/2016	18	\$30.01	\$42.39	\$2.59	11.57462399	16.34902	6/17/2016	18	11.57462	16.34902		
6/17/2016	19	\$35.32	\$233.55	\$2.59	13.62051678	90.06942	6/17/2016	19	13.62052	90.06942		
6/18/2016	12	\$30.97	\$24.46	\$3.02	10.24478994	8.092292	6/18/2016	12	10.24479	8.092292	11.52	12.50
6/18/2016	13	\$23.71	\$27.48	\$3.02	7.842540523	9.0913	6/18/2016	13	7.842541	9.0913		
6/18/2016	14	\$25.81	\$49.43	\$3.02	8.538537876	16.35031	6/18/2016	14	8.538538	16.35031		
6/18/2016	15	\$27.85	\$40.41	\$3.02	9.211379424	13.36752	6/18/2016	15	9.211379	13.36752		
6/18/2016	16	\$31.33	\$31.01	\$3.02	10.36453854	10.25802	6/18/2016	16	10.36454	10.25802		
6/18/2016	17	\$34.05	\$30.26	\$3.02	11.26298379	10.00827	6/18/2016	17	11.26298	10.00827		
6/18/2016	18	\$35.03	\$33.76	\$3.02	11.58683427	11.16771	6/18/2016	18	11.58683	11.16771		
6/18/2016	19	\$38.87	\$26.11	\$3.02	12.85908038	8.636785	6/18/2016	19	12.85908	8.636785		
6/19/2016	12	\$28.10	\$23.26	\$3.02	9.295401919	7.692689	6/19/2016	12	9.295402	7.692689	16.71	57.59
6/19/2016	13	\$30.48	\$24.62	\$3.02	10.08104532	8.143897	6/19/2016	13	10.08105	8.143897		
6/19/2016	14	\$34.83	\$35.67	\$3.02	11.52133642	11.8002	6/19/2016	14	11.52134	11.8002		
6/19/2016	15	\$41.59	\$39.86	\$3.02	13.75686404	13.18591	6/19/2016	15	13.75686	13.18591		
6/19/2016	16	\$42.95	\$230.76	\$3.02	14.20774065	76.33377	6/19/2016	16	14.20774	76.33377		
6/19/2016	17	\$48.52	\$61.23	\$3.02	16.04862719	20.25405	6/19/2016	17	16.04863	20.25405		
6/19/2016	18	\$50.90	\$41.12	\$3.02	16.83757856	13.60106	6/19/2016	18	16.83758	13.60106		
6/19/2016	19	\$59.66	\$363.31	\$3.02	19.73403903	120.1829	6/19/2016	19	19.73404	120.1829		
6/20/2016	12	\$44.28	\$85.00	\$3.02	14.64770096	28.11876	6/20/2016	12	14.6477	28.11876	33.88	69.17
6/20/2016	13	\$53.46	\$65.00	\$3.02	17.68574264	21.50116	6/20/2016	13	17.68574	21.50116		
6/20/2016	14	\$60.37	\$41.15	\$3.02	19.96989745	13.61363	6/20/2016	14	19.9699	13.61363		
6/20/2016	15	\$64.99	\$142.78	\$3.02	21.4995038	47.23255	6/20/2016	15	21.4995	47.23255		
6/20/2016	16	\$97.12	\$166.23	\$3.02	32.12537215	54.98776	6/20/2016	16	32.12537	54.98776		
6/20/2016	17	\$112.87	\$47.14	\$3.02	37.33708237	15.59411	6/20/2016	17	37.33708	15.59411		
6/20/2016	18	\$105.52	\$88.52	\$3.02	34.90704598	29.28316	6/20/2016	18	34.90705	29.28316		
6/20/2016	19	\$94.12	\$534.46	\$3.02	31.13298048	176.7985	6/20/2016	19	31.13298	176.7985		
6/21/2016	12	\$37.38	\$27.45	\$3.14	11.92376396	8.7563	6/21/2016	12	11.92376	8.7563	21.46	10.85
6/21/2016	13	\$43.00	\$26.43	\$3.14	13.71610845	8.430622	6/21/2016	13	13.71611	8.430622		
6/21/2016	14	\$49.38	\$27.57	\$3.14	15.75215311	8.792982	6/21/2016	14	15.75215	8.792982		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR	
6/21/2016	15	\$55.98	\$55.98	\$27.92	\$3.14	17.85773525	8.904306	6/21/2016	15	17.85774	8.904306		
6/21/2016	16	\$63.74	\$63.74	\$33.22	\$3.14	20.3307815	10.59681	6/21/2016	16	20.33078	10.59681		
6/21/2016	17	\$72.29	\$72.29	\$35.16	\$3.14	23.05869219	11.21372	6/21/2016	17	23.05869	11.21372		
6/21/2016	18	\$65.66	\$65.66	\$33.52	\$3.14	20.94481659	10.69155	6/21/2016	18	20.94482	10.69155		
6/21/2016	19	\$67.38	\$67.38	\$34.23	\$3.14	21.49282297	10.91707	6/21/2016	19	21.49282	10.91707		
6/22/2016	12	\$35.38	\$35.38	\$23.30	\$3.07	11.53816047	7.598826	6/22/2016	12	11.53816	7.598826	18.58	9.83
6/22/2016	13	\$38.99	\$38.99	\$26.62	\$3.07	12.71526419	8.683301	6/22/2016	13	12.71526	8.683301		
6/22/2016	14	\$45.32	\$45.32	\$29.93	\$3.07	14.7801696	9.762557	6/22/2016	14	14.78017	9.762557		
6/22/2016	15	\$46.83	\$46.83	\$29.56	\$3.07	15.27234181	9.639922	6/22/2016	15	15.27234	9.639922		
6/22/2016	16	\$64.69	\$64.69	\$27.76	\$3.07	21.09849967	9.054142	6/22/2016	16	21.0985	9.054142		
6/22/2016	17	\$61.19	\$61.19	\$28.29	\$3.07	19.95825179	9.22668	6/22/2016	17	19.95825	9.22668		
6/22/2016	18	\$47.44	\$47.44	\$30.57	\$3.07	15.47390737	9.97032	6/22/2016	18	15.47391	9.97032		
6/22/2016	19	\$54.53	\$54.53	\$33.90	\$3.07	17.78473581	11.05577	6/22/2016	19	17.78474	11.05577		
6/23/2016	12	\$31.00	\$31.00	\$23.30	\$2.99	10.38178165	7.804086	6/23/2016	12	10.38178	7.804086	15.05	12.39
6/23/2016	13	\$34.12	\$34.12	\$26.95	\$2.99	11.42665774	9.024447	6/23/2016	13	11.42666	9.024447		
6/23/2016	14	\$35.75	\$35.75	\$27.19	\$2.99	11.97153382	9.104153	6/23/2016	14	11.97153	9.104153		
6/23/2016	15	\$33.51	\$33.51	\$35.66	\$2.99	11.22136638	11.94307	6/23/2016	15	11.22137	11.94307		
6/23/2016	16	\$49.59	\$49.59	\$38.00	\$2.99	16.60582719	12.72472	6/23/2016	16	16.60583	12.72472		
6/23/2016	17	\$46.51	\$46.51	\$37.26	\$2.99	15.57635633	12.4789	6/23/2016	17	15.57636	12.4789		
6/23/2016	18	\$38.85	\$38.85	\$35.52	\$2.99	13.0090422	11.89652	6/23/2016	18	13.00904	11.89652		
6/23/2016	19	\$44.87	\$44.87	\$37.25	\$2.99	15.0264568	12.47622	6/23/2016	19	15.02646	12.47622		
6/24/2016	12	\$38.29	\$38.29	\$21.99	\$2.82	13.58658623	7.804471	6/24/2016	12	13.58659	7.804471	16.32	21.36
6/24/2016	13	\$37.85	\$37.85	\$24.19	\$2.82	13.43080199	8.582328	6/24/2016	13	13.4308	8.582328		
6/24/2016	14	\$39.39	\$39.39	\$22.64	\$2.82	13.97835344	8.034422	6/24/2016	14	13.97835	8.034422		
6/24/2016	15	\$42.42	\$42.42	\$26.65	\$2.82	15.05429383	9.455287	6/24/2016	15	15.05429	9.455287		
6/24/2016	16	\$45.98	\$45.98	\$25.85	\$2.82	16.31582683	9.174237	6/24/2016	16	16.31583	9.174237		
6/24/2016	17	\$47.84	\$47.84	\$30.37	\$2.82	16.97515969	10.77679	6/24/2016	17	16.97516	10.77679		
6/24/2016	18	\$42.48	\$42.48	\$48.47	\$2.82	15.07310149	17.19837	6/24/2016	18	15.0731	17.19837		
6/24/2016	19	\$47.62	\$47.62	\$136.11	\$2.82	16.89992903	48.29986	6/24/2016	19	16.89993	48.29986		
6/25/2016	12	\$54.12	\$54.12	\$26.07	\$2.85	18.97090782	9.136698	6/25/2016	12	18.97091	9.136698	20.07	13.74
6/25/2016	13	\$49.70	\$49.70	\$29.46	\$2.85	17.42166141	10.32562	6/25/2016	13	17.42166	10.32562		
6/25/2016	14	\$45.52	\$45.52	\$40.82	\$2.85	15.95373291	14.30669	6/25/2016	14	15.95373	14.30669		
6/25/2016	15	\$54.35	\$54.35	\$43.45	\$2.85	19.05012268	15.22958	6/25/2016	15	19.05012	15.22958		
6/25/2016	16	\$55.83	\$55.83	\$38.68	\$2.85	19.56887487	13.55661	6/25/2016	16	19.56887	13.55661		
6/25/2016	17	\$57.72	\$57.72	\$33.91	\$2.85	20.2295829	11.88433	6/25/2016	17	20.22958	11.88433		
6/25/2016	18	\$56.02	\$56.02	\$32.95	\$2.85	19.63617245	11.54749	6/25/2016	18	19.63617	11.54749		
6/25/2016	19	\$59.48	\$59.48	\$38.42	\$2.85	20.84717841	13.46688	6/25/2016	19	20.84718	13.46688		
6/26/2016	12	\$30.16	\$30.16	\$24.52	\$2.85	10.57167893	8.593761	6/26/2016	12	10.57168	8.593761	21.33	12.80
6/26/2016	13	\$36.59	\$36.59	\$31.92	\$2.85	12.82579741	11.18647	6/26/2016	13	12.8258	11.18647		
6/26/2016	14	\$43.19	\$43.19	\$35.99	\$2.85	15.13739923	12.61374	6/26/2016	14	15.1374	12.61374		
6/26/2016	15	\$45.64	\$45.64	\$41.29	\$2.85	15.99824746	14.47143	6/26/2016	15	15.99825	14.47143		
6/26/2016	16	\$52.36	\$52.36	\$36.01	\$2.85	18.35261129	12.62075	6/26/2016	16	18.35261	12.62075		
6/26/2016	17	\$59.30	\$59.30	\$32.74	\$2.85	20.78443743	11.47529	6/26/2016	17	20.78444	11.47529		
6/26/2016	18	\$61.48	\$61.48	\$35.21	\$2.85	21.5488959	12.33999	6/26/2016	18	21.5489	12.33999		
6/26/2016	19	\$70.28	\$70.28	\$37.77	\$2.85	24.63266737	13.23905	6/26/2016	19	24.63267	13.23905		
6/27/2016	12	\$37.29	\$37.29	\$29.96	\$2.85	13.07080266	10.50158	6/27/2016	12	13.0708	10.50158	24.68	34.92
6/27/2016	13	\$45.44	\$45.44	\$35.60	\$2.85	15.92849632	12.47669	6/27/2016	13	15.9285	12.47669		
6/27/2016	14	\$49.29	\$49.29	\$41.57	\$2.85	17.27514897	14.56887	6/27/2016	14	17.27515	14.56887		
6/27/2016	15	\$53.00	\$53.00	\$49.33	\$2.85	18.57588503	17.29022	6/27/2016	15	18.57589	17.29022		
6/27/2016	16	\$64.69	\$64.69	\$46.93	\$2.85	22.67332632	16.44795	6/27/2016	16	22.67333	16.44795		
6/27/2016	17	\$70.64	\$70.64	\$46.48	\$2.85	24.75990186	16.29302	6/27/2016	17	24.7599	16.29302		
6/27/2016	18	\$69.61	\$69.61	\$55.66	\$2.85	24.39712583	19.50859	6/27/2016	18	24.39713	19.50859		
6/27/2016	19	\$76.67	\$76.67	\$249.47	\$2.85	26.872415	87.44164	6/27/2016	19	26.87242	87.44164		
6/28/2016	12	\$35.50	\$35.50	\$43.37	\$3.11	11.40841902	13.93509	6/28/2016	12	11.40842	13.93509	19.42	46.83
6/28/2016	13	\$45.06	\$45.06	\$38.47	\$3.11	14.47847044	12.36279	6/28/2016	13	14.47847	12.36279		
6/28/2016	14	\$47.42	\$47.42	\$39.64	\$3.11	15.23875321	12.73747	6/28/2016	14	15.23875	12.73747		
6/28/2016	15	\$50.86	\$50.86	\$210.11	\$3.11	16.34447301	67.51671	6/28/2016	15	16.34447	67.51671		
6/28/2016	16	\$56.12	\$56.12	\$123.46	\$3.11	18.0340617	39.67192	6/28/2016	16	18.03406	39.67192		
6/28/2016	17	\$60.96	\$60.96	\$206.27	\$3.11	19.58836761	66.2831	6/28/2016	17	19.58837	66.2831		
6/28/2016	18	\$58.41	\$58.41	\$43.05	\$3.11	18.76895887	13.83355	6/28/2016	18	18.76896	13.83355		
6/28/2016	19	\$66.22	\$66.22	\$45.88	\$3.11	21.27859897	14.74357	6/28/2016	19	21.2786	14.74357		
6/29/2016	12	\$35.19	\$35.19	\$31.54	\$3.21	10.96199377	9.82648	6/29/2016	12	10.96199	9.82648	17.02	13.79
6/29/2016	13	\$38.96	\$38.96	\$34.03	\$3.21	12.1364486	10.59969	6/29/2016	13	12.13645	10.59969		
6/29/2016	14	\$41.14	\$41.14	\$34.30	\$3.21	12.81713396	10.68567	6/29/2016	14	12.81713	10.68567		
6/29/2016	15	\$47.68	\$47.68	\$41.30	\$3.21	14.85264798	12.86449	6/29/2016	15	14.85265	12.86449		
6/29/2016	16	\$52.13	\$52.13	\$35.71	\$3.21	16.23862928	11.12461	6/29/2016	16	16.23863	11.12461		
6/29/2016	17	\$56.66	\$56.66	\$38.38	\$3.21	17.65015576	11.95763	6/29/2016	17	17.65016	11.95763		
6/29/2016	18	\$57.63	\$57.63	\$35.50	\$3.21	17.95420561	11.0595	6/29/2016	18	17.95421	11.0595		
6/29/2016	19	\$52.12	\$52.12	\$67.53	\$3.21	16.2376947	21.03645	6/29/2016	19	16.23769	21.03645		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
6/30/2016	12	\$37.99	\$48.98	\$3.28	11.58584934	14.93626	6/30/2016	12	11.58585	14.93626	17.06	18.94
6/30/2016	13	\$41.25	\$57.42	\$3.28	12.58005489	17.51083	6/30/2016	13	12.58005	17.51083		
6/30/2016	14	\$44.54	\$34.91	\$3.28	13.58218969	10.64654	6/30/2016	14	13.58219	10.64654		
6/30/2016	15	\$49.59	\$36.30	\$3.28	15.12259835	11.06953	6/30/2016	15	15.1226	11.06953		
6/30/2016	16	\$53.42	\$38.91	\$3.28	16.29216224	11.86551	6/30/2016	16	16.29216	11.86551		
6/30/2016	17	\$55.48	\$124.98	\$3.28	16.91857274	38.11589	6/30/2016	17	16.91857	38.11589		
6/30/2016	18	\$62.04	\$42.61	\$3.28	18.91948765	12.99421	6/30/2016	18	18.91949	12.99421		
6/30/2016	19	\$52.88	\$41.92	\$3.28	16.12778286	12.78561	6/30/2016	19	16.12778	12.78561		
7/1/2016	12	\$33.32	\$26.57	\$2.93	11.39179487	9.082735	7/1/2016	12	11.39179	9.082735	15.54	22.27
7/1/2016	13	\$34.28	\$26.17	\$2.93	11.72034188	8.945299	7/1/2016	13	11.72034	8.945299		
7/1/2016	14	\$35.85	\$26.57	\$2.93	12.2574359	9.083761	7/1/2016	14	12.25744	9.083761		
7/1/2016	15	\$38.11	\$27.91	\$2.93	13.02940171	9.540171	7/1/2016	15	13.0294	9.540171		
7/1/2016	16	\$42.52	\$28.18	\$2.93	14.5357265	9.635214	7/1/2016	16	14.53573	9.635214		
7/1/2016	17	\$44.29	\$121.25	\$2.93	15.1425641	41.45162	7/1/2016	17	15.14256	41.45162		
7/1/2016	18	\$47.23	\$33.60	\$2.93	16.14735043	11.48855	7/1/2016	18	16.14735	11.48855		
7/1/2016	19	\$47.72	\$77.49	\$2.93	16.31555556	26.49265	7/1/2016	19	16.31556	26.49265		
7/2/2016	12	\$26.08	\$23.95	\$2.68	9.717213115	8.921759	7/2/2016	12	9.717213	8.921759	13.36	30.08
7/2/2016	13	\$27.50	\$24.59	\$2.68	10.24627422	9.159836	7/2/2016	13	10.24627	9.159836		
7/2/2016	14	\$28.09	\$26.13	\$2.68	10.46535022	9.736587	7/2/2016	14	10.46535	9.736587		
7/2/2016	15	\$29.46	\$33.01	\$2.68	10.97652757	12.29732	7/2/2016	15	10.97653	12.29732		
7/2/2016	16	\$31.98	\$26.11	\$2.68	11.91318927	9.72839	7/2/2016	16	11.91319	9.72839		
7/2/2016	17	\$34.32	\$229.36	\$2.68	12.78837556	85.4538	7/2/2016	17	12.78838	85.4538		
7/2/2016	18	\$36.14	\$34.46	\$2.68	13.46385991	12.83793	7/2/2016	18	13.46386	12.83793		
7/2/2016	19	\$41.01	\$29.96	\$2.68	15.28092399	11.16244	7/2/2016	19	15.28092	11.16244		
7/3/2016	12	\$21.97	\$16.68	\$2.68	8.186289121	6.214978	7/3/2016	12	8.186289	6.214978	12.98	8.92
7/3/2016	13	\$23.66	\$19.21	\$2.68	8.816691505	7.156483	7/3/2016	13	8.816692	7.156483		
7/3/2016	14	\$25.86	\$22.43	\$2.68	9.634500745	8.356557	7/3/2016	14	9.634501	8.356557		
7/3/2016	15	\$27.00	\$18.67	\$2.68	10.05812221	6.955291	7/3/2016	15	10.05812	6.955291		
7/3/2016	16	\$28.58	\$19.12	\$2.68	10.64716841	7.121833	7/3/2016	16	10.64717	7.121833		
7/3/2016	17	\$32.06	\$25.44	\$2.68	11.94485842	9.478763	7/3/2016	17	11.94486	9.478763		
7/3/2016	18	\$36.26	\$24.13	\$2.68	13.51080477	8.98994	7/3/2016	18	13.5108	8.98994		
7/3/2016	19	\$42.45	\$27.07	\$2.68	15.81743666	10.08718	7/3/2016	19	15.81744	10.08718		
7/4/2016	12	\$22.66	\$17.04	\$2.68	8.442622951	6.350224	7/4/2016	12	8.442623	6.350224	12.10	9.07
7/4/2016	13	\$23.74	\$18.65	\$2.68	8.844634873	6.947839	7/4/2016	13	8.844635	6.947839		
7/4/2016	14	\$24.84	\$20.48	\$2.68	9.253725782	7.63003	7/4/2016	14	9.253726	7.63003		
7/4/2016	15	\$25.70	\$21.31	\$2.68	9.576751118	7.94076	7/4/2016	15	9.576751	7.94076		
7/4/2016	16	\$26.71	\$20.93	\$2.68	9.953055142	7.797317	7/4/2016	16	9.953055	7.797317		
7/4/2016	17	\$29.95	\$23.40	\$2.68	11.15871833	8.716841	7/4/2016	17	11.15872	8.716841		
7/4/2016	18	\$34.16	\$25.17	\$2.68	12.72801788	9.376677	7/4/2016	18	12.72802	9.376677		
7/4/2016	19	\$39.06	\$27.87	\$2.68	14.55290611	10.38413	7/4/2016	19	14.55291	10.38413		
7/5/2016	12	\$28.21	\$3.43	\$2.68	10.50894188	1.278689	7/5/2016	12	10.50894	1.278689	13.44	10.06
7/5/2016	13	\$28.26	\$9.92	\$2.68	10.52757079	3.697094	7/5/2016	13	10.52757	3.697094		
7/5/2016	14	\$28.69	\$22.17	\$2.68	10.68740686	8.26155	7/5/2016	14	10.68741	8.26155		
7/5/2016	15	\$30.58	\$23.06	\$2.68	11.39344262	8.590164	7/5/2016	15	11.39344	8.590164		
7/5/2016	16	\$31.46	\$24.33	\$2.68	11.72019374	9.063338	7/5/2016	16	11.72019	9.063338		
7/5/2016	17	\$34.14	\$23.42	\$2.68	12.72019374	8.724292	7/5/2016	17	12.72019	8.724292		
7/5/2016	18	\$36.69	\$23.83	\$2.68	13.6695231	8.879285	7/5/2016	18	13.66952	8.879285		
7/5/2016	19	\$42.04	\$36.41	\$2.68	15.66169896	13.56557	7/5/2016	19	15.6617	13.56557		
7/6/2016	12	\$25.96	\$22.01	\$2.62	9.894054878	8.389101	7/6/2016	12	9.894055	8.389101	13.04	11.16
7/6/2016	13	\$25.21	\$21.90	\$2.62	9.60785061	8.346799	7/6/2016	13	9.607851	8.346799		
7/6/2016	14	\$25.96	\$21.67	\$2.62	9.892530488	8.257241	7/6/2016	14	9.89253	8.257241		
7/6/2016	15	\$26.48	\$21.51	\$2.62	10.09146341	8.196646	7/6/2016	15	10.09146	8.196646		
7/6/2016	16	\$29.25	\$22.71	\$2.62	11.14672256	8.654345	7/6/2016	16	11.14672	8.654345		
7/6/2016	17	\$32.59	\$25.46	\$2.62	12.41806402	9.702363	7/6/2016	17	12.41806	9.702363		
7/6/2016	18	\$35.25	\$24.94	\$2.62	13.43407012	9.506098	7/6/2016	18	13.43407	9.506098		
7/6/2016	19	\$39.82	\$43.97	\$2.62	15.17492378	16.75762	7/6/2016	19	15.17492	16.75762		
7/7/2016	12	\$25.85	\$24.80	\$2.46	10.49269481	10.06291	7/7/2016	12	10.49269	10.06291	14.63	27.82
7/7/2016	13	\$25.69	\$24.73	\$2.46	10.42491883	10.0345	7/7/2016	13	10.42492	10.0345		
7/7/2016	14	\$25.62	\$38.36	\$2.46	10.39772727	15.56778	7/7/2016	14	10.39773	15.56778		
7/7/2016	15	\$27.04	\$25.94	\$2.46	10.9724026	10.52881	7/7/2016	15	10.9724	10.52881		
7/7/2016	16	\$29.17	\$181.40	\$2.46	11.83685065	73.61851	7/7/2016	16	11.83685	73.61851		
7/7/2016	17	\$33.24	\$28.51	\$2.46	13.48823052	11.5694	7/7/2016	17	13.48823	11.5694		
7/7/2016	18	\$42.39	\$27.74	\$2.46	17.20373377	11.25771	7/7/2016	18	17.20373	11.25771		
7/7/2016	19	\$39.42	\$24.75	\$2.46	15.99797078	10.04383	7/7/2016	19	15.99797	10.04383		
7/8/2016	12	\$27.72	\$40.74	\$2.59	10.69934388	15.7225	7/8/2016	12	10.69934	15.7225	13.33	13.89
7/8/2016	13	\$26.34	\$27.14	\$2.59	10.16595909	10.47356	7/8/2016	13	10.16596	10.47356		
7/8/2016	14	\$27.33	\$33.89	\$2.59	10.54805095	13.08066	7/8/2016	14	10.54805	13.08066		
7/8/2016	15	\$28.23	\$42.15	\$2.59	10.89347742	16.26824	7/8/2016	15	10.89348	16.26824		
7/8/2016	16	\$30.00	\$33.59	\$2.59	11.5785411	12.96256	7/8/2016	16	11.57854	12.96256		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
7/8/2016	17	\$32.31	\$29.38	\$2.59	12.46893091	11.33848	7/8/2016	17	12.46893	11.33848		
7/8/2016	18	\$34.91	\$33.65	\$2.59	13.47510614	12.98765	7/8/2016	18	13.47511	12.98765		
7/8/2016	19	\$40.92	\$31.94	\$2.59	15.79313007	12.3269	7/8/2016	19	15.79313	12.3269		
7/9/2016	12	\$24.44	\$24.42	\$2.63	9.300608828	9.29376	7/9/2016	12	9.300609	9.29376	12.16	28.02
7/9/2016	13	\$25.07	\$28.77	\$2.63	9.53957382	10.94749	7/9/2016	13	9.539574	10.94749		
7/9/2016	14	\$26.00	\$25.25	\$2.63	9.892694064	9.606545	7/9/2016	14	9.892694	9.606545		
7/9/2016	15	\$26.07	\$24.54	\$2.63	9.920091324	9.336758	7/9/2016	15	9.920091	9.336758		
7/9/2016	16	\$27.86	\$64.94	\$2.63	10.60121766	24.71005	7/9/2016	16	10.60122	24.71005		
7/9/2016	17	\$30.20	\$150.50	\$2.63	11.49086758	57.26674	7/9/2016	17	11.49087	57.26674		
7/9/2016	18	\$33.13	\$27.68	\$2.63	12.60730594	10.5312	7/9/2016	18	12.60731	10.5312		
7/9/2016	19	\$36.66	\$51.39	\$2.63	13.95091324	19.55518	7/9/2016	19	13.95091	19.55518		
7/10/2016	12	\$19.82	\$16.95	\$2.63	7.541856925	6.449772	7/10/2016	12	7.541857	6.449772	11.93	12.94
7/10/2016	13	\$22.03	\$20.85	\$2.63	8.383181126	7.932268	7/10/2016	13	8.383181	7.932268		
7/10/2016	14	\$23.84	\$23.20	\$2.63	9.069634703	8.826865	7/10/2016	14	9.069635	8.826865		
7/10/2016	15	\$24.93	\$23.35	\$2.63	9.487442922	8.885464	7/10/2016	15	9.487443	8.885464		
7/10/2016	16	\$26.25	\$26.69	\$2.63	9.989726027	10.15753	7/10/2016	16	9.989726	10.15753		
7/10/2016	17	\$29.74	\$30.78	\$2.63	11.3173516	11.71081	7/10/2016	17	11.31735	11.71081		
7/10/2016	18	\$32.16	\$39.33	\$2.63	12.23592085	14.96728	7/10/2016	18	12.23592	14.96728		
7/10/2016	19	\$37.27	\$39.26	\$2.63	14.17998478	14.93912	7/10/2016	19	14.17998	14.93912		
7/11/2016	12	\$27.71	\$21.34	\$2.63	10.54223744	8.121766	7/11/2016	12	10.54224	8.121766	14.81	11.23
7/11/2016	13	\$28.28	\$24.83	\$2.63	10.76065449	9.449772	7/11/2016	13	10.76065	9.449772		
7/11/2016	14	\$31.80	\$26.79	\$2.63	12.1000761	10.19521	7/11/2016	14	12.10008	10.19521		
7/11/2016	15	\$36.54	\$34.72	\$2.63	13.90258752	13.21005	7/11/2016	15	13.90259	13.21005		
7/11/2016	16	\$36.62	\$28.34	\$2.63	13.93531202	10.78463	7/11/2016	16	13.93531	10.78463		
7/11/2016	17	\$38.19	\$27.72	\$2.63	14.53234399	10.54756	7/11/2016	17	14.53234	10.54756		
7/11/2016	18	\$39.22	\$27.27	\$2.63	14.92541857	10.37709	7/11/2016	18	14.92542	10.37709		
7/11/2016	19	\$41.70	\$31.75	\$2.63	15.86643836	12.08295	7/11/2016	19	15.86644	12.08295		
7/12/2016	12	\$26.54	\$9.05	\$2.76	9.628447025	3.28193	7/12/2016	12	9.628447	3.28193	13.40	9.99
7/12/2016	13	\$27.85	\$12.01	\$2.76	10.10449927	4.358853	7/12/2016	13	10.1045	4.358853		
7/12/2016	14	\$30.07	\$22.01	\$2.76	10.91037736	7.985123	7/12/2016	14	10.91038	7.985123		
7/12/2016	15	\$35.85	\$24.45	\$2.76	13.00616836	8.871553	7/12/2016	15	13.00617	8.871553		
7/12/2016	16	\$33.13	\$25.01	\$2.76	12.01959361	9.076197	7/12/2016	16	12.01959	9.076197		
7/12/2016	17	\$36.22	\$23.88	\$2.76	13.14187228	8.664731	7/12/2016	17	13.14187	8.664731		
7/12/2016	18	\$37.52	\$27.70	\$2.76	13.61502177	10.05225	7/12/2016	18	13.61502	10.05225		
7/12/2016	19	\$40.86	\$33.48	\$2.76	14.82510885	12.1484	7/12/2016	19	14.82511	12.1484		
7/13/2016	12	\$30.48	\$25.87	\$2.74	11.12814896	9.446148	7/13/2016	12	11.12815	9.446148	16.55	44.00
7/13/2016	13	\$33.63	\$30.17	\$2.74	12.27674334	11.01351	7/13/2016	13	12.27674	11.01351		
7/13/2016	14	\$41.21	\$247.33	\$2.74	15.045272	90.29792	7/13/2016	14	15.04527	90.29792		
7/13/2016	15	\$53.63	\$165.64	\$2.74	19.57831325	60.47463	7/13/2016	15	19.57831	60.47463		
7/13/2016	16	\$38.24	\$36.37	\$2.74	13.96056955	13.27674	7/13/2016	16	13.96057	13.27674		
7/13/2016	17	\$43.27	\$32.77	\$2.74	15.7973713	11.96459	7/13/2016	17	15.79737	11.96459		
7/13/2016	18	\$46.18	\$32.70	\$2.74	16.85870756	11.93866	7/13/2016	18	16.85871	11.93866		
7/13/2016	19	\$52.37	\$36.07	\$2.74	19.11865644	13.1694	7/13/2016	19	19.11866	13.1694		
7/14/2016	12	\$29.03	\$26.61	\$2.86	10.16847636	9.321541	7/14/2016	12	10.16848	9.321541	16.87	11.74
7/14/2016	13	\$32.13	\$28.29	\$2.86	11.25534151	9.909632	7/14/2016	13	11.25534	9.909632		
7/14/2016	14	\$35.13	\$29.96	\$2.86	12.3061296	10.49352	7/14/2016	14	12.30613	10.49352		
7/14/2016	15	\$39.13	\$31.55	\$2.86	13.70683012	11.05114	7/14/2016	15	13.70683	11.05114		
7/14/2016	16	\$41.11	\$30.72	\$2.86	14.40070053	10.76007	7/14/2016	16	14.4007	10.76007		
7/14/2016	17	\$46.15	\$31.48	\$2.86	16.16462347	11.02662	7/14/2016	17	16.16462	11.02662		
7/14/2016	18	\$49.82	\$31.02	\$2.86	17.45113835	10.86375	7/14/2016	18	17.45114	10.86375		
7/14/2016	19	\$55.53	\$40.81	\$2.86	19.45008757	14.29457	7/14/2016	19	19.45009	14.29457		
7/15/2016	12	\$28.69	\$23.88	\$2.77	10.35510646	8.616023	7/15/2016	12	10.35511	8.616023	15.26	41.68
7/15/2016	13	\$30.68	\$24.59	\$2.77	11.07037171	8.873331	7/15/2016	13	11.07037	8.873331		
7/15/2016	14	\$33.45	\$25.54	\$2.77	12.06964995	9.217972	7/15/2016	14	12.06965	9.217972		
7/15/2016	15	\$36.54	\$26.89	\$2.77	13.18657524	9.702634	7/15/2016	15	13.18658	9.702634		
7/15/2016	16	\$37.55	\$27.42	\$2.77	13.54926019	9.896788	7/15/2016	16	13.54926	9.896788		
7/15/2016	17	\$42.66	\$27.95	\$2.77	15.39480332	10.08661	7/15/2016	17	15.3948	10.08661		
7/15/2016	18	\$41.29	\$29.66	\$2.77	14.90003609	10.70263	7/15/2016	18	14.90004	10.70263		
7/15/2016	19	\$47.62	\$376.99	\$2.77	17.18332732	136.0494	7/15/2016	19	17.18333	136.0494		
7/16/2016	12	\$25.10	\$41.06	\$2.56	9.798204528	16.02537	7/16/2016	12	9.798205	16.02537	13.96	11.19
7/16/2016	13	\$25.41	\$19.95	\$2.56	9.918813427	7.786495	7/16/2016	13	9.918813	7.786495		
7/16/2016	14	\$26.55	\$20.99	\$2.56	10.36299766	8.191257	7/16/2016	14	10.363	8.191257		
7/16/2016	15	\$28.80	\$22.83	\$2.56	11.2392662	8.912568	7/16/2016	15	11.23927	8.912568		
7/16/2016	16	\$30.42	\$24.76	\$2.56	11.87314598	9.665886	7/16/2016	16	11.87315	9.665886		
7/16/2016	17	\$34.57	\$24.42	\$2.56	13.49453552	9.533177	7/16/2016	17	13.49454	9.533177		
7/16/2016	18	\$35.59	\$35.56	\$2.56	13.88953942	13.88095	7/16/2016	18	13.88954	13.88095		
7/16/2016	19	\$42.47	\$29.93	\$2.56	16.57806401	11.68345	7/16/2016	19	16.57806	11.68345		
7/17/2016	12	\$24.20	\$18.30	\$2.56	9.443793911	7.144028	7/17/2016	12	9.443794	7.144028	13.36	18.94
7/17/2016	13	\$24.41	\$18.58	\$2.56	9.526151444	7.253708	7/17/2016	13	9.526151	7.253708		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
7/17/2016	14	\$25.50	\$19.09	\$2.56	9.953551913	7.4516	7/17/2016	14	9.953552	7.4516		
7/17/2016	15	\$27.19	\$22.29	\$2.56	10.61163154	8.698283	7/17/2016	15	10.61163	8.698283		
7/17/2016	16	\$28.33	\$27.75	\$2.56	11.05932865	10.8306	7/17/2016	16	11.05933	10.8306		
7/17/2016	17	\$32.68	\$25.27	\$2.56	12.75370804	9.861827	7/17/2016	17	12.75371	9.861827		
7/17/2016	18	\$33.84	\$105.72	\$2.56	13.20647931	41.26425	7/17/2016	18	13.20648	41.26425		
7/17/2016	19	\$42.11	\$35.32	\$2.56	16.43481655	13.78728	7/17/2016	19	16.43482	13.78728		
7/18/2016	12	\$28.28	\$21.57	\$2.56	11.03629977	8.419984	7/18/2016	12	11.0363	8.419984	14.81	11.13
7/18/2016	13	\$27.68	\$23.34	\$2.56	10.80366901	9.110851	7/18/2016	13	10.80367	9.110851		
7/18/2016	14	\$29.15	\$25.11	\$2.56	11.37626854	9.802108	7/18/2016	14	11.37627	9.802108		
7/18/2016	15	\$30.33	\$23.70	\$2.56	11.83723653	9.250585	7/18/2016	15	11.83724	9.250585		
7/18/2016	16	\$33.25	\$26.31	\$2.56	12.97970336	10.2701	7/18/2016	16	12.9797	10.2701		
7/18/2016	17	\$35.42	\$26.75	\$2.56	13.82630757	10.44067	7/18/2016	17	13.82631	10.44067		
7/18/2016	18	\$38.11	\$26.78	\$2.56	14.87626854	10.4516	7/18/2016	18	14.87627	10.4516		
7/18/2016	19	\$44.93	\$34.20	\$2.56	17.53825137	13.35051	7/18/2016	19	17.53825	13.35051		
7/19/2016	12	\$29.52	\$27.53	\$2.91	10.14153212	9.456544	7/19/2016	12	10.14153	9.456544	13.48	32.12
7/19/2016	13	\$29.36	\$29.06	\$2.91	10.08450704	9.98248	7/19/2016	13	10.08451	9.98248		
7/19/2016	14	\$31.37	\$53.57	\$2.91	10.77773961	18.40261	7/19/2016	14	10.77774	18.40261		
7/19/2016	15	\$33.21	\$37.59	\$2.91	11.40742013	12.91412	7/19/2016	15	11.40742	12.91412		
7/19/2016	16	\$34.95	\$31.92	\$2.91	12.00549639	10.96668	7/19/2016	16	12.0055	10.96668		
7/19/2016	17	\$38.15	\$250.97	\$2.91	13.10546204	86.21367	7/19/2016	17	13.10546	86.21367		
7/19/2016	18	\$38.34	\$33.72	\$2.91	13.16901408	11.58502	7/19/2016	18	13.16901	11.58502		
7/19/2016	19	\$45.48	\$38.98	\$2.91	15.62315356	13.38956	7/19/2016	19	15.62315	13.38956		
7/20/2016	12	\$33.18	\$37.61	\$2.91	11.38743995	12.90734	7/20/2016	12	11.38744	12.90734	19.54	65.72
7/20/2016	13	\$34.61	\$168.07	\$2.91	11.87577213	57.67502	7/20/2016	13	11.87577	57.67502		
7/20/2016	14	\$40.14	\$254.53	\$2.91	13.77556623	87.34763	7/20/2016	14	13.77557	87.34763		
7/20/2016	15	\$45.18	\$139.02	\$2.91	15.50343171	47.70762	7/20/2016	15	15.50343	47.70762		
7/20/2016	16	\$50.17	\$53.38	\$2.91	17.21516815	18.31709	7/20/2016	16	17.21517	18.31709		
7/20/2016	17	\$62.22	\$319.12	\$2.91	21.35209334	109.5113	7/20/2016	17	21.35209	109.5113		
7/20/2016	18	\$53.36	\$41.87	\$2.91	18.31159918	14.36788	7/20/2016	18	18.3116	14.36788		
7/20/2016	19	\$62.04	\$49.10	\$2.91	21.28929307	16.84935	7/20/2016	19	21.28929	16.84935		
7/21/2016	12	\$35.17	\$34.47	\$3.02	11.63446907	11.40291	7/21/2016	12	11.63447	11.40291	22.43	14.33
7/21/2016	13	\$41.31	\$32.52	\$3.02	13.66490241	10.75719	7/21/2016	13	13.6649	10.75719		
7/21/2016	14	\$50.30	\$36.69	\$3.02	16.64042342	12.13728	7/21/2016	14	16.64042	12.13728		
7/21/2016	15	\$52.47	\$39.05	\$3.02	17.35792259	12.91631	7/21/2016	15	17.35792	12.91631		
7/21/2016	16	\$60.97	\$41.77	\$3.02	20.16738339	13.81608	7/21/2016	16	20.16738	13.81608		
7/21/2016	17	\$74.64	\$39.85	\$3.02	24.6907046	13.18359	7/21/2016	17	24.6907	13.18359		
7/21/2016	18	\$65.47	\$45.45	\$3.02	21.65630169	15.0344	7/21/2016	18	21.6563	15.0344		
7/21/2016	19	\$70.16	\$46.19	\$3.02	23.20906384	15.28052	7/21/2016	19	23.20906	15.28052		
7/22/2016	12	\$38.78	\$30.86	\$3.05	12.72440945	10.12303	7/22/2016	12	12.72441	10.12303	22.86	55.17
7/22/2016	13	\$43.09	\$29.78	\$3.05	14.13648294	9.770013	7/22/2016	13	14.13648	9.770013		
7/22/2016	14	\$49.04	\$31.87	\$3.05	16.08858268	10.45472	7/22/2016	14	16.08858	10.45472		
7/22/2016	15	\$53.88	\$37.55	\$3.05	17.67847769	12.3189	7/22/2016	15	17.67848	12.3189		
7/22/2016	16	\$65.57	\$307.68	\$3.05	21.51279528	100.9459	7/22/2016	16	21.5128	100.9459		
7/22/2016	17	\$76.20	\$75.10	\$3.05	25	24.63976	7/22/2016	17	25	24.63976		
7/22/2016	18	\$68.20	\$69.95	\$3.05	22.37434383	22.94882	7/22/2016	18	22.37434	22.94882		
7/22/2016	19	\$68.77	\$219.96	\$3.05	22.56102362	72.1647	7/22/2016	19	22.56102	72.1647		
7/23/2016	12	\$43.62	\$84.24	\$3.65	11.96078969	23.09844	7/23/2016	12	11.96079	23.09844	17.12	26.14
7/23/2016	13	\$44.44	\$96.26	\$3.65	12.18535783	26.39347	7/23/2016	13	12.18536	26.39347		
7/23/2016	14	\$50.05	\$159.24	\$3.65	13.72470524	43.66301	7/23/2016	14	13.72471	43.66301		
7/23/2016	15	\$54.82	\$41.55	\$3.65	15.03153277	11.39402	7/23/2016	15	15.03153	11.39402		
7/23/2016	16	\$67.03	\$79.36	\$3.65	18.37948999	21.75953	7/23/2016	16	18.37949	21.75953		
7/23/2016	17	\$63.13	\$38.29	\$3.65	17.3112147	10.49822	7/23/2016	17	17.31121	10.49822		
7/23/2016	18	\$60.99	\$37.89	\$3.65	16.72223746	10.38799	7/23/2016	18	16.72224	10.38799		
7/23/2016	19	\$58.63	\$43.72	\$3.65	16.07595284	11.98903	7/23/2016	19	16.07595	11.98903		
7/24/2016	12	\$35.27	\$31.40	\$3.65	9.669591445	8.61009	7/24/2016	12	9.669591	8.61009	16.62	25.28
7/24/2016	13	\$41.67	\$36.53	\$3.65	11.42582945	10.01755	7/24/2016	13	11.42583	10.01755		
7/24/2016	14	\$46.51	\$43.40	\$3.65	12.75322183	11.8991	7/24/2016	14	12.75322	11.8991		
7/24/2016	15	\$51.00	\$48.72	\$3.65	13.98519331	13.35947	7/24/2016	15	13.98519	13.35947		
7/24/2016	16	\$58.40	\$127.01	\$3.65	16.0131615	34.82451	7/24/2016	16	16.01316	34.82451		
7/24/2016	17	\$62.62	\$108.11	\$3.65	17.16918015	29.64409	7/24/2016	17	17.16918	29.64409		
7/24/2016	18	\$60.42	\$67.29	\$3.65	16.56621881	18.45023	7/24/2016	18	16.56622	18.45023		
7/24/2016	19	\$61.05	\$66.44	\$3.65	16.74060872	18.21662	7/24/2016	19	16.74061	18.21662		
7/25/2016	12	\$53.07	\$115.02	\$3.65	14.55058953	31.5388	7/25/2016	12	14.55059	31.5388	18.66	17.03
7/25/2016	13	\$51.71	\$44.10	\$3.65	14.17877708	12.09213	7/25/2016	13	14.17878	12.09213		
7/25/2016	14	\$55.36	\$43.36	\$3.65	15.17959967	11.88868	7/25/2016	14	15.1796	11.88868		
7/25/2016	15	\$61.13	\$46.00	\$3.65	16.76254456	12.61174	7/25/2016	15	16.76254	12.61174		
7/25/2016	16	\$65.65	\$45.66	\$3.65	17.9997258	12.51851	7/25/2016	16	17.99973	12.51851		
7/25/2016	17	\$70.84	\$46.42	\$3.65	19.42473266	12.72772	7/25/2016	17	19.42473	12.72772		
7/25/2016	18	\$67.00	\$47.38	\$3.65	18.36989306	12.99205	7/25/2016	18	18.36989	12.99205		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
7/25/2016	19	\$68.80	\$52.28	\$3.65	18.86372361	14.33397	7/25/2016	19	18.86372	14.33397		
7/26/2016	12	\$38.61	\$42.12	\$3.08	12.55136541	13.69441	7/26/2016	12	12.55137	13.69441	20.82	22.61
7/26/2016	13	\$44.42	\$135.11	\$3.08	14.44213264	43.9249	7/26/2016	13	14.44213	43.9249		
7/26/2016	14	\$47.93	\$53.94	\$3.08	15.58062419	17.53609	7/26/2016	14	15.58062	17.53609		
7/26/2016	15	\$51.69	\$45.56	\$3.08	16.80331599	14.81047	7/26/2016	15	16.80332	14.81047		
7/26/2016	16	\$59.18	\$43.56	\$3.08	19.23927178	14.1619	7/26/2016	16	19.23927	14.1619		
7/26/2016	17	\$63.84	\$43.15	\$3.08	20.75292588	14.02731	7/26/2016	17	20.75293	14.02731		
7/26/2016	18	\$63.81	\$43.01	\$3.08	20.74284785	13.98212	7/26/2016	18	20.74285	13.98212		
7/26/2016	19	\$69.30	\$63.57	\$3.08	22.52828349	20.66515	7/26/2016	19	22.52828	20.66515		
7/27/2016	12	\$108.61	\$40.75	\$3.17	34.28377525	12.86174	7/27/2016	12	34.28378	12.86174	26.75	20.47
7/27/2016	13	\$54.22	\$45.58	\$3.17	17.11584596	14.38668	7/27/2016	13	17.11585	14.38668		
7/27/2016	14	\$57.05	\$47.07	\$3.17	18.00757576	14.85732	7/27/2016	14	18.00758	14.85732		
7/27/2016	15	\$68.15	\$46.87	\$3.17	21.51199495	14.79356	7/27/2016	15	21.51199	14.79356		
7/27/2016	16	\$76.43	\$44.28	\$3.17	24.125	13.9779	7/27/2016	16	24.125	13.9779		
7/27/2016	17	\$89.02	\$65.27	\$3.17	28.09974747	20.60227	7/27/2016	17	28.09975	20.60227		
7/27/2016	18	\$84.47	\$46.35	\$3.17	26.66256313	14.62942	7/27/2016	18	26.66256	14.62942		
7/27/2016	19	\$89.03	\$103.52	\$3.17	28.10164141	32.6774	7/27/2016	19	28.10164	32.6774		
7/28/2016	12	\$48.11	\$93.51	\$3.41	14.0913884	27.39104	7/28/2016	12	14.09139	27.39104	28.61	25.19
7/28/2016	13	\$56.91	\$90.00	\$3.41	16.67018161	26.36175	7/28/2016	13	16.67018	26.36175		
7/28/2016	14	\$60.62	\$94.94	\$3.41	17.75571178	27.80814	7/28/2016	14	17.75571	27.80814		
7/28/2016	15	\$73.69	\$65.56	\$3.41	21.58318688	19.20211	7/28/2016	15	21.58319	19.20211		
7/28/2016	16	\$87.51	\$42.96	\$3.41	25.63356766	12.58436	7/28/2016	16	25.63357	12.58436		
7/28/2016	17	\$105.74	\$45.03	\$3.41	30.9721734	13.18981	7/28/2016	17	30.97217	13.18981		
7/28/2016	18	\$97.45	\$47.09	\$3.41	28.54452255	13.79408	7/28/2016	18	28.54452	13.79408		
7/28/2016	19	\$99.94	\$45.72	\$3.41	29.27211482	13.39309	7/28/2016	19	29.27211	13.39309		
7/29/2016	12	\$44.50	\$36.78	\$3.20	13.90315526	11.49141	7/29/2016	12	13.90316	11.49141	29.39	17.20
7/29/2016	13	\$52.75	\$33.76	\$3.20	16.47860044	10.54795	7/29/2016	13	16.4786	10.54795		
7/29/2016	14	\$56.92	\$61.53	\$3.20	17.78288035	19.22181	7/29/2016	14	17.78288	19.22181		
7/29/2016	15	\$67.34	\$54.79	\$3.20	21.03748828	17.11778	7/29/2016	15	21.03749	17.11778		
7/29/2016	16	\$83.52	\$46.52	\$3.20	26.09309591	14.53296	7/29/2016	16	26.0931	14.53296		
7/29/2016	17	\$99.05	\$57.36	\$3.20	30.94314277	17.91971	7/29/2016	17	30.94314	17.91971		
7/29/2016	18	\$96.83	\$56.21	\$3.20	30.2502343	17.56045	7/29/2016	18	30.25023	17.56045		
7/29/2016	19	\$96.85	\$58.01	\$3.20	30.25523274	18.12309	7/29/2016	19	30.25523	18.12309		
7/30/2016	12	\$39.66	\$57.88	\$3.20	12.39112777	18.08279	7/30/2016	12	12.39113	18.08279	15.40	19.79
7/30/2016	13	\$39.17	\$64.38	\$3.20	12.23586379	20.11309	7/30/2016	13	12.23586	20.11309		
7/30/2016	14	\$50.56	\$68.69	\$3.20	15.79412684	21.45892	7/30/2016	14	15.79413	21.45892		
7/30/2016	15	\$49.88	\$62.48	\$3.20	15.58106842	19.51828	7/30/2016	15	15.58107	19.51828		
7/30/2016	16	\$50.52	\$43.21	\$3.20	15.78288035	13.49984	7/30/2016	16	15.78288	13.49984		
7/30/2016	17	\$46.23	\$40.17	\$3.20	14.44267416	12.54952	7/30/2016	17	14.44267	12.54952		
7/30/2016	18	\$47.40	\$41.88	\$3.20	14.80724774	13.08185	7/30/2016	18	14.80725	13.08185		
7/30/2016	19	\$52.09	\$70.56	\$3.20	16.27335208	22.04217	7/30/2016	19	16.27335	22.04217		
7/31/2016	12	\$29.97	\$27.00	\$3.20	9.362386794	8.434864	7/31/2016	12	9.362387	8.434864	13.31	9.65
7/31/2016	13	\$31.42	\$29.65	\$3.20	9.816932209	9.26273	7/31/2016	13	9.816932	9.26273		
7/31/2016	14	\$33.66	\$35.12	\$3.20	10.51546392	10.97095	7/31/2016	14	10.51546	10.97095		
7/31/2016	15	\$34.77	\$31.39	\$3.20	10.86098094	9.805373	7/31/2016	15	10.86098	9.805373		
7/31/2016	16	\$37.75	\$27.38	\$3.20	11.79256482	8.552952	7/31/2016	16	11.79256	8.552952		
7/31/2016	17	\$39.60	\$27.26	\$3.20	12.37050922	8.516714	7/31/2016	17	12.37051	8.516714		
7/31/2016	18	\$42.76	\$29.81	\$3.20	13.35863793	9.313964	7/31/2016	18	13.35864	9.313964		
7/31/2016	19	\$50.35	\$33.48	\$3.20	15.72852234	10.45767	7/31/2016	19	15.72852	10.45767		
8/1/2016	12	\$36.25	\$50.44	\$3.02	12.01823607	16.7248	8/1/2016	12	12.01824	16.7248	17.97	19.03
8/1/2016	13	\$38.38	\$29.30	\$3.02	12.72579576	9.715849	8/1/2016	13	12.7258	9.715849		
8/1/2016	14	\$41.90	\$60.05	\$3.02	13.89290451	19.91147	8/1/2016	14	13.8929	19.91147		
8/1/2016	15	\$42.81	\$82.34	\$3.02	14.19496021	27.30239	8/1/2016	15	14.19496	27.30239		
8/1/2016	16	\$48.36	\$51.91	\$3.02	16.03381963	17.21088	8/1/2016	16	16.03382	17.21088		
8/1/2016	17	\$51.68	\$35.27	\$3.02	17.13594164	11.69264	8/1/2016	17	17.13594	11.69264		
8/1/2016	18	\$52.55	\$33.97	\$3.02	17.42374005	11.26359	8/1/2016	18	17.42374	11.26359		
8/1/2016	19	\$64.15	\$51.64	\$3.02	21.2688992	17.12334	8/1/2016	19	21.2689	17.12334		
8/2/2016	12	\$37.27	\$84.77	\$2.92	12.75830195	29.02191	8/2/2016	12	12.7583	29.02191	18.65	36.95
8/2/2016	13	\$37.70	\$95.73	\$2.92	12.90482711	32.77371	8/2/2016	13	12.90483	32.77371		
8/2/2016	14	\$40.09	\$108.05	\$2.92	13.72372475	36.99213	8/2/2016	14	13.72372	36.99213		
8/2/2016	15	\$42.60	\$143.18	\$2.92	14.58233482	49.01849	8/2/2016	15	14.58233	49.01849		
8/2/2016	16	\$47.55	\$77.77	\$2.92	16.27867169	26.62273	8/2/2016	16	16.27867	26.62273		
8/2/2016	17	\$54.54	\$47.19	\$2.92	18.67100308	16.15371	8/2/2016	17	18.671	16.15371		
8/2/2016	18	\$54.66	\$46.03	\$2.92	18.7120849	15.75967	8/2/2016	18	18.71208	15.75967		
8/2/2016	19	\$61.10	\$40.52	\$2.92	20.9188634	13.87128	8/2/2016	19	20.91886	13.87128		
8/3/2016	12	\$40.46	\$29.46	\$2.86	14.1521511	10.30465	8/3/2016	12	14.15215	10.30465	18.58	12.99
8/3/2016	13	\$42.08	\$31.12	\$2.86	14.71808325	10.88492	8/3/2016	13	14.71808	10.88492		
8/3/2016	14	\$44.39	\$34.09	\$2.86	15.52780693	11.922	8/3/2016	14	15.52781	11.922		
8/3/2016	15	\$44.94	\$39.88	\$2.86	15.71983211	13.95033	8/3/2016	15	15.71983	13.95033		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR	
8/3/2016	16		\$47.97	\$41.25	\$2.86	16.77964323	14.42637	8/3/2016	16	16.77964	14.42637		
8/3/2016	17		\$52.33	\$33.33	\$2.86	18.30500175	11.65687	8/3/2016	17	18.305	11.65687		
8/3/2016	18		\$51.00	\$33.35	\$2.86	17.83805526	11.66597	8/3/2016	18	17.83806	11.66597		
8/3/2016	19		\$61.16	\$35.75	\$2.86	21.39034627	12.50437	8/3/2016	19	21.39035	12.50437		
8/4/2016	12		\$35.73	\$27.34	\$2.79	12.81563845	9.805237	8/4/2016	12	12.81564	9.805237	18.39	16.59
8/4/2016	13		\$39.06	\$28.66	\$2.79	14.00968436	10.28121	8/4/2016	13	14.00968	10.28121		
8/4/2016	14		\$41.34	\$34.22	\$2.79	14.82890961	12.27403	8/4/2016	14	14.82891	12.27403		
8/4/2016	15		\$45.31	\$47.61	\$2.79	16.25251076	17.07496	8/4/2016	15	16.25251	17.07496		
8/4/2016	16		\$47.25	\$44.75	\$2.79	16.94619799	16.05129	8/4/2016	16	16.9462	16.05129		
8/4/2016	17		\$49.29	\$44.67	\$2.79	17.67934003	16.0226	8/4/2016	17	17.67934	16.0226		
8/4/2016	18		\$49.71	\$39.02	\$2.79	17.83070301	13.99426	8/4/2016	18	17.8307	13.99426		
8/4/2016	19		\$58.79	\$56.60	\$2.79	21.08751793	20.30093	8/4/2016	19	21.08752	20.30093		
8/5/2016	12		\$31.70	\$25.40	\$2.88	11.00208261	8.816036	8/5/2016	12	11.00208	8.816036	16.72	11.12
8/5/2016	13		\$33.93	\$26.90	\$2.88	11.7761194	9.336342	8/5/2016	13	11.77612	9.336342		
8/5/2016	14		\$35.43	\$28.81	\$2.88	12.29677195	10.00104	8/5/2016	14	12.29677	10.00104		
8/5/2016	15		\$38.66	\$29.10	\$2.88	13.41929885	10.10135	8/5/2016	15	13.4193	10.10135		
8/5/2016	16		\$45.17	\$33.84	\$2.88	15.67997223	11.74731	8/5/2016	16	15.67997	11.74731		
8/5/2016	17		\$45.67	\$30.35	\$2.88	15.85074627	10.53523	8/5/2016	17	15.85075	10.53523		
8/5/2016	18		\$47.91	\$30.06	\$2.88	16.63103089	10.43388	8/5/2016	18	16.63103	10.43388		
8/5/2016	19		\$53.88	\$33.88	\$2.88	18.70079833	11.75807	8/5/2016	19	18.7008	11.75807		
8/6/2016	12		\$28.77	\$19.66	\$2.74	10.51260504	7.182682	8/6/2016	12	10.51261	7.182682	14.86	10.83
8/6/2016	13		\$28.80	\$23.91	\$2.74	10.5210084	8.736208	8/6/2016	13	10.52101	8.736208		
8/6/2016	14		\$29.88	\$25.97	\$2.74	10.91523566	9.489953	8/6/2016	14	10.91524	9.489953		
8/6/2016	15		\$32.24	\$27.07	\$2.74	11.78005115	9.891122	8/6/2016	15	11.78005	9.891122		
8/6/2016	16		\$35.42	\$28.23	\$2.74	12.93934965	10.31275	8/6/2016	16	12.93935	10.31275		
8/6/2016	17		\$37.60	\$29.81	\$2.74	13.73620753	10.89185	8/6/2016	17	13.73621	10.89185		
8/6/2016	18		\$42.12	\$29.38	\$2.74	15.38801608	10.73402	8/6/2016	18	15.38802	10.73402		
8/6/2016	19		\$47.54	\$31.12	\$2.74	17.3697479	11.37048	8/6/2016	19	17.36975	11.37048		
8/7/2016	12		\$26.01	\$16.86	\$2.74	9.502740227	6.160029	8/7/2016	12	9.50274	6.160029	13.93	11.40
8/7/2016	13		\$26.84	\$21.29	\$2.74	9.806722689	7.779686	8/7/2016	13	9.806723	7.779686		
8/7/2016	14		\$27.99	\$23.36	\$2.74	10.22762148	8.534892	8/7/2016	14	10.22762	8.534892		
8/7/2016	15		\$29.20	\$25.97	\$2.74	10.669346	9.488856	8/7/2016	15	10.66935	9.488856		
8/7/2016	16		\$32.34	\$26.84	\$2.74	11.81549141	9.806357	8/7/2016	16	11.81549	9.806357		
8/7/2016	17		\$35.37	\$35.28	\$2.74	12.92108148	12.88893	8/7/2016	17	12.92108	12.88893		
8/7/2016	18		\$39.15	\$29.48	\$2.74	14.3036171	10.77019	8/7/2016	18	14.30362	10.77019		
8/7/2016	19		\$45.60	\$33.26	\$2.74	16.66021191	12.15053	8/7/2016	19	16.66021	12.15053		
8/8/2016	12		\$31.40	\$26.22	\$2.74	11.47168433	9.579101	8/8/2016	12	11.47168	9.579101	17.73	13.18
8/8/2016	13		\$32.76	\$26.99	\$2.74	11.96784801	9.862623	8/8/2016	13	11.96785	9.862623		
8/8/2016	14		\$36.11	\$28.92	\$2.74	13.19181586	10.56741	8/8/2016	14	13.19182	10.56741		
8/8/2016	15		\$39.38	\$31.30	\$2.74	14.38765071	11.43697	8/8/2016	15	14.38765	11.43697		
8/8/2016	16		\$44.53	\$30.23	\$2.74	16.26963829	11.04384	8/8/2016	16	16.26964	11.04384		
8/8/2016	17		\$46.79	\$29.82	\$2.74	17.09609061	10.89404	8/8/2016	17	17.09609	10.89404		
8/8/2016	18		\$48.09	\$33.42	\$2.74	17.57106321	12.20899	8/8/2016	18	17.57106	12.20899		
8/8/2016	19		\$54.66	\$50.81	\$2.74	19.97186701	18.56412	8/8/2016	19	19.97187	18.56412		
8/9/2016	12		\$30.11	\$24.03	\$2.92	10.32795883	8.244597	8/9/2016	12	10.32796	8.244597	15.00	57.06
8/9/2016	13		\$30.89	\$24.76	\$2.92	10.59588336	8.492624	8/9/2016	13	10.59588	8.492624		
8/9/2016	14		\$32.35	\$25.04	\$2.92	11.09914237	8.590738	8/9/2016	14	11.09914	8.590738		
8/9/2016	15		\$35.14	\$26.97	\$2.92	12.0542024	9.251458	8/9/2016	15	12.0542	9.251458		
8/9/2016	16		\$38.33	\$28.33	\$2.92	13.14922813	9.720069	8/9/2016	16	13.14923	9.720069		
8/9/2016	17		\$42.64	\$201.54	\$2.92	14.62607204	69.13756	8/9/2016	17	14.62607	69.13756		
8/9/2016	18		\$44.00	\$40.87	\$2.92	15.09571184	14.02161	8/9/2016	18	15.09571	14.02161		
8/9/2016	19		\$49.96	\$394.57	\$2.92	17.14030875	135.3595	8/9/2016	19	17.14031	135.3595		
8/10/2016	12		\$28.86	\$25.83	\$2.77	10.43528561	9.339841	8/10/2016	12	10.43529	9.339841	15.09	13.88
8/10/2016	13		\$30.42	\$26.75	\$2.77	10.99746927	9.670644	8/10/2016	13	10.99747	9.670644		
8/10/2016	14		\$30.94	\$31.00	\$2.77	11.18727404	11.20571	8/10/2016	14	11.18727	11.20571		
8/10/2016	15		\$33.70	\$31.93	\$2.77	12.18402025	11.54375	8/10/2016	15	12.18402	11.54375		
8/10/2016	16		\$37.64	\$33.54	\$2.77	13.60629067	12.12726	8/10/2016	16	13.60629	12.12726		
8/10/2016	17		\$41.13	\$40.49	\$2.77	14.87020969	14.63666	8/10/2016	17	14.87021	14.63666		
8/10/2016	18		\$41.91	\$36.09	\$2.77	15.15220535	13.04845	8/10/2016	18	15.15221	13.04845		
8/10/2016	19		\$46.25	\$43.46	\$2.77	16.72234273	15.71077	8/10/2016	19	16.72234	15.71077		
8/11/2016	12		\$30.34	\$29.15	\$2.75	11.05355191	10.6204	8/11/2016	12	11.05355	10.6204	16.58	29.22
8/11/2016	13		\$31.77	\$30.31	\$2.75	11.57486339	11.04335	8/11/2016	13	11.57486	11.04335		
8/11/2016	14		\$34.38	\$29.32	\$2.75	12.52276867	10.68051	8/11/2016	14	12.52277	10.68051		
8/11/2016	15		\$37.33	\$33.38	\$2.75	13.59854281	12.15993	8/11/2016	15	13.59854	12.15993		
8/11/2016	16		\$40.51	\$32.84	\$2.75	14.75628415	11.96357	8/11/2016	16	14.75628	11.96357		
8/11/2016	17		\$44.04	\$34.63	\$2.75	16.04371585	12.6153	8/11/2016	17	16.04372	12.6153		
8/11/2016	18		\$45.12	\$40.97	\$2.75	16.43679417	14.92423	8/11/2016	18	16.43679	14.92423		
8/11/2016	19		\$52.39	\$212.40	\$2.75	19.0856102	77.37741	8/11/2016	19	19.08561	77.37741		
8/12/2016	12		\$32.85	\$48.88	\$2.71	12.14306839	18.06913	8/12/2016	12	12.14307	18.06913	18.73	19.56

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
8/12/2016	13	\$34.42	\$30.39	\$2.71	12.72421442	11.23401	8/12/2016	13	12.72421	11.23401		
8/12/2016	14	\$39.35	\$38.05	\$2.71	14.54565619	14.0658	8/12/2016	14	14.54566	14.0658		
8/12/2016	15	\$42.72	\$48.04	\$2.71	15.79186691	17.76007	8/12/2016	15	15.79187	17.76007		
8/12/2016	16	\$44.05	\$54.97	\$2.71	16.28391867	20.32163	8/12/2016	16	16.28392	20.32163		
8/12/2016	17	\$50.19	\$49.98	\$2.71	18.55600739	18.47689	8/12/2016	17	18.55601	18.47689		
8/12/2016	18	\$52.15	\$58.61	\$2.71	19.28022181	21.66728	8/12/2016	18	19.28022	21.66728		
8/12/2016	19	\$56.27	\$43.29	\$2.71	20.80332717	16.00407	8/12/2016	19	20.80333	16.00407		
8/13/2016	12	\$32.73	\$33.83	\$3.01	10.87637089	11.24393	8/13/2016	12	10.87637	11.24393	17.13	20.18
8/13/2016	13	\$35.78	\$47.16	\$3.01	11.89066135	15.67298	8/13/2016	13	11.89066	15.67298		
8/13/2016	14	\$38.80	\$40.62	\$3.01	12.89332004	13.49884	8/13/2016	14	12.89332	13.49884		
8/13/2016	15	\$41.75	\$39.59	\$3.01	13.87470921	13.15587	8/13/2016	15	13.87471	13.15587		
8/13/2016	16	\$45.57	\$45.38	\$3.01	15.14523097	15.08076	8/13/2016	16	15.14523	15.08076		
8/13/2016	17	\$50.51	\$48.47	\$3.01	16.78597541	16.10768	8/13/2016	17	16.78598	16.10768		
8/13/2016	18	\$52.91	\$43.50	\$3.01	17.58391492	14.45597	8/13/2016	18	17.58391	14.45597		
8/13/2016	19	\$57.15	\$105.50	\$3.01	18.99169159	35.06082	8/13/2016	19	18.99169	35.06082		
8/14/2016	12	\$33.30	\$28.58	\$3.01	11.06812895	9.498172	8/14/2016	12	11.06813	9.498172	17.92	33.77
8/14/2016	13	\$38.01	\$31.73	\$3.01	12.63110668	10.5447	8/14/2016	13	12.63111	10.5447		
8/14/2016	14	\$38.38	\$42.78	\$3.01	12.75506813	14.21735	8/14/2016	14	12.75507	14.21735		
8/14/2016	15	\$42.77	\$43.90	\$3.01	14.21335992	14.58824	8/14/2016	15	14.21336	14.58824		
8/14/2016	16	\$46.78	\$44.54	\$3.01	15.54769026	14.80226	8/14/2016	16	15.54769	14.80226		
8/14/2016	17	\$50.81	\$46.55	\$3.01	16.88600864	15.47059	8/14/2016	17	16.88601	15.47059		
8/14/2016	18	\$55.87	\$59.79	\$3.01	18.56596876	19.87105	8/14/2016	18	18.56597	19.87105		
8/14/2016	19	\$62.27	\$255.53	\$3.01	20.69358591	84.92257	8/14/2016	19	20.69359	84.92257		
8/15/2016	12	\$46.92	\$93.48	\$3.01	15.59454968	31.0658	8/15/2016	12	15.59455	31.0658	22.84	46.57
8/15/2016	13	\$51.29	\$164.02	\$3.01	17.04386839	54.50914	8/15/2016	13	17.04387	54.50914		
8/15/2016	14	\$51.23	\$103.35	\$3.01	17.02658691	34.34829	8/15/2016	14	17.02659	34.34829		
8/15/2016	15	\$54.90	\$67.97	\$3.01	18.24360253	22.59023	8/15/2016	15	18.2436	22.59023		
8/15/2016	16	\$59.95	\$225.18	\$3.01	19.9222333	74.83416	8/15/2016	16	19.92223	74.83416		
8/15/2016	17	\$67.52	\$48.24	\$3.01	22.43934862	16.03224	8/15/2016	17	22.43935	16.03224		
8/15/2016	18	\$71.57	\$50.55	\$3.01	23.78431373	16.79927	8/15/2016	18	23.78431	16.79927		
8/15/2016	19	\$75.87	\$58.45	\$3.01	25.21269525	19.42539	8/15/2016	19	25.2127	19.42539		
8/16/2016	12	\$40.57	\$55.87	\$3.55	11.44190637	15.75494	8/16/2016	12	11.44191	15.75494	19.57	121.38
8/16/2016	13	\$45.21	\$35.25	\$3.55	12.750141	9.939368	8/16/2016	13	12.75014	9.939368		
8/16/2016	14	\$51.23	\$57.05	\$3.55	14.44839255	16.08855	8/16/2016	14	14.44839	16.08855		
8/16/2016	15	\$54.89	\$37.80	\$3.55	15.4785674	10.65905	8/16/2016	15	15.47857	10.65905		
8/16/2016	16	\$58.05	\$178.86	\$3.55	16.37168641	50.4388	8/16/2016	16	16.37169	50.4388		
8/16/2016	17	\$68.48	\$869.37	\$3.55	19.31302876	245.1698	8/16/2016	17	19.31303	245.1698		
8/16/2016	18	\$73.11	\$528.69	\$3.55	20.61872532	149.095	8/16/2016	18	20.61873	149.095		
8/16/2016	19	\$77.97	\$144.80	\$3.55	21.98843768	40.83531	8/16/2016	19	21.98844	40.83531		
8/17/2016	12	\$38.20	\$35.86	\$3.40	11.22721928	10.54086	8/17/2016	12	11.22722	10.54086	18.01	20.38
8/17/2016	13	\$43.48	\$35.05	\$3.40	12.78130511	10.30247	8/17/2016	13	12.78131	10.30247		
8/17/2016	14	\$46.54	\$37.65	\$3.40	13.68048207	11.06614	8/17/2016	14	13.68048	11.06614		
8/17/2016	15	\$50.45	\$111.67	\$3.40	14.82892416	32.8254	8/17/2016	15	14.82892	32.8254		
8/17/2016	16	\$53.63	\$67.57	\$3.40	15.7654321	19.86067	8/17/2016	16	15.76543	19.86067		
8/17/2016	17	\$59.81	\$46.86	\$3.40	17.57936508	13.77484	8/17/2016	17	17.57937	13.77484		
8/17/2016	18	\$61.94	\$51.19	\$3.40	18.20664315	15.04703	8/17/2016	18	18.20664	15.04703		
8/17/2016	19	\$69.69	\$69.78	\$3.40	20.48500882	20.51058	8/17/2016	19	20.48501	20.51058		
8/18/2016	12	\$42.00	\$37.18	\$3.07	13.66297983	12.09401	8/18/2016	12	13.66298	12.09401	22.38	48.59
8/18/2016	13	\$45.27	\$52.69	\$3.07	14.72771633	17.14086	8/18/2016	13	14.72772	17.14086		
8/18/2016	14	\$47.20	\$46.82	\$3.07	15.35426155	15.23227	8/18/2016	14	15.35426	15.23227		
8/18/2016	15	\$49.41	\$42.38	\$3.07	16.07286923	13.78692	8/18/2016	15	16.07287	13.78692		
8/18/2016	16	\$52.90	\$44.41	\$3.07	17.20754717	14.44795	8/18/2016	16	17.20755	14.44795		
8/18/2016	17	\$74.25	\$140.84	\$3.07	24.15419649	45.81783	8/18/2016	17	24.1542	45.81783		
8/18/2016	18	\$72.95	\$95.37	\$3.07	23.73129473	31.0244	8/18/2016	18	23.73129	31.0244		
8/18/2016	19	\$75.07	\$316.81	\$3.07	24.42127521	103.0599	8/18/2016	19	24.42128	103.0599		
8/19/2016	12	\$34.86	\$28.00	\$2.79	12.48710602	10.02973	8/19/2016	12	12.48711	10.02973	20.07	26.22
8/19/2016	13	\$37.93	\$31.88	\$2.79	13.58416905	11.41691	8/19/2016	13	13.58417	11.41691		
8/19/2016	14	\$40.57	\$38.87	\$2.79	14.53223496	13.92013	8/19/2016	14	14.53223	13.92013		
8/19/2016	15	\$43.57	\$40.71	\$2.79	15.60422636	14.58166	8/19/2016	15	15.60423	14.58166		
8/19/2016	16	\$47.38	\$138.85	\$2.79	16.96919771	49.73102	8/19/2016	16	16.9692	49.73102		
8/19/2016	17	\$54.81	\$54.77	\$2.79	19.63252149	19.61784	8/19/2016	17	19.63252	19.61784		
8/19/2016	18	\$57.20	\$46.94	\$2.79	20.48567335	16.81232	8/19/2016	18	20.48567	16.81232		
8/19/2016	19	\$64.70	\$52.26	\$2.79	23.1737106	18.71812	8/19/2016	19	23.17371	18.71812		
8/20/2016	12	\$28.03	\$29.80	\$2.63	10.67733333	11.35162	8/20/2016	12	10.67733	11.35162	17.22	14.46
8/20/2016	13	\$31.18	\$29.15	\$2.63	11.87961905	11.10286	8/20/2016	13	11.87962	11.10286		
8/20/2016	14	\$33.29	\$31.54	\$2.63	12.6807619	12.01524	8/20/2016	14	12.68076	12.01524		
8/20/2016	15	\$34.22	\$34.89	\$2.63	13.03542857	13.29295	8/20/2016	15	13.03543	13.29295		
8/20/2016	16	\$38.28	\$38.69	\$2.63	14.58438095	14.73905	8/20/2016	16	14.58438	14.73905		
8/20/2016	17	\$43.56	\$35.00	\$2.63	16.59504762	13.33143	8/20/2016	17	16.59505	13.33143		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
8/20/2016	18	\$45.81	\$41.66	\$2.63	17.45180952	15.8701	8/20/2016	18	17.45181	15.8701		
8/20/2016	19	\$53.19	\$36.52	\$2.63	20.26285714	13.91162	8/20/2016	19	20.26286	13.91162		
8/21/2016	12	\$23.82	\$30.31	\$2.63	9.072380952	11.54667	8/21/2016	12	9.072381	11.54667	15.59	14.54
8/21/2016	13	\$26.94	\$28.10	\$2.63	10.26171429	10.70362	8/21/2016	13	10.26171	10.70362		
8/21/2016	14	\$28.08	\$32.44	\$2.63	10.6967619	12.35619	8/21/2016	14	10.69676	12.35619		
8/21/2016	15	\$30.32	\$35.54	\$2.63	11.55047619	13.53829	8/21/2016	15	11.55048	13.53829		
8/21/2016	16	\$33.21	\$32.68	\$2.63	12.65142857	12.44762	8/21/2016	16	12.65143	12.44762		
8/21/2016	17	\$39.56	\$44.17	\$2.63	15.0712381	16.82476	8/21/2016	17	15.07124	16.82476		
8/21/2016	18	\$42.31	\$33.51	\$2.63	16.1192381	12.76495	8/21/2016	18	16.11924	12.76495		
8/21/2016	19	\$48.65	\$42.27	\$2.63	18.53409524	16.104	8/21/2016	19	18.5341	16.104		
8/22/2016	12	\$30.20	\$28.97	\$2.63	11.50552381	11.03733	8/22/2016	12	11.50552	11.03733	16.84	24.83
8/22/2016	13	\$32.76	\$28.89	\$2.63	12.47885714	11.00381	8/22/2016	13	12.47886	11.00381		
8/22/2016	14	\$34.15	\$30.18	\$2.63	13.01104762	11.49524	8/22/2016	14	13.01105	11.49524		
8/22/2016	15	\$35.11	\$31.74	\$2.63	13.37409524	12.09181	8/22/2016	15	13.3741	12.09181		
8/22/2016	16	\$38.33	\$34.97	\$2.63	14.60342857	13.3219	8/22/2016	16	14.60343	13.3219		
8/22/2016	17	\$43.24	\$35.74	\$2.63	16.47047619	13.6141	8/22/2016	17	16.47048	13.6141		
8/22/2016	18	\$45.45	\$142.71	\$2.63	17.31428571	54.36457	8/22/2016	18	17.31429	54.36457		
8/22/2016	19	\$49.78	\$47.31	\$2.63	18.96304762	18.02286	8/22/2016	19	18.96305	18.02286		
8/23/2016	12	\$30.38	\$27.17	\$2.93	10.38059447	9.283567	8/23/2016	12	10.38059	9.283567	14.18	10.35
8/23/2016	13	\$31.66	\$26.57	\$2.93	10.81619406	9.076187	8/23/2016	13	10.81619	9.076187		
8/23/2016	14	\$33.17	\$28.25	\$2.93	11.33276392	9.650154	8/23/2016	14	11.33276	9.650154		
8/23/2016	15	\$34.36	\$32.17	\$2.93	11.73932354	10.99043	8/23/2016	15	11.73932	10.99043		
8/23/2016	16	\$35.71	\$29.92	\$2.93	12.1988384	10.22275	8/23/2016	16	12.19884	10.22275		
8/23/2016	17	\$40.02	\$29.23	\$2.93	13.67372737	9.986334	8/23/2016	17	13.67373	9.986334		
8/23/2016	18	\$41.89	\$29.34	\$2.93	14.31226512	10.0246	8/23/2016	18	14.31227	10.0246		
8/23/2016	19	\$48.45	\$32.68	\$2.93	16.55278442	11.16638	8/23/2016	19	16.55278	11.16638		
8/24/2016	12	\$30.56	\$27.07	\$2.77	11.04844541	9.787057	8/24/2016	12	11.04845	9.787057	15.93	11.98
8/24/2016	13	\$31.42	\$27.38	\$2.77	11.3604483	9.897686	8/24/2016	13	11.36045	9.897686		
8/24/2016	14	\$33.33	\$29.49	\$2.77	12.05061461	10.66088	8/24/2016	14	12.05061	10.66088		
8/24/2016	15	\$37.07	\$39.02	\$2.77	13.40057845	14.10846	8/24/2016	15	13.40058	14.10846		
8/24/2016	16	\$37.87	\$28.48	\$2.77	13.69016631	10.29646	8/24/2016	16	13.69017	10.29646		
8/24/2016	17	\$42.54	\$35.59	\$2.77	15.38105568	12.86623	8/24/2016	17	15.38106	12.86623		
8/24/2016	18	\$45.49	\$27.64	\$2.77	16.44577007	9.990962	8/24/2016	18	16.44577	9.990962		
8/24/2016	19	\$50.30	\$39.24	\$2.77	18.18618944	14.18547	8/24/2016	19	18.18619	14.18547		
8/25/2016	12	\$30.53	\$25.58	\$2.78	10.96587644	9.187141	8/25/2016	12	10.96588	9.187141	16.24	15.76
8/25/2016	13	\$32.46	\$28.32	\$2.78	11.65768678	10.17313	8/25/2016	13	11.65769	10.17313		
8/25/2016	14	\$32.53	\$26.67	\$2.78	11.68570402	9.579382	8/25/2016	14	11.6857	9.579382		
8/25/2016	15	\$34.71	\$26.86	\$2.78	12.46875	9.647989	8/25/2016	15	12.46875	9.647989		
8/25/2016	16	\$39.85	\$32.24	\$2.78	14.31429598	11.57974	8/25/2016	16	14.3143	11.57974		
8/25/2016	17	\$44.13	\$48.76	\$2.78	15.85201149	17.51365	8/25/2016	17	15.85201	17.51365		
8/25/2016	18	\$46.02	\$40.79	\$2.78	16.52909483	14.6523	8/25/2016	18	16.52909	14.6523		
8/25/2016	19	\$50.81	\$53.77	\$2.78	18.25107759	19.31394	8/25/2016	19	18.25108	19.31394		
8/26/2016	12	\$29.91	\$23.06	\$2.80	10.67523198	8.228765	8/26/2016	12	10.67523	8.228765	14.65	11.09
8/26/2016	13	\$29.53	\$18.72	\$2.80	10.53711635	6.679872	8/26/2016	13	10.53712	6.679872		
8/26/2016	14	\$31.17	\$26.89	\$2.80	11.12562455	9.59743	8/26/2016	14	11.12562	9.59743		
8/26/2016	15	\$32.95	\$29.40	\$2.80	11.75910064	10.49251	8/26/2016	15	11.7591	10.49251		
8/26/2016	16	\$37.78	\$27.85	\$2.80	13.48144183	9.940043	8/26/2016	16	13.48144	9.940043		
8/26/2016	17	\$38.57	\$30.40	\$2.80	13.76481085	10.84975	8/26/2016	17	13.76481	10.84975		
8/26/2016	18	\$40.79	\$31.51	\$2.80	14.55781585	11.24483	8/26/2016	18	14.55782	11.24483		
8/26/2016	19	\$47.09	\$34.50	\$2.80	16.8047823	12.31335	8/26/2016	19	16.80478	12.31335		
8/27/2016	12	\$24.53	-\$13.54	\$2.69	9.116313638	-5.03196	8/27/2016	12	9.116314	-5.03196	13.14	9.41
8/27/2016	13	\$24.48	-\$11.40	\$2.69	9.097733185	-4.23523	8/27/2016	13	9.097733	-4.23523		
8/27/2016	14	\$25.38	\$6.47	\$2.69	9.431809736	2.404311	8/27/2016	14	9.43181	2.404311		
8/27/2016	15	\$26.53	\$16.54	\$2.69	9.857302118	6.146414	8/27/2016	15	9.857302	6.146414		
8/27/2016	16	\$29.70	\$23.21	\$2.69	11.03790412	8.62579	8/27/2016	16	11.0379	8.62579		
8/27/2016	17	\$33.23	\$23.93	\$2.69	12.34894091	8.892233	8/27/2016	17	12.34894	8.892233		
8/27/2016	18	\$35.71	\$24.98	\$2.69	13.2705314	9.280936	8/27/2016	18	13.27053	9.280936		
8/27/2016	19	\$42.78	\$29.22	\$2.69	15.89557785	10.85767	8/27/2016	19	15.89558	10.85767		
8/28/2016	12	\$22.56	\$8.79	\$2.69	8.382757339	3.267187	8/28/2016	12	8.382757	3.267187	14.59	13.04
8/28/2016	13	\$25.68	\$18.82	\$2.69	9.542549238	6.993683	8/28/2016	13	9.542549	6.993683		
8/28/2016	14	\$26.83	\$26.30	\$2.69	9.970271275	9.774805	8/28/2016	14	9.970271	9.774805		
8/28/2016	15	\$29.50	\$28.47	\$2.69	10.96060944	10.58045	8/28/2016	15	10.96061	10.58045		
8/28/2016	16	\$34.12	\$34.38	\$2.69	12.67781494	12.77666	8/28/2016	16	12.67781	12.77666		
8/28/2016	17	\$36.61	\$32.12	\$2.69	13.60609439	11.93608	8/28/2016	17	13.60609	11.93608		
8/28/2016	18	\$39.48	\$36.11	\$2.69	14.67149758	13.41695	8/28/2016	18	14.6715	13.41695		
8/28/2016	19	\$46.79	\$37.78	\$2.69	17.38758826	14.03865	8/28/2016	19	17.38759	14.03865		
8/29/2016	12	\$33.06	\$27.52	\$2.69	12.28576737	10.22557	8/29/2016	12	12.28577	10.22557	17.41	15.24
8/29/2016	13	\$34.09	\$31.05	\$2.69	12.66629506	11.53883	8/29/2016	13	12.6663	11.53883		
8/29/2016	14	\$35.49	\$39.97	\$2.69	13.1884058	14.8521	8/29/2016	14	13.18841	14.8521		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR	
8/29/2016	15	\$38.02	\$38.02	\$42.10	\$2.69	14.12783352	15.64623	8/29/2016	15	14.12783	15.64623		
8/29/2016	16	\$42.39	\$42.39	\$37.84	\$2.69	15.75102192	14.06057	8/29/2016	16	15.75102	14.06057		
8/29/2016	17	\$45.13	\$45.13	\$40.58	\$2.69	16.77146042	15.0799	8/29/2016	17	16.77146	15.0799		
8/29/2016	18	\$47.14	\$47.14	\$43.50	\$2.69	17.5165366	16.16611	8/29/2016	18	17.51654	16.16611		
8/29/2016	19	\$52.71	\$52.71	\$36.88	\$2.69	19.58900037	13.70308	8/29/2016	19	19.589	13.70308		
8/30/2016	12	\$34.09	\$34.09	\$31.62	\$3.09	11.04862237	10.24992	8/30/2016	12	11.04862	10.24992	17.06	13.03
8/30/2016	13	\$37.44	\$37.44	\$34.24	\$3.09	12.13517018	11.09757	8/30/2016	13	12.13517	11.09757		
8/30/2016	14	\$39.70	\$39.70	\$37.98	\$3.09	12.86839546	12.31021	8/30/2016	14	12.8684	12.31021		
8/30/2016	15	\$43.16	\$43.16	\$36.98	\$3.09	13.98995138	11.98606	8/30/2016	15	13.98995	11.98606		
8/30/2016	16	\$48.98	\$48.98	\$37.93	\$3.09	15.87520259	12.294	8/30/2016	16	15.8752	12.294		
8/30/2016	17	\$49.66	\$49.66	\$42.26	\$3.09	16.09756888	13.69984	8/30/2016	17	16.09757	13.69984		
8/30/2016	18	\$52.90	\$52.90	\$38.86	\$3.09	17.14846029	12.59708	8/30/2016	18	17.14846	12.59708		
8/30/2016	19	\$59.04	\$59.04	\$41.71	\$3.09	19.13873582	13.52058	8/30/2016	19	19.13874	13.52058		
8/31/2016	12	\$34.27	\$34.27	\$24.98	\$3.08	11.125	8.109091	8/31/2016	12	11.125	8.109091	19.69	106.79
8/31/2016	13	\$36.70	\$36.70	\$29.88	\$3.08	11.91525974	9.702597	8/31/2016	13	11.91526	9.702597		
8/31/2016	14	\$41.48	\$41.48	\$37.02	\$3.08	13.46850649	12.01948	8/31/2016	14	13.46851	12.01948		
8/31/2016	15	\$49.11	\$49.11	\$1,051.13	\$3.08	15.94350649	341.276	8/31/2016	15	15.94351	341.276		
8/31/2016	16	\$52.68	\$52.68	\$158.79	\$3.08	17.10487013	51.55649	8/31/2016	16	17.10487	51.55649		
8/31/2016	17	\$61.55	\$61.55	\$63.25	\$3.08	19.98344156	20.53506	8/31/2016	17	19.98344	20.53506		
8/31/2016	18	\$66.27	\$66.27	\$42.51	\$3.08	21.51558442	13.80325	8/31/2016	18	21.51558	13.80325		
8/31/2016	19	\$62.04	\$62.04	\$118.91	\$3.08	20.14285714	38.60844	8/31/2016	19	20.14286	38.60844		
9/1/2016	12	\$32.34	\$32.34	\$31.70	\$2.98	10.86328519	10.64965	9/1/2016	12	10.86329	10.64965	15.41	13.76
9/1/2016	13	\$32.63	\$32.63	\$33.63	\$2.98	10.9610346	11.29728	9/1/2016	13	10.96103	11.29728		
9/1/2016	14	\$34.10	\$34.10	\$45.56	\$2.98	11.45347665	15.30299	9/1/2016	14	11.45348	15.30299		
9/1/2016	15	\$36.61	\$36.61	\$42.85	\$2.98	12.29694323	14.39469	9/1/2016	15	12.29694	14.39469		
9/1/2016	16	\$38.25	\$38.25	\$41.82	\$2.98	12.84884112	14.04703	9/1/2016	16	12.84884	14.04703		
9/1/2016	17	\$44.14	\$44.14	\$33.38	\$2.98	14.82767887	11.21229	9/1/2016	17	14.82768	11.21229		
9/1/2016	18	\$47.75	\$47.75	\$32.72	\$2.98	16.03862949	10.98959	9/1/2016	18	16.03863	10.98959		
9/1/2016	19	\$53.35	\$53.35	\$39.29	\$2.98	17.92173329	13.19852	9/1/2016	19	17.92173	13.19852		
9/2/2016	12	\$28.24	\$28.24	\$29.84	\$2.89	9.778393352	10.33068	9/2/2016	12	9.778393	10.33068	13.27	48.06
9/2/2016	13	\$28.57	\$28.57	\$31.87	\$2.89	9.892313019	11.03393	9/2/2016	13	9.892313	11.03393		
9/2/2016	14	\$29.77	\$29.77	\$30.82	\$2.89	10.30886427	10.67244	9/2/2016	14	10.30886	10.67244		
9/2/2016	15	\$31.43	\$31.43	\$32.12	\$2.89	10.88123269	11.12292	9/2/2016	15	10.88123	11.12292		
9/2/2016	16	\$32.72	\$32.72	\$36.00	\$2.89	11.33067867	12.46607	9/2/2016	16	11.33068	12.46607		
9/2/2016	17	\$34.90	\$34.90	\$33.21	\$2.89	12.08552632	11.49792	9/2/2016	17	12.08553	11.49792		
9/2/2016	18	\$37.71	\$37.71	\$445.22	\$2.89	13.0567867	154.162	9/2/2016	18	13.05679	154.162		
9/2/2016	19	\$47.98	\$47.98	\$40.79	\$2.89	16.61253463	14.12327	9/2/2016	19	16.61253	14.12327		
9/3/2016	12	\$17.06	\$17.06	\$13.44	\$2.65	6.447845805	5.079743	9/3/2016	12	6.447846	5.079743	12.21	10.22
9/3/2016	13	\$20.66	\$20.66	\$17.03	\$2.65	7.806122449	6.43424	9/3/2016	13	7.806122	6.43424		
9/3/2016	14	\$22.86	\$22.86	\$17.18	\$2.65	8.637944067	6.49093	9/3/2016	14	8.637944	6.49093		
9/3/2016	15	\$24.79	\$24.79	\$17.78	\$2.65	9.368480726	6.718443	9/3/2016	15	9.368481	6.718443		
9/3/2016	16	\$25.54	\$25.54	\$20.93	\$2.65	9.652305367	7.908919	9/3/2016	16	9.652305	7.908919		
9/3/2016	17	\$28.33	\$28.33	\$21.88	\$2.65	10.70483749	8.267574	9/3/2016	17	10.70484	8.267574		
9/3/2016	18	\$33.59	\$33.59	\$25.21	\$2.65	12.69425548	9.527211	9/3/2016	18	12.69426	9.527211		
9/3/2016	19	\$41.75	\$41.75	\$40.18	\$2.65	15.78004535	15.18594	9/3/2016	19	15.78005	15.18594		
9/4/2016	12	\$8.99	\$8.99	-\$16.04	\$2.65	3.397581255	-6.06009	9/4/2016	12	3.397581	-6.06009	10.95	3.83
9/4/2016	13	\$9.12	\$9.12	-\$15.30	\$2.65	3.447845805	-5.78231	9/4/2016	13	3.447846	-5.78231		
9/4/2016	14	\$14.39	\$14.39	-\$15.23	\$2.65	5.439909297	-5.75699	9/4/2016	14	5.439909	-5.75699		
9/4/2016	15	\$18.44	\$18.44	-\$14.82	\$2.65	6.968631897	-5.60015	9/4/2016	15	6.968632	-5.60015		
9/4/2016	16	\$20.85	\$20.85	-\$4.88	\$2.65	7.877928949	-1.8424	9/4/2016	16	7.877929	-1.8424		
9/4/2016	17	\$25.69	\$25.69	\$5.51	\$2.65	9.708238851	2.082011	9/4/2016	17	9.708239	2.082011		
9/4/2016	18	\$30.13	\$30.13	\$13.65	\$2.65	11.38851096	5.157596	9/4/2016	18	11.38851	5.157596		
9/4/2016	19	\$39.18	\$39.18	\$26.30	\$2.65	14.80763416	9.939531	9/4/2016	19	14.80763	9.939531		
9/5/2016	12	\$21.92	\$21.92	\$7.73	\$2.65	8.283068783	2.921391	9/5/2016	12	8.283069	2.921391	12.68	8.72
9/5/2016	13	\$20.23	\$20.23	\$17.19	\$2.65	7.644746788	6.496221	9/5/2016	13	7.644747	6.496221		
9/5/2016	14	\$23.78	\$23.78	\$15.47	\$2.65	8.986016629	5.845805	9/5/2016	14	8.986017	5.845805		
9/5/2016	15	\$25.35	\$25.35	\$16.97	\$2.65	9.57898715	6.413454	9/5/2016	15	9.578987	6.413454		
9/5/2016	16	\$26.85	\$26.85	\$14.28	\$2.65	10.14701436	5.39607	9/5/2016	16	10.14701	5.39607		
9/5/2016	17	\$30.90	\$30.90	\$19.22	\$2.65	11.67687075	7.261905	9/5/2016	17	11.67687	7.261905		
9/5/2016	18	\$34.71	\$34.71	\$21.88	\$2.65	13.11791383	8.269841	9/5/2016	18	13.11791	8.269841		
9/5/2016	19	\$41.75	\$41.75	\$36.95	\$2.65	15.77664399	13.9641	9/5/2016	19	15.77664	13.9641		
9/6/2016	12	\$26.59	\$26.59	\$20.66	\$2.65	10.04875283	7.809524	9/6/2016	12	10.04875	7.809524	15.67	28.69
9/6/2016	13	\$29.87	\$29.87	\$22.60	\$2.65	11.28798186	8.540816	9/6/2016	13	11.28798	8.540816		
9/6/2016	14	\$31.54	\$31.54	\$23.74	\$2.65	11.92139078	8.972789	9/6/2016	14	11.92139	8.972789		
9/6/2016	15	\$32.89	\$32.89	\$26.44	\$2.65	12.4281935	9.992441	9/6/2016	15	12.42819	9.992441		
9/6/2016	16	\$34.65	\$34.65	\$30.27	\$2.65	13.09561602	11.43953	9/6/2016	16	13.09562	11.43953		
9/6/2016	17	\$38.29	\$38.29	\$197.36	\$2.65	14.4712774	74.58768	9/6/2016	17	14.47128	74.58768		
9/6/2016	18	\$42.76	\$42.76	\$37.83	\$2.65	16.16137566	14.29592	9/6/2016	18	16.16138	14.29592		
9/6/2016	19	\$50.12	\$50.12	\$38.23	\$2.65	18.94293273	14.44822	9/6/2016	19	18.94293	14.44822		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
9/7/2016	12	\$28.46	\$27.73	\$2.90	9.803306924	9.552532	9/7/2016	12	9.803307	9.552532	15.85	30.15
9/7/2016	13	\$31.75	\$25.62	\$2.90	10.93696176	8.825353	9/7/2016	13	10.93696	8.825353		
9/7/2016	14	\$36.26	\$26.27	\$2.90	12.49156045	9.04857	9/7/2016	14	12.49156	9.04857		
9/7/2016	15	\$38.33	\$34.22	\$2.90	13.20392697	11.78918	9/7/2016	15	13.20393	11.78918		
9/7/2016	16	\$40.25	\$35.80	\$2.90	13.86531175	12.33276	9/7/2016	16	13.86531	12.33276		
9/7/2016	17	\$42.00	\$29.61	\$2.90	14.46744747	10.19945	9/7/2016	17	14.46745	10.19945		
9/7/2016	18	\$45.60	\$200.81	\$2.90	15.70926628	69.17258	9/7/2016	18	15.70927	69.17258		
9/7/2016	19	\$56.22	\$83.89	\$2.90	19.36686187	28.89907	9/7/2016	19	19.36686	28.89907		
9/8/2016	12	\$26.87	\$24.85	\$2.78	9.680475504	8.950288	9/8/2016	12	9.680476	8.950288	14.33	14.42
9/8/2016	13	\$28.50	\$27.57	\$2.78	10.26585014	9.931556	9/8/2016	13	10.26585	9.931556		
9/8/2016	14	\$31.22	\$30.60	\$2.78	11.245317	11.02161	9/8/2016	14	11.24532	11.02161		
9/8/2016	15	\$32.24	\$33.08	\$2.78	11.61347262	11.91787	9/8/2016	15	11.61347	11.91787		
9/8/2016	16	\$34.69	\$37.22	\$2.78	12.495317	13.40706	9/8/2016	16	12.49532	13.40706		
9/8/2016	17	\$36.58	\$32.44	\$2.78	13.17579251	11.6866	9/8/2016	17	13.17579	11.6866		
9/8/2016	18	\$39.70	\$43.67	\$2.78	14.30223343	15.73235	9/8/2016	18	14.30223	15.73235		
9/8/2016	19	\$48.18	\$46.81	\$2.78	17.35590778	16.86167	9/8/2016	19	17.35591	16.86167		
9/9/2016	12	\$31.51	\$29.67	\$2.77	11.37400722	10.71264	9/9/2016	12	11.37401	10.71264	16.66	15.78
9/9/2016	13	\$32.71	\$32.61	\$2.77	11.80685921	11.77329	9/9/2016	13	11.80686	11.77329		
9/9/2016	14	\$35.93	\$37.90	\$2.77	12.97256318	13.68267	9/9/2016	14	12.97256	13.68267		
9/9/2016	15	\$37.68	\$40.44	\$2.77	13.60252708	14.59747	9/9/2016	15	13.60253	14.59747		
9/9/2016	16	\$39.98	\$37.01	\$2.77	14.43393502	13.36101	9/9/2016	16	14.43394	13.36101		
9/9/2016	17	\$43.92	\$35.35	\$2.77	15.85523466	12.76101	9/9/2016	17	15.85523	12.76101		
9/9/2016	18	\$46.97	\$55.37	\$2.77	16.95703971	19.98809	9/9/2016	18	16.95704	19.98809		
9/9/2016	19	\$53.78	\$47.16	\$2.77	19.41371841	17.02455	9/9/2016	19	19.41372	17.02455		
9/10/2016	12	\$35.39	\$18.42	\$2.72	13.00257164	6.76745	9/10/2016	12	13.00257	6.76745	15.63	15.48
9/10/2016	13	\$34.86	\$25.00	\$2.72	12.80749449	9.183321	9/10/2016	13	12.80749	9.183321		
9/10/2016	14	\$31.87	\$26.92	\$2.72	11.70903747	9.88795	9/10/2016	14	11.70904	9.88795		
9/10/2016	15	\$33.92	\$30.63	\$2.72	12.4617928	11.25386	9/10/2016	15	12.46179	11.25386		
9/10/2016	16	\$36.54	\$34.17	\$2.72	13.42395298	12.55474	9/10/2016	16	13.42395	12.55474		
9/10/2016	17	\$37.27	\$46.80	\$2.72	13.69140338	17.19471	9/10/2016	17	13.6914	17.19471		
9/10/2016	18	\$42.65	\$45.11	\$2.72	15.67009552	16.57274	9/10/2016	18	15.6701	16.57274		
9/10/2016	19	\$53.74	\$42.45	\$2.72	19.7421014	15.59478	9/10/2016	19	19.7421	15.59478		
9/11/2016	12	\$22.56	\$3.23	\$2.72	8.28949302	1.186627	9/11/2016	12	8.289493	1.186627	13.31	10.55
9/11/2016	13	\$25.19	\$19.05	\$2.72	9.252755327	6.996694	9/11/2016	13	9.252755	6.996694		
9/11/2016	14	\$26.90	\$22.07	\$2.72	9.881337252	8.109111	9/11/2016	14	9.881337	8.109111		
9/11/2016	15	\$26.26	\$21.35	\$2.72	9.648420279	7.84313	9/11/2016	15	9.64842	7.84313		
9/11/2016	16	\$29.31	\$25.22	\$2.72	10.76818516	9.266716	9/11/2016	16	10.76819	9.266716		
9/11/2016	17	\$31.93	\$27.66	\$2.72	11.73034533	10.16128	9/11/2016	17	11.73035	10.16128		
9/11/2016	18	\$38.02	\$26.06	\$2.72	13.96767083	9.574578	9/11/2016	18	13.96767	9.574578		
9/11/2016	19	\$45.70	\$35.90	\$2.72	16.79022777	13.1881	9/11/2016	19	16.79023	13.1881		
9/12/2016	12	\$23.84	\$21.12	\$2.72	8.758633358	7.759001	9/12/2016	12	8.758633	7.759001	12.39	8.90
9/12/2016	13	\$23.36	\$18.12	\$2.72	8.580822924	6.657972	9/12/2016	13	8.580823	6.657972		
9/12/2016	14	\$24.96	\$8.94	\$2.72	9.169728141	3.283248	9/12/2016	14	9.169728	3.283248		
9/12/2016	15	\$26.17	\$17.82	\$2.72	9.613519471	6.547392	9/12/2016	15	9.613519	6.547392		
9/12/2016	16	\$27.11	\$21.90	\$2.72	9.958853784	8.044085	9/12/2016	16	9.958854	8.044085		
9/12/2016	17	\$30.79	\$22.68	\$2.72	11.31227039	8.331741	9/12/2016	17	11.31227	8.331741		
9/12/2016	18	\$34.05	\$22.88	\$2.72	12.50918442	8.405217	9/12/2016	18	12.50918	8.405217		
9/12/2016	19	\$42.99	\$29.45	\$2.72	15.79206466	10.81925	9/12/2016	19	15.79206	10.81925		
9/13/2016	12	\$22.75	\$18.71	\$2.88	7.898263889	6.495486	9/13/2016	12	7.898264	6.495486	11.38	4.65
9/13/2016	13	\$23.62	\$15.67	\$2.88	8.200347222	5.442361	9/13/2016	13	8.200347	5.442361		
9/13/2016	14	\$24.47	-\$0.58	\$2.88	8.497569444	-0.20069	9/13/2016	14	8.497569	-0.20069		
9/13/2016	15	\$25.39	-\$3.42	\$2.88	8.815625	-1.18819	9/13/2016	15	8.815625	-1.18819		
9/13/2016	16	\$26.28	\$0.75	\$2.88	9.125694444	0.261111	9/13/2016	16	9.125694	0.261111		
9/13/2016	17	\$28.46	\$2.64	\$2.88	9.88125	0.916667	9/13/2016	17	9.88125	0.916667		
9/13/2016	18	\$34.39	\$20.77	\$2.88	11.94097222	7.210417	9/13/2016	18	11.94097	7.210417		
9/13/2016	19	\$41.98	\$29.38	\$2.88	14.57604167	10.20035	9/13/2016	19	14.57604	10.20035		
9/14/2016	12	\$26.88	-\$10.03	\$2.92	9.206849315	-3.43322	9/14/2016	12	9.206849	-3.43322	12.69	9.68
9/14/2016	13	\$27.52	\$9.38	\$2.92	9.425342466	3.213699	9/14/2016	13	9.425342	3.213699		
9/14/2016	14	\$28.02	\$17.38	\$2.92	9.597260274	5.953425	9/14/2016	14	9.59726	5.953425		
9/14/2016	15	\$29.94	\$18.66	\$2.92	10.25410959	6.389726	9/14/2016	15	10.25411	6.389726		
9/14/2016	16	\$31.92	\$22.88	\$2.92	10.92979452	7.836986	9/14/2016	16	10.92979	7.836986		
9/14/2016	17	\$34.63	\$27.86	\$2.92	11.86061644	9.542123	9/14/2016	17	11.86062	9.542123		
9/14/2016	18	\$37.58	\$28.78	\$2.92	12.87123288	9.856507	9/14/2016	18	12.87123	9.856507		
9/14/2016	19	\$44.09	\$33.51	\$2.92	15.10068493	11.47705	9/14/2016	19	15.10068	11.47705		
9/15/2016	12	\$28.00	-\$8.50	\$2.95	9.502544961	-2.88395	9/15/2016	12	9.502545	-2.88395	12.84	11.27
9/15/2016	13	\$28.23	\$12.64	\$2.95	9.579911775	4.289108	9/15/2016	13	9.579912	4.289108		
9/15/2016	14	\$29.29	\$8.07	\$2.95	9.940278249	2.739396	9/15/2016	14	9.940278	2.739396		
9/15/2016	15	\$31.09	\$24.54	\$2.95	10.54937224	8.326094	9/15/2016	15	10.54937	8.326094		
9/15/2016	16	\$33.46	\$26.46	\$2.95	11.3522226	8.978283	9/15/2016	16	11.35222	8.978283		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
9/15/2016	17	\$35.03	\$34.06	\$34.06	\$2.95	11.88530709	9/15/2016	17	11.88531	11.55853		
9/15/2016	18	\$37.35	\$37.61	\$37.61	\$2.95	12.67526298	9/15/2016	18	12.67526	12.76145		
9/15/2016	19	\$45.52	\$34.70	\$34.70	\$2.95	15.4475738	9/15/2016	19	15.44757	11.77401		
9/16/2016	12	\$24.21	\$21.67	\$21.67	\$2.87	8.436585366	9/16/2016	12	8.436585	7.55122	13.98	11.62
9/16/2016	13	\$26.14	\$24.50	\$24.50	\$2.87	9.106620209	9/16/2016	13	9.10662	8.536585		
9/16/2016	14	\$29.16	\$25.41	\$25.41	\$2.87	10.16062718	9/16/2016	14	10.16063	8.854704		
9/16/2016	15	\$32.21	\$26.37	\$26.37	\$2.87	11.22404181	9/16/2016	15	11.22404	9.18676		
9/16/2016	16	\$35.17	\$31.73	\$31.73	\$2.87	12.25470383	9/16/2016	16	12.2547	11.05401		
9/16/2016	17	\$35.57	\$30.92	\$30.92	\$2.87	12.39303136	9/16/2016	17	12.39303	10.77317		
9/16/2016	18	\$40.98	\$35.42	\$35.42	\$2.87	14.27979094	9/16/2016	18	14.27979	12.34146		
9/16/2016	19	\$48.72	\$35.33	\$35.33	\$2.87	16.97700348	9/16/2016	19	16.977	12.30906		
9/17/2016	12	\$17.64	-\$16.18	-\$16.18	\$2.78	6.350611951	9/17/2016	12	6.350612	-5.82505	14.30	17.84
9/17/2016	13	\$21.75	-\$8.23	-\$8.23	\$2.78	7.829733621	9/17/2016	13	7.829734	-2.96184		
9/17/2016	14	\$23.94	\$10.11	\$10.11	\$2.78	8.618070554	9/17/2016	14	8.618071	3.638949		
9/17/2016	15	\$27.43	\$22.08	\$22.08	\$2.78	9.872210223	9/17/2016	15	9.87221	7.948164		
9/17/2016	16	\$31.20	\$35.90	\$35.90	\$2.78	11.2300216	9/17/2016	16	11.23002	12.92153		
9/17/2016	17	\$35.24	\$36.77	\$36.77	\$2.78	12.68430526	9/17/2016	17	12.68431	13.2365		
9/17/2016	18	\$42.50	\$91.84	\$91.84	\$2.78	15.29769618	9/17/2016	18	15.2977	33.0612		
9/17/2016	19	\$50.00	\$33.74	\$33.74	\$2.78	17.99856012	9/17/2016	19	17.99856	12.14471		
9/18/2016	12	\$22.89	-\$9.83	-\$9.83	\$2.78	8.238660907	9/18/2016	12	8.238661	-3.53816	17.17	17.98
9/18/2016	13	\$26.94	\$19.70	\$19.70	\$2.78	9.695824334	9/18/2016	13	9.695824	7.090713		
9/18/2016	14	\$31.89	\$24.18	\$24.18	\$2.78	11.47984161	9/18/2016	14	11.47984	8.703024		
9/18/2016	15	\$34.67	\$35.44	\$35.44	\$2.78	12.47912167	9/18/2016	15	12.47912	12.75702		
9/18/2016	16	\$37.67	\$48.24	\$48.24	\$2.78	13.56083513	9/18/2016	16	13.56084	17.36429		
9/18/2016	17	\$42.49	\$38.40	\$38.40	\$2.78	15.29553636	9/18/2016	17	15.29554	13.82397		
9/18/2016	18	\$49.97	\$66.91	\$66.91	\$2.78	17.98704104	9/18/2016	18	17.98704	24.08603		
9/18/2016	19	\$60.68	\$46.19	\$46.19	\$2.78	21.84197264	9/18/2016	19	21.84197	16.62671		
9/19/2016	12	\$33.68	\$111.48	\$111.48	\$2.78	12.12455004	9/19/2016	12	12.12455	40.12887	18.44	100.33
9/19/2016	13	\$35.48	\$85.07	\$85.07	\$2.78	12.77285817	9/19/2016	13	12.77286	30.62203		
9/19/2016	14	\$37.86	\$103.95	\$103.95	\$2.78	13.6299496	9/19/2016	14	13.62995	37.41865		
9/19/2016	15	\$40.20	\$339.51	\$339.51	\$2.78	14.4712023	9/19/2016	15	14.4712	122.2142		
9/19/2016	16	\$44.06	\$44.96	\$44.96	\$2.78	15.86105112	9/19/2016	16	15.86105	16.18503		
9/19/2016	17	\$48.22	\$121.68	\$121.68	\$2.78	17.35673146	9/19/2016	17	17.35673	43.80166		
9/19/2016	18	\$55.93	\$608.66	\$608.66	\$2.78	20.13354932	9/19/2016	18	20.13355	219.0994		
9/19/2016	19	\$56.71	\$45.74	\$45.74	\$2.78	20.4150468	9/19/2016	19	20.41505	16.464		
9/20/2016	12	\$35.39	\$35.10	\$35.10	\$3.03	11.69144367	9/20/2016	12	11.69144	11.59531	16.57	28.70
9/20/2016	13	\$37.00	\$31.66	\$31.66	\$3.03	12.22200198	9/20/2016	13	12.222	10.45854		
9/20/2016	14	\$38.68	\$34.10	\$34.10	\$3.03	12.7789891	9/20/2016	14	12.77899	11.26561		
9/20/2016	15	\$40.84	\$34.21	\$34.21	\$3.03	13.4909151	9/20/2016	15	13.49092	11.30261		
9/20/2016	16	\$43.55	\$119.02	\$119.02	\$3.03	14.38586059	9/20/2016	16	14.38586	39.32012		
9/20/2016	17	\$48.64	\$49.77	\$49.77	\$3.03	16.06937562	9/20/2016	17	16.06938	16.44235		
9/20/2016	18	\$53.22	\$140.66	\$140.66	\$3.03	17.58077304	9/20/2016	18	17.58077	46.46746		
9/20/2016	19	\$55.27	\$38.02	\$38.02	\$3.03	18.25900231	9/20/2016	19	18.259	12.56029		
9/21/2016	12	\$35.33	\$33.95	\$33.95	\$3.05	11.59566787	9/21/2016	12	11.59567	11.14244	14.82	68.73
9/21/2016	13	\$34.93	\$35.16	\$35.16	\$3.05	11.4643912	9/21/2016	13	11.46439	11.5402		
9/21/2016	14	\$38.17	\$32.97	\$32.97	\$3.05	12.52641943	9/21/2016	14	12.52642	10.81982		
9/21/2016	15	\$39.35	\$89.61	\$89.61	\$3.05	12.91467017	9/21/2016	15	12.91467	29.40761		
9/21/2016	16	\$40.03	\$258.49	\$258.49	\$3.05	13.13587135	9/21/2016	16	13.13587	84.83492		
9/21/2016	17	\$43.49	\$212.85	\$212.85	\$3.05	14.27239908	9/21/2016	17	14.2724	69.85527		
9/21/2016	18	\$45.74	\$276.68	\$276.68	\$3.05	15.01214309	9/21/2016	18	15.01214	90.8044		
9/21/2016	19	\$51.39	\$68.08	\$68.08	\$3.05	16.86642599	9/21/2016	19	16.86643	22.34427		
9/22/2016	12	\$21.76	-\$7.28	-\$7.28	\$3.09	7.044998381	9/22/2016	12	7.044998	-2.35804	11.06	6.40
9/22/2016	13	\$21.30	-\$0.12	-\$0.12	\$3.09	6.895759145	9/22/2016	13	6.895759	-0.03852		
9/22/2016	14	\$25.05	-\$5.01	-\$5.01	\$3.09	8.108773066	9/22/2016	14	8.108773	-1.62091		
9/22/2016	15	\$27.57	\$7.53	\$7.53	\$3.09	8.926189705	9/22/2016	15	8.92619	2.437682		
9/22/2016	16	\$28.58	\$16.04	\$16.04	\$3.09	9.253480091	9/22/2016	16	9.25348	5.192295		
9/22/2016	17	\$30.07	\$16.09	\$16.09	\$3.09	9.733570735	9/22/2016	17	9.733571	5.207187		
9/22/2016	18	\$35.14	\$19.34	\$19.34	\$3.09	11.37423114	9/22/2016	18	11.37423	6.259307		
9/22/2016	19	\$42.87	\$27.66	\$27.66	\$3.09	13.87892522	9/22/2016	19	13.87893	8.953383		
9/23/2016	12	\$27.93	-\$12.64	-\$12.64	\$3.05	9.173070608	9/23/2016	12	9.173071	-4.15238	13.22	1.34
9/23/2016	13	\$28.26	\$8.18	\$8.18	\$3.05	9.28045977	9/23/2016	13	9.28046	2.686371		
9/23/2016	14	\$28.56	-\$2.06	-\$2.06	\$3.05	9.377668309	9/23/2016	14	9.377668	-0.67718		
9/23/2016	15	\$31.22	-\$15.45	-\$15.45	\$3.05	10.25287356	9/23/2016	15	10.25287	-5.07422		
9/23/2016	16	\$33.42	-\$12.16	-\$12.16	\$3.05	10.97536946	9/23/2016	16	10.97537	-3.99343		
9/23/2016	17	\$37.94	-\$11.81	-\$11.81	\$3.05	12.46075534	9/23/2016	17	12.46076	-3.87783		
9/23/2016	18	\$43.60	\$14.50	\$14.50	\$3.05	14.31921182	9/23/2016	18	14.31921	4.761576		
9/23/2016	19	\$46.00	\$25.74	\$25.74	\$3.05	15.10673235	9/23/2016	19	15.10673	8.452545		
9/24/2016	12	\$18.90	-\$13.60	-\$13.60	\$3.06	6.185270049	9/24/2016	12	6.18527	-4.45106	16.16	36.51
9/24/2016	13	\$23.98	-\$5.57	-\$5.57	\$3.06	7.850409165	9/24/2016	13	7.850409	-1.82357		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
9/24/2016	14	\$27.66	\$21.23	\$3.06	9.054337152	6.949918	9/24/2016	14	9.054337	6.949918		
9/24/2016	15	\$32.84	\$25.52	\$3.06	10.75090016	8.353191	9/24/2016	15	10.7509	8.353191		
9/24/2016	16	\$37.11	\$20.14	\$3.06	12.14631751	6.591162	9/24/2016	16	12.14632	6.591162		
9/24/2016	17	\$43.93	\$25.41	\$3.06	14.3787234	8.315876	9/24/2016	17	14.37872	8.315876		
9/24/2016	18	\$51.80	\$361.01	\$3.06	16.95450082	118.1709	9/24/2016	18	16.9545	118.1709		
9/24/2016	19	\$64.59	\$39.63	\$3.06	21.14206219	12.97283	9/24/2016	19	21.14206	12.97283		
9/25/2016	12	\$19.07	-\$13.30	\$3.06	6.241571195	-4.35286	9/25/2016	12	6.241571	-4.35286	18.20	26.50
9/25/2016	13	\$27.49	\$7.03	\$3.06	8.999672668	2.300491	9/25/2016	13	8.999673	2.300491		
9/25/2016	14	\$32.94	\$21.58	\$3.06	10.7806874	7.064812	9/25/2016	14	10.78069	7.064812		
9/25/2016	15	\$35.59	\$23.64	\$3.06	11.6507365	7.737152	9/25/2016	15	11.65074	7.737152		
9/25/2016	16	\$40.24	\$25.53	\$3.06	13.17152209	8.357447	9/25/2016	16	13.17152	8.357447		
9/25/2016	17	\$47.95	\$30.71	\$3.06	15.69492635	10.05368	9/25/2016	17	15.69493	10.05368		
9/25/2016	18	\$58.06	\$103.52	\$3.06	19.00621931	33.88642	9/25/2016	18	19.00622	33.88642		
9/25/2016	19	\$76.11	\$164.06	\$3.06	24.91456628	53.70049	9/25/2016	19	24.91457	53.70049		
9/26/2016	12	\$41.81	\$62.06	\$3.06	13.68576105	20.31457	9/26/2016	12	13.68576	20.31457	29.17	96.15
9/26/2016	13	\$42.50	\$82.50	\$3.06	13.91031097	27.00622	9/26/2016	13	13.91031	27.00622		
9/26/2016	14	\$49.67	\$81.67	\$3.06	16.25793781	26.73322	9/26/2016	14	16.25794	26.73322		
9/26/2016	15	\$55.64	\$236.98	\$3.06	18.21243863	77.57021	9/26/2016	15	18.21244	77.57021		
9/26/2016	16	\$64.27	\$238.27	\$3.06	21.03666121	77.99313	9/26/2016	16	21.03666	77.99313		
9/26/2016	17	\$95.51	\$286.49	\$3.06	31.26448445	93.7784	9/26/2016	17	31.26448	93.7784		
9/26/2016	18	\$97.71	\$259.51	\$3.06	31.98428805	84.94468	9/26/2016	18	31.98429	84.94468		
9/26/2016	19	\$98.99	\$390.70	\$3.06	32.40360065	127.8871	9/26/2016	19	32.4036	127.8871		
9/27/2016	12	\$38.74	\$144.12	\$3.24	11.96787149	44.52147	9/27/2016	12	11.96787	44.52147	19.54	33.23
9/27/2016	13	\$42.87	\$87.24	\$3.24	13.24467099	26.94964	9/27/2016	13	13.24467	26.94964		
9/27/2016	14	\$46.28	\$73.91	\$3.24	14.29749768	22.83194	9/27/2016	14	14.2975	22.83194		
9/27/2016	15	\$50.79	\$124.97	\$3.24	15.68952734	38.60735	9/27/2016	15	15.68953	38.60735		
9/27/2016	16	\$49.97	\$50.18	\$3.24	15.43713315	15.50201	9/27/2016	16	15.43713	15.50201		
9/27/2016	17	\$54.82	\$44.31	\$3.24	16.93636083	13.68798	9/27/2016	17	16.93636	13.68798		
9/27/2016	18	\$69.75	\$40.41	\$3.24	21.54742045	12.48409	9/27/2016	18	21.54742	12.48409		
9/27/2016	19	\$78.43	\$50.12	\$3.24	24.2304603	15.4844	9/27/2016	19	24.23046	15.4844		
9/28/2016	12	\$37.66	\$27.07	\$3.08	12.2246024	8.785459	9/28/2016	12	12.2246	8.785459	19.18	19.26
9/28/2016	13	\$42.10	\$29.37	\$3.08	13.66471925	9.533268	9/28/2016	13	13.66472	9.533268		
9/28/2016	14	\$50.31	\$36.58	\$3.08	16.32911392	11.87342	9/28/2016	14	16.32911	11.87342		
9/28/2016	15	\$52.47	\$102.78	\$3.08	17.03115871	33.35962	9/28/2016	15	17.03116	33.35962		
9/28/2016	16	\$54.34	\$44.85	\$3.08	17.63777994	14.55696	9/28/2016	16	17.63778	14.55696		
9/28/2016	17	\$59.08	\$41.72	\$3.08	19.17689062	13.53976	9/28/2016	17	19.17689	13.53976		
9/28/2016	18	\$59.81	\$47.98	\$3.08	19.41123012	15.57124	9/28/2016	18	19.41123	15.57124		
9/28/2016	19	\$63.14	\$36.29	\$3.08	20.49334632	11.77929	9/28/2016	19	20.49335	11.77929		
9/29/2016	12	\$35.92	\$32.16	\$2.99	12.02242303	10.76406	9/29/2016	12	12.02242	10.76406	17.47	14.18
9/29/2016	13	\$39.00	\$31.63	\$2.99	13.05321285	10.58601	9/29/2016	13	13.05321	10.58601		
9/29/2016	14	\$44.23	\$40.32	\$2.99	14.80287818	13.49531	9/29/2016	14	14.80288	13.49531		
9/29/2016	15	\$46.46	\$42.17	\$2.99	15.5478581	14.11312	9/29/2016	15	15.54786	14.11312		
9/29/2016	16	\$48.42	\$43.32	\$2.99	16.20548862	14.49833	9/29/2016	16	16.20549	14.49833		
9/29/2016	17	\$52.45	\$41.56	\$2.99	17.55287818	13.9073	9/29/2016	17	17.55288	13.9073		
9/29/2016	18	\$52.18	\$42.45	\$2.99	17.46318608	14.20616	9/29/2016	18	17.46319	14.20616		
9/29/2016	19	\$55.70	\$38.09	\$2.99	18.64257028	12.74766	9/29/2016	19	18.64257	12.74766		
9/30/2016	12	\$38.20	\$35.01	\$2.92	13.0742642	11.98118	9/30/2016	12	13.07426	11.98118	14.94	13.98
9/30/2016	13	\$37.26	\$33.20	\$2.92	12.74982888	11.36242	9/30/2016	13	12.74983	11.36242		
9/30/2016	14	\$35.54	\$33.16	\$2.92	12.16221766	11.34908	9/30/2016	14	12.16222	11.34908		
9/30/2016	15	\$36.67	\$38.04	\$2.92	12.54859685	13.01916	9/30/2016	15	12.5486	13.01916		
9/30/2016	16	\$40.17	\$33.52	\$2.92	13.74606434	11.47194	9/30/2016	16	13.74606	11.47194		
9/30/2016	17	\$41.24	\$34.53	\$2.92	14.11259411	11.81691	9/30/2016	17	14.11259	11.81691		
9/30/2016	18	\$43.92	\$57.26	\$2.92	15.02977413	19.59582	9/30/2016	18	15.02977	19.59582		
9/30/2016	19	\$49.35	\$29.82	\$2.92	16.88911704	10.20397	9/30/2016	19	16.88912	10.20397		
10/1/2016	12	\$25.47	\$36.00	\$2.75	9.277595628	13.11585	10/1/2016	12	9.277596	13.11585	14.48	21.34
10/1/2016	13	\$27.60	\$37.02	\$2.75	10.05464481	13.48561	10/1/2016	13	10.05464	13.48561		
10/1/2016	14	\$28.13	\$109.79	\$2.75	10.24918033	39.99781	10/1/2016	14	10.24918	39.99781		
10/1/2016	15	\$29.31	\$45.33	\$2.75	10.67868852	16.51475	10/1/2016	15	10.67869	16.51475		
10/1/2016	16	\$31.82	\$31.95	\$2.75	11.59307832	11.63752	10/1/2016	16	11.59308	11.63752		
10/1/2016	17	\$34.47	\$47.25	\$2.75	12.55555556	17.21457	10/1/2016	17	12.55556	17.21457		
10/1/2016	18	\$41.35	\$53.14	\$2.75	15.06448087	19.35956	10/1/2016	18	15.06448	19.35956		
10/1/2016	19	\$51.32	\$44.43	\$2.75	18.69581056	16.1847	10/1/2016	19	18.69581	16.1847		
10/2/2016	12	\$16.61	-\$3.95	\$2.75	6.050637523	-1.43862	10/2/2016	12	6.050638	-1.43862	12.08	12.00
10/2/2016	13	\$19.29	\$17.88	\$2.75	7.026593807	6.51439	10/2/2016	13	7.026594	6.51439		
10/2/2016	14	\$20.38	\$15.70	\$2.75	7.424772313	5.718761	10/2/2016	14	7.424772	5.718761		
10/2/2016	15	\$23.02	\$13.12	\$2.75	8.386156648	4.777778	10/2/2016	15	8.386157	4.777778		
10/2/2016	16	\$23.83	-\$9.09	\$2.75	8.681602914	-3.31002	10/2/2016	16	8.681603	-3.31002		
10/2/2016	17	\$26.63	-\$0.97	\$2.75	9.700182149	-0.35337	10/2/2016	17	9.700182	-0.35337		
10/2/2016	18	\$35.31	\$24.28	\$2.75	12.86156648	8.843352	10/2/2016	18	12.86157	8.843352		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR	
10/2/2016	19	\$46.89	\$46.89	\$117.55	\$2.75	17.08160291	42.82295	10/2/2016	19	17.0816	42.82295		
10/3/2016	12	\$23.97	\$23.97	-\$15.12	\$2.75	8.732240437	-5.50965	10/3/2016	12	8.73224	-5.50965	14.94	48.35
10/3/2016	13	\$25.10	\$25.10	-\$11.28	\$2.75	9.1428051	-4.10893	10/3/2016	13	9.142805	-4.10893		
10/3/2016	14	\$25.60	\$25.60	-\$0.69	\$2.75	9.324590164	-0.24991	10/3/2016	14	9.32459	-0.24991		
10/3/2016	15	\$30.00	\$30.00	-\$11.03	\$2.75	10.92786885	-4.01858	10/3/2016	15	10.92787	-4.01858		
10/3/2016	16	\$32.70	\$32.70	\$27.84	\$2.75	11.91183971	10.14353	10/3/2016	16	11.91184	10.14353		
10/3/2016	17	\$34.88	\$34.88	\$30.46	\$2.75	12.70819672	11.09763	10/3/2016	17	12.7082	11.09763		
10/3/2016	18	\$44.37	\$44.37	\$431.73	\$2.75	16.16357013	157.2772	10/3/2016	18	16.16357	157.2772		
10/3/2016	19	\$52.04	\$52.04	\$40.85	\$2.75	18.95956284	14.88233	10/3/2016	19	18.95956	14.88233		
10/4/2016	12	\$15.90	\$15.90	-\$155.21	\$2.86	5.562281316	-54.3065	10/4/2016	12	5.562281	-54.3065	11.17	-1.71
10/4/2016	13	\$20.00	\$20.00	-\$141.19	\$2.86	6.998250525	-49.4003	10/4/2016	13	6.998251	-49.4003		
10/4/2016	14	\$18.54	\$18.54	-\$119.15	\$2.86	6.488453464	-41.6903	10/4/2016	14	6.488453	-41.6903		
10/4/2016	15	\$19.64	\$19.64	-\$49.34	\$2.86	6.870538838	-17.2649	10/4/2016	15	6.870539	-17.2649		
10/4/2016	16	\$22.93	\$22.93	-\$24.39	\$2.86	8.021343597	-8.53464	10/4/2016	16	8.021344	-8.53464		
10/4/2016	17	\$23.35	\$23.35	-\$15.92	\$2.86	8.17109867	-5.57103	10/4/2016	17	8.171099	-5.57103		
10/4/2016	18	\$35.09	\$35.09	\$9.59	\$2.86	12.27606718	3.355143	10/4/2016	18	12.27607	3.355143		
10/4/2016	19	\$46.37	\$46.37	\$11.21	\$2.86	16.22323303	3.922323	10/4/2016	19	16.22323	3.922323		
10/5/2016	12	\$4.06	\$4.06	-\$5.87	\$2.86	1.4185884	-2.05171	10/5/2016	12	1.418588	-2.05171	9.61	15.52
10/5/2016	13	\$5.08	\$5.08	\$7.22	\$2.86	1.775681342	2.52376	10/5/2016	13	1.775681	2.52376		
10/5/2016	14	\$6.03	\$6.03	\$8.90	\$2.86	2.107617051	3.109015	10/5/2016	14	2.107617	3.109015		
10/5/2016	15	\$8.56	\$8.56	\$16.12	\$2.86	2.991614256	5.632425	10/5/2016	15	2.991614	5.632425		
10/5/2016	16	\$13.57	\$13.57	\$12.57	\$2.86	4.740391335	4.390985	10/5/2016	16	4.740391	4.390985		
10/5/2016	17	\$18.43	\$18.43	\$21.93	\$2.86	6.440251572	7.661076	10/5/2016	17	6.440252	7.661076		
10/5/2016	18	\$33.58	\$33.58	\$112.09	\$2.86	11.73340321	39.16422	10/5/2016	18	11.7334	39.16422		
10/5/2016	19	\$44.38	\$44.38	\$31.10	\$2.86	15.50733753	10.86653	10/5/2016	19	15.50734	10.86653		
10/6/2016	12	\$27.10	\$27.10	\$25.06	\$2.90	9.344482759	8.642414	10/6/2016	12	9.344483	8.642414	14.86	11.00
10/6/2016	13	\$29.43	\$29.43	\$23.42	\$2.90	10.14793103	8.074138	10/6/2016	13	10.14793	8.074138		
10/6/2016	14	\$32.36	\$32.36	\$24.97	\$2.90	11.15793103	8.611379	10/6/2016	14	11.15793	8.611379		
10/6/2016	15	\$33.97	\$33.97	\$20.60	\$2.90	11.71344828	7.102069	10/6/2016	15	11.71345	7.102069		
10/6/2016	16	\$34.86	\$34.86	\$24.68	\$2.90	12.02137931	8.511724	10/6/2016	16	12.02138	8.511724		
10/6/2016	17	\$37.75	\$37.75	\$25.37	\$2.90	13.01758621	8.749655	10/6/2016	17	13.01759	8.749655		
10/6/2016	18	\$43.36	\$43.36	\$46.73	\$2.90	14.95	16.11448	10/6/2016	18	14.95	16.11448		
10/6/2016	19	\$56.36	\$56.36	\$30.77	\$2.90	19.43275862	10.60897	10/6/2016	19	19.43276	10.60897		
10/7/2016	12	\$32.96	\$32.96	\$25.82	\$3.05	10.82107682	8.478004	10/7/2016	12	10.82108	8.478004	17.40	11.79
10/7/2016	13	\$35.49	\$35.49	\$25.45	\$3.05	11.65265923	8.355877	10/7/2016	13	11.65266	8.355877		
10/7/2016	14	\$40.42	\$40.42	\$23.45	\$3.05	13.26854892	7.699606	10/7/2016	14	13.26855	7.699606		
10/7/2016	15	\$43.93	\$43.93	\$24.68	\$3.05	14.42120814	8.101445	10/7/2016	15	14.42121	8.101445		
10/7/2016	16	\$43.95	\$43.95	\$26.05	\$3.05	14.42777413	8.552856	10/7/2016	16	14.42777	8.552856		
10/7/2016	17	\$45.13	\$45.13	\$29.58	\$3.05	14.81516743	9.712081	10/7/2016	17	14.81517	9.712081		
10/7/2016	18	\$52.66	\$52.66	\$52.33	\$3.05	17.28824688	17.17925	10/7/2016	18	17.28825	17.17925		
10/7/2016	19	\$70.27	\$70.27	\$35.74	\$3.05	23.06992777	11.73309	10/7/2016	19	23.06993	11.73309		
10/8/2016	12	\$30.99	\$30.99	\$35.18	\$2.96	10.46858108	11.88547	10/8/2016	12	10.46858	11.88547	17.35	19.95
10/8/2016	13	\$31.68	\$31.68	\$36.68	\$2.96	10.70135135	12.39291	10/8/2016	13	10.70135	12.39291		
10/8/2016	14	\$36.04	\$36.04	\$29.60	\$2.96	12.17635135	9.998311	10/8/2016	14	12.17635	9.998311		
10/8/2016	15	\$37.26	\$37.26	\$29.14	\$2.96	12.58682432	9.843243	10/8/2016	15	12.58682	9.843243		
10/8/2016	16	\$38.78	\$38.78	\$33.72	\$2.96	13.10135135	11.39223	10/8/2016	16	13.10135	11.39223		
10/8/2016	17	\$42.96	\$42.96	\$91.29	\$2.96	14.51351351	30.84054	10/8/2016	17	14.51351	30.84054		
10/8/2016	18	\$52.61	\$52.61	\$78.87	\$2.96	17.77398649	26.64426	10/8/2016	18	17.77399	26.64426		
10/8/2016	19	\$71.10	\$71.10	\$32.28	\$2.96	24.02027027	10.90676	10/8/2016	19	24.02027	10.90676		
10/9/2016	12	\$28.60	\$28.60	\$24.70	\$2.96	9.662837838	8.344257	10/9/2016	12	9.662838	8.344257	17.07	11.67
10/9/2016	13	\$29.65	\$29.65	\$26.81	\$2.96	10.01824324	9.057095	10/9/2016	13	10.01824	9.057095		
10/9/2016	14	\$33.10	\$33.10	\$25.72	\$2.96	11.18108108	8.6875	10/9/2016	14	11.18108	8.6875		
10/9/2016	15	\$35.66	\$35.66	\$31.55	\$2.96	12.04831081	10.6598	10/9/2016	15	12.04831	10.6598		
10/9/2016	16	\$37.96	\$37.96	\$34.01	\$2.96	12.82297297	11.48885	10/9/2016	16	12.82297	11.48885		
10/9/2016	17	\$40.94	\$40.94	\$36.00	\$2.96	13.83040541	12.1625	10/9/2016	17	13.83041	12.1625		
10/9/2016	18	\$50.78	\$50.78	\$36.45	\$2.96	17.15675676	12.3125	10/9/2016	18	17.15676	12.3125		
10/9/2016	19	\$72.46	\$72.46	\$31.76	\$2.96	24.48006757	10.72872	10/9/2016	19	24.48007	10.72872		
10/10/2016	12	\$32.99	\$32.99	\$26.18	\$2.96	11.14594595	8.844257	10/10/2016	12	11.14595	8.844257	17.06	25.49
10/10/2016	13	\$37.11	\$37.11	\$26.33	\$2.96	12.53682432	8.894932	10/10/2016	13	12.53682	8.894932		
10/10/2016	14	\$39.73	\$39.73	\$27.15	\$2.96	13.4222973	9.170608	10/10/2016	14	13.4223	9.170608		
10/10/2016	15	\$42.88	\$42.88	\$27.10	\$2.96	14.48513514	9.153716	10/10/2016	15	14.48514	9.153716		
10/10/2016	16	\$42.34	\$42.34	\$33.29	\$2.96	14.30439189	11.2473	10/10/2016	16	14.30439	11.2473		
10/10/2016	17	\$44.26	\$44.26	\$33.84	\$2.96	14.95405405	11.43378	10/10/2016	17	14.95405	11.43378		
10/10/2016	18	\$49.17	\$49.17	\$203.53	\$2.96	16.61216216	68.76149	10/10/2016	18	16.61216	68.76149		
10/10/2016	19	\$66.25	\$66.25	\$31.08	\$2.96	22.38243243	10.50068	10/10/2016	19	22.38243	10.50068		
10/11/2016	12	\$31.12	\$31.12	\$23.05	\$3.20	9.731081926	7.206379	10/11/2016	12	9.731082	7.206379	12.90	10.31
10/11/2016	13	\$30.21	\$30.21	\$21.36	\$3.20	9.447467167	6.677924	10/11/2016	13	9.447467	6.677924		
10/11/2016	14	\$33.65	\$33.65	\$21.30	\$3.20	10.52157598	6.661038	10/11/2016	14	10.52158	6.661038		
10/11/2016	15	\$33.26	\$33.26	\$22.56	\$3.20	10.39993746	7.054409	10/11/2016	15	10.39994	7.054409		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
10/11/2016	16	\$32.31	\$28.72	\$3.20	10.10350219	8.979362	10/11/2016	16	10.1035	8.979362		
10/11/2016	17	\$36.71	\$31.43	\$3.20	11.47904941	9.826767	10/11/2016	17	11.47905	9.826767		
10/11/2016	18	\$42.54	\$39.58	\$3.20	13.30268918	12.37586	10/11/2016	18	13.30269	12.37586		
10/11/2016	19	\$53.46	\$32.10	\$3.20	16.71669794	10.03877	10/11/2016	19	16.7167	10.03877		
10/12/2016	12	\$26.21	\$26.37	\$3.05	8.593770492	8.646885	10/12/2016	12	8.59377	8.646885	12.63	8.40
10/12/2016	13	\$26.95	\$22.99	\$3.05	8.835737705	7.536066	10/12/2016	13	8.835738	7.536066		
10/12/2016	14	\$27.57	\$24.62	\$3.05	9.04	8.073115	10/12/2016	14	9.04	8.073115		
10/12/2016	15	\$27.69	\$17.06	\$3.05	9.077704918	5.594098	10/12/2016	15	9.077705	5.594098		
10/12/2016	16	\$28.65	\$6.49	\$3.05	9.392459016	2.127869	10/12/2016	16	9.392459	2.127869		
10/12/2016	17	\$32.04	\$16.96	\$3.05	10.5042623	5.560984	10/12/2016	17	10.50426	5.560984		
10/12/2016	18	\$40.79	\$31.58	\$3.05	13.37278689	10.35377	10/12/2016	18	13.37279	10.35377		
10/12/2016	19	\$52.56	\$47.50	\$3.05	17.23147541	15.57508	10/12/2016	19	17.23148	15.57508		
10/13/2016	12	\$24.90	\$31.75	\$3.03	8.229345671	10.49273	10/13/2016	12	8.229346	10.49273	13.40	80.38
10/13/2016	13	\$27.34	\$36.74	\$3.03	9.035690681	12.14012	10/13/2016	13	9.035691	12.14012		
10/13/2016	14	\$28.55	\$127.80	\$3.03	9.434567085	42.23364	10/13/2016	14	9.434567	42.23364		
10/13/2016	15	\$29.70	\$39.76	\$3.03	9.814606742	13.13979	10/13/2016	15	9.814607	13.13979		
10/13/2016	16	\$31.80	\$290.63	\$3.03	10.50727032	96.04461	10/13/2016	16	10.50727	96.04461		
10/13/2016	17	\$33.32	\$115.77	\$3.03	11.01123596	38.25843	10/13/2016	17	11.01124	38.25843		
10/13/2016	18	\$42.11	\$526.73	\$3.03	13.91473893	174.0684	10/13/2016	18	13.91474	174.0684		
10/13/2016	19	\$54.97	\$31.16	\$3.03	18.16688698	10.2961	10/13/2016	19	18.16689	10.2961		
10/14/2016	12	\$19.67	\$19.52	\$2.97	6.61466039	6.563887	10/14/2016	12	6.61466	6.563887	12.31	27.39
10/14/2016	13	\$20.83	\$19.26	\$2.97	7.003698722	6.475118	10/14/2016	13	7.003699	6.475118		
10/14/2016	14	\$21.90	\$26.29	\$2.97	7.362474781	8.839274	10/14/2016	14	7.362475	8.839274		
10/14/2016	15	\$21.99	\$24.19	\$2.97	7.392737054	8.135171	10/14/2016	15	7.392737	8.135171		
10/14/2016	16	\$26.03	\$31.65	\$2.97	8.753194351	10.64324	10/14/2016	16	8.753194	10.64324		
10/14/2016	17	\$30.20	\$40.27	\$2.97	10.15400134	13.54069	10/14/2016	17	10.154	13.54069		
10/14/2016	18	\$39.79	\$211.60	\$2.97	13.3802959	71.14862	10/14/2016	18	13.3803	71.14862		
10/14/2016	19	\$50.42	\$42.33	\$2.97	16.95258911	14.23235	10/14/2016	19	16.95259	14.23235		
10/15/2016	12	\$18.10	\$5.99	\$2.74	6.604888727	2.183874	10/15/2016	12	6.604889	2.183874	13.38	31.98
10/15/2016	13	\$20.11	\$2.79	\$2.74	7.335643926	1.019336	10/15/2016	13	7.335644	1.019336		
10/15/2016	14	\$21.31	\$2.93	\$2.74	7.77307552	1.070047	10/15/2016	14	7.773076	1.070047		
10/15/2016	15	\$22.42	\$4.17	\$2.74	8.180955856	1.522437	10/15/2016	15	8.180956	1.522437		
10/15/2016	16	\$24.99	\$20.74	\$2.74	9.116380883	7.568041	10/15/2016	16	9.116381	7.568041		
10/15/2016	17	\$30.58	\$255.81	\$2.74	11.15724188	93.32616	10/15/2016	17	11.15724	93.32616		
10/15/2016	18	\$39.72	\$35.98	\$2.74	14.4892375	13.12477	10/15/2016	18	14.48924	13.12477		
10/15/2016	19	\$51.46	\$38.13	\$2.74	18.77234586	13.91135	10/15/2016	19	18.77235	13.91135		
10/16/2016	12	\$18.96	\$0.82	\$2.74	6.916453849	0.299526	10/16/2016	12	6.916454	0.299526	13.97	10.07
10/16/2016	13	\$19.87	\$27.05	\$2.74	7.24771981	9.868296	10/16/2016	13	7.24772	9.868296		
10/16/2016	14	\$19.36	\$18.81	\$2.74	7.062750821	6.861729	10/16/2016	14	7.062751	6.861729		
10/16/2016	15	\$22.58	\$18.40	\$2.74	8.239328712	6.713973	10/16/2016	15	8.239329	6.713973		
10/16/2016	16	\$24.91	\$25.96	\$2.74	9.087194455	9.470996	10/16/2016	16	9.087194	9.470996		
10/16/2016	17	\$31.29	\$28.05	\$2.74	11.41444728	10.23459	10/16/2016	17	11.41445	10.23459		
10/16/2016	18	\$41.09	\$27.90	\$2.74	14.99087924	10.17767	10/16/2016	18	14.99088	10.17767		
10/16/2016	19	\$55.89	\$28.48	\$2.74	20.39036848	10.38854	10/16/2016	19	20.39037	10.38854		
10/17/2016	12	\$28.53	\$29.36	\$2.74	10.40861	10.71251	10/17/2016	12	10.40861	10.71251	15.90	32.71
10/17/2016	13	\$29.45	\$28.46	\$2.74	10.74534841	10.38307	10/17/2016	13	10.74535	10.38307		
10/17/2016	14	\$29.18	\$26.03	\$2.74	10.6442904	9.49471	10/17/2016	14	10.64429	9.49471		
10/17/2016	15	\$31.95	\$26.84	\$2.74	11.65632981	9.790587	10/17/2016	15	11.65633	9.790587		
10/17/2016	16	\$32.39	\$189.21	\$2.74	11.81758482	69.02955	10/17/2016	16	11.81758	69.02955		
10/17/2016	17	\$34.41	\$33.26	\$2.74	12.5552718	12.13389	10/17/2016	17	12.55527	12.13389		
10/17/2016	18	\$44.69	\$106.29	\$2.74	16.30390368	38.77928	10/17/2016	18	16.3039	38.77928		
10/17/2016	19	\$62.86	\$29.87	\$2.74	22.93141189	10.89748	10/17/2016	19	22.93141	10.89748		
10/18/2016	12	\$27.44	-\$6.00	\$3.05	9.008207485	-1.97045	10/18/2016	12	9.008207	-1.97045	14.81	14.46
10/18/2016	13	\$28.76	\$1.66	\$3.05	9.443204202	0.54629	10/18/2016	13	9.443204	0.54629		
10/18/2016	14	\$29.88	\$11.60	\$3.05	9.807944846	3.807288	10/18/2016	14	9.807945	3.807288		
10/18/2016	15	\$30.80	\$15.27	\$3.05	10.1112935	5.011819	10/18/2016	15	10.11129	5.011819		
10/18/2016	16	\$33.74	\$24.05	\$3.05	11.07780696	7.895929	10/18/2016	16	11.07781	7.895929		
10/18/2016	17	\$40.08	\$91.37	\$3.05	13.15659882	29.9977	10/18/2016	17	13.1566	29.9977		
10/18/2016	18	\$44.68	\$31.05	\$3.05	14.6667761	10.1937	10/18/2016	18	14.66678	10.1937		
10/18/2016	19	\$62.01	\$29.75	\$3.05	20.35718976	9.766251	10/18/2016	19	20.35719	9.766251		
10/19/2016	12	\$39.53	\$6.92	\$3.14	12.57188295	2.20229	10/19/2016	12	12.57188	2.20229	19.02	9.42
10/19/2016	13	\$42.58	\$19.70	\$3.14	13.5423028	6.266221	10/19/2016	13	13.5423	6.266221		
10/19/2016	14	\$42.49	\$19.45	\$3.14	13.51399491	6.187659	10/19/2016	14	13.51399	6.187659		
10/19/2016	15	\$49.12	\$18.81	\$3.14	15.6221374	5.984097	10/19/2016	15	15.62214	5.984097		
10/19/2016	16	\$48.80	\$16.52	\$3.14	15.52226463	5.253817	10/19/2016	16	15.52226	5.253817		
10/19/2016	17	\$50.52	\$28.92	\$3.14	16.06902036	9.196883	10/19/2016	17	16.06902	9.196883		
10/19/2016	18	\$60.66	\$35.50	\$3.14	19.29357506	11.29262	10/19/2016	18	19.29358	11.29262		
10/19/2016	19	\$79.23	\$37.48	\$3.14	25.19942748	11.92048	10/19/2016	19	25.19943	11.92048		
10/20/2016	12	\$45.64	\$17.45	\$3.27	13.96053839	5.336494	10/20/2016	12	13.96054	5.336494	21.76	13.24

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR	
10/20/2016	13	\$49.68	\$49.68	\$22.42	\$3.27	15.19639033	6.857449	10/20/2016	13	15.19639	6.857449		
10/20/2016	14	\$49.16	\$49.16	\$40.93	\$3.27	15.03762619	12.51942	10/20/2016	14	15.03763	12.51942		
10/20/2016	15	\$53.30	\$53.30	\$50.22	\$3.27	16.30498623	15.36341	10/20/2016	15	16.30499	15.36341		
10/20/2016	16	\$54.69	\$54.69	\$37.17	\$3.27	16.73111043	11.37076	10/20/2016	16	16.73111	11.37076		
10/20/2016	17	\$64.27	\$64.27	\$44.82	\$3.27	19.66014072	13.71092	10/20/2016	17	19.66014	13.71092		
10/20/2016	18	\$71.07	\$71.07	\$40.48	\$3.27	21.73906393	12.3836	10/20/2016	18	21.73906	12.3836		
10/20/2016	19	\$94.51	\$94.51	\$37.44	\$3.27	28.91128786	11.45243	10/20/2016	19	28.91129	11.45243		
10/21/2016	12	\$36.98	\$36.98	\$26.19	\$3.18	11.64629921	8.250079	10/21/2016	12	11.6463	8.250079	19.05	12.11
10/21/2016	13	\$42.81	\$42.81	\$30.62	\$3.18	13.48377953	9.644409	10/21/2016	13	13.48378	9.644409		
10/21/2016	14	\$44.49	\$44.49	\$34.53	\$3.18	14.01228346	10.87433	10/21/2016	14	14.01228	10.87433		
10/21/2016	15	\$47.94	\$47.94	\$35.07	\$3.18	15.0976378	11.04535	10/21/2016	15	15.09764	11.04535		
10/21/2016	16	\$48.12	\$48.12	\$37.09	\$3.18	15.15590551	11.68126	10/21/2016	16	15.15591	11.68126		
10/21/2016	17	\$50.31	\$50.31	\$41.71	\$3.18	15.84598425	13.13575	10/21/2016	17	15.84598	13.13575		
10/21/2016	18	\$62.15	\$62.15	\$39.93	\$3.18	19.57417323	12.57701	10/21/2016	18	19.57417	12.57701		
10/21/2016	19	\$81.36	\$81.36	\$34.82	\$3.18	25.62456693	10.96756	10/21/2016	19	25.62457	10.96756		
10/22/2016	12	\$24.13	\$24.13	-\$16.21	\$2.88	8.393391304	-5.63791	10/22/2016	12	8.393391	-5.63791	15.30	14.92
10/22/2016	13	\$27.47	\$27.47	-\$12.21	\$2.88	9.554434783	-4.24765	10/22/2016	13	9.554435	-4.24765		
10/22/2016	14	\$28.31	\$28.31	\$5.33	\$2.88	9.847304348	1.855304	10/22/2016	14	9.847304	1.855304		
10/22/2016	15	\$29.07	\$29.07	\$23.44	\$2.88	10.11269565	8.153739	10/22/2016	15	10.1127	8.153739		
10/22/2016	16	\$33.18	\$33.18	\$29.82	\$2.88	11.53982609	10.37043	10/22/2016	16	11.53983	10.37043		
10/22/2016	17	\$37.64	\$37.64	\$60.54	\$2.88	13.09182609	21.05809	10/22/2016	17	13.09183	21.05809		
10/22/2016	18	\$45.37	\$45.37	\$42.68	\$2.88	15.78156522	14.84522	10/22/2016	18	15.78157	14.84522		
10/22/2016	19	\$59.72	\$59.72	\$38.56	\$2.88	20.77321739	13.41357	10/22/2016	19	20.77322	13.41357		
10/23/2016	12	\$19.07	\$19.07	\$24.01	\$2.88	6.634434783	8.350957	10/23/2016	12	6.634435	8.350957	14.92	17.43
10/23/2016	13	\$24.87	\$24.87	\$27.30	\$2.88	8.650086957	9.496696	10/23/2016	13	8.650087	9.496696		
10/23/2016	14	\$26.29	\$26.29	\$22.26	\$2.88	9.145043478	7.742609	10/23/2016	14	9.145043	7.742609		
10/23/2016	15	\$27.90	\$27.90	\$27.79	\$2.88	9.702608696	9.665043	10/23/2016	15	9.702609	9.665043		
10/23/2016	16	\$32.26	\$32.26	\$113.31	\$2.88	11.21913043	39.41183	10/23/2016	16	11.21913	39.41183		
10/23/2016	17	\$36.34	\$36.34	\$29.17	\$2.88	12.6413913	10.14435	10/23/2016	17	12.64139	10.14435		
10/23/2016	18	\$45.00	\$45.00	\$28.98	\$2.88	15.65147826	10.07826	10/23/2016	18	15.65148	10.07826		
10/23/2016	19	\$57.99	\$57.99	\$29.02	\$2.88	20.16973913	10.09217	10/23/2016	19	20.16974	10.09217		
10/24/2016	12	\$33.68	\$33.68	\$35.60	\$2.88	11.71582609	12.38157	10/24/2016	12	11.71583	12.38157	15.65	72.54
10/24/2016	13	\$33.49	\$33.49	\$51.34	\$2.88	11.65008696	17.85774	10/24/2016	13	11.65009	17.85774		
10/24/2016	14	\$35.61	\$35.61	\$124.45	\$2.88	12.38434783	43.28522	10/24/2016	14	12.38435	43.28522		
10/24/2016	15	\$35.57	\$35.57	\$135.04	\$2.88	12.37356522	46.97009	10/24/2016	15	12.37357	46.97009		
10/24/2016	16	\$39.21	\$39.21	\$449.75	\$2.88	13.63721739	156.4334	10/24/2016	16	13.63722	156.4334		
10/24/2016	17	\$40.62	\$40.62	\$124.97	\$2.88	14.12765217	43.46609	10/24/2016	17	14.12765	43.46609		
10/24/2016	18	\$43.85	\$43.85	\$36.91	\$2.88	15.25078261	12.83791	10/24/2016	18	15.25078	12.83791		
10/24/2016	19	\$56.36	\$56.36	\$31.35	\$2.88	19.60313043	10.90365	10/24/2016	19	19.60313	10.90365		
10/25/2016	12	\$39.84	\$39.84	\$1.93	\$2.88	13.81997919	0.669442	10/25/2016	12	13.81998	0.669442	16.32	19.95
10/25/2016	13	\$36.91	\$36.91	\$20.31	\$2.88	12.80402359	7.045786	10/25/2016	13	12.80402	7.045786		
10/25/2016	14	\$34.64	\$34.64	\$28.26	\$2.88	12.01387444	9.802289	10/25/2016	14	12.01387	9.802289		
10/25/2016	15	\$35.56	\$35.56	\$29.21	\$2.88	12.33576136	10.13215	10/25/2016	15	12.33576	10.13215		
10/25/2016	16	\$37.60	\$37.60	\$26.17	\$2.88	13.04023587	9.078391	10/25/2016	16	13.04024	9.078391		
10/25/2016	17	\$41.59	\$41.59	\$116.03	\$2.88	14.42559834	40.24488	10/25/2016	17	14.4256	40.24488		
10/25/2016	18	\$47.48	\$47.48	\$46.10	\$2.88	16.46860909	15.98959	10/25/2016	18	16.46861	15.98959		
10/25/2016	19	\$61.57	\$61.57	\$41.72	\$2.88	21.35483871	14.47104	10/25/2016	19	21.35484	14.47104		
10/26/2016	12	\$28.99	\$28.99	\$23.01	\$2.82	10.27943262	8.15922	10/26/2016	12	10.27943	8.15922	16.57	36.38
10/26/2016	13	\$30.81	\$30.81	\$26.66	\$2.82	10.9248227	9.452482	10/26/2016	13	10.92482	9.452482		
10/26/2016	14	\$31.38	\$31.38	\$26.79	\$2.82	11.12624113	9.498227	10/26/2016	14	11.12624	9.498227		
10/26/2016	15	\$32.22	\$32.22	\$30.01	\$2.82	11.42375887	10.64291	10/26/2016	15	11.42376	10.64291		
10/26/2016	16	\$35.72	\$35.72	\$207.23	\$2.82	12.66524823	73.48511	10/26/2016	16	12.66525	73.48511		
10/26/2016	17	\$36.81	\$36.81	\$129.95	\$2.82	13.0535461	46.08121	10/26/2016	17	13.05355	46.08121		
10/26/2016	18	\$48.76	\$48.76	\$38.52	\$2.82	17.29219858	13.65993	10/26/2016	18	17.2922	13.65993		
10/26/2016	19	\$65.62	\$65.62	\$34.67	\$2.82	23.2677305	12.29326	10/26/2016	19	23.26773	12.29326		
10/27/2016	12	\$30.05	\$30.05	\$37.67	\$2.84	10.59111738	13.27741	10/27/2016	12	10.59112	13.27741	16.57	50.35
10/27/2016	13	\$30.15	\$30.15	\$46.94	\$2.84	10.62777582	16.54388	10/27/2016	13	10.62778	16.54388		
10/27/2016	14	\$31.13	\$31.13	\$45.54	\$2.84	10.97321114	16.05323	10/27/2016	14	10.97321	16.05323		
10/27/2016	15	\$31.70	\$31.70	\$415.61	\$2.84	11.1741276	146.4977	10/27/2016	15	11.17413	146.4977		
10/27/2016	16	\$37.23	\$37.23	\$37.83	\$2.84	13.12160733	13.33416	10/27/2016	16	13.12161	13.33416		
10/27/2016	17	\$40.21	\$40.21	\$72.36	\$2.84	14.17448008	25.50652	10/27/2016	17	14.17448	25.50652		
10/27/2016	18	\$46.21	\$46.21	\$38.15	\$2.84	16.2893902	13.44695	10/27/2016	18	16.28939	13.44695		
10/27/2016	19	\$64.40	\$64.40	\$61.82	\$2.84	22.69897779	21.79168	10/27/2016	19	22.69898	21.79168		
10/28/2016	12	\$35.18	\$35.18	\$27.81	\$2.86	12.32294221	9.742207	10/28/2016	12	12.32294	9.742207	15.98	16.78
10/28/2016	13	\$37.56	\$37.56	\$23.71	\$2.86	13.1558669	8.304028	10/28/2016	13	13.15587	8.304028		
10/28/2016	14	\$37.21	\$37.21	\$21.94	\$2.86	13.03397548	7.684413	10/28/2016	14	13.03398	7.684413		
10/28/2016	15	\$37.66	\$37.66	\$22.60	\$2.86	13.1915937	7.915587	10/28/2016	15	13.19159	7.915587		
10/28/2016	16	\$36.85	\$36.85	\$28.83	\$2.86	12.90683012	10.09667	10/28/2016	16	12.90683	10.09667		
10/28/2016	17	\$38.80	\$38.80	\$41.09	\$2.86	13.58949212	14.39264	10/28/2016	17	13.58949	14.39264		

Day	Hour Ending(HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
10/28/2016	18	\$46.38	\$38.37	\$2.86	16.24623468	13.43888	10/28/2016	18	16.24623	13.43888		
10/28/2016	19	\$60.50	\$83.30	\$2.86	21.19124343	29.17548	10/28/2016	19	21.19124	29.17548		
10/29/2016	12	\$23.87	\$19.40	\$2.64	9.034065102	7.344058	10/29/2016	12	9.034065	7.344058	15.72	11.72
10/29/2016	13	\$26.24	\$24.27	\$2.64	9.930355791	9.18433	10/29/2016	13	9.930356	9.18433		
10/29/2016	14	\$28.15	\$24.83	\$2.64	10.65367146	9.396291	10/29/2016	14	10.65367	9.396291		
10/29/2016	15	\$28.84	\$27.52	\$2.64	10.91635125	10.41597	10/29/2016	15	10.91635	10.41597		
10/29/2016	16	\$31.43	\$26.40	\$2.64	11.89629069	9.993565	10/29/2016	16	11.89629	9.993565		
10/29/2016	17	\$35.18	\$34.22	\$2.64	13.31718395	12.95344	10/29/2016	17	13.31718	12.95344		
10/29/2016	18	\$43.18	\$30.21	\$2.64	16.34481453	11.43338	10/29/2016	18	16.34481	11.43338		
10/29/2016	19	\$56.38	\$33.04	\$2.64	21.33951552	12.50681	10/29/2016	19	21.33952	12.50681		
10/30/2016	12	\$16.04	\$80.52	\$2.64	6.071158213	30.47691	10/30/2016	12	6.071158	30.47691	13.37	15.62
10/30/2016	13	\$14.37	\$39.33	\$2.64	5.439818319	14.88531	10/30/2016	13	5.439818	14.88531		
10/30/2016	14	\$15.64	\$25.51	\$2.64	5.920893263	9.653671	10/30/2016	14	5.920893	9.653671		
10/30/2016	15	\$19.50	\$19.76	\$2.64	7.382286147	7.480318	10/30/2016	15	7.382286	7.480318		
10/30/2016	16	\$23.11	\$24.36	\$2.64	8.747161241	9.220288	10/30/2016	16	8.747161	9.220288		
10/30/2016	17	\$28.89	\$39.47	\$2.64	10.9345193	14.93944	10/30/2016	17	10.93452	14.93944		
10/30/2016	18	\$39.84	\$38.71	\$2.64	15.07910674	14.65178	10/30/2016	18	15.07911	14.65178		
10/30/2016	19	\$49.43	\$35.50	\$2.64	18.71006813	13.43679	10/30/2016	19	18.71007	13.43679		
10/31/2016	12	\$25.20	-\$17.40	\$2.64	9.536336109	-6.58592	10/31/2016	12	9.536336	-6.58592	13.87	12.41
10/31/2016	13	\$27.37	-\$15.53	\$2.64	10.36109008	-5.87623	10/31/2016	13	10.36109	-5.87623		
10/31/2016	14	\$25.91	-\$17.96	\$2.64	9.805828917	-6.79788	10/31/2016	14	9.805829	-6.79788		
10/31/2016	15	\$25.60	-\$18.84	\$2.64	9.690386071	-7.13096	10/31/2016	15	9.690386	-7.13096		
10/31/2016	16	\$27.68	-\$15.11	\$2.64	10.47577593	-5.71764	10/31/2016	16	10.47578	-5.71764		
10/31/2016	17	\$30.76	\$10.11	\$2.64	11.64383043	3.827782	10/31/2016	17	11.64383	3.827782		
10/31/2016	18	\$39.00	\$110.53	\$2.64	14.76040878	41.83573	10/31/2016	18	14.76041	41.83573		
10/31/2016	19	\$49.18	\$25.63	\$2.64	18.61582135	9.700227	10/31/2016	19	18.61582	9.700227		

Attachment 7

Attachment J - ERRR 2016 Demand Response Metric 5

Revised 10-20-17

2016	Average DLAP Heat Rate	CBP Heat Rate	Socal Citygate Price	Average DLAP Price	CPB Energy Price	Number of Hours	Non-Dispatched Energy	Net Cost Impact
8/15/2016	22.83964772	19 \$	3.01 \$	68.72 \$	57.17	4	7 \$	323.50
8/31/2016	19.68668831	19 \$	3.08 \$	60.64 \$	58.52	4	7 \$	59.22
10/19/2016	19.02107188	19 \$	3.14 \$	59.80 \$	59.74	4	7.3 \$	1.93
10/21/2016	19.05015748	19 \$	3.18 \$	60.48 \$	60.33	4	7.3 \$	4.65

2016	Average DLAP Heat Rate	CBP Heat Rate	Soical Citygate Price	Average DLAP Price	CPB Energy Price	Number of Hours	Non-Dispatched Energy	Net Cost Impact
5/2/2016	16.31279559	15 \$	1.90 \$	31.04 \$	28.55	4	2.9 \$	28.98
5/3/2016	15.93296569	15 \$	2.04 \$	32.50 \$	30.60	4	2.9 \$	22.08
5/11/2016	31.57826888	15 \$	2.17 \$	68.59 \$	32.58	4	2.9 \$	417.69
5/13/2016	29.26313953	15 \$	2.15 \$	62.92 \$	32.25	4	2.9 \$	355.72
5/17/2016	18.36425061	15 \$	2.04 \$	37.37 \$	30.53	4	2.9 \$	79.42
5/20/2016	34.01388147	15 \$	1.87 \$	63.71 \$	28.10	4	2.9 \$	413.11
5/24/2016	16.43026961	15 \$	2.04 \$	33.52 \$	30.60	4	2.9 \$	33.85
5/25/2016	17.93731118	15 \$	1.99 \$	35.62 \$	29.79	4	2.9 \$	67.67
5/30/2016	33.61699839	15 \$	1.86 \$	62.49 \$	27.89	4	2.9 \$	401.46
6/1/2016	24.98971554	15 \$	2.29 \$	57.10 \$	34.28	4	2.9 \$	264.79
6/2/2016	42.25238194	15 \$	2.41 \$	102.00 \$	36.21	4	3.3 \$	868.39
6/3/2016	25.81604158	15 \$	2.45 \$	63.33 \$	36.80	4	3.3 \$	350.22
6/10/2016	97.41319882	15 \$	2.38 \$	231.75 \$	35.69	4	3.3 \$	2,588.01
6/16/2016	21.05378997	19 \$	2.53 \$	53.33 \$	48.13	4	3.3 \$	68.67
6/17/2016	42.60374084	19 \$	2.59 \$	110.47 \$	49.27	4	3.3 \$	807.90
6/24/2016	21.3623137	19 \$	2.82 \$	60.20 \$	53.54	4	3.3 \$	87.87
6/27/2016	34.92280056	19 \$	2.85 \$	99.63 \$	54.21	4	3.3 \$	599.65
6/28/2016	46.82631748	19 \$	3.11 \$	145.72 \$	59.13	4	3.3 \$	1,143.06
7/1/2016	22.26700855	19 \$	2.93 \$	65.13 \$	55.58	4	3.2 \$	122.32
7/7/2016	27.82112419	19 \$	2.46 \$	68.55 \$	46.82	4	3.2 \$	278.21
7/13/2016	44.00346842	19 \$	2.74 \$	120.53 \$	52.04	4	3.2 \$	876.60
7/15/2016	41.68386864	19 \$	2.77 \$	115.51 \$	52.65	4	3.2 \$	804.57
7/19/2016	32.12427001	19 \$	2.91 \$	93.51 \$	55.31	4	3.2 \$	489.02
7/26/2016	22.60833875	19 \$	3.08 \$	69.54 \$	58.44	4	3.2 \$	142.07
7/27/2016	20.47174874	19 \$	3.17 \$	64.85 \$	60.19	4	3.2 \$	59.68
7/28/2016	25.19075864	19 \$	3.41 \$	86.00 \$	64.87	4	3.2 \$	270.53
8/1/2016	19.0293435	19 \$	3.02 \$	57.39 \$	57.30	4	3.2 \$	1.13
8/2/2016	36.95155769	19 \$	2.92 \$	107.94 \$	55.50	4	3.2 \$	671.19
8/9/2016	57.05969125	19 \$	2.92 \$	166.33 \$	55.39	4	5.1 \$	2,263.26
8/11/2016	29.2201275	19 \$	2.75 \$	80.21 \$	52.16	4	5.1 \$	572.31
8/12/2016	19.5564695	19 \$	2.71 \$	52.90 \$	51.40	4	5.1 \$	30.71
8/16/2016	121.3847293	19 \$	3.55 \$	430.43 \$	67.37	4	5.1 \$	7,406.35
8/17/2016	20.37698413	19 \$	3.40 \$	69.32 \$	64.64	4	5.1 \$	95.56
8/18/2016	48.58750813	19 \$	3.07 \$	149.36 \$	58.41	4	5.1 \$	1,855.42
8/19/2016	26.2198245	19 \$	2.79 \$	73.21 \$	53.05	4	5.1 \$	411.22
8/22/2016	24.83085714	19 \$	2.63 \$	65.18 \$	49.88	4	5.1 \$	312.24
8/31/2016	106.7926948	19 \$	3.08 \$	328.92 \$	58.52	4	5.1 \$	5,516.19
9/2/2016	48.06232687	19 \$	2.89 \$	138.80 \$	54.87	4	3.9 \$	1,309.34
9/6/2016	28.69283825	19 \$	2.65 \$	75.92 \$	50.27	4	3.9 \$	400.10
9/7/2016	30.15096452	19 \$	2.90 \$	87.53 \$	55.16	4	3.9 \$	504.99
9/19/2016	100.325054	19 \$	2.78 \$	278.70 \$	52.78	4	3.9 \$	3,524.37
9/20/2016	28.69755534	19 \$	3.03 \$	86.87 \$	57.51	4	3.9 \$	457.93
9/21/2016	68.72554972	19 \$	3.05 \$	209.41 \$	57.89	4	3.9 \$	2,363.61
9/28/2016	19.25689711	19 \$	3.08 \$	59.33 \$	58.54	4	3.9 \$	12.35
10/3/2016	48.35018215	19 \$	2.75 \$	132.72 \$	52.16	4	2.7 \$	870.12
10/10/2016	25.48581081	19 \$	2.96 \$	75.44 \$	56.24	4	2.7 \$	207.34
10/13/2016	80.37780899	19 \$	3.03 \$	243.22 \$	57.49	4	2.7 \$	2,005.88
10/14/2016	27.39122394	19 \$	2.97 \$	81.46 \$	56.51	4	2.7 \$	269.52
10/17/2016	32.71005108	19 \$	2.74 \$	89.66 \$	52.08	4	2.7 \$	405.86

2016	Average DLAP Heat Rate	CBP Heat Rate	Socal Citygate Price	Average DLAP Price	CPB Energy Price	Number of Hours	Non-Dispatched Energy	Net Cost Impact
10/24/2016	72.53869565	19 \$	2.88 \$	208.55 \$	54.63	4	2.7 \$	1,662.38
10/25/2016	19.94597641	19 \$	2.88 \$	57.50 \$	54.78	4	2.7 \$	29.45
10/26/2016	36.37987589	19 \$	2.82 \$	102.59 \$	53.58	4	2.7 \$	529.32
10/27/2016	50.34790271	19 \$	2.84 \$	142.84 \$	53.90	4	2.7 \$	960.49

June 16 official day of switch from 15 Heat rate to 19 Heat Rate

Date	Socal Citygate (\$/MMbtu)
5/1/2016	\$1.90
5/2/2016	\$1.90
5/3/2016	\$2.04
5/4/2016	\$2.11
5/5/2016	\$2.16
5/6/2016	\$2.16
5/7/2016	\$1.86
5/8/2016	\$1.86
5/9/2016	\$1.86
5/10/2016	\$2.13
5/11/2016	\$2.17
5/12/2016	\$2.14
5/13/2016	\$2.15
5/14/2016	\$1.86
5/15/2016	\$1.86
5/16/2016	\$1.86
5/17/2016	\$2.04
5/18/2016	\$2.03
5/19/2016	\$1.98
5/20/2016	\$1.87
5/21/2016	\$1.77
5/22/2016	\$1.77
5/23/2016	\$1.77
5/24/2016	\$2.04
5/25/2016	\$1.99
5/26/2016	\$1.85
5/27/2016	\$1.81
5/28/2016	\$1.86
5/29/2016	\$1.86
5/30/2016	\$1.86
5/31/2016	\$1.86
6/1/2016	\$2.29
6/2/2016	\$2.41
6/3/2016	\$2.45
6/4/2016	\$2.37
6/5/2016	\$2.37
6/6/2016	\$2.37
6/7/2016	\$2.39
6/8/2016	\$2.36
6/9/2016	\$2.40
6/10/2016	\$2.38
6/11/2016	\$2.32
6/12/2016	\$2.32
6/13/2016	\$2.32
6/14/2016	\$2.49
6/15/2016	\$2.46

Date	Socal Citygate (\$/MMbtu)
6/16/2016	\$2.53
6/17/2016	\$2.59
6/18/2016	\$3.02
6/19/2016	\$3.02
6/20/2016	\$3.02
6/21/2016	\$3.14
6/22/2016	\$3.07
6/23/2016	\$2.99
6/24/2016	\$2.82
6/25/2016	\$2.85
6/26/2016	\$2.85
6/27/2016	\$2.85
6/28/2016	\$3.11
6/29/2016	\$3.21
6/30/2016	\$3.28
7/1/2016	\$2.93
7/2/2016	\$2.68
7/3/2016	\$2.68
7/4/2016	\$2.68
7/5/2016	\$2.68
7/6/2016	\$2.62
7/7/2016	\$2.46
7/8/2016	\$2.59
7/9/2016	\$2.63
7/10/2016	\$2.63
7/11/2016	\$2.63
7/12/2016	\$2.76
7/13/2016	\$2.74
7/14/2016	\$2.86
7/15/2016	\$2.77
7/16/2016	\$2.56
7/17/2016	\$2.56
7/18/2016	\$2.56
7/19/2016	\$2.91
7/20/2016	\$2.91
7/21/2016	\$3.02
7/22/2016	\$3.05
7/23/2016	\$3.65
7/24/2016	\$3.65
7/25/2016	\$3.65
7/26/2016	\$3.08
7/27/2016	\$3.17
7/28/2016	\$3.41
7/29/2016	\$3.20
7/30/2016	\$3.20
7/31/2016	\$3.20

Date	Socal Citygate (\$/MMbtu)
8/1/2016	\$3.02
8/2/2016	\$2.92
8/3/2016	\$2.86
8/4/2016	\$2.79
8/5/2016	\$2.88
8/6/2016	\$2.74
8/7/2016	\$2.74
8/8/2016	\$2.74
8/9/2016	\$2.92
8/10/2016	\$2.77
8/11/2016	\$2.75
8/12/2016	\$2.71
8/13/2016	\$3.01
8/14/2016	\$3.01
8/15/2016	\$3.01
8/16/2016	\$3.55
8/17/2016	\$3.40
8/18/2016	\$3.07
8/19/2016	\$2.79
8/20/2016	\$2.63
8/21/2016	\$2.63
8/22/2016	\$2.63
8/23/2016	\$2.93
8/24/2016	\$2.77
8/25/2016	\$2.78
8/26/2016	\$2.80
8/27/2016	\$2.69
8/28/2016	\$2.69
8/29/2016	\$2.69
8/30/2016	\$3.09
8/31/2016	\$3.08
9/1/2016	\$2.98
9/2/2016	\$2.89
9/3/2016	\$2.65
9/4/2016	\$2.65
9/5/2016	\$2.65
9/6/2016	\$2.65
9/7/2016	\$2.90
9/8/2016	\$2.78
9/9/2016	\$2.77
9/10/2016	\$2.72
9/11/2016	\$2.72
9/12/2016	\$2.72
9/13/2016	\$2.88
9/14/2016	\$2.92
9/15/2016	\$2.95

Date	Socal Citygate (\$/MMbtu)
9/16/2016	\$2.87
9/17/2016	\$2.78
9/18/2016	\$2.78
9/19/2016	\$2.78
9/20/2016	\$3.03
9/21/2016	\$3.05
9/22/2016	\$3.09
9/23/2016	\$3.05
9/24/2016	\$3.06
9/25/2016	\$3.06
9/26/2016	\$3.06
9/27/2016	\$3.24
9/28/2016	\$3.08
9/29/2016	\$2.99
9/30/2016	\$2.92
10/1/2016	\$2.75
10/2/2016	\$2.75
10/3/2016	\$2.75
10/4/2016	\$2.86
10/5/2016	\$2.86
10/6/2016	\$2.90
10/7/2016	\$3.05
10/8/2016	\$2.96
10/9/2016	\$2.96
10/10/2016	\$2.96
10/11/2016	\$3.20
10/12/2016	\$3.05
10/13/2016	\$3.03
10/14/2016	\$2.97
10/15/2016	\$2.74
10/16/2016	\$2.74
10/17/2016	\$2.74
10/18/2016	\$3.05
10/19/2016	\$3.14
10/20/2016	\$3.27
10/21/2016	\$3.18
10/22/2016	\$2.88
10/23/2016	\$2.88
10/24/2016	\$2.88
10/25/2016	\$2.88
10/26/2016	\$2.82
10/27/2016	\$2.84
10/28/2016	\$2.86
10/29/2016	\$2.64
10/30/2016	\$2.64
10/31/2016	\$2.64

CAISO.DLAP_SDGEAPND.DAM
LmpVal

CAISO.DLAP_SDGEAPND.RTM
LmpVal

ICE.SOCALCITYGATE.FLOW
Daily Index

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
5/1/2016	12	\$10.97	\$12.07	\$1.90	5.764056752	6.33998949	5/1/2016	12	5.764057	6.339989	12.20	16.86
5/1/2016	13	\$12.12	\$18.98	\$1.90	6.36941671	9.971623752	5/1/2016	13	6.369417	9.971624		
5/1/2016	14	\$13.07	\$47.34	\$1.90	6.866001051	24.8754598	5/1/2016	14	6.866001	24.87546		
5/1/2016	15	\$14.22	\$30.24	\$1.90	7.470835523	15.89017341	5/1/2016	15	7.470836	15.89017		
5/1/2016	16	\$18.30	\$17.71	\$1.90	9.614818707	9.307409354	5/1/2016	16	9.614819	9.307409		
5/1/2016	17	\$20.34	\$33.02	\$1.90	10.68838676	17.34892275	5/1/2016	17	10.68839	17.34892		
5/1/2016	18	\$23.07	\$44.15	\$1.90	12.12506569	23.19810825	5/1/2016	18	12.12507	23.19811		
5/1/2016	19	\$31.15	\$26.07	\$1.90	16.37099317	13.69837099	5/1/2016	19	16.37099	13.69837		
5/2/2016	12	\$22.03	\$17.68	\$1.90	11.57698371	9.290593799	5/2/2016	12	11.57698	9.290594	15.92	16.31
5/2/2016	13	\$23.91	\$24.32	\$1.90	12.56384656	12.77877036	5/2/2016	13	12.56385	12.77877		
5/2/2016	14	\$23.56	\$23.97	\$1.90	12.38202838	12.59695218	5/2/2016	14	12.38203	12.59695		
5/2/2016	15	\$24.22	\$32.03	\$1.90	12.72937467	16.82869154	5/2/2016	15	12.72937	16.82869		
5/2/2016	16	\$25.66	\$28.88	\$1.90	13.48554913	15.17551235	5/2/2016	16	13.48555	15.17551		
5/2/2016	17	\$28.01	\$30.90	\$1.90	14.71728849	16.23751971	5/2/2016	17	14.71729	16.23752		
5/2/2016	18	\$30.98	\$32.37	\$1.90	16.28060956	17.00945875	5/2/2016	18	16.28061	17.00946		
5/2/2016	19	\$36.51	\$25.25	\$1.90	19.18392013	13.26694693	5/2/2016	19	19.18392	13.26695		
5/3/2016	12	\$20.31	\$19.48	\$2.04	9.954411765	9.548529412	5/3/2016	12	9.954412	9.548529	14.97	15.93
5/3/2016	13	\$23.15	\$19.29	\$2.04	11.34803922	9.456862745	5/3/2016	13	11.34804	9.456863		
5/3/2016	14	\$21.51	\$18.27	\$2.04	10.54264706	8.955392157	5/3/2016	14	10.54265	8.955392		
5/3/2016	15	\$25.85	\$21.49	\$2.04	12.66960784	10.53627451	5/3/2016	15	12.66961	10.53627		
5/3/2016	16	\$25.48	\$26.32	\$2.04	12.48872549	12.90294118	5/3/2016	16	12.48873	12.90294		
5/3/2016	17	\$29.07	\$27.53	\$2.04	14.24852941	13.49264706	5/3/2016	17	14.24853	13.49265		
5/3/2016	18	\$30.72	\$49.58	\$2.04	15.05833333	24.30588235	5/3/2016	18	15.05833	24.30588		
5/3/2016	19	\$36.91	\$26.58	\$2.04	18.09411765	13.03039216	5/3/2016	19	18.09412	13.03039		
5/4/2016	12	\$22.23	\$24.39	\$2.11	10.52462121	11.54592803	5/4/2016	12	10.52462	11.54593	12.26	13.41
5/4/2016	13	\$21.90	\$15.25	\$2.11	10.37026515	7.221117424	5/4/2016	13	10.37027	7.221117		
5/4/2016	14	\$22.77	\$16.73	\$2.11	10.78267045	7.922348485	5/4/2016	14	10.78267	7.922348		
5/4/2016	15	\$23.89	\$17.79	\$2.11	11.31344697	8.424715909	5/4/2016	15	11.31345	8.424716		
5/4/2016	16	\$22.38	\$21.06	\$2.11	10.59564394	9.973484848	5/4/2016	16	10.59564	9.973485		
5/4/2016	17	\$23.92	\$27.27	\$2.11	11.32386364	12.91287879	5/4/2016	17	11.32386	12.91288		
5/4/2016	18	\$26.58	\$32.26	\$2.11	12.58664773	15.27556818	5/4/2016	18	12.58665	15.27557		
5/4/2016	19	\$30.68	\$32.70	\$2.11	14.52556818	15.48153409	5/4/2016	19	14.52557	15.48153		
5/5/2016	12	\$19.75	\$25.30	\$2.16	9.140675613	11.70800555	5/5/2016	12	9.140676	11.70801	10.86	12.13
5/5/2016	13	\$19.73	\$19.98	\$2.16	9.129569644	9.246645072	5/5/2016	13	9.12957	9.246645		
5/5/2016	14	\$19.66	\$15.83	\$2.16	9.096714484	7.326237853	5/5/2016	14	9.096714	7.326238		
5/5/2016	15	\$19.04	\$13.41	\$2.16	8.808422027	6.205460435	5/5/2016	15	8.808422	6.20546		
5/5/2016	16	\$18.84	\$17.70	\$2.16	8.717260528	8.191577973	5/5/2016	16	8.717261	8.191578		
5/5/2016	17	\$20.15	\$21.35	\$2.16	9.323924109	9.88014808	5/5/2016	17	9.323924	9.880148		
5/5/2016	18	\$25.00	\$34.46	\$2.16	11.56871819	15.94817214	5/5/2016	18	11.56872	15.94817		
5/5/2016	19	\$29.85	\$31.30	\$2.16	13.81397501	14.48172143	5/5/2016	19	13.81398	14.48172		
5/6/2016	12	\$23.05	\$19.50	\$2.16	10.65649561	9.015718909	5/6/2016	12	10.6565	9.015719	11.57	9.78
5/6/2016	13	\$21.78	\$18.22	\$2.16	10.06749884	8.424410541	5/6/2016	13	10.0675	8.424411		
5/6/2016	14	\$21.29	\$19.06	\$2.16	9.840961627	8.813684697	5/6/2016	14	9.840962	8.813685		
5/6/2016	15	\$21.89	\$11.35	\$2.16	10.12159038	5.245030051	5/6/2016	15	10.12159	5.24503		
5/6/2016	16	\$22.19	\$21.54	\$2.16	10.26074896	9.95654184	5/6/2016	16	10.26075	9.956542		
5/6/2016	17	\$22.30	\$22.87	\$2.16	10.31067961	10.57374018	5/6/2016	17	10.31068	10.57374		
5/6/2016	18	\$26.82	\$20.62	\$2.16	12.39852057	9.53259362	5/6/2016	18	12.39852	9.532594		
5/6/2016	19	\$28.77	\$19.55	\$2.16	13.30143319	9.03791031	5/6/2016	19	13.30143	9.03791		
5/7/2016	12	\$19.97	\$22.90	\$1.86	10.71712292	12.29146538	5/7/2016	12	10.71712	12.29147	11.95	12.40
5/7/2016	13	\$18.66	\$29.69	\$1.86	10.01449275	15.93612453	5/7/2016	13	10.01449	15.93612		
5/7/2016	14	\$17.16	\$26.86	\$1.86	9.209339775	14.41599571	5/7/2016	14	9.20934	14.416		
5/7/2016	15	\$18.37	\$12.94	\$1.86	9.862587225	6.944712829	5/7/2016	15	9.862587	6.944713		
5/7/2016	16	\$19.02	\$9.11	\$1.86	10.21148685	4.891572732	5/7/2016	16	10.21149	4.891573		
5/7/2016	17	\$20.68	\$17.41	\$1.86	11.09822866	9.34675255	5/7/2016	17	11.09823	9.346753		
5/7/2016	18	\$22.04	\$10.67	\$1.86	11.83091787	5.72517445	5/7/2016	18	11.83092	5.725174		
5/7/2016	19	\$27.29	\$18.78	\$1.86	14.65002684	10.07836822	5/7/2016	19	14.65003	10.07837		
5/8/2016	12	\$5.12	-\$15.20	\$1.86	2.748255502	-8.161030596	5/8/2016	12	2.748256	-8.16103	6.76	-8.06
5/8/2016	13	\$4.75	-\$12.79	\$1.86	2.5496511	-6.865807837	5/8/2016	13	2.549651	-6.86581		
5/8/2016	14	\$4.67	-\$16.00	\$1.86	2.508856683	-8.587224906	5/8/2016	14	2.508857	-8.58722		
5/8/2016	15	\$3.12	-\$16.04	\$1.86	1.674181428	-8.607622115	5/8/2016	15	1.674181	-8.60762		
5/8/2016	16	\$2.09	-\$16.16	\$1.86	1.123993559	-8.67310789	5/8/2016	16	1.123994	-8.67311		
5/8/2016	17	\$9.78	-\$41.47	\$1.86	5.249597424	-22.25818572	5/8/2016	17	5.249597	-22.2582		
5/8/2016	18	\$15.59	-\$45.63	\$1.86	8.365539452	-24.49275362	5/8/2016	18	8.365539	-24.4928		
5/8/2016	19	\$22.89	\$2.22	\$1.86	12.28502415	1.19108964	5/8/2016	19	12.28502	1.19109		
5/9/2016	12	\$20.86	\$7.96	\$1.86	11.19645733	4.272141707	5/9/2016	12	11.19646	4.272142	12.50	2.24

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
5/9/2016	13	\$22.18	\$22.18	\$10.72	\$1.86	11.90660225	5/9/2016	13	11.9066	5.75416		
5/9/2016	14	\$22.00	\$22.00	\$6.27	\$1.86	11.80837359	5/9/2016	14	11.80837	3.362856		
5/9/2016	15	\$19.97	\$19.97	-\$8.22	\$1.86	10.71980676	5/9/2016	15	10.71981	-4.41224		
5/9/2016	16	\$18.33	\$18.33	-\$15.31	\$1.86	9.840042941	5/9/2016	16	9.840043	-8.21632		
5/9/2016	17	\$21.42	\$21.42	-\$12.31	\$1.86	11.49919485	5/9/2016	17	11.49919	-6.60548		
5/9/2016	18	\$23.93	\$23.93	\$2.82	\$1.86	12.84487386	5/9/2016	18	12.84487	1.515835		
5/9/2016	19	\$29.45	\$29.45	\$16.68	\$1.86	15.80515298	5/9/2016	19	15.80515	8.953301		
5/10/2016	12	\$35.35	\$35.35	\$20.22	\$2.13	16.57477731	5/10/2016	12	16.57478	9.480075	15.90	9.37
5/10/2016	13	\$35.18	\$35.18	\$20.20	\$2.13	16.49367089	5/10/2016	13	16.49367	9.470699		
5/10/2016	14	\$35.32	\$35.32	\$12.55	\$2.13	16.56071261	5/10/2016	14	16.56071	5.882325		
5/10/2016	15	\$29.80	\$29.80	\$14.15	\$2.13	13.96905767	5/10/2016	15	13.96906	6.633849		
5/10/2016	16	\$24.58	\$24.58	\$17.92	\$2.13	11.52461322	5/10/2016	16	11.52461	8.399906		
5/10/2016	17	\$24.33	\$24.33	\$19.46	\$2.13	11.40412564	5/10/2016	17	11.40413	9.124707		
5/10/2016	18	\$26.32	\$26.32	\$19.85	\$2.13	12.33708392	5/10/2016	18	12.33708	9.308017		
5/10/2016	19	\$32.19	\$32.19	\$22.75	\$2.13	15.09188936	5/10/2016	19	15.09189	10.66573		
5/11/2016	12	\$33.06	\$33.06	-\$2.32	\$2.17	15.22099448	5/11/2016	12	15.22099	-1.06952	20.80	31.58
5/11/2016	13	\$32.21	\$32.21	\$5.89	\$2.17	14.82734807	5/11/2016	13	14.82735	2.710866		
5/11/2016	14	\$35.88	\$35.88	\$17.30	\$2.17	16.5179558	5/11/2016	14	16.51796	7.963168		
5/11/2016	15	\$35.54	\$35.54	\$18.12	\$2.17	16.36464088	5/11/2016	15	16.36464	8.344383		
5/11/2016	16	\$37.92	\$37.92	\$49.68	\$2.17	17.45672192	5/11/2016	16	17.45672	22.87155		
5/11/2016	17	\$39.01	\$39.01	\$32.55	\$2.17	17.95902394	5/11/2016	17	17.95902	14.98527		
5/11/2016	18	\$56.92	\$56.92	\$70.26	\$2.17	26.20718232	5/11/2016	18	26.20718	32.34899		
5/11/2016	19	\$46.82	\$46.82	\$121.87	\$2.17	21.55755064	5/11/2016	19	21.55755	56.10727		
5/12/2016	12	\$38.55	\$38.55	-\$6.04	\$2.14	17.98973402	5/12/2016	12	17.98973	-2.81848	21.36	11.42
5/12/2016	13	\$39.35	\$39.35	\$11.30	\$2.14	18.36024265	5/12/2016	13	18.36024	5.271582		
5/12/2016	14	\$44.39	\$44.39	\$17.13	\$2.14	20.71208586	5/12/2016	14	20.71209	7.993934		
5/12/2016	15	\$42.70	\$42.70	\$18.52	\$2.14	19.92673822	5/12/2016	15	19.92674	8.640224		
5/12/2016	16	\$42.24	\$42.24	\$35.80	\$2.14	19.7125525	5/12/2016	16	19.71255	16.70462		
5/12/2016	17	\$45.90	\$45.90	\$19.18	\$2.14	21.41670555	5/12/2016	17	21.41671	8.951937		
5/12/2016	18	\$47.31	\$47.31	\$20.02	\$2.14	22.07512832	5/12/2016	18	22.07513	9.34251		
5/12/2016	19	\$47.64	\$47.64	\$22.92	\$2.14	22.23238451	5/12/2016	19	22.23238	10.69389		
5/13/2016	12	\$26.81	\$26.81	\$12.89	\$2.15	12.46837209	5/13/2016	12	12.46837	5.994884	18.32	29.26
5/13/2016	13	\$34.29	\$34.29	\$16.79	\$2.15	15.94930233	5/13/2016	13	15.9493	7.810233		
5/13/2016	14	\$37.92	\$37.92	\$18.18	\$2.15	17.63813953	5/13/2016	14	17.63814	8.454419		
5/13/2016	15	\$39.58	\$39.58	\$22.30	\$2.15	18.40790698	5/13/2016	15	18.40791	10.37302		
5/13/2016	16	\$37.00	\$37.00	\$28.88	\$2.15	17.20930233	5/13/2016	16	17.2093	13.43116		
5/13/2016	17	\$43.02	\$43.02	\$60.79	\$2.15	20.00697674	5/13/2016	17	20.00698	28.27488		
5/13/2016	18	\$30.16	\$30.16	\$22.79	\$2.15	14.02744186	5/13/2016	18	14.02744	10.59953		
5/13/2016	19	\$35.72	\$35.72	\$139.21	\$2.15	16.61534884	5/13/2016	19	16.61535	64.74698		
5/14/2016	12	\$6.79	\$6.79	\$7.23	\$1.86	3.642512077	5/14/2016	12	3.642512	3.880837	7.96	5.96
5/14/2016	13	\$6.36	\$6.36	\$3.61	\$1.86	3.415995706	5/14/2016	13	3.415996	1.935051		
5/14/2016	14	\$5.92	\$5.92	\$11.63	\$1.86	3.175523349	5/14/2016	14	3.175523	6.243156		
5/14/2016	15	\$5.51	\$5.51	\$0.01	\$1.86	2.958132045	5/14/2016	15	2.958132	0.005904		
5/14/2016	16	\$5.54	\$5.54	-\$0.32	\$1.86	2.97208803	5/14/2016	16	2.972088	-0.17016		
5/14/2016	17	\$9.83	\$9.83	\$6.70	\$1.86	5.278582931	5/14/2016	17	5.278583	3.594203		
5/14/2016	18	\$17.21	\$17.21	\$10.08	\$1.86	9.239398819	5/14/2016	18	9.239399	5.410091		
5/14/2016	19	\$26.75	\$26.75	\$27.94	\$1.86	14.35587762	5/14/2016	19	14.35588	14.99839		
5/15/2016	12	\$0.02	\$0.02	-\$10.91	\$1.86	0.009125067	5/15/2016	12	0.009125	-5.85561	5.05	15.21
5/15/2016	13	-\$0.02	-\$0.02	\$0.20	\$1.86	-0.011272142	5/15/2016	13	-0.01127	0.109501		
5/15/2016	14	-\$0.70	-\$0.70	\$8.95	\$1.86	-0.377348363	5/15/2016	14	-0.37735	4.803543		
5/15/2016	15	-\$0.02	-\$0.02	\$11.94	\$1.86	-0.00805153	5/15/2016	15	-0.00805	6.410091		
5/15/2016	16	\$0.98	\$0.98	\$28.50	\$1.86	0.52603328	5/15/2016	16	0.526033	15.29952		
5/15/2016	17	\$5.50	\$5.50	\$22.02	\$1.86	2.953301127	5/15/2016	17	2.953301	11.81696		
5/15/2016	18	\$10.28	\$10.28	\$25.49	\$1.86	5.516908213	5/15/2016	18	5.516908	13.68331		
5/15/2016	19	\$20.86	\$20.86	\$37.31	\$1.86	11.19806763	5/15/2016	19	11.19807	20.02523		
5/16/2016	12	\$19.66	\$19.66	\$15.11	\$1.86	10.55340848	5/16/2016	12	10.55341	8.109501	10.92	6.91
5/16/2016	13	\$18.23	\$18.23	\$19.86	\$1.86	9.786366076	5/16/2016	13	9.786366	10.65808		
5/16/2016	14	\$17.33	\$17.33	\$7.50	\$1.86	9.302200751	5/16/2016	14	9.302201	4.023618		
5/16/2016	15	\$17.25	\$17.25	\$9.07	\$1.86	9.257648953	5/16/2016	15	9.257649	4.866345		
5/16/2016	16	\$17.26	\$17.26	\$5.26	\$1.86	9.262479871	5/16/2016	16	9.26248	2.82394		
5/16/2016	17	\$15.75	\$15.75	-\$4.70	\$1.86	8.45410628	5/16/2016	17	8.454106	-2.52496		
5/16/2016	18	\$20.35	\$20.35	-\$5.83	\$1.86	10.92324208	5/16/2016	18	10.92324	-3.13097		
5/16/2016	19	\$27.99	\$27.99	\$9.63	\$1.86	15.02147075	5/16/2016	19	15.02147	5.167472		
5/17/2016	12	\$21.74	\$21.74	\$24.09	\$2.04	10.68157248	5/17/2016	12	10.68157	11.83735	13.75	18.36
5/17/2016	13	\$22.00	\$22.00	\$22.35	\$2.04	10.81130221	5/17/2016	13	10.8113	10.98182		
5/17/2016	14	\$23.57	\$23.57	\$33.80	\$2.04	11.58230958	5/17/2016	14	11.58231	16.60885		
5/17/2016	15	\$24.12	\$24.12	\$20.44	\$2.04	11.85307125	5/17/2016	15	11.85307	10.04226		
5/17/2016	16	\$24.95	\$24.95	\$34.49	\$2.04	12.26240786	5/17/2016	16	12.26241	16.94644		

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
5/17/2016	17	\$25.03	\$33.04	\$2.04	12.2972973	16.23488943	5/17/2016	17	12.2973	16.23489		
5/17/2016	18	\$28.01	\$30.31	\$2.04	13.76167076	14.89434889	5/17/2016	18	13.76167	14.89435		
5/17/2016	19	\$33.98	\$51.65	\$2.04	16.6963145	25.38132678	5/17/2016	19	16.69631	25.38133		
5/18/2016	12	\$23.00	\$18.58	\$2.03	11.33004926	9.15270936	5/18/2016	12	11.33005	9.152709	13.03	11.77
5/18/2016	13	\$21.79	\$17.10	\$2.03	10.73448276	8.424137931	5/18/2016	13	10.73448	8.424138		
5/18/2016	14	\$21.38	\$22.08	\$2.03	10.53251232	10.87783251	5/18/2016	14	10.53251	10.87783		
5/18/2016	15	\$21.68	\$23.94	\$2.03	10.68078818	11.791133	5/18/2016	15	10.68079	11.79113		
5/18/2016	16	\$22.90	\$23.95	\$2.03	11.27980296	11.8	5/18/2016	16	11.2798	11.8		
5/18/2016	17	\$24.35	\$21.59	\$2.03	11.99704433	10.63349754	5/18/2016	17	11.99704	10.6335		
5/18/2016	18	\$26.33	\$25.54	\$2.03	12.96896552	12.58325123	5/18/2016	18	12.96897	12.58325		
5/18/2016	19	\$32.19	\$24.47	\$2.03	15.8546798	12.05221675	5/18/2016	19	15.85468	12.05222		
5/19/2016	12	\$19.00	\$5.67	\$1.98	9.581442259	2.860816944	5/19/2016	12	9.581442	2.860817	12.38	4.15
5/19/2016	13	\$22.09	\$9.82	\$1.98	11.1412002	4.952092789	5/19/2016	13	11.1412	4.952093		
5/19/2016	14	\$20.34	\$3.77	\$1.98	10.25920323	1.899142713	5/19/2016	14	10.2592	1.899143		
5/19/2016	15	\$22.13	\$0.10	\$1.98	11.16086737	0.052445789	5/19/2016	15	11.16087	0.052446		
5/19/2016	16	\$19.29	\$0.10	\$1.98	9.726676752	0.052445789	5/19/2016	16	9.726677	0.052446		
5/19/2016	17	\$23.00	\$4.01	\$1.98	11.598588	2.022188603	5/19/2016	17	11.59859	2.022189		
5/19/2016	18	\$26.02	\$11.66	\$1.98	13.1190116	5.879979829	5/19/2016	18	13.11901	5.87998		
5/19/2016	19	\$29.86	\$17.17	\$1.98	15.06001009	8.660615229	5/19/2016	19	15.06001	8.660615		
5/20/2016	12	\$18.29	\$18.57	\$1.87	9.766684463	9.914041644	5/20/2016	12	9.766684	9.914042	9.98	34.01
5/20/2016	13	\$16.96	\$17.09	\$1.87	9.057127603	9.124933262	5/20/2016	13	9.057128	9.124933		
5/20/2016	14	\$15.96	\$13.25	\$1.87	8.519487453	7.072076882	5/20/2016	14	8.519487	7.072077		
5/20/2016	15	\$16.98	\$14.94	\$1.87	9.067805659	7.973838761	5/20/2016	15	9.067806	7.973839		
5/20/2016	16	\$16.99	\$12.14	\$1.87	9.068873465	6.479978644	5/20/2016	16	9.068873	6.479979		
5/20/2016	17	\$16.73	\$13.68	\$1.87	8.931126535	7.305926321	5/20/2016	17	8.931127	7.305926		
5/20/2016	18	\$17.87	\$68.57	\$1.87	9.538707955	36.61131874	5/20/2016	18	9.538708	36.61132		
5/20/2016	19	\$23.19	\$160.44	\$1.87	12.37907101	85.65830219	5/20/2016	19	12.37907	85.6583		
5/21/2016	12	\$5.39	-\$11.89	\$1.77	3.04121965	-6.711462451	5/21/2016	12	3.04122	-6.71146	5.44	-5.04
5/21/2016	13	\$4.88	-\$5.68	\$1.77	2.755505364	-3.204968944	5/21/2016	13	2.755505	-3.20497		
5/21/2016	14	\$2.94	-\$5.61	\$1.77	1.658385093	-3.168831169	5/21/2016	14	1.658385	-3.16883		
5/21/2016	15	\$2.71	-\$16.13	\$1.77	1.532467532	-9.109542631	5/21/2016	15	1.532468	-9.10954		
5/21/2016	16	\$3.55	-\$11.41	\$1.77	2.006775833	-6.439864483	5/21/2016	16	2.006776	-6.43986		
5/21/2016	17	\$5.45	-\$12.02	\$1.77	3.079051383	-6.785996612	5/21/2016	17	3.079051	-6.786		
5/21/2016	18	\$12.01	-\$15.33	\$1.77	6.779785432	-8.655561829	5/21/2016	18	6.779785	-8.65556		
5/21/2016	19	\$17.54	\$3.04	\$1.77	9.906267645	1.715979673	5/21/2016	19	9.906268	1.71598		
5/22/2016	12	\$3.13	\$16.99	\$1.77	1.764539808	9.595708639	5/22/2016	12	1.76454	9.595709	5.27	7.38
5/22/2016	13	\$3.31	\$10.92	\$1.77	1.869000565	6.167137211	5/22/2016	13	1.869001	6.167137		
5/22/2016	14	\$2.21	\$10.89	\$1.77	1.24957651	6.147939018	5/22/2016	14	1.249577	6.147939		
5/22/2016	15	\$1.98	\$13.48	\$1.77	1.118577075	7.608695652	5/22/2016	15	1.118577	7.608696		
5/22/2016	16	\$3.11	\$7.11	\$1.77	1.754940711	4.011857708	5/22/2016	16	1.754941	4.011858		
5/22/2016	17	\$5.22	\$3.70	\$1.77	2.94635799	2.091473744	5/22/2016	17	2.946358	2.091474		
5/22/2016	18	\$10.93	-\$5.47	\$1.77	6.172219085	-3.087521174	5/22/2016	18	6.172219	-3.08752		
5/22/2016	19	\$18.09	\$6.79	\$1.77	10.21230943	3.8351214	5/22/2016	19	10.21231	3.835121		
5/23/2016	12	\$28.65	-\$4.60	\$1.77	16.17843027	-2.599661208	5/23/2016	12	16.17843	-2.59966	15.74	7.36
5/23/2016	13	\$26.97	\$12.57	\$1.77	15.22755505	7.097684924	5/23/2016	13	15.22756	7.097685		
5/23/2016	14	\$26.95	\$13.16	\$1.77	15.21852061	7.428571429	5/23/2016	14	15.21852	7.428571		
5/23/2016	15	\$27.81	\$13.38	\$1.77	15.70299266	7.555618295	5/23/2016	15	15.70299	7.555618		
5/23/2016	16	\$28.98	\$13.02	\$1.77	16.36250706	7.352343309	5/23/2016	16	16.36251	7.352343		
5/23/2016	17	\$27.73	-\$11.21	\$1.77	15.65669113	-6.330321852	5/23/2016	17	15.65669	-6.33032		
5/23/2016	18	\$22.44	-\$1.73	\$1.77	12.6691135	-0.977978543	5/23/2016	18	12.66911	-0.97798		
5/23/2016	19	\$21.92	\$5.66	\$1.77	12.37944664	3.194240542	5/23/2016	19	12.37945	3.194241		
5/24/2016	12	\$16.93	\$16.30	\$2.04	8.300490196	7.987745098	5/24/2016	12	8.30049	7.987745	9.46	16.43
5/24/2016	13	\$18.23	\$32.97	\$2.04	8.937254902	16.16029412	5/24/2016	13	8.937255	16.16029		
5/24/2016	14	\$16.75	\$37.86	\$2.04	8.211764706	18.55882353	5/24/2016	14	8.211765	18.55882		
5/24/2016	15	\$16.95	\$44.10	\$2.04	8.307843137	21.61764706	5/24/2016	15	8.307843	21.61765		
5/24/2016	16	\$17.68	\$19.14	\$2.04	8.666176471	9.384313725	5/24/2016	16	8.666176	9.384314		
5/24/2016	17	\$18.43	\$18.45	\$2.04	9.034313725	9.044607843	5/24/2016	17	9.034314	9.044608		
5/24/2016	18	\$18.34	\$17.82	\$2.04	8.990196078	8.732843137	5/24/2016	18	8.990196	8.732843		
5/24/2016	19	\$22.78	\$27.51	\$2.04	11.16666667	13.48627451	5/24/2016	19	11.16667	13.48627		
5/25/2016	12	\$17.94	\$1.82	\$1.99	9.035246727	0.913897281	5/25/2016	12	9.035247	0.913897	8.78	17.94
5/25/2016	13	\$14.77	\$27.35	\$1.99	7.439073515	13.76888218	5/25/2016	13	7.439074	13.76888		
5/25/2016	14	\$14.15	\$40.95	\$1.99	7.124370594	20.62134945	5/25/2016	14	7.124371	20.62135		
5/25/2016	15	\$13.70	\$40.72	\$1.99	6.895770393	20.50352467	5/25/2016	15	6.89577	20.50352		
5/25/2016	16	\$15.74	\$7.41	\$1.99	7.926988922	3.729607251	5/25/2016	16	7.926989	3.729607		
5/25/2016	17	\$15.95	\$10.79	\$1.99	8.028700906	5.432527694	5/25/2016	17	8.028701	5.432528		
5/25/2016	18	\$16.84	\$9.39	\$1.99	8.480866062	4.728096677	5/25/2016	18	8.480866	4.728097		
5/25/2016	19	\$21.25	\$114.91	\$1.99	10.69838872	57.85901309	5/25/2016	19	10.69839	57.85901		
5/26/2016	12	\$24.08	\$12.56	\$1.85	13.03844071	6.802382241	5/26/2016	12	13.03844	6.802382	13.29	6.35

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
5/26/2016	13	\$23.18	\$13.81	\$1.85	12.54791554	7.475365457	5/26/2016	13	12.54792	7.475365		
5/26/2016	14	\$25.00	\$10.94	\$1.85	13.53546291	5.920411478	5/26/2016	14	13.53546	5.920411		
5/26/2016	15	\$25.00	\$9.64	\$1.85	13.53546291	5.217650244	5/26/2016	15	13.53546	5.21765		
5/26/2016	16	\$23.36	\$1.07	\$1.85	12.64861938	0.581483487	5/26/2016	16	12.64862	0.581483		
5/26/2016	17	\$24.79	-\$0.83	\$1.85	13.42176502	-0.447753113	5/26/2016	17	13.42177	-0.44775		
5/26/2016	18	\$18.89	-\$3.93	\$1.85	10.2252301	-2.125067677	5/26/2016	18	10.22523	-2.12507		
5/26/2016	19	\$21.60	\$3.93	\$1.85	11.6930157	2.128857607	5/26/2016	19	11.69302	2.128858		
5/27/2016	12	\$19.51	\$14.53	\$1.81	10.77084484	8.020430701	5/27/2016	12	10.77084	8.020431	12.65	13.62
5/27/2016	13	\$20.28	\$12.88	\$1.81	11.19933738	7.109884042	5/27/2016	13	11.19934	7.109884		
5/27/2016	14	\$21.24	\$13.14	\$1.81	11.72832689	7.255659856	5/27/2016	14	11.72833	7.25566		
5/27/2016	15	\$24.26	\$19.34	\$1.81	13.39370514	10.67863059	5/27/2016	15	13.39371	10.67863		
5/27/2016	16	\$23.49	\$17.41	\$1.81	12.9707344	9.614577581	5/27/2016	16	12.97073	9.614578		
5/27/2016	17	\$22.67	\$21.61	\$1.81	12.51518498	11.93318609	5/27/2016	17	12.51518	11.93319		
5/27/2016	18	\$19.61	\$33.42	\$1.81	10.82606295	18.45554942	5/27/2016	18	10.82606	18.45555		
5/27/2016	19	\$23.36	\$26.25	\$1.81	12.90005522	14.49530646	5/27/2016	19	12.90006	14.49531		
5/28/2016	12	\$17.18	\$13.23	\$1.86	9.242065627	7.118343195	5/28/2016	12	9.242066	7.118343	12.82	15.97
5/28/2016	13	\$18.81	\$17.00	\$1.86	10.11941904	9.144701452	5/28/2016	13	10.11942	9.144701		
5/28/2016	14	\$19.11	\$20.00	\$1.86	10.28079613	10.76062399	5/28/2016	14	10.2808	10.76062		
5/28/2016	15	\$21.55	\$18.04	\$1.86	11.59117805	9.705755783	5/28/2016	15	11.59118	9.705756		
5/28/2016	16	\$22.28	\$31.82	\$1.86	11.98278644	17.11457773	5/28/2016	16	11.98279	17.11458		
5/28/2016	17	\$22.31	\$32.49	\$1.86	12	17.47444863	5/28/2016	17	12	17.47445		
5/28/2016	18	\$23.72	\$28.43	\$1.86	12.76062399	15.2915546	5/28/2016	18	12.76062	15.29155		
5/28/2016	19	\$27.04	\$26.00	\$1.86	14.54545455	13.98655191	5/28/2016	19	14.54545	13.98655		
5/29/2016	12	\$17.27	\$40.80	\$1.86	9.291554599	21.94620764	5/29/2016	12	9.291555	21.94621	11.47	13.41
5/29/2016	13	\$16.36	\$26.14	\$1.86	8.800968263	14.06293706	5/29/2016	13	8.800968	14.06294		
5/29/2016	14	\$17.38	\$27.34	\$1.86	9.346960732	14.70575578	5/29/2016	14	9.346961	14.70576		
5/29/2016	15	\$17.19	\$5.47	\$1.86	9.244755245	2.942442173	5/29/2016	15	9.244755	2.942442		
5/29/2016	16	\$18.94	\$4.19	\$1.86	10.18612157	2.252824099	5/29/2016	16	10.18612	2.252824		
5/29/2016	17	\$19.29	\$2.03	\$1.86	10.37439484	1.093598709	5/29/2016	17	10.37439	1.093599		
5/29/2016	18	\$21.24	\$8.42	\$1.86	11.42711135	4.531468531	5/29/2016	18	11.42711	4.531469		
5/29/2016	19	\$25.84	\$18.27	\$1.86	13.90155998	9.826250672	5/29/2016	19	13.90156	9.826251		
5/30/2016	12	\$18.22	\$17.89	\$1.86	9.799354492	9.622915546	5/30/2016	12	9.799354	9.622916	11.67	33.62
5/30/2016	13	\$18.52	\$17.93	\$1.86	9.960193653	9.646584185	5/30/2016	13	9.960194	9.646584		
5/30/2016	14	\$19.66	\$15.67	\$1.86	10.57611619	8.431414739	5/30/2016	14	10.57612	8.431415		
5/30/2016	15	\$18.57	\$15.58	\$1.86	9.987089833	8.381387843	5/30/2016	15	9.98709	8.381388		
5/30/2016	16	\$20.03	\$17.52	\$1.86	10.77245831	9.426573427	5/30/2016	16	10.77246	9.426573		
5/30/2016	17	\$20.42	\$18.34	\$1.86	10.98547606	9.867132867	5/30/2016	17	10.98548	9.867133		
5/30/2016	18	\$20.79	\$20.57	\$1.86	11.18181818	11.06401291	5/30/2016	18	11.18182	11.06401		
5/30/2016	19	\$25.55	\$193.54	\$1.86	13.74394836	104.1102743	5/30/2016	19	13.74395	104.1103		
5/31/2016	12	\$22.58	\$22.09	\$1.86	12.14685315	11.88004303	5/31/2016	12	12.14685	11.88004	15.59	12.99
5/31/2016	13	\$24.37	\$24.06	\$1.86	13.11081226	12.93975256	5/31/2016	13	13.11081	12.93975		
5/31/2016	14	\$26.65	\$18.52	\$1.86	14.33781603	9.963959118	5/31/2016	14	14.33782	9.963959		
5/31/2016	15	\$29.78	\$20.34	\$1.86	16.02097902	10.94136633	5/31/2016	15	16.02098	10.94137		
5/31/2016	16	\$25.41	\$21.83	\$1.86	13.66594944	11.74233459	5/31/2016	16	13.66595	11.74233		
5/31/2016	17	\$28.19	\$18.43	\$1.86	15.16137708	9.911242604	5/31/2016	17	15.16138	9.911243		
5/31/2016	18	\$29.33	\$24.91	\$1.86	15.77783755	13.40182894	5/31/2016	18	15.77784	13.40183		
5/31/2016	19	\$32.99	\$31.40	\$1.86	17.74825175	16.89080151	5/31/2016	19	17.74825	16.8908		
6/1/2016	12	\$56.60	\$52.96	\$2.29	24.76980306	23.1750547	6/1/2016	12	24.7698	23.17505	24.63	24.99
6/1/2016	13	\$59.46	\$46.82	\$2.29	26.02013129	20.4892779	6/1/2016	13	26.02013	20.48928		
6/1/2016	14	\$54.13	\$51.83	\$2.29	23.68884026	22.68402626	6/1/2016	14	23.68884	22.68403		
6/1/2016	15	\$54.97	\$60.52	\$2.29	24.05776805	26.48708972	6/1/2016	15	24.05777	26.48709		
6/1/2016	16	\$52.72	\$44.56	\$2.29	23.07002188	19.50153173	6/1/2016	16	23.07002	19.50153		
6/1/2016	17	\$57.84	\$42.38	\$2.29	25.31334792	18.54835886	6/1/2016	17	25.31335	18.54836		
6/1/2016	18	\$43.72	\$27.63	\$2.29	19.13260394	12.09277899	6/1/2016	18	19.1326	12.09278		
6/1/2016	19	\$43.99	\$113.83	\$2.29	19.25164114	49.81619256	6/1/2016	19	19.25164	49.81619		
6/2/2016	12	\$62.16	\$45.41	\$2.41	25.75144988	18.81275891	6/2/2016	12	25.75145	18.81276	26.85	42.25
6/2/2016	13	\$63.62	\$44.07	\$2.41	26.35459818	18.25683513	6/2/2016	13	26.3546	18.25684		
6/2/2016	14	\$63.08	\$42.77	\$2.41	26.13256007	17.71623861	6/2/2016	14	26.13256	17.71624		
6/2/2016	15	\$67.00	\$48.18	\$2.41	27.75476388	19.95940348	6/2/2016	15	27.75476	19.9594		
6/2/2016	16	\$65.60	\$89.67	\$2.41	27.17398509	37.14623032	6/2/2016	16	27.17399	37.14623		
6/2/2016	17	\$59.68	\$71.55	\$2.41	24.72079536	29.63960232	6/2/2016	17	24.7208	29.6396		
6/2/2016	18	\$54.68	\$198.59	\$2.41	22.65120133	82.26429163	6/2/2016	18	22.6512	82.26429		
6/2/2016	19	\$50.04	\$38.39	\$2.41	20.72700911	15.9018227	6/2/2016	19	20.72701	15.90182		
6/3/2016	12	\$55.88	\$33.82	\$2.45	22.77945373	13.78801468	6/3/2016	12	22.77945	13.78801	27.13	25.82
6/3/2016	13	\$57.71	\$38.96	\$2.45	23.526702	15.88300041	6/3/2016	13	23.5267	15.883		
6/3/2016	14	\$61.99	\$43.02	\$2.45	25.27191194	17.53933958	6/3/2016	14	25.27191	17.53934		
6/3/2016	15	\$70.00	\$137.50	\$2.45	28.53648594	56.05381166	6/3/2016	15	28.53649	56.05381		
6/3/2016	16	\$66.20	\$32.42	\$2.45	26.98736241	13.2156543	6/3/2016	16	26.98736	13.21565		

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
6/3/2016	17	\$67.99	\$34.20	\$2.45	27.7162658	13.94292703	6/3/2016	17	27.71627	13.94293		
6/3/2016	18	\$59.48	\$33.58	\$2.45	24.24949042	13.68772931	6/3/2016	18	24.24949	13.68773		
6/3/2016	19	\$55.83	\$47.52	\$2.45	22.76070118	19.37138198	6/3/2016	19	22.7607	19.37138		
6/4/2016	12	\$32.39	\$22.30	\$2.37	13.67694257	9.418074324	6/4/2016	12	13.67694	9.418074	23.01	17.21
6/4/2016	13	\$33.68	\$22.79	\$2.37	14.22339527	9.622888514	6/4/2016	13	14.2234	9.622889		
6/4/2016	14	\$38.19	\$25.11	\$2.37	16.12880068	10.60557432	6/4/2016	14	16.1288	10.60557		
6/4/2016	15	\$45.85	\$45.20	\$2.37	19.36064189	19.08572635	6/4/2016	15	19.36064	19.08573		
6/4/2016	16	\$51.39	\$39.94	\$2.37	21.70143581	16.86444257	6/4/2016	16	21.70144	16.86444		
6/4/2016	17	\$64.02	\$35.55	\$2.37	27.03547297	15.01182432	6/4/2016	17	27.03547	15.01182		
6/4/2016	18	\$50.04	\$37.96	\$2.37	21.13091216	16.02913851	6/4/2016	18	21.13091	16.02914		
6/4/2016	19	\$52.51	\$49.58	\$2.37	22.17609797	20.93665541	6/4/2016	19	22.1761	20.93666		
6/5/2016	12	\$27.32	-\$3.11	\$2.37	11.53673986	-1.315033784	6/5/2016	12	11.53674	-1.31503	16.76	11.45
6/5/2016	13	\$30.69	\$7.62	\$2.37	12.95903716	3.216638514	6/5/2016	13	12.95904	3.216639		
6/5/2016	14	\$31.22	\$19.00	\$2.37	13.18496622	8.024070946	6/5/2016	14	13.18497	8.024071		
6/5/2016	15	\$34.01	\$23.65	\$2.37	14.36190878	9.987331081	6/5/2016	15	14.36191	9.987331		
6/5/2016	16	\$31.92	\$25.27	\$2.37	13.47804054	10.67314189	6/5/2016	16	13.47804	10.67314		
6/5/2016	17	\$37.11	\$26.27	\$2.37	15.66976351	11.09501689	6/5/2016	17	15.66976	11.09502		
6/5/2016	18	\$40.86	\$26.31	\$2.37	17.25548986	11.11106419	6/5/2016	18	17.25549	11.11106		
6/5/2016	19	\$48.83	\$30.57	\$2.37	20.62246622	12.91005068	6/5/2016	19	20.62247	12.91005		
6/6/2016	12	\$36.38	\$21.39	\$2.37	15.36486486	9.031672297	6/6/2016	12	15.36486	9.031672	19.46	10.39
6/6/2016	13	\$34.53	\$19.46	\$2.37	14.58150338	8.216638514	6/6/2016	13	14.5815	8.216639		
6/6/2016	14	\$37.37	\$20.76	\$2.37	15.7808277	8.765202703	6/6/2016	14	15.78083	8.765203		
6/6/2016	15	\$38.76	\$29.15	\$2.37	16.36824324	12.30996622	6/6/2016	15	16.36824	12.30997		
6/6/2016	16	\$39.36	\$23.02	\$2.37	16.62288851	9.719172297	6/6/2016	16	16.62289	9.719172		
6/6/2016	17	\$45.31	\$22.41	\$2.37	19.13344595	9.464949324	6/6/2016	17	19.13345	9.464949		
6/6/2016	18	\$46.91	\$23.87	\$2.37	19.80827703	10.078125	6/6/2016	18	19.80828	10.07813		
6/6/2016	19	\$52.75	\$23.52	\$2.37	22.27660473	9.931587838	6/6/2016	19	22.2766	9.931588		
6/7/2016	12	\$25.00	\$20.78	\$2.39	10.46025105	8.693305439	6/7/2016	12	10.46025	8.693305	15.99	12.14
6/7/2016	13	\$29.47	\$23.48	\$2.39	12.33138075	9.822594142	6/7/2016	13	12.33138	9.822594		
6/7/2016	14	\$30.71	\$25.42	\$2.39	12.84937238	10.63556485	6/7/2016	14	12.84937	10.63556		
6/7/2016	15	\$29.77	\$25.65	\$2.39	12.45732218	10.73305439	6/7/2016	15	12.45732	10.73305		
6/7/2016	16	\$33.23	\$32.32	\$2.39	13.90251046	13.52301255	6/7/2016	16	13.90251	13.52301		
6/7/2016	17	\$35.58	\$25.92	\$2.39	14.88661088	10.84644351	6/7/2016	17	14.88661	10.84644		
6/7/2016	18	\$39.01	\$27.31	\$2.39	16.32008368	11.42761506	6/7/2016	18	16.32008	11.42762		
6/7/2016	19	\$45.04	\$30.51	\$2.39	18.84309623	12.76694561	6/7/2016	19	18.8431	12.76695		
6/8/2016	12	\$26.02	\$18.52	\$2.36	11.01397121	7.83954276	6/8/2016	12	11.01397	7.839543	15.62	9.43
6/8/2016	13	\$28.71	\$17.14	\$2.36	12.15622354	7.256562235	6/8/2016	13	12.15622	7.256562		
6/8/2016	14	\$28.48	\$18.70	\$2.36	12.05546147	7.915325995	6/8/2016	14	12.05546	7.915326		
6/8/2016	15	\$30.67	\$19.73	\$2.36	12.98391194	8.353513971	6/8/2016	15	12.98391	8.353514		
6/8/2016	16	\$30.66	\$20.45	\$2.36	12.98052498	8.655800169	6/8/2016	16	12.98052	8.6558		
6/8/2016	17	\$32.60	\$21.22	\$2.36	13.80355631	8.983488569	6/8/2016	17	13.80356	8.983489		
6/8/2016	18	\$34.77	\$24.51	\$2.36	14.71930567	10.37806943	6/8/2016	18	14.71931	10.37807		
6/8/2016	19	\$49.55	\$22.89	\$2.36	20.97671465	9.692633362	6/8/2016	19	20.97671	9.692633		
6/9/2016	12	\$40.57	\$39.46	\$2.40	16.8971262	16.4364848	6/9/2016	12	16.89713	16.43648	16.88	12.85
6/9/2016	13	\$36.16	\$22.44	\$2.40	15.06164098	9.344023324	6/9/2016	13	15.06164	9.344023		
6/9/2016	14	\$38.39	\$27.92	\$2.40	15.98875469	11.62640566	6/9/2016	14	15.98875	11.62641		
6/9/2016	15	\$38.46	\$33.07	\$2.40	16.01624323	13.77426072	6/9/2016	15	16.01624	13.77426		
6/9/2016	16	\$36.00	\$35.71	\$2.40	14.9937526	14.87463557	6/9/2016	16	14.99375	14.87464		
6/9/2016	17	\$40.12	\$26.68	\$2.40	16.70762182	11.11078717	6/9/2016	17	16.70762	11.11079		
6/9/2016	18	\$43.37	\$20.19	\$2.40	18.06413994	8.410662224	6/9/2016	18	18.06414	8.410662		
6/9/2016	19	\$42.62	\$21.52	\$2.40	17.75010412	8.963765098	6/9/2016	19	17.7501	8.963765		
6/10/2016	12	\$27.06	\$19.67	\$2.38	11.37242539	8.266918873	6/10/2016	12	11.37243	8.266919	13.77	97.41
6/10/2016	13	\$25.40	\$22.39	\$2.38	10.67591425	9.412778478	6/10/2016	13	10.67591	9.412778		
6/10/2016	14	\$27.41	\$26.92	\$2.38	11.52290879	11.31441782	6/10/2016	14	11.52291	11.31442		
6/10/2016	15	\$25.41	\$444.52	\$2.38	10.68095839	186.8495166	6/10/2016	15	10.68096	186.8495		
6/10/2016	16	\$28.96	\$287.41	\$2.38	12.17486339	120.8104245	6/10/2016	16	12.17486	120.8104		
6/10/2016	17	\$29.66	\$68.96	\$2.38	12.46868432	28.98781	6/10/2016	17	12.46868	28.98781		
6/10/2016	18	\$34.28	\$126.10	\$2.38	14.407314	53.00504414	6/10/2016	18	14.40731	53.00504		
6/10/2016	19	\$38.09	\$210.34	\$2.38	16.01219	88.41319882	6/10/2016	19	16.01219	88.4132		
6/11/2016	12	\$20.27	\$18.42	\$2.32	8.727820844	7.933247201	6/11/2016	12	8.727821	7.933247	11.36	10.81
6/11/2016	13	\$20.33	\$20.85	\$2.32	8.75667528	8.977174849	6/11/2016	13	8.756675	8.977175		
6/11/2016	14	\$22.19	\$28.23	\$2.32	9.557278208	12.15719208	6/11/2016	14	9.557278	12.15719		
6/11/2016	15	\$21.80	\$29.73	\$2.32	9.388027562	12.80275624	6/11/2016	15	9.388028	12.80276		
6/11/2016	16	\$22.89	\$21.57	\$2.32	9.856589147	9.290267011	6/11/2016	16	9.856589	9.290267		
6/11/2016	17	\$23.77	\$18.98	\$2.32	10.2377261	8.172265289	6/11/2016	17	10.23773	8.172265		
6/11/2016	18	\$26.38	\$19.70	\$2.32	11.36175711	8.484065461	6/11/2016	18	11.36176	8.484065		
6/11/2016	19	\$32.45	\$21.54	\$2.32	13.97416021	9.275624462	6/11/2016	19	13.97416	9.275624		
6/12/2016	12	\$18.00	\$17.01	\$2.32	7.753660637	7.326012059	6/12/2016	12	7.753661	7.326012	10.75	9.00

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MWh)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MWh)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR	
6/12/2016	13	\$17.62	\$17.71	\$17.62	\$2.32	7.62833764	7.586132644	6/12/2016	13	7.628338	7.586133		
6/12/2016	14	\$18.85	\$18.85	\$18.53	\$2.32	8.117140396	7.981912145	6/12/2016	14	8.11714	7.981912		
6/12/2016	15	\$19.01	\$19.01	\$14.23	\$2.32	8.185615848	6.128768303	6/12/2016	15	8.185616	6.128768		
6/12/2016	16	\$20.50	\$20.50	\$20.14	\$2.32	8.826442722	8.675279931	6/12/2016	16	8.826443	8.67528		
6/12/2016	17	\$23.08	\$23.08	\$14.73	\$2.32	9.939707149	6.345391904	6/12/2016	17	9.939707	6.345392		
6/12/2016	18	\$26.31	\$26.31	\$23.81	\$2.32	11.33074935	10.2540913	6/12/2016	18	11.33075	10.25409		
6/12/2016	19	\$29.98	\$29.98	\$24.92	\$2.32	12.91085271	10.73126615	6/12/2016	19	12.91085	10.73127		
6/13/2016	12	\$23.53	\$23.53	\$5.35	\$2.32	10.13264427	2.302325581	6/13/2016	12	10.13264	2.302326	11.81	7.51
6/13/2016	13	\$21.46	\$21.46	-\$1.52	\$2.32	9.240740741	-0.65245478	6/13/2016	13	9.240741	-0.65245		
6/13/2016	14	\$22.06	\$22.06	\$10.65	\$2.32	9.5	4.584840655	6/13/2016	14	9.5	4.584841		
6/13/2016	15	\$23.01	\$23.01	\$13.28	\$2.32	9.909560724	5.719638243	6/13/2016	15	9.909561	5.719638		
6/13/2016	16	\$25.32	\$25.32	\$18.27	\$2.32	10.90482343	7.869939707	6/13/2016	16	10.90482	7.86994		
6/13/2016	17	\$26.49	\$26.49	\$8.70	\$2.32	11.4086994	3.745047373	6/13/2016	17	11.4087	3.745047		
6/13/2016	18	\$26.86	\$26.86	\$14.29	\$2.32	11.56804479	6.15374677	6/13/2016	18	11.56804	6.153747		
6/13/2016	19	\$31.04	\$31.04	\$28.45	\$2.32	13.36735573	12.25193798	6/13/2016	19	13.36736	12.25194		
6/14/2016	12	\$20.97	\$20.97	-\$3.33	\$2.49	8.421686747	-1.336947791	6/14/2016	12	8.421687	-1.33695	10.45	3.29
6/14/2016	13	\$20.91	\$20.91	-\$3.57	\$2.49	8.396385542	-1.434538153	6/14/2016	13	8.396386	-1.43454		
6/14/2016	14	\$20.16	\$20.16	-\$16.32	\$2.49	8.094779116	-6.552208835	6/14/2016	14	8.094779	-6.55221		
6/14/2016	15	\$21.84	\$21.84	-\$3.86	\$2.49	8.772289157	-1.548995984	6/14/2016	15	8.772289	-1.549		
6/14/2016	16	\$22.92	\$22.92	-\$10.31	\$2.49	9.204417671	-4.140160643	6/14/2016	16	9.204418	-4.14016		
6/14/2016	17	\$25.32	\$25.32	-\$1.58	\$2.49	10.16907631	-0.635742972	6/14/2016	17	10.16908	-0.63574		
6/14/2016	18	\$25.28	\$25.28	\$14.10	\$2.49	10.15301205	5.662650602	6/14/2016	18	10.15301	5.662651		
6/14/2016	19	\$30.59	\$30.59	\$30.52	\$2.49	12.28674699	12.25662651	6/14/2016	19	12.28675	12.25663		
6/15/2016	12	\$23.23	\$23.23	\$6.31	\$2.46	9.433211531	2.562322371	6/15/2016	12	9.433212	2.562322	10.91	4.61
6/15/2016	13	\$21.38	\$21.38	\$5.99	\$2.46	8.682095006	2.431993504	6/15/2016	13	8.682095	2.431994		
6/15/2016	14	\$22.04	\$22.04	-\$13.81	\$2.46	8.948030857	-5.606171336	6/15/2016	14	8.948031	-5.60617		
6/15/2016	15	\$21.79	\$21.79	-\$1.20	\$2.46	8.844904588	-0.488022737	6/15/2016	15	8.844905	-0.48802		
6/15/2016	16	\$24.40	\$24.40	-\$2.79	\$2.46	9.906211937	-1.13317093	6/15/2016	16	9.906212	-1.13317		
6/15/2016	17	\$24.73	\$24.73	\$6.17	\$2.46	10.03857085	2.504669103	6/15/2016	17	10.03857	2.504669		
6/15/2016	18	\$25.52	\$25.52	\$15.34	\$2.46	10.3593179	6.22817702	6/15/2016	18	10.35932	6.228177		
6/15/2016	19	\$32.84	\$32.84	\$26.66	\$2.46	13.33373934	10.82501015	6/15/2016	19	13.33374	10.82501		
6/16/2016	12	\$30.00	\$30.00	\$47.72	\$2.53	11.84366364	18.83734702	6/16/2016	12	11.84366	18.83735	11.59	21.05
6/16/2016	13	\$26.39	\$26.39	\$47.23	\$2.53	10.41689696	18.64508488	6/16/2016	13	10.4169	18.64508		
6/16/2016	14	\$25.28	\$25.28	\$23.17	\$2.53	9.979470983	9.148440584	6/16/2016	14	9.979471	9.148441		
6/16/2016	15	\$25.11	\$25.11	\$34.38	\$2.53	9.912356889	13.57125938	6/16/2016	15	9.912357	13.57126		
6/16/2016	16	\$27.47	\$27.47	\$23.86	\$2.53	10.84326885	9.42005527	6/16/2016	16	10.84327	9.420055		
6/16/2016	17	\$28.37	\$28.37	\$25.56	\$2.53	11.20134228	10.09238058	6/16/2016	17	11.20134	10.09238		
6/16/2016	18	\$28.70	\$28.70	\$20.98	\$2.53	11.32925385	8.28345835	6/16/2016	18	11.32925	8.283458		
6/16/2016	19	\$32.91	\$32.91	\$142.91	\$2.53	12.99210422	56.41926569	6/16/2016	19	12.9921	56.41927		
6/17/2016	12	\$30.24	\$30.24	\$35.48	\$2.59	11.66332433	13.68453529	6/17/2016	12	11.66332	13.68454	12.14	42.60
6/17/2016	13	\$26.25	\$26.25	\$31.34	\$2.59	10.12263787	12.08600077	6/17/2016	13	10.12264	12.086		
6/17/2016	14	\$26.96	\$26.96	\$38.59	\$2.59	10.39568068	14.88121867	6/17/2016	14	10.39568	14.88122		
6/17/2016	15	\$27.65	\$27.65	\$34.62	\$2.59	10.66332433	13.35094485	6/17/2016	15	10.66332	13.35094		
6/17/2016	16	\$30.16	\$30.16	\$49.22	\$2.59	11.63092943	18.98148862	6/17/2016	16	11.63093	18.98149		
6/17/2016	17	\$30.38	\$30.38	\$116.72	\$2.59	11.7169302	45.01504049	6/17/2016	17	11.71693	45.01504		
6/17/2016	18	\$30.01	\$30.01	\$42.39	\$2.59	11.57462399	16.34901658	6/17/2016	18	11.57462	16.34902		
6/17/2016	19	\$35.32	\$35.32	\$233.55	\$2.59	13.62051678	90.06941766	6/17/2016	19	13.62052	90.06942		
6/18/2016	12	\$30.97	\$30.97	\$24.46	\$3.02	10.24478994	8.092292425	6/18/2016	12	10.24479	8.092292	11.52	12.50
6/18/2016	13	\$23.71	\$23.71	\$27.48	\$3.02	7.842540523	9.091300033	6/18/2016	13	7.842541	9.0913		
6/18/2016	14	\$25.81	\$25.81	\$49.43	\$3.02	8.538537876	16.35031426	6/18/2016	14	8.538538	16.35031		
6/18/2016	15	\$27.85	\$27.85	\$40.41	\$3.02	9.211379424	13.36751571	6/18/2016	15	9.211379	13.36752		
6/18/2016	16	\$31.33	\$31.33	\$31.01	\$3.02	10.36453854	10.25802183	6/18/2016	16	10.36454	10.25802		
6/18/2016	17	\$34.05	\$34.05	\$30.26	\$3.02	11.26298379	10.00826993	6/18/2016	17	11.26298	10.00827		
6/18/2016	18	\$35.03	\$35.03	\$33.76	\$3.02	11.58683427	11.16771419	6/18/2016	18	11.58683	11.16771		
6/18/2016	19	\$38.87	\$38.87	\$26.11	\$3.02	12.85908038	8.636784651	6/18/2016	19	12.85908	8.636785		
6/19/2016	12	\$28.10	\$28.10	\$23.26	\$3.02	9.295401919	7.692689381	6/19/2016	12	9.295402	7.692689	16.71	57.59
6/19/2016	13	\$30.48	\$30.48	\$24.62	\$3.02	10.08104532	8.143896791	6/19/2016	13	10.08105	8.143897		
6/19/2016	14	\$34.83	\$34.83	\$35.67	\$3.02	11.52133642	11.80019848	6/19/2016	14	11.52134	11.8002		
6/19/2016	15	\$41.59	\$41.59	\$39.86	\$3.02	13.75686404	13.18590804	6/19/2016	15	13.75686	13.18591		
6/19/2016	16	\$42.95	\$42.95	\$230.76	\$3.02	14.20774065	76.3337744	6/19/2016	16	14.20774	76.33377		
6/19/2016	17	\$48.52	\$48.52	\$61.23	\$3.02	16.04862719	20.25405227	6/19/2016	17	16.04863	20.25405		
6/19/2016	18	\$50.90	\$50.90	\$41.12	\$3.02	16.83757856	13.60105855	6/19/2016	18	16.83758	13.60106		
6/19/2016	19	\$59.66	\$59.66	\$363.31	\$3.02	19.73403903	120.1829309	6/19/2016	19	19.73404	120.1829		
6/20/2016	12	\$44.28	\$44.28	\$85.00	\$3.02	14.64770096	28.1187562	6/20/2016	12	14.6477	28.11876	33.88	69.17
6/20/2016	13	\$53.46	\$53.46	\$65.00	\$3.02	17.68574264	21.50115779	6/20/2016	13	17.68574	21.50116		
6/20/2016	14	\$60.37	\$60.37	\$41.15	\$3.02	19.96989745	13.61362885	6/20/2016	14	19.9699	13.61363		
6/20/2016	15	\$64.99	\$64.99	\$142.78	\$3.02	21.4995038	47.23255045	6/20/2016	15	21.4995	47.23255		
6/20/2016	16	\$97.12	\$97.12	\$166.23	\$3.02	32.12537215	54.9877605	6/20/2016	16	32.12537	54.98776		

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MWh)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MWh)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
6/20/2016	17	\$112.87	\$47.14	\$3.02	37.33708237	15.59411181	6/20/2016	17	37.33708	15.59411		
6/20/2016	18	\$105.52	\$88.52	\$3.02	34.90704598	29.28316242	6/20/2016	18	34.90705	29.28316		
6/20/2016	19	\$94.12	\$534.46	\$3.02	31.13298048	176.7985445	6/20/2016	19	31.13298	176.7985		
6/21/2016	12	\$37.38	\$27.45	\$3.14	11.92376396	8.756299841	6/21/2016	12	11.92376	8.7563	21.46	10.85
6/21/2016	13	\$43.00	\$26.43	\$3.14	13.71610845	8.43062201	6/21/2016	13	13.71611	8.430622		
6/21/2016	14	\$49.38	\$27.57	\$3.14	15.75215311	8.792982456	6/21/2016	14	15.75215	8.792982		
6/21/2016	15	\$55.98	\$27.92	\$3.14	17.85773525	8.90430622	6/21/2016	15	17.85774	8.904306		
6/21/2016	16	\$63.74	\$33.22	\$3.14	20.3307815	10.59681021	6/21/2016	16	20.33078	10.59681		
6/21/2016	17	\$72.29	\$35.16	\$3.14	23.05869219	11.21371611	6/21/2016	17	23.05869	11.21372		
6/21/2016	18	\$65.66	\$33.52	\$3.14	20.94481659	10.69154705	6/21/2016	18	20.94482	10.69155		
6/21/2016	19	\$67.38	\$34.23	\$3.14	21.49282297	10.91706539	6/21/2016	19	21.49282	10.91707		
6/22/2016	12	\$35.38	\$23.30	\$3.07	11.53816047	7.598825832	6/22/2016	12	11.53816	7.598826	18.58	9.83
6/22/2016	13	\$38.99	\$26.62	\$3.07	12.71526419	8.683300718	6/22/2016	13	12.71526	8.683301		
6/22/2016	14	\$45.32	\$29.93	\$3.07	14.7801696	9.762557078	6/22/2016	14	14.78017	9.762557		
6/22/2016	15	\$46.83	\$29.56	\$3.07	15.27234181	9.639921722	6/22/2016	15	15.27234	9.639922		
6/22/2016	16	\$64.69	\$27.76	\$3.07	21.09849967	9.054142205	6/22/2016	16	21.0985	9.054142		
6/22/2016	17	\$61.19	\$28.29	\$3.07	19.95825179	9.226679713	6/22/2016	17	19.95825	9.22668		
6/22/2016	18	\$47.44	\$30.57	\$3.07	15.47390737	9.970319635	6/22/2016	18	15.47391	9.97032		
6/22/2016	19	\$54.53	\$33.90	\$3.07	17.78473581	11.05577299	6/22/2016	19	17.78474	11.05577		
6/23/2016	12	\$31.00	\$23.30	\$2.99	10.38178165	7.804085733	6/23/2016	12	10.38178	7.804086	15.05	12.39
6/23/2016	13	\$34.12	\$26.95	\$2.99	11.42665774	9.024447421	6/23/2016	13	11.42666	9.024447		
6/23/2016	14	\$35.75	\$27.19	\$2.99	11.97153382	9.104152713	6/23/2016	14	11.97153	9.104153		
6/23/2016	15	\$33.51	\$35.66	\$2.99	11.22136638	11.94306765	6/23/2016	15	11.22137	11.94307		
6/23/2016	16	\$49.59	\$38.00	\$2.99	16.60582719	12.72471534	6/23/2016	16	16.60583	12.72472		
6/23/2016	17	\$46.51	\$37.26	\$2.99	15.57635633	12.47890154	6/23/2016	17	15.57636	12.4789		
6/23/2016	18	\$38.85	\$35.52	\$2.99	13.0090422	11.89651708	6/23/2016	18	13.00904	11.89652		
6/23/2016	19	\$44.87	\$37.25	\$2.99	15.0264568	12.47622237	6/23/2016	19	15.02646	12.47622		
6/24/2016	12	\$38.29	\$21.99	\$2.82	13.58658623	7.804471256	6/24/2016	12	13.58659	7.804471	16.32	21.36
6/24/2016	13	\$37.85	\$24.19	\$2.82	13.43080199	8.582327892	6/24/2016	13	13.4308	8.582328		
6/24/2016	14	\$39.39	\$22.64	\$2.82	13.97835344	8.034421576	6/24/2016	14	13.97835	8.034422		
6/24/2016	15	\$42.42	\$26.65	\$2.82	15.05429383	9.455287438	6/24/2016	15	15.05429	9.455287		
6/24/2016	16	\$45.98	\$25.85	\$2.82	16.31582683	9.174237048	6/24/2016	16	16.31583	9.174237		
6/24/2016	17	\$47.84	\$30.37	\$2.82	16.97515969	10.77679205	6/24/2016	17	16.97516	10.77679		
6/24/2016	18	\$42.48	\$48.47	\$2.82	15.07310149	17.19836764	6/24/2016	18	15.0731	17.19837		
6/24/2016	19	\$47.62	\$136.11	\$2.82	16.89992903	48.29985806	6/24/2016	19	16.89993	48.29986		
6/25/2016	12	\$54.12	\$26.07	\$2.85	18.97090782	9.136698212	6/25/2016	12	18.97091	9.136698	20.07	13.74
6/25/2016	13	\$49.70	\$29.46	\$2.85	17.42166141	10.32562215	6/25/2016	13	17.42166	10.32562		
6/25/2016	14	\$45.52	\$40.82	\$2.85	15.95373291	14.30669471	6/25/2016	14	15.95373	14.30669		
6/25/2016	15	\$54.35	\$43.45	\$2.85	19.05012268	15.2295829	6/25/2016	15	19.05012	15.22958		
6/25/2016	16	\$55.83	\$38.68	\$2.85	19.56887487	13.55660708	6/25/2016	16	19.56887	13.55661		
6/25/2016	17	\$57.72	\$33.91	\$2.85	20.2295829	11.88433228	6/25/2016	17	20.22958	11.88433		
6/25/2016	18	\$56.02	\$32.95	\$2.85	19.63617245	11.54749387	6/25/2016	18	19.63617	11.54749		
6/25/2016	19	\$59.48	\$38.42	\$2.85	20.84717841	13.46687697	6/25/2016	19	20.84718	13.46688		
6/26/2016	12	\$30.16	\$24.52	\$2.85	10.57167893	8.593760953	6/26/2016	12	10.57168	8.593761	21.33	12.80
6/26/2016	13	\$36.59	\$31.92	\$2.85	12.82579741	11.18647038	6/26/2016	13	12.8258	11.18647		
6/26/2016	14	\$43.19	\$35.99	\$2.85	15.13739923	12.61373992	6/26/2016	14	15.1374	12.61374		
6/26/2016	15	\$45.64	\$41.29	\$2.85	15.99824746	14.47143358	6/26/2016	15	15.99825	14.47143		
6/26/2016	16	\$52.36	\$36.01	\$2.85	18.35261129	12.62075009	6/26/2016	16	18.35261	12.62075		
6/26/2016	17	\$59.30	\$32.74	\$2.85	20.78443743	11.47528917	6/26/2016	17	20.78444	11.47529		
6/26/2016	18	\$61.48	\$35.21	\$2.85	21.5488959	12.33999299	6/26/2016	18	21.5489	12.33999		
6/26/2016	19	\$70.28	\$37.77	\$2.85	24.63266737	13.23904662	6/26/2016	19	24.63267	13.23905		
6/27/2016	12	\$37.29	\$29.96	\$2.85	13.07080266	10.50157729	6/27/2016	12	13.0708	10.50158	24.68	34.92
6/27/2016	13	\$45.44	\$35.60	\$2.85	15.92849632	12.4766912	6/27/2016	13	15.9285	12.47669		
6/27/2016	14	\$49.29	\$41.57	\$2.85	17.27514897	14.56887487	6/27/2016	14	17.27515	14.56887		
6/27/2016	15	\$53.00	\$49.33	\$2.85	18.57588503	17.29022082	6/27/2016	15	18.57589	17.29022		
6/27/2016	16	\$64.69	\$46.93	\$2.85	22.67332632	16.44794953	6/27/2016	16	22.67333	16.44795		
6/27/2016	17	\$70.64	\$46.48	\$2.85	24.75990186	16.29302489	6/27/2016	17	24.7599	16.29302		
6/27/2016	18	\$69.61	\$55.66	\$2.85	24.39712583	19.50858745	6/27/2016	18	24.39713	19.50859		
6/27/2016	19	\$76.67	\$249.47	\$2.85	26.872415	87.44164038	6/27/2016	19	26.87242	87.44164		
6/28/2016	12	\$35.50	\$43.37	\$3.11	11.40841902	13.93508997	6/28/2016	12	11.40842	13.93509	19.42	46.83
6/28/2016	13	\$45.06	\$38.47	\$3.11	14.47847044	12.3627892	6/28/2016	13	14.47847	12.36279		
6/28/2016	14	\$47.42	\$39.64	\$3.11	15.23875321	12.73746787	6/28/2016	14	15.23875	12.73747		
6/28/2016	15	\$50.86	\$210.11	\$3.11	16.34447301	67.51670951	6/28/2016	15	16.34447	67.51671		
6/28/2016	16	\$56.12	\$123.46	\$3.11	18.0340617	39.67191517	6/28/2016	16	18.03406	39.67192		
6/28/2016	17	\$60.96	\$206.27	\$3.11	19.58836761	66.28309769	6/28/2016	17	19.58837	66.2831		
6/28/2016	18	\$58.41	\$43.05	\$3.11	18.76895887	13.83354756	6/28/2016	18	18.76896	13.83355		
6/28/2016	19	\$66.22	\$45.88	\$3.11	21.27859897	14.74357326	6/28/2016	19	21.2786	14.74357		
6/29/2016	12	\$35.19	\$31.54	\$3.21	10.96199377	9.826479751	6/29/2016	12	10.96199	9.82648	17.02	13.79

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
7/7/2016	17	\$33.24	\$28.51	\$2.46	13.48823052	11.56939935	7/7/2016	17	13.48823	11.5694		
7/7/2016	18	\$42.39	\$27.74	\$2.46	17.20373377	11.25771104	7/7/2016	18	17.20373	11.25771		
7/7/2016	19	\$39.42	\$24.75	\$2.46	15.99797078	10.04383117	7/7/2016	19	15.99797	10.04383		
7/8/2016	12	\$27.72	\$40.74	\$2.59	10.69934388	15.72250096	7/8/2016	12	10.69934	15.7225	13.33	13.89
7/8/2016	13	\$26.34	\$27.14	\$2.59	10.16595909	10.47356233	7/8/2016	13	10.16596	10.47356		
7/8/2016	14	\$27.33	\$33.89	\$2.59	10.54805095	13.08066384	7/8/2016	14	10.54805	13.08066		
7/8/2016	15	\$28.23	\$42.15	\$2.59	10.89347742	16.2682362	7/8/2016	15	10.89348	16.26824		
7/8/2016	16	\$30.00	\$33.59	\$2.59	11.5785411	12.96256272	7/8/2016	16	11.57854	12.96256		
7/8/2016	17	\$32.31	\$29.38	\$2.59	12.46893091	11.33847935	7/8/2016	17	12.46893	11.33848		
7/8/2016	18	\$34.91	\$33.65	\$2.59	13.47510614	12.98764956	7/8/2016	18	13.47511	12.98765		
7/8/2016	19	\$40.92	\$31.94	\$2.59	15.79313007	12.32690081	7/8/2016	19	15.79313	12.3269		
7/9/2016	12	\$24.44	\$24.42	\$2.63	9.300608828	9.293759513	7/9/2016	12	9.300609	9.29376	12.16	28.02
7/9/2016	13	\$25.07	\$28.77	\$2.63	9.53957382	10.94748858	7/9/2016	13	9.539574	10.94749		
7/9/2016	14	\$26.00	\$25.25	\$2.63	9.892694064	9.606544901	7/9/2016	14	9.892694	9.606545		
7/9/2016	15	\$26.07	\$24.54	\$2.63	9.920091324	9.336757991	7/9/2016	15	9.920091	9.336758		
7/9/2016	16	\$27.86	\$64.94	\$2.63	10.60121766	24.71004566	7/9/2016	16	10.60122	24.71005		
7/9/2016	17	\$30.20	\$150.50	\$2.63	11.49086758	57.26674277	7/9/2016	17	11.49087	57.26674		
7/9/2016	18	\$33.13	\$27.68	\$2.63	12.60730594	10.53120244	7/9/2016	18	12.60731	10.5312		
7/9/2016	19	\$36.66	\$51.39	\$2.63	13.95091324	19.55517504	7/9/2016	19	13.95091	19.55518		
7/10/2016	12	\$19.82	\$16.95	\$2.63	7.541856925	6.449771689	7/10/2016	12	7.541857	6.449772	11.93	12.94
7/10/2016	13	\$22.03	\$20.85	\$2.63	8.383181126	7.932267884	7/10/2016	13	8.383181	7.932268		
7/10/2016	14	\$23.84	\$23.20	\$2.63	9.069634703	8.826864536	7/10/2016	14	9.069635	8.826865		
7/10/2016	15	\$24.93	\$23.35	\$2.63	9.487442922	8.885464231	7/10/2016	15	9.487443	8.885464		
7/10/2016	16	\$26.25	\$26.69	\$2.63	9.989726027	10.15753425	7/10/2016	16	9.989726	10.15753		
7/10/2016	17	\$29.74	\$30.78	\$2.63	11.3173516	11.7108067	7/10/2016	17	11.31735	11.71081		
7/10/2016	18	\$32.16	\$39.33	\$2.63	12.23592085	14.96727549	7/10/2016	18	12.23592	14.96728		
7/10/2016	19	\$37.27	\$39.26	\$2.63	14.17998478	14.9391172	7/10/2016	19	14.17998	14.93912		
7/11/2016	12	\$27.71	\$21.34	\$2.63	10.54223744	8.121765601	7/11/2016	12	10.54224	8.121766	14.81	11.23
7/11/2016	13	\$28.28	\$24.83	\$2.63	10.76065449	9.449771689	7/11/2016	13	10.76065	9.449772		
7/11/2016	14	\$31.80	\$26.79	\$2.63	12.1000761	10.19520548	7/11/2016	14	12.10008	10.19521		
7/11/2016	15	\$36.54	\$34.72	\$2.63	13.90258752	13.21004566	7/11/2016	15	13.90259	13.21005		
7/11/2016	16	\$36.62	\$28.34	\$2.63	13.93531202	10.78462709	7/11/2016	16	13.93531	10.78463		
7/11/2016	17	\$38.19	\$27.72	\$2.63	14.53234399	10.54756469	7/11/2016	17	14.53234	10.54756		
7/11/2016	18	\$39.22	\$27.27	\$2.63	14.92541857	10.37709285	7/11/2016	18	14.92542	10.37709		
7/11/2016	19	\$41.70	\$31.75	\$2.63	15.86643836	12.08295282	7/11/2016	19	15.86644	12.08295		
7/12/2016	12	\$26.54	\$9.05	\$2.76	9.628447025	3.281930334	7/12/2016	12	9.628447	3.28193	13.40	9.99
7/12/2016	13	\$27.85	\$12.01	\$2.76	10.10449927	4.358853411	7/12/2016	13	10.1045	4.358853		
7/12/2016	14	\$30.07	\$22.01	\$2.76	10.91037736	7.985123367	7/12/2016	14	10.91038	7.985123		
7/12/2016	15	\$35.85	\$24.45	\$2.76	13.00616836	8.871552975	7/12/2016	15	13.00617	8.871553		
7/12/2016	16	\$33.13	\$25.01	\$2.76	12.01959361	9.076197388	7/12/2016	16	12.01959	9.076197		
7/12/2016	17	\$36.22	\$23.88	\$2.76	13.14187228	8.664731495	7/12/2016	17	13.14187	8.664731		
7/12/2016	18	\$37.52	\$27.70	\$2.76	13.61502177	10.05224964	7/12/2016	18	13.61502	10.05225		
7/12/2016	19	\$40.86	\$33.48	\$2.76	14.82510885	12.14840348	7/12/2016	19	14.82511	12.1484		
7/13/2016	12	\$30.48	\$25.87	\$2.74	11.12814896	9.446148229	7/13/2016	12	11.12815	9.446148	16.55	44.00
7/13/2016	13	\$33.63	\$30.17	\$2.74	12.27674334	11.01350858	7/13/2016	13	12.27674	11.01351		
7/13/2016	14	\$41.21	\$247.33	\$2.74	15.045272	90.29791895	7/13/2016	14	15.04527	90.29792		
7/13/2016	15	\$53.63	\$165.64	\$2.74	19.57831325	60.47462578	7/13/2016	15	19.57831	60.47463		
7/13/2016	16	\$38.24	\$36.37	\$2.74	13.96056955	13.27674334	7/13/2016	16	13.96057	13.27674		
7/13/2016	17	\$43.27	\$32.77	\$2.74	15.7973713	11.96458562	7/13/2016	17	15.79737	11.96459		
7/13/2016	18	\$46.18	\$32.70	\$2.74	16.85870756	11.93866375	7/13/2016	18	16.85871	11.93866		
7/13/2016	19	\$52.37	\$36.07	\$2.74	19.11865644	13.16940489	7/13/2016	19	19.11866	13.1694		
7/14/2016	12	\$29.03	\$26.61	\$2.86	10.16847636	9.321541156	7/14/2016	12	10.16848	9.321541	16.87	11.74
7/14/2016	13	\$32.13	\$28.29	\$2.86	11.25534151	9.909632224	7/14/2016	13	11.25534	9.909632		
7/14/2016	14	\$35.13	\$29.96	\$2.86	12.3061296	10.49352014	7/14/2016	14	12.30613	10.49352		
7/14/2016	15	\$39.13	\$31.55	\$2.86	13.70683012	11.05113835	7/14/2016	15	13.70683	11.05114		
7/14/2016	16	\$41.11	\$30.72	\$2.86	14.40070053	10.76007005	7/14/2016	16	14.4007	10.76007		
7/14/2016	17	\$46.15	\$31.48	\$2.86	16.16462347	11.02661996	7/14/2016	17	16.16462	11.02662		
7/14/2016	18	\$49.82	\$31.02	\$2.86	17.45113835	10.86374781	7/14/2016	18	17.45114	10.86375		
7/14/2016	19	\$55.53	\$40.81	\$2.86	19.45008757	14.29457093	7/14/2016	19	19.45009	14.29457		
7/15/2016	12	\$28.69	\$23.88	\$2.77	10.35510646	8.616023096	7/15/2016	12	10.35511	8.616023	15.26	41.68
7/15/2016	13	\$30.68	\$24.59	\$2.77	11.07037171	8.873330927	7/15/2016	13	11.07037	8.873331		
7/15/2016	14	\$33.45	\$25.54	\$2.77	12.06964995	9.217971851	7/15/2016	14	12.06965	9.217972		
7/15/2016	15	\$36.54	\$26.89	\$2.77	13.18657524	9.702634428	7/15/2016	15	13.18658	9.702634		
7/15/2016	16	\$37.55	\$27.42	\$2.77	13.54926019	9.896788163	7/15/2016	16	13.54926	9.896788		
7/15/2016	17	\$42.66	\$27.95	\$2.77	15.39480332	10.08661133	7/15/2016	17	15.3948	10.08661		
7/15/2016	18	\$41.29	\$29.66	\$2.77	14.90003609	10.70263443	7/15/2016	18	14.90004	10.70263		
7/15/2016	19	\$47.62	\$376.99	\$2.77	17.18332732	136.0494406	7/15/2016	19	17.18333	136.0494		
7/16/2016	12	\$25.10	\$41.06	\$2.56	9.798204528	16.0253708	7/16/2016	12	9.798205	16.02537	13.96	11.19

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
7/16/2016	13	\$25.41	\$19.95	\$2.56	9.918813427	7.786494926	7/16/2016	13	9.918813	7.786495		
7/16/2016	14	\$26.55	\$20.99	\$2.56	10.36299766	8.191256831	7/16/2016	14	10.363	8.191257		
7/16/2016	15	\$28.80	\$22.83	\$2.56	11.2392662	8.912568306	7/16/2016	15	11.23927	8.912568		
7/16/2016	16	\$30.42	\$24.76	\$2.56	11.87314598	9.665886027	7/16/2016	16	11.87315	9.665886		
7/16/2016	17	\$34.57	\$24.42	\$2.56	13.49453552	9.533177205	7/16/2016	17	13.49454	9.533177		
7/16/2016	18	\$35.59	\$35.56	\$2.56	13.88953942	13.88095238	7/16/2016	18	13.88954	13.88095		
7/16/2016	19	\$42.47	\$29.93	\$2.56	16.57806401	11.68345043	7/16/2016	19	16.57806	11.68345		
7/17/2016	12	\$24.20	\$18.30	\$2.56	9.443793911	7.144028103	7/17/2016	12	9.443794	7.144028	13.36	18.94
7/17/2016	13	\$24.41	\$18.58	\$2.56	9.526151444	7.253708041	7/17/2016	13	9.526151	7.253708		
7/17/2016	14	\$25.50	\$19.09	\$2.56	9.953551913	7.451600312	7/17/2016	14	9.953552	7.4516		
7/17/2016	15	\$27.19	\$22.29	\$2.56	10.61163154	8.698282592	7/17/2016	15	10.61163	8.698283		
7/17/2016	16	\$28.33	\$27.75	\$2.56	11.05932865	10.83060109	7/17/2016	16	11.05933	10.8306		
7/17/2016	17	\$32.68	\$25.27	\$2.56	12.75370804	9.861826698	7/17/2016	17	12.75371	9.861827		
7/17/2016	18	\$33.84	\$105.72	\$2.56	13.20647931	41.26424668	7/17/2016	18	13.20648	41.26425		
7/17/2016	19	\$42.11	\$35.32	\$2.56	16.43481655	13.78727557	7/17/2016	19	16.43482	13.78728		
7/18/2016	12	\$28.28	\$21.57	\$2.56	11.03629977	8.419984387	7/18/2016	12	11.0363	8.419984	14.81	11.13
7/18/2016	13	\$27.68	\$23.34	\$2.56	10.80366901	9.110850898	7/18/2016	13	10.80367	9.110851		
7/18/2016	14	\$29.15	\$25.11	\$2.56	11.37626854	9.802107728	7/18/2016	14	11.37627	9.802108		
7/18/2016	15	\$30.33	\$23.70	\$2.56	11.83723653	9.25058548	7/18/2016	15	11.83724	9.250585		
7/18/2016	16	\$33.25	\$26.31	\$2.56	12.97970336	10.27010148	7/18/2016	16	12.9797	10.2701		
7/18/2016	17	\$35.42	\$26.75	\$2.56	13.82630757	10.44067135	7/18/2016	17	13.82631	10.44067		
7/18/2016	18	\$38.11	\$26.78	\$2.56	14.87626854	10.45160031	7/18/2016	18	14.87627	10.4516		
7/18/2016	19	\$44.93	\$34.20	\$2.56	17.53825137	13.35050742	7/18/2016	19	17.53825	13.35051		
7/19/2016	12	\$29.52	\$27.53	\$2.91	10.14153212	9.456544143	7/19/2016	12	10.14153	9.456544	13.48	32.12
7/19/2016	13	\$29.36	\$29.06	\$2.91	10.08450704	9.982480247	7/19/2016	13	10.08451	9.98248		
7/19/2016	14	\$31.37	\$53.57	\$2.91	10.77773961	18.40261079	7/19/2016	14	10.77774	18.40261		
7/19/2016	15	\$33.21	\$37.59	\$2.91	11.40742013	12.91411886	7/19/2016	15	11.40742	12.91412		
7/19/2016	16	\$34.95	\$31.92	\$2.91	12.00549639	10.96667812	7/19/2016	16	12.0055	10.96668		
7/19/2016	17	\$38.15	\$250.97	\$2.91	13.10546204	86.21367228	7/19/2016	17	13.10546	86.21367		
7/19/2016	18	\$38.34	\$33.72	\$2.91	13.16901408	11.58502233	7/19/2016	18	13.16901	11.58502		
7/19/2016	19	\$45.48	\$38.98	\$2.91	15.62315356	13.38955685	7/19/2016	19	15.62315	13.38956		
7/20/2016	12	\$33.18	\$37.61	\$2.91	11.38743995	12.90734386	7/20/2016	12	11.38744	12.90734	19.54	65.72
7/20/2016	13	\$34.61	\$168.07	\$2.91	11.87577213	57.67501716	7/20/2016	13	11.87577	57.67502		
7/20/2016	14	\$40.14	\$254.53	\$2.91	13.77556623	87.34763212	7/20/2016	14	13.77557	87.34763		
7/20/2016	15	\$45.18	\$139.02	\$2.91	15.50343171	47.70761839	7/20/2016	15	15.50343	47.70762		
7/20/2016	16	\$50.17	\$53.38	\$2.91	17.21516815	18.31708991	7/20/2016	16	17.21517	18.31709		
7/20/2016	17	\$62.22	\$319.12	\$2.91	21.35209334	109.5113246	7/20/2016	17	21.35209	109.5113		
7/20/2016	18	\$53.36	\$41.87	\$2.91	18.31159918	14.3678792	7/20/2016	18	18.3116	14.36788		
7/20/2016	19	\$62.04	\$49.10	\$2.91	21.28929307	16.84934798	7/20/2016	19	21.28929	16.84935		
7/21/2016	12	\$35.17	\$34.47	\$3.02	11.63446907	11.40291102	7/21/2016	12	11.63447	11.40291	22.43	14.33
7/21/2016	13	\$41.31	\$32.52	\$3.02	13.66490241	10.75719484	7/21/2016	13	13.6649	10.75719		
7/21/2016	14	\$50.30	\$36.69	\$3.02	16.64042342	12.13728085	7/21/2016	14	16.64042	12.13728		
7/21/2016	15	\$52.47	\$39.05	\$3.02	17.35792259	12.9163083	7/21/2016	15	17.35792	12.91631		
7/21/2016	16	\$60.97	\$41.77	\$3.02	20.16738339	13.81607674	7/21/2016	16	20.16738	13.81608		
7/21/2016	17	\$74.64	\$39.85	\$3.02	24.6907046	13.18359246	7/21/2016	17	24.6907	13.18359		
7/21/2016	18	\$65.47	\$45.45	\$3.02	21.65630169	15.03440291	7/21/2016	18	21.6563	15.0344		
7/21/2016	19	\$70.16	\$46.19	\$3.02	23.20906384	15.28051604	7/21/2016	19	23.20906	15.28052		
7/22/2016	12	\$38.78	\$30.86	\$3.05	12.72440945	10.1230315	7/22/2016	12	12.72441	10.12303	22.86	55.17
7/22/2016	13	\$43.09	\$29.78	\$3.05	14.13648294	9.770013123	7/22/2016	13	14.13648	9.770013		
7/22/2016	14	\$49.04	\$31.87	\$3.05	16.08858268	10.45472441	7/22/2016	14	16.08858	10.45472		
7/22/2016	15	\$53.88	\$37.55	\$3.05	17.67847769	12.31889764	7/22/2016	15	17.67848	12.3189		
7/22/2016	16	\$65.57	\$307.68	\$3.05	21.51279528	100.9458661	7/22/2016	16	21.5128	100.9459		
7/22/2016	17	\$76.20	\$75.10	\$3.05	25	24.63976378	7/22/2016	17	25	24.63976		
7/22/2016	18	\$68.20	\$69.95	\$3.05	22.37434383	22.9488189	7/22/2016	18	22.37434	22.94882		
7/22/2016	19	\$68.77	\$219.96	\$3.05	22.56102362	72.16469816	7/22/2016	19	22.56102	72.1647		
7/23/2016	12	\$43.62	\$84.24	\$3.65	11.96078969	23.09843707	7/23/2016	12	11.96079	23.09844	17.12	26.14
7/23/2016	13	\$44.44	\$96.26	\$3.65	12.18535783	26.39347409	7/23/2016	13	12.18536	26.39347		
7/23/2016	14	\$50.05	\$159.24	\$3.65	13.72470524	43.66301069	7/23/2016	14	13.72471	43.66301		
7/23/2016	15	\$54.82	\$41.55	\$3.65	15.03153277	11.39402248	7/23/2016	15	15.03153	11.39402		
7/23/2016	16	\$67.03	\$79.36	\$3.65	18.37948999	21.75952838	7/23/2016	16	18.37949	21.75953		
7/23/2016	17	\$63.13	\$38.29	\$3.65	17.3112147	10.49821771	7/23/2016	17	17.31121	10.49822		
7/23/2016	18	\$60.99	\$37.89	\$3.65	16.72223746	10.38799013	7/23/2016	18	16.72224	10.38799		
7/23/2016	19	\$58.63	\$43.72	\$3.65	16.07595284	11.98903208	7/23/2016	19	16.07595	11.98903		
7/24/2016	12	\$35.27	\$31.40	\$3.65	9.669591445	8.610090485	7/24/2016	12	9.669591	8.61009	16.62	25.28
7/24/2016	13	\$41.67	\$36.53	\$3.65	11.42582945	10.01754867	7/24/2016	13	11.42583	10.01755		
7/24/2016	14	\$46.51	\$43.40	\$3.65	12.75322183	11.89909515	7/24/2016	14	12.75322	11.8991		
7/24/2016	15	\$51.00	\$48.72	\$3.65	13.98519331	13.35947354	7/24/2016	15	13.98519	13.35947		
7/24/2016	16	\$58.40	\$127.01	\$3.65	16.0131615	34.8245133	7/24/2016	16	16.01316	34.82451		

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MWH)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MWH)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
7/24/2016	17	\$62.62	\$108.11	\$3.65	17.16918015	29.64409103	7/24/2016	17	17.16918	29.64409		
7/24/2016	18	\$60.42	\$67.29	\$3.65	16.56621881	18.45023307	7/24/2016	18	16.56622	18.45023		
7/24/2016	19	\$61.05	\$66.44	\$3.65	16.74060872	18.2166164	7/24/2016	19	16.74061	18.21662		
7/25/2016	12	\$53.07	\$115.02	\$3.65	14.55058953	31.53879901	7/25/2016	12	14.55059	31.5388	18.66	17.03
7/25/2016	13	\$51.71	\$44.10	\$3.65	14.17877708	12.09213052	7/25/2016	13	14.17878	12.09213		
7/25/2016	14	\$55.36	\$43.36	\$3.65	15.17959967	11.88867562	7/25/2016	14	15.1796	11.88868		
7/25/2016	15	\$61.13	\$46.00	\$3.65	16.76254456	12.61173567	7/25/2016	15	16.76254	12.61174		
7/25/2016	16	\$65.65	\$45.66	\$3.65	17.9997258	12.51850836	7/25/2016	16	17.99973	12.51851		
7/25/2016	17	\$70.84	\$46.42	\$3.65	19.42473266	12.72772141	7/25/2016	17	19.42473	12.72772		
7/25/2016	18	\$67.00	\$47.38	\$3.65	18.36989306	12.99204826	7/25/2016	18	18.36989	12.99205		
7/25/2016	19	\$68.80	\$52.28	\$3.65	18.86372361	14.33397313	7/25/2016	19	18.86372	14.33397		
7/26/2016	12	\$38.61	\$42.12	\$3.08	12.55136541	13.69440832	7/26/2016	12	12.55137	13.69441	20.82	22.61
7/26/2016	13	\$44.42	\$135.11	\$3.08	14.44213264	43.92490247	7/26/2016	13	14.44213	43.9249		
7/26/2016	14	\$47.93	\$53.94	\$3.08	15.58062419	17.53608583	7/26/2016	14	15.58062	17.53609		
7/26/2016	15	\$51.69	\$45.56	\$3.08	16.80331599	14.81046814	7/26/2016	15	16.80332	14.81047		
7/26/2016	16	\$59.18	\$43.56	\$3.08	19.23927178	14.16189857	7/26/2016	16	19.23927	14.1619		
7/26/2016	17	\$63.84	\$43.15	\$3.08	20.75292588	14.02730819	7/26/2016	17	20.75293	14.02731		
7/26/2016	18	\$63.81	\$43.01	\$3.08	20.74284785	13.98211964	7/26/2016	18	20.74285	13.98212		
7/26/2016	19	\$69.30	\$63.57	\$3.08	22.52828349	20.66514954	7/26/2016	19	22.52828	20.66515		
7/27/2016	12	\$108.61	\$40.75	\$3.17	34.28377525	12.86174242	7/27/2016	12	34.28378	12.86174	26.75	20.47
7/27/2016	13	\$54.22	\$45.58	\$3.17	17.11584596	14.38667929	7/27/2016	13	17.11585	14.38668		
7/27/2016	14	\$57.05	\$47.07	\$3.17	18.00757576	14.85732323	7/27/2016	14	18.00758	14.85732		
7/27/2016	15	\$68.15	\$46.87	\$3.17	21.51199495	14.79356061	7/27/2016	15	21.51199	14.79356		
7/27/2016	16	\$76.43	\$44.28	\$3.17	24.125	13.97790404	7/27/2016	16	24.125	13.9779		
7/27/2016	17	\$89.02	\$65.27	\$3.17	28.09974747	20.60227273	7/27/2016	17	28.09975	20.60227		
7/27/2016	18	\$84.47	\$46.35	\$3.17	26.66256313	14.62941919	7/27/2016	18	26.66256	14.62942		
7/27/2016	19	\$89.03	\$103.52	\$3.17	28.10164141	32.67739899	7/27/2016	19	28.10164	32.6774		
7/28/2016	12	\$48.11	\$93.51	\$3.41	14.0913884	27.39103691	7/28/2016	12	14.09139	27.39104	28.61	25.19
7/28/2016	13	\$56.91	\$90.00	\$3.41	16.67018161	26.36174575	7/28/2016	13	16.67018	26.36175		
7/28/2016	14	\$60.62	\$94.94	\$3.41	17.75571178	27.80814294	7/28/2016	14	17.75571	27.80814		
7/28/2016	15	\$73.69	\$65.56	\$3.41	21.58318688	19.20210896	7/28/2016	15	21.58319	19.20211		
7/28/2016	16	\$87.51	\$42.96	\$3.41	25.63356766	12.58435852	7/28/2016	16	25.63357	12.58436		
7/28/2016	17	\$105.74	\$45.03	\$3.41	30.9721734	13.18980668	7/28/2016	17	30.97217	13.18981		
7/28/2016	18	\$97.45	\$47.09	\$3.41	28.54452255	13.79408319	7/28/2016	18	28.54452	13.79408		
7/28/2016	19	\$99.94	\$45.72	\$3.41	29.27211482	13.39308729	7/28/2016	19	29.27211	13.39309		
7/29/2016	12	\$44.50	\$36.78	\$3.20	13.90315526	11.49140893	7/29/2016	12	13.90316	11.49141	29.39	17.20
7/29/2016	13	\$52.75	\$33.76	\$3.20	16.47860044	10.54795376	7/29/2016	13	16.4786	10.54795		
7/29/2016	14	\$56.92	\$61.53	\$3.20	17.78288035	19.22180569	7/29/2016	14	17.78288	19.22181		
7/29/2016	15	\$67.34	\$54.79	\$3.20	21.03748828	17.1177757	7/29/2016	15	21.03749	17.11778		
7/29/2016	16	\$83.52	\$46.52	\$3.20	26.09309591	14.53295845	7/29/2016	16	26.0931	14.53296		
7/29/2016	17	\$99.05	\$57.36	\$3.20	30.94314277	17.91971259	7/29/2016	17	30.94314	17.91971		
7/29/2016	18	\$96.83	\$56.21	\$3.20	30.2502343	17.56044986	7/29/2016	18	30.25023	17.56045		
7/29/2016	19	\$96.85	\$58.01	\$3.20	30.25523274	18.12308654	7/29/2016	19	30.25523	18.12309		
7/30/2016	12	\$39.66	\$57.88	\$3.20	12.39112777	18.08278663	7/30/2016	12	12.39113	18.08279	15.40	19.79
7/30/2016	13	\$39.17	\$64.38	\$3.20	12.23586379	20.11308966	7/30/2016	13	12.23586	20.11309		
7/30/2016	14	\$50.56	\$68.69	\$3.20	15.79412684	21.45891909	7/30/2016	14	15.79413	21.45892		
7/30/2016	15	\$49.88	\$62.48	\$3.20	15.58106842	19.51827554	7/30/2016	15	15.58107	19.51828		
7/30/2016	16	\$50.52	\$43.21	\$3.20	15.78288035	13.4998438	7/30/2016	16	15.78288	13.49984		
7/30/2016	17	\$46.23	\$40.17	\$3.20	14.44267416	12.54951578	7/30/2016	17	14.44267	12.54952		
7/30/2016	18	\$47.40	\$41.88	\$3.20	14.80724774	13.08184942	7/30/2016	18	14.80725	13.08185		
7/30/2016	19	\$52.09	\$70.56	\$3.20	16.27335208	22.04217432	7/30/2016	19	16.27335	22.04217		
7/31/2016	12	\$29.97	\$27.00	\$3.20	9.362386754	8.434864105	7/31/2016	12	9.362387	8.434864	13.31	9.65
7/31/2016	13	\$31.42	\$29.65	\$3.20	9.816932209	9.262730397	7/31/2016	13	9.816932	9.26273		
7/31/2016	14	\$33.66	\$35.12	\$3.20	10.51546392	10.97094658	7/31/2016	14	10.51546	10.97095		
7/31/2016	15	\$34.77	\$31.39	\$3.20	10.86098094	9.805373321	7/31/2016	15	10.86098	9.805373		
7/31/2016	16	\$37.75	\$27.38	\$3.20	11.79256482	8.552952202	7/31/2016	16	11.79256	8.552952		
7/31/2016	17	\$39.60	\$27.26	\$3.20	12.37050922	8.516713527	7/31/2016	17	12.37051	8.516714		
7/31/2016	18	\$42.76	\$29.81	\$3.20	13.35863793	9.313964386	7/31/2016	18	13.35864	9.313964		
7/31/2016	19	\$50.35	\$33.48	\$3.20	15.72852234	10.45766948	7/31/2016	19	15.72852	10.45767		
8/1/2016	12	\$36.25	\$50.44	\$3.02	12.01823607	16.72480106	8/1/2016	12	12.01824	16.7248	17.97	19.03
8/1/2016	13	\$38.38	\$29.30	\$3.02	12.72579576	9.715848806	8/1/2016	13	12.7258	9.715849		
8/1/2016	14	\$41.90	\$60.05	\$3.02	13.89290451	19.91147215	8/1/2016	14	13.8929	19.91147		
8/1/2016	15	\$42.81	\$82.34	\$3.02	14.19496021	27.30238727	8/1/2016	15	14.19496	27.30239		
8/1/2016	16	\$48.36	\$51.91	\$3.02	16.03381963	17.21087533	8/1/2016	16	16.03382	17.21088		
8/1/2016	17	\$51.68	\$35.27	\$3.02	17.13594164	11.69263926	8/1/2016	17	17.13594	11.69264		
8/1/2016	18	\$52.55	\$33.97	\$3.02	17.42374005	11.26359416	8/1/2016	18	17.42374	11.26359		
8/1/2016	19	\$64.15	\$51.64	\$3.02	21.2688992	17.12334218	8/1/2016	19	21.26889	17.12334		
8/2/2016	12	\$37.27	\$84.77	\$2.92	12.75830195	29.0219103	8/2/2016	12	12.7583	29.02191	18.65	36.95

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
8/2/2016	13	\$37.70	\$95.73	\$2.92	12.90482711	32.77370763	8/2/2016	13	12.90483	32.77371		
8/2/2016	14	\$40.09	\$108.05	\$2.92	13.72372475	36.99212598	8/2/2016	14	13.72372	36.99213		
8/2/2016	15	\$42.60	\$143.18	\$2.92	14.58233482	49.01848682	8/2/2016	15	14.58233	49.01849		
8/2/2016	16	\$47.55	\$77.77	\$2.92	16.27867169	26.62273194	8/2/2016	16	16.27867	26.62273		
8/2/2016	17	\$54.54	\$47.19	\$2.92	18.67100308	16.15371448	8/2/2016	17	18.671	16.15371		
8/2/2016	18	\$54.66	\$46.03	\$2.92	18.7120849	15.75967135	8/2/2016	18	18.71208	15.75967		
8/2/2016	19	\$61.10	\$40.52	\$2.92	20.9188634	13.87127696	8/2/2016	19	20.91886	13.87128		
8/3/2016	12	\$40.46	\$29.46	\$2.86	14.1521511	10.30465198	8/3/2016	12	14.15215	10.30465	18.58	12.99
8/3/2016	13	\$42.08	\$31.12	\$2.86	14.71808325	10.8849248	8/3/2016	13	14.71808	10.88492		
8/3/2016	14	\$44.39	\$34.09	\$2.86	15.52780693	11.9220007	8/3/2016	14	15.52781	11.922		
8/3/2016	15	\$44.94	\$39.88	\$2.86	15.71983211	13.95033228	8/3/2016	15	15.71983	13.95033		
8/3/2016	16	\$47.97	\$41.25	\$2.86	16.77964323	14.42637286	8/3/2016	16	16.77964	14.42637		
8/3/2016	17	\$52.33	\$33.33	\$2.86	18.30500175	11.65687303	8/3/2016	17	18.305	11.65687		
8/3/2016	18	\$51.00	\$33.35	\$2.86	17.83805526	11.66596712	8/3/2016	18	17.83806	11.66597		
8/3/2016	19	\$61.16	\$35.75	\$2.86	21.39034627	12.50437216	8/3/2016	19	21.39035	12.50437		
8/4/2016	12	\$35.73	\$27.34	\$2.79	12.81563845	9.805236729	8/4/2016	12	12.81564	9.805237	18.39	16.59
8/4/2016	13	\$39.06	\$28.66	\$2.79	14.00968436	10.28120516	8/4/2016	13	14.00968	10.28121		
8/4/2016	14	\$41.34	\$34.22	\$2.79	14.82890961	12.27403156	8/4/2016	14	14.82891	12.27403		
8/4/2016	15	\$45.31	\$47.61	\$2.79	16.25251076	17.07496413	8/4/2016	15	16.25251	17.07496		
8/4/2016	16	\$47.25	\$44.75	\$2.79	16.94619799	16.05129125	8/4/2016	16	16.9462	16.05129		
8/4/2016	17	\$49.29	\$44.67	\$2.79	17.67934003	16.02259684	8/4/2016	17	17.67934	16.0226		
8/4/2016	18	\$49.71	\$39.02	\$2.79	17.83070301	13.99426112	8/4/2016	18	17.8307	13.99426		
8/4/2016	19	\$58.79	\$56.60	\$2.79	21.08751793	20.30093257	8/4/2016	19	21.08752	20.30093		
8/5/2016	12	\$31.70	\$25.40	\$2.88	11.00208261	8.816036099	8/5/2016	12	11.00208	8.816036	16.72	11.12
8/5/2016	13	\$33.93	\$26.90	\$2.88	11.7761194	9.336341548	8/5/2016	13	11.77612	9.336342		
8/5/2016	14	\$35.43	\$28.81	\$2.88	12.29677195	10.00104131	8/5/2016	14	12.29677	10.00104		
8/5/2016	15	\$38.66	\$29.10	\$2.88	13.41929885	10.1013537	8/5/2016	15	13.4193	10.10135		
8/5/2016	16	\$45.17	\$33.84	\$2.88	15.67997223	11.74730996	8/5/2016	16	15.67997	11.74731		
8/5/2016	17	\$45.67	\$30.35	\$2.88	15.85074627	10.53523082	8/5/2016	17	15.85075	10.53523		
8/5/2016	18	\$47.91	\$30.06	\$2.88	16.63103089	10.43387713	8/5/2016	18	16.63103	10.43388		
8/5/2016	19	\$53.88	\$33.88	\$2.88	18.70079833	11.75807011	8/5/2016	19	18.7008	11.75807		
8/6/2016	12	\$28.77	\$19.66	\$2.74	10.51260504	7.182681768	8/6/2016	12	10.51261	7.182682	14.86	10.83
8/6/2016	13	\$28.80	\$23.91	\$2.74	10.5210084	8.736207526	8/6/2016	13	10.52101	8.736208		
8/6/2016	14	\$29.88	\$25.97	\$2.74	10.91523566	9.489952503	8/6/2016	14	10.91524	9.489953		
8/6/2016	15	\$32.24	\$27.07	\$2.74	11.78005115	9.891121666	8/6/2016	15	11.78005	9.891122		
8/6/2016	16	\$35.42	\$28.23	\$2.74	12.93934965	10.31275119	8/6/2016	16	12.93935	10.31275		
8/6/2016	17	\$37.60	\$29.81	\$2.74	13.73620753	10.89185239	8/6/2016	17	13.73621	10.89185		
8/6/2016	18	\$42.12	\$29.38	\$2.74	15.38801608	10.73401535	8/6/2016	18	15.38802	10.73402		
8/6/2016	19	\$47.54	\$31.12	\$2.74	17.3697479	11.37047863	8/6/2016	19	17.36975	11.37048		
8/7/2016	12	\$26.01	\$16.86	\$2.74	9.502740227	6.160029229	8/7/2016	12	9.50274	6.160029	13.93	11.40
8/7/2016	13	\$26.84	\$21.29	\$2.74	9.806722689	7.779685787	8/7/2016	13	9.806723	7.779686		
8/7/2016	14	\$27.99	\$23.36	\$2.74	10.22762148	8.534892218	8/7/2016	14	10.22762	8.534892		
8/7/2016	15	\$29.20	\$25.97	\$2.74	10.669346	9.488856412	8/7/2016	15	10.66935	9.488856		
8/7/2016	16	\$32.34	\$26.84	\$2.74	11.81549141	9.806357326	8/7/2016	16	11.81549	9.806357		
8/7/2016	17	\$35.37	\$35.28	\$2.74	12.92108148	12.88892948	8/7/2016	17	12.92108	12.88893		
8/7/2016	18	\$39.15	\$29.48	\$2.74	14.3036171	10.77018634	8/7/2016	18	14.30362	10.77019		
8/7/2016	19	\$45.60	\$33.26	\$2.74	16.66021191	12.15052978	8/7/2016	19	16.66021	12.15053		
8/8/2016	12	\$31.40	\$26.22	\$2.74	11.47168433	9.579101206	8/8/2016	12	11.47168	9.579101	17.73	13.18
8/8/2016	13	\$32.76	\$26.99	\$2.74	11.96784801	9.86262331	8/8/2016	13	11.96785	9.862623		
8/8/2016	14	\$36.11	\$28.92	\$2.74	13.19181586	10.56740957	8/8/2016	14	13.19182	10.56741		
8/8/2016	15	\$39.38	\$31.30	\$2.74	14.38765071	11.43697479	8/8/2016	15	14.38765	11.43697		
8/8/2016	16	\$44.53	\$30.23	\$2.74	16.26963829	11.04384362	8/8/2016	16	16.26964	11.04384		
8/8/2016	17	\$46.79	\$29.82	\$2.74	17.09609061	10.89404457	8/8/2016	17	17.09609	10.89404		
8/8/2016	18	\$48.09	\$33.42	\$2.74	17.57106321	12.20898794	8/8/2016	18	17.57106	12.20899		
8/8/2016	19	\$54.66	\$50.81	\$2.74	19.97186701	18.5641213	8/8/2016	19	19.97187	18.56412		
8/9/2016	12	\$30.11	\$24.03	\$2.92	10.32795883	8.244596913	8/9/2016	12	10.32796	8.244597	15.00	57.06
8/9/2016	13	\$30.89	\$24.76	\$2.92	10.59588336	8.492624357	8/9/2016	13	10.59588	8.492624		
8/9/2016	14	\$32.35	\$25.04	\$2.92	11.09914237	8.590737564	8/9/2016	14	11.09914	8.590738		
8/9/2016	15	\$35.14	\$26.97	\$2.92	12.0542024	9.251457976	8/9/2016	15	12.0542	9.251458		
8/9/2016	16	\$38.33	\$28.33	\$2.92	13.14922813	9.720068611	8/9/2016	16	13.14923	9.720069		
8/9/2016	17	\$42.64	\$201.54	\$2.92	14.62607204	69.13756432	8/9/2016	17	14.62607	69.13756		
8/9/2016	18	\$44.00	\$40.87	\$2.92	15.09571184	14.02161235	8/9/2016	18	15.09571	14.02161		
8/9/2016	19	\$49.96	\$394.57	\$2.92	17.14030875	135.3595197	8/9/2016	19	17.14031	135.3595		
8/10/2016	12	\$28.86	\$25.83	\$2.77	10.43528561	9.339840926	8/10/2016	12	10.43529	9.339841	15.09	13.88
8/10/2016	13	\$30.42	\$26.75	\$2.77	10.99746927	9.670643529	8/10/2016	13	10.99747	9.670644		
8/10/2016	14	\$30.94	\$31.00	\$2.77	11.18727404	11.20571222	8/10/2016	14	11.18727	11.20571		
8/10/2016	15	\$33.70	\$31.93	\$2.77	12.18402025	11.54374548	8/10/2016	15	12.18402	11.54375		
8/10/2016	16	\$37.64	\$33.54	\$2.77	13.60629067	12.12725958	8/10/2016	16	13.60629	12.12726		

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
8/10/2016	17	\$41.13	\$40.49	\$2.77	14.87020969	14.63665944	8/10/2016	17	14.87021	14.63666		
8/10/2016	18	\$41.91	\$36.09	\$2.77	15.15220535	13.04844541	8/10/2016	18	15.15221	13.04845		
8/10/2016	19	\$46.25	\$43.46	\$2.77	16.72234273	15.71077368	8/10/2016	19	16.72234	15.71077		
8/11/2016	12	\$30.34	\$29.15	\$2.75	11.05355191	10.62040073	8/11/2016	12	11.05355	10.6204	16.58	29.22
8/11/2016	13	\$31.77	\$30.31	\$2.75	11.57486339	11.04335155	8/11/2016	13	11.57486	11.04335		
8/11/2016	14	\$34.38	\$29.32	\$2.75	12.52276867	10.68051002	8/11/2016	14	12.52277	10.68051		
8/11/2016	15	\$37.33	\$33.38	\$2.75	13.59854281	12.15992714	8/11/2016	15	13.59854	12.15993		
8/11/2016	16	\$40.51	\$32.84	\$2.75	14.75628415	11.96357013	8/11/2016	16	14.75628	11.96357		
8/11/2016	17	\$44.04	\$34.63	\$2.75	16.04371585	12.61530055	8/11/2016	17	16.04372	12.6153		
8/11/2016	18	\$45.12	\$40.97	\$2.75	16.43679417	14.92422587	8/11/2016	18	16.43679	14.92423		
8/11/2016	19	\$52.39	\$212.40	\$2.75	19.0856102	77.37741348	8/11/2016	19	19.08561	77.37741		
8/12/2016	12	\$32.85	\$48.88	\$2.71	12.14306839	18.06913124	8/12/2016	12	12.14307	18.06913	18.73	19.56
8/12/2016	13	\$34.42	\$30.39	\$2.71	12.72421442	11.23401109	8/12/2016	13	12.72421	11.23401		
8/12/2016	14	\$39.35	\$38.05	\$2.71	14.54565619	14.06580407	8/12/2016	14	14.54566	14.0658		
8/12/2016	15	\$42.72	\$48.04	\$2.71	15.79186691	17.76007394	8/12/2016	15	15.79187	17.76007		
8/12/2016	16	\$44.05	\$54.97	\$2.71	16.28391867	20.32162662	8/12/2016	16	16.28392	20.32163		
8/12/2016	17	\$50.19	\$49.98	\$2.71	18.55600739	18.47689464	8/12/2016	17	18.55601	18.47689		
8/12/2016	18	\$52.15	\$58.61	\$2.71	19.28022181	21.66728281	8/12/2016	18	19.28022	21.66728		
8/12/2016	19	\$56.27	\$43.29	\$2.71	20.80332717	16.00406654	8/12/2016	19	20.80333	16.00407		
8/13/2016	12	\$32.73	\$33.83	\$3.01	10.87637089	11.24393486	8/13/2016	12	10.87637	11.24393	17.13	20.18
8/13/2016	13	\$35.78	\$47.16	\$3.01	11.89066135	15.67298106	8/13/2016	13	11.89066	15.67298		
8/13/2016	14	\$38.80	\$40.62	\$3.01	12.89332004	13.49883682	8/13/2016	14	12.89332	13.49884		
8/13/2016	15	\$41.75	\$39.59	\$3.01	13.87470921	13.15586574	8/13/2016	15	13.87471	13.15587		
8/13/2016	16	\$45.57	\$45.38	\$3.01	15.14523097	15.08075773	8/13/2016	16	15.14523	15.08076		
8/13/2016	17	\$50.51	\$48.47	\$3.01	16.78597541	16.10767697	8/13/2016	17	16.78598	16.10768		
8/13/2016	18	\$52.91	\$43.50	\$3.01	17.58391492	14.45596544	8/13/2016	18	17.58391	14.45597		
8/13/2016	19	\$57.15	\$105.50	\$3.01	18.99169159	35.06081755	8/13/2016	19	18.99169	35.06082		
8/14/2016	12	\$33.30	\$28.58	\$3.01	11.06812895	9.49817215	8/14/2016	12	11.06813	9.498172	17.92	33.77
8/14/2016	13	\$38.01	\$31.73	\$3.01	12.63110668	10.54469924	8/14/2016	13	12.63111	10.5447		
8/14/2016	14	\$38.38	\$42.78	\$3.01	12.75506813	14.21734796	8/14/2016	14	12.75507	14.21735		
8/14/2016	15	\$42.77	\$43.90	\$3.01	14.21335992	14.58823529	8/14/2016	15	14.21336	14.58824		
8/14/2016	16	\$46.78	\$44.54	\$3.01	15.54769026	14.80225989	8/14/2016	16	15.54769	14.80226		
8/14/2016	17	\$50.81	\$46.55	\$3.01	16.88600864	15.47058824	8/14/2016	17	16.88601	15.47059		
8/14/2016	18	\$55.87	\$59.79	\$3.01	18.56596876	19.87105351	8/14/2016	18	18.56597	19.87105		
8/14/2016	19	\$62.27	\$255.53	\$3.01	20.69358591	84.92256564	8/14/2016	19	20.69359	84.92257		
8/15/2016	12	\$46.92	\$93.48	\$3.01	15.59454968	31.06580259	8/15/2016	12	15.59455	31.0658	22.84	46.57
8/15/2016	13	\$51.29	\$164.02	\$3.01	17.04386839	54.50913925	8/15/2016	13	17.04387	54.50914		
8/15/2016	14	\$51.23	\$103.35	\$3.01	17.02658691	34.34828847	8/15/2016	14	17.02659	34.34829		
8/15/2016	15	\$54.90	\$67.97	\$3.01	18.24360253	22.59022931	8/15/2016	15	18.2436	22.59023		
8/15/2016	16	\$59.95	\$225.18	\$3.01	19.9222333	74.83416417	8/15/2016	16	19.92223	74.83416		
8/15/2016	17	\$67.52	\$48.24	\$3.01	22.43934862	16.03223662	8/15/2016	17	22.43935	16.03224		
8/15/2016	18	\$71.57	\$50.55	\$3.01	23.78431373	16.79926886	8/15/2016	18	23.78431	16.79927		
8/15/2016	19	\$75.87	\$58.45	\$3.01	25.21269525	19.4253905	8/15/2016	19	25.2127	19.42539		
8/16/2016	12	\$40.57	\$55.87	\$3.55	11.44190637	15.75493514	8/16/2016	12	11.44191	15.75494	19.57	121.38
8/16/2016	13	\$45.21	\$35.25	\$3.55	12.750141	9.939368302	8/16/2016	13	12.75014	9.939368		
8/16/2016	14	\$51.23	\$57.05	\$3.55	14.44839255	16.08855048	8/16/2016	14	14.44839	16.08855		
8/16/2016	15	\$54.89	\$37.80	\$3.55	15.4785674	10.65905245	8/16/2016	15	15.47857	10.65905		
8/16/2016	16	\$58.05	\$178.86	\$3.55	16.37168641	50.43880429	8/16/2016	16	16.37169	50.4388		
8/16/2016	17	\$68.48	\$869.37	\$3.55	19.31302876	245.1697688	8/16/2016	17	19.31303	245.1698		
8/16/2016	18	\$73.11	\$528.69	\$3.55	20.61872532	149.0950367	8/16/2016	18	20.61873	149.095		
8/16/2016	19	\$77.97	\$144.80	\$3.55	21.98843768	40.83530739	8/16/2016	19	21.98844	40.83531		
8/17/2016	12	\$38.20	\$35.86	\$3.40	11.22721928	10.54085832	8/17/2016	12	11.22722	10.54086	18.01	20.38
8/17/2016	13	\$43.48	\$35.05	\$3.40	12.78130511	10.30246914	8/17/2016	13	12.78131	10.30247		
8/17/2016	14	\$46.54	\$37.65	\$3.40	13.68048207	11.06613757	8/17/2016	14	13.68048	11.06614		
8/17/2016	15	\$50.45	\$111.67	\$3.40	14.82892416	32.82539683	8/17/2016	15	14.82892	32.8254		
8/17/2016	16	\$53.63	\$67.57	\$3.40	15.7654321	19.86067019	8/17/2016	16	15.76543	19.86067		
8/17/2016	17	\$59.81	\$46.86	\$3.40	17.57936508	13.77483833	8/17/2016	17	17.57937	13.77484		
8/17/2016	18	\$61.94	\$51.19	\$3.40	18.20664315	15.04703116	8/17/2016	18	18.20664	15.04703		
8/17/2016	19	\$69.69	\$69.78	\$3.40	20.48500882	20.51058201	8/17/2016	19	20.48501	20.51058		
8/18/2016	12	\$42.00	\$37.18	\$3.07	13.66297983	12.09401431	8/18/2016	12	13.66298	12.09401	22.38	48.59
8/18/2016	13	\$45.27	\$52.69	\$3.07	14.72771633	17.14085882	8/18/2016	13	14.72772	17.14086		
8/18/2016	14	\$47.20	\$46.82	\$3.07	15.35426155	15.23227066	8/18/2016	14	15.35426	15.23227		
8/18/2016	15	\$49.41	\$42.38	\$3.07	16.07286923	13.78692258	8/18/2016	15	16.07287	13.78692		
8/18/2016	16	\$52.90	\$44.41	\$3.07	17.20754717	14.44795055	8/18/2016	16	17.20755	14.44795		
8/18/2016	17	\$74.25	\$140.84	\$3.07	24.15419649	45.81782694	8/18/2016	17	24.1542	45.81783		
8/18/2016	18	\$72.95	\$95.37	\$3.07	23.73129473	31.02439818	8/18/2016	18	23.73129	31.0244		
8/18/2016	19	\$75.07	\$316.81	\$3.07	24.42127521	103.0598569	8/18/2016	19	24.42128	103.0599		
8/19/2016	12	\$34.86	\$28.00	\$2.79	12.48710602	10.02972779	8/19/2016	12	12.48711	10.02973	20.07	26.22

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
8/19/2016	13	\$37.93	\$31.88	\$2.79	13.58416905	11.41690544	8/19/2016	13	13.58417	11.41691		
8/19/2016	14	\$40.57	\$38.87	\$2.79	14.53223496	13.92012894	8/19/2016	14	14.53223	13.92013		
8/19/2016	15	\$43.57	\$40.71	\$2.79	15.60422636	14.58166189	8/19/2016	15	15.60423	14.58166		
8/19/2016	16	\$47.38	\$138.85	\$2.79	16.96919771	49.73101719	8/19/2016	16	16.9692	49.73102		
8/19/2016	17	\$54.81	\$54.77	\$2.79	19.63252149	19.61783668	8/19/2016	17	19.63252	19.61784		
8/19/2016	18	\$57.20	\$46.94	\$2.79	20.48567335	16.81232092	8/19/2016	18	20.48567	16.81232		
8/19/2016	19	\$64.70	\$52.26	\$2.79	23.1737106	18.71812321	8/19/2016	19	23.17371	18.71812		
8/20/2016	12	\$28.03	\$29.80	\$2.63	10.67733333	11.35161905	8/20/2016	12	10.67733	11.35162	17.22	14.46
8/20/2016	13	\$31.18	\$29.15	\$2.63	11.87961905	11.10285714	8/20/2016	13	11.87962	11.10286		
8/20/2016	14	\$33.29	\$31.54	\$2.63	12.6807619	12.0152381	8/20/2016	14	12.68076	12.01524		
8/20/2016	15	\$34.22	\$34.89	\$2.63	13.03542857	13.29295238	8/20/2016	15	13.03543	13.29295		
8/20/2016	16	\$38.28	\$38.69	\$2.63	14.58438095	14.73904762	8/20/2016	16	14.58438	14.73905		
8/20/2016	17	\$43.56	\$35.00	\$2.63	16.59504762	13.33142857	8/20/2016	17	16.59505	13.33143		
8/20/2016	18	\$45.81	\$41.66	\$2.63	17.45180952	15.87009524	8/20/2016	18	17.45181	15.8701		
8/20/2016	19	\$53.19	\$36.52	\$2.63	20.26285714	13.91161905	8/20/2016	19	20.26286	13.91162		
8/21/2016	12	\$23.82	\$30.31	\$2.63	9.072380952	11.54666667	8/21/2016	12	9.072381	11.54667	15.59	14.54
8/21/2016	13	\$26.94	\$28.10	\$2.63	10.26171429	10.70361905	8/21/2016	13	10.26171	10.70362		
8/21/2016	14	\$28.08	\$32.44	\$2.63	10.6967619	12.35619048	8/21/2016	14	10.69676	12.35619		
8/21/2016	15	\$30.32	\$35.54	\$2.63	11.55047619	13.53828571	8/21/2016	15	11.55048	13.53829		
8/21/2016	16	\$33.21	\$32.68	\$2.63	12.65142857	12.44761905	8/21/2016	16	12.65143	12.44762		
8/21/2016	17	\$39.56	\$44.17	\$2.63	15.0712381	16.8247619	8/21/2016	17	15.07124	16.82476		
8/21/2016	18	\$42.31	\$33.51	\$2.63	16.1192381	12.76495238	8/21/2016	18	16.11924	12.76495		
8/21/2016	19	\$48.65	\$42.27	\$2.63	18.53409524	16.104	8/21/2016	19	18.5341	16.104		
8/22/2016	12	\$30.20	\$28.97	\$2.63	11.50552381	11.03733333	8/22/2016	12	11.50552	11.03733	16.84	24.83
8/22/2016	13	\$32.76	\$28.89	\$2.63	12.47885714	11.00380952	8/22/2016	13	12.47886	11.00381		
8/22/2016	14	\$34.15	\$30.18	\$2.63	13.01104762	11.4952381	8/22/2016	14	13.01105	11.49524		
8/22/2016	15	\$35.11	\$31.74	\$2.63	13.37409524	12.09180952	8/22/2016	15	13.3741	12.09181		
8/22/2016	16	\$38.33	\$34.97	\$2.63	14.60342857	13.32190476	8/22/2016	16	14.60343	13.3219		
8/22/2016	17	\$43.24	\$35.74	\$2.63	16.47047619	13.61409524	8/22/2016	17	16.47048	13.6141		
8/22/2016	18	\$45.45	\$142.71	\$2.63	17.31428571	54.36457143	8/22/2016	18	17.31429	54.36457		
8/22/2016	19	\$49.78	\$47.31	\$2.63	18.96304762	18.02285714	8/22/2016	19	18.96305	18.02286		
8/23/2016	12	\$30.38	\$27.17	\$2.93	10.38059447	9.283566792	8/23/2016	12	10.38059	9.283567	14.18	10.35
8/23/2016	13	\$31.66	\$26.57	\$2.93	10.81619406	9.076187222	8/23/2016	13	10.81619	9.076187		
8/23/2016	14	\$33.17	\$28.25	\$2.93	11.33276392	9.650153741	8/23/2016	14	11.33276	9.650154		
8/23/2016	15	\$34.36	\$32.17	\$2.93	11.73932354	10.99043389	8/23/2016	15	11.73932	10.99043		
8/23/2016	16	\$35.71	\$29.92	\$2.93	12.1988384	10.22275367	8/23/2016	16	12.19884	10.22275		
8/23/2016	17	\$40.02	\$29.23	\$2.93	13.67372737	9.986334131	8/23/2016	17	13.67373	9.986334		
8/23/2016	18	\$41.89	\$29.34	\$2.93	14.31226512	10.02459857	8/23/2016	18	14.31227	10.0246		
8/23/2016	19	\$48.45	\$32.68	\$2.93	16.55278442	11.16638196	8/23/2016	19	16.55278	11.16638		
8/24/2016	12	\$30.56	\$27.07	\$2.77	11.04844541	9.787057122	8/24/2016	12	11.04845	9.787057	15.93	11.98
8/24/2016	13	\$31.42	\$27.38	\$2.77	11.3604483	9.897686189	8/24/2016	13	11.36045	9.897686		
8/24/2016	14	\$33.33	\$29.49	\$2.77	12.05061461	10.66088214	8/24/2016	14	12.05061	10.66088		
8/24/2016	15	\$37.07	\$39.02	\$2.77	13.40057845	14.10845987	8/24/2016	15	13.40058	14.10846		
8/24/2016	16	\$37.87	\$28.48	\$2.77	13.69016631	10.29645698	8/24/2016	16	13.69017	10.29646		
8/24/2016	17	\$42.54	\$35.59	\$2.77	15.38105568	12.86623283	8/24/2016	17	15.38106	12.86623		
8/24/2016	18	\$45.49	\$27.64	\$2.77	16.44577007	9.990961678	8/24/2016	18	16.44577	9.990962		
8/24/2016	19	\$50.30	\$39.24	\$2.77	18.18618944	14.18546638	8/24/2016	19	18.18619	14.18547		
8/25/2016	12	\$30.53	\$25.58	\$2.78	10.96587644	9.187140805	8/25/2016	12	10.96588	9.187141	16.24	15.76
8/25/2016	13	\$32.46	\$28.32	\$2.78	11.65768678	10.17313218	8/25/2016	13	11.65769	10.17313		
8/25/2016	14	\$32.53	\$26.67	\$2.78	11.68570402	9.579382184	8/25/2016	14	11.6857	9.579382		
8/25/2016	15	\$34.71	\$26.86	\$2.78	12.46875	9.647988506	8/25/2016	15	12.46875	9.647989		
8/25/2016	16	\$39.85	\$32.24	\$2.78	14.31429598	11.57974138	8/25/2016	16	14.3143	11.57974		
8/25/2016	17	\$44.13	\$48.76	\$2.78	15.85201149	17.51364943	8/25/2016	17	15.85201	17.51365		
8/25/2016	18	\$46.02	\$40.79	\$2.78	16.52909483	14.65229885	8/25/2016	18	16.52909	14.6523		
8/25/2016	19	\$50.81	\$53.77	\$2.78	18.25107759	19.31393678	8/25/2016	19	18.25108	19.31394		
8/26/2016	12	\$29.91	\$23.06	\$2.80	10.67523198	8.228765168	8/26/2016	12	10.67523	8.228765	14.65	11.09
8/26/2016	13	\$29.53	\$18.72	\$2.80	10.53711635	6.67987152	8/26/2016	13	10.53712	6.679872		
8/26/2016	14	\$31.17	\$26.89	\$2.80	11.12562455	9.597430407	8/26/2016	14	11.12562	9.59743		
8/26/2016	15	\$32.95	\$29.40	\$2.80	11.75910064	10.49250535	8/26/2016	15	11.7591	10.49251		
8/26/2016	16	\$37.78	\$27.85	\$2.80	13.48144183	9.940042827	8/26/2016	16	13.48144	9.940043		
8/26/2016	17	\$38.57	\$30.40	\$2.80	13.76481085	10.84975018	8/26/2016	17	13.76481	10.84975		
8/26/2016	18	\$40.79	\$31.51	\$2.80	14.55781585	11.24482512	8/26/2016	18	14.55782	11.24483		
8/26/2016	19	\$47.09	\$34.50	\$2.80	16.8047823	12.31334761	8/26/2016	19	16.80478	12.31335		
8/27/2016	12	\$24.53	-\$13.54	\$2.69	9.116313638	-5.03195838	8/27/2016	12	9.116314	-5.03196	13.14	9.41
8/27/2016	13	\$24.48	-\$11.40	\$2.69	9.097733185	-4.23522854	8/27/2016	13	9.097733	-4.23523		
8/27/2016	14	\$25.38	\$6.47	\$2.69	9.431809736	2.404310665	8/27/2016	14	9.43181	2.404311		
8/27/2016	15	\$26.53	\$16.54	\$2.69	9.857302118	6.146413973	8/27/2016	15	9.857302	6.146414		
8/27/2016	16	\$29.70	\$23.21	\$2.69	11.03790412	8.625789669	8/27/2016	16	11.0379	8.62579		

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
8/27/2016	17	\$33.23	\$23.93	\$2.69	12.34894091	8.89223337	8/27/2016	17	12.34894	8.892233		
8/27/2016	18	\$35.71	\$24.98	\$2.69	13.2705314	9.280936455	8/27/2016	18	13.27053	9.280936		
8/27/2016	19	\$42.78	\$29.22	\$2.69	15.89557785	10.85767373	8/27/2016	19	15.89558	10.85767		
8/28/2016	12	\$22.56	\$8.79	\$2.69	8.382757339	3.267186919	8/28/2016	12	8.382757	3.267187	14.59	13.04
8/28/2016	13	\$25.68	\$18.82	\$2.69	9.542549238	6.993682646	8/28/2016	13	9.542549	6.993683		
8/28/2016	14	\$26.83	\$26.30	\$2.69	9.970271275	9.774804905	8/28/2016	14	9.970271	9.774805		
8/28/2016	15	\$29.50	\$28.47	\$2.69	10.96060944	10.58045336	8/28/2016	15	10.96061	10.58045		
8/28/2016	16	\$34.12	\$34.38	\$2.69	12.67781494	12.77666295	8/28/2016	16	12.67781	12.77666		
8/28/2016	17	\$36.61	\$32.12	\$2.69	13.60609439	11.93608324	8/28/2016	17	13.60609	11.93608		
8/28/2016	18	\$39.48	\$36.11	\$2.69	14.67149758	13.41694537	8/28/2016	18	14.6715	13.41695		
8/28/2016	19	\$46.79	\$37.78	\$2.69	17.38758826	14.03864734	8/28/2016	19	17.38759	14.03865		
8/29/2016	12	\$33.06	\$27.52	\$2.69	12.28576737	10.2255667	8/29/2016	12	12.28577	10.22557	17.41	15.24
8/29/2016	13	\$34.09	\$31.05	\$2.69	12.66629506	11.53883315	8/29/2016	13	12.6663	11.53883		
8/29/2016	14	\$35.49	\$39.97	\$2.69	13.1884058	14.85209959	8/29/2016	14	13.18841	14.8521		
8/29/2016	15	\$38.02	\$42.10	\$2.69	14.12783352	15.64622817	8/29/2016	15	14.12783	15.64623		
8/29/2016	16	\$42.39	\$37.84	\$2.69	15.75102192	14.06057228	8/29/2016	16	15.75102	14.06057		
8/29/2016	17	\$45.13	\$40.58	\$2.69	16.77146042	15.07989595	8/29/2016	17	16.77146	15.0799		
8/29/2016	18	\$47.14	\$43.50	\$2.69	17.5165366	16.16610925	8/29/2016	18	17.51654	16.16611		
8/29/2016	19	\$52.71	\$36.88	\$2.69	19.58900037	13.70308436	8/29/2016	19	19.589	13.70308		
8/30/2016	12	\$34.09	\$31.62	\$3.09	11.04862237	10.24991896	8/30/2016	12	11.04862	10.24992	17.06	13.03
8/30/2016	13	\$37.44	\$34.24	\$3.09	12.13517018	11.09756888	8/30/2016	13	12.13517	11.09757		
8/30/2016	14	\$39.70	\$37.98	\$3.09	12.86839546	12.3102107	8/30/2016	14	12.8684	12.31021		
8/30/2016	15	\$43.16	\$36.98	\$3.09	13.98995138	11.98606159	8/30/2016	15	13.98995	11.98606		
8/30/2016	16	\$48.98	\$37.93	\$3.09	15.87520259	12.29400324	8/30/2016	16	15.8752	12.294		
8/30/2016	17	\$49.66	\$42.26	\$3.09	16.09756888	13.69983793	8/30/2016	17	16.09757	13.69984		
8/30/2016	18	\$52.90	\$38.86	\$3.09	17.14846029	12.59708266	8/30/2016	18	17.14846	12.59708		
8/30/2016	19	\$59.04	\$41.71	\$3.09	19.13873582	13.52058347	8/30/2016	19	19.13874	13.52058		
8/31/2016	12	\$34.27	\$24.98	\$3.08	11.125	8.109090909	8/31/2016	12	11.125	8.109091	19.69	106.79
8/31/2016	13	\$36.70	\$29.88	\$3.08	11.91525974	9.702597403	8/31/2016	13	11.91526	9.702597		
8/31/2016	14	\$41.48	\$37.02	\$3.08	13.46850649	12.01948052	8/31/2016	14	13.46851	12.01948		
8/31/2016	15	\$49.11	\$1,051.13	\$3.08	15.94350649	341.275974	8/31/2016	15	15.94351	341.276		
8/31/2016	16	\$52.68	\$158.79	\$3.08	17.10487013	51.55649351	8/31/2016	16	17.10487	51.55649		
8/31/2016	17	\$61.55	\$63.25	\$3.08	19.98344156	20.53506494	8/31/2016	17	19.98344	20.53506		
8/31/2016	18	\$66.27	\$42.51	\$3.08	21.51558442	13.80324675	8/31/2016	18	21.51558	13.80325		
8/31/2016	19	\$62.04	\$118.91	\$3.08	20.14285714	38.60844156	8/31/2016	19	20.14286	38.60844		
9/1/2016	12	\$32.34	\$31.70	\$2.98	10.86328519	10.6496473	9/1/2016	12	10.86329	10.64965	15.41	13.76
9/1/2016	13	\$32.63	\$33.63	\$2.98	10.9610346	11.29727914	9/1/2016	13	10.96103	11.29728		
9/1/2016	14	\$34.10	\$45.56	\$2.98	11.45347665	15.30298959	9/1/2016	14	11.45348	15.30299		
9/1/2016	15	\$36.61	\$42.85	\$2.98	12.29694323	14.39469264	9/1/2016	15	12.29694	14.39469		
9/1/2016	16	\$38.25	\$41.82	\$2.98	12.84884112	14.04702721	9/1/2016	16	12.84884	14.04703		
9/1/2016	17	\$44.14	\$33.38	\$2.98	14.82767887	11.21229426	9/1/2016	17	14.82768	11.21229		
9/1/2016	18	\$47.75	\$32.72	\$2.98	16.03862949	10.98958683	9/1/2016	18	16.03863	10.98959		
9/1/2016	19	\$53.35	\$39.29	\$2.98	17.92173329	13.198522	9/1/2016	19	17.92173	13.19852		
9/2/2016	12	\$28.24	\$29.84	\$2.89	9.778393352	10.33067867	9/2/2016	12	9.778393	10.33068	13.27	48.06
9/2/2016	13	\$28.57	\$31.87	\$2.89	9.892313019	11.03393352	9/2/2016	13	9.892313	11.03393		
9/2/2016	14	\$29.77	\$30.82	\$2.89	10.30886427	10.67243767	9/2/2016	14	10.30886	10.67244		
9/2/2016	15	\$31.43	\$32.12	\$2.89	10.88123269	11.12292244	9/2/2016	15	10.88123	11.12292		
9/2/2016	16	\$32.72	\$36.00	\$2.89	11.33067867	12.46606648	9/2/2016	16	11.33068	12.46607		
9/2/2016	17	\$34.90	\$33.21	\$2.89	12.08552632	11.49792244	9/2/2016	17	12.08553	11.49792		
9/2/2016	18	\$37.71	\$445.22	\$2.89	13.0567867	154.1620499	9/2/2016	18	13.05679	154.162		
9/2/2016	19	\$47.98	\$40.79	\$2.89	16.61253463	14.1232687	9/2/2016	19	16.61253	14.12327		
9/3/2016	12	\$17.06	\$13.44	\$2.65	6.447845805	5.079743008	9/3/2016	12	6.447846	5.079743	12.21	10.22
9/3/2016	13	\$20.66	\$17.03	\$2.65	7.806122449	6.434240363	9/3/2016	13	7.806122	6.43424		
9/3/2016	14	\$22.86	\$17.18	\$2.65	8.637944067	6.490929705	9/3/2016	14	8.637944	6.49093		
9/3/2016	15	\$24.79	\$17.78	\$2.65	9.368480726	6.718442933	9/3/2016	15	9.368481	6.718443		
9/3/2016	16	\$25.54	\$20.93	\$2.65	9.652305367	7.908919123	9/3/2016	16	9.652305	7.908919		
9/3/2016	17	\$28.33	\$21.88	\$2.65	10.70483749	8.267573696	9/3/2016	17	10.70484	8.267574		
9/3/2016	18	\$33.59	\$25.21	\$2.65	12.69425548	9.527210884	9/3/2016	18	12.69426	9.527211		
9/3/2016	19	\$41.75	\$40.18	\$2.65	15.78004535	15.18594104	9/3/2016	19	15.78005	15.18594		
9/4/2016	12	\$8.99	-\$16.04	\$2.65	3.397581255	-6.060090703	9/4/2016	12	3.397581	-6.06009	10.95	3.83
9/4/2016	13	\$9.12	-\$15.30	\$2.65	3.447845805	-5.782312925	9/4/2016	13	3.447846	-5.78231		
9/4/2016	14	\$14.39	-\$15.23	\$2.65	5.439909297	-5.756991686	9/4/2016	14	5.439909	-5.75699		
9/4/2016	15	\$18.44	-\$14.82	\$2.65	6.968631897	-5.600151172	9/4/2016	15	6.968632	-5.60015		
9/4/2016	16	\$20.85	-\$4.88	\$2.65	7.877928949	-1.842403628	9/4/2016	16	7.877929	-1.8424		
9/4/2016	17	\$25.69	\$5.51	\$2.65	9.708238851	2.082010582	9/4/2016	17	9.708239	2.082011		
9/4/2016	18	\$30.13	\$13.65	\$2.65	11.38851096	5.157596372	9/4/2016	18	11.38851	5.157596		
9/4/2016	19	\$39.18	\$26.30	\$2.65	14.80763416	9.939531368	9/4/2016	19	14.80763	9.939531		
9/5/2016	12	\$21.92	\$7.73	\$2.65	8.283068783	2.921390779	9/5/2016	12	8.283069	2.921391	12.68	8.72

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
9/5/2016	13	\$20.23	\$17.19	\$2.65	7.644746788	6.496220711	9/5/2016	13	7.644747	6.496221		
9/5/2016	14	\$23.78	\$15.47	\$2.65	8.986016629	5.845804989	9/5/2016	14	8.986017	5.845805		
9/5/2016	15	\$25.35	\$16.97	\$2.65	9.57898715	6.413454271	9/5/2016	15	9.578987	6.413454		
9/5/2016	16	\$26.85	\$14.28	\$2.65	10.14701436	5.396069539	9/5/2016	16	10.14701	5.39607		
9/5/2016	17	\$30.90	\$19.22	\$2.65	11.67687075	7.261904762	9/5/2016	17	11.67687	7.261905		
9/5/2016	18	\$34.71	\$21.88	\$2.65	13.11791383	8.26984127	9/5/2016	18	13.11791	8.269841		
9/5/2016	19	\$41.75	\$36.95	\$2.65	15.77664399	13.96409675	9/5/2016	19	15.77664	13.9641		
9/6/2016	12	\$26.59	\$20.66	\$2.65	10.04875283	7.80952381	9/6/2016	12	10.04875	7.809524	15.67	28.69
9/6/2016	13	\$29.87	\$22.60	\$2.65	11.28798186	8.540816327	9/6/2016	13	11.28798	8.540816		
9/6/2016	14	\$31.54	\$23.74	\$2.65	11.92139078	8.972789116	9/6/2016	14	11.92139	8.972789		
9/6/2016	15	\$32.89	\$26.44	\$2.65	12.4281935	9.992441421	9/6/2016	15	12.42819	9.992441		
9/6/2016	16	\$34.65	\$30.27	\$2.65	13.09561602	11.43953137	9/6/2016	16	13.09562	11.43953		
9/6/2016	17	\$38.29	\$197.36	\$2.65	14.4712774	74.58767952	9/6/2016	17	14.47128	74.58768		
9/6/2016	18	\$42.76	\$37.83	\$2.65	16.16137566	14.29591837	9/6/2016	18	16.16138	14.29592		
9/6/2016	19	\$50.12	\$38.23	\$2.65	18.94293273	14.44822373	9/6/2016	19	18.94293	14.44822		
9/7/2016	12	\$28.46	\$27.73	\$2.90	9.803306924	9.552531864	9/7/2016	12	9.803307	9.552532	15.85	30.15
9/7/2016	13	\$31.75	\$25.62	\$2.90	10.93696176	8.825353083	9/7/2016	13	10.93696	8.825353		
9/7/2016	14	\$36.26	\$26.27	\$2.90	12.49156045	9.048570444	9/7/2016	14	12.49156	9.04857		
9/7/2016	15	\$38.33	\$34.22	\$2.90	13.20392697	11.7891836	9/7/2016	15	13.20393	11.78918		
9/7/2016	16	\$40.25	\$35.80	\$2.90	13.86531175	12.33275921	9/7/2016	16	13.86531	12.33276		
9/7/2016	17	\$42.00	\$29.61	\$2.90	14.46744747	10.19944885	9/7/2016	17	14.46745	10.19945		
9/7/2016	18	\$45.60	\$200.81	\$2.90	15.70926628	69.17258009	9/7/2016	18	15.70927	69.17258		
9/7/2016	19	\$56.22	\$83.89	\$2.90	19.36686187	28.89906993	9/7/2016	19	19.36686	28.89907		
9/8/2016	12	\$26.87	\$24.85	\$2.78	9.680475504	8.950288184	9/8/2016	12	9.680476	8.950288	14.33	14.42
9/8/2016	13	\$28.50	\$27.57	\$2.78	10.26585014	9.931556196	9/8/2016	13	10.26585	9.931556		
9/8/2016	14	\$31.22	\$30.60	\$2.78	11.245317	11.02161383	9/8/2016	14	11.24532	11.02161		
9/8/2016	15	\$32.24	\$33.08	\$2.78	11.61347262	11.91786744	9/8/2016	15	11.61347	11.91787		
9/8/2016	16	\$34.69	\$37.22	\$2.78	12.495317	13.40706052	9/8/2016	16	12.49532	13.40706		
9/8/2016	17	\$36.58	\$32.44	\$2.78	13.17579251	11.68659942	9/8/2016	17	13.17579	11.6866		
9/8/2016	18	\$39.70	\$43.67	\$2.78	14.30223343	15.7323487	9/8/2016	18	14.30223	15.73235		
9/8/2016	19	\$48.18	\$46.81	\$2.78	17.35590778	16.86167147	9/8/2016	19	17.35591	16.86167		
9/9/2016	12	\$31.51	\$29.67	\$2.77	11.37400722	10.71263538	9/9/2016	12	11.37401	10.71264	16.66	15.78
9/9/2016	13	\$32.71	\$32.61	\$2.77	11.80685921	11.7732852	9/9/2016	13	11.80686	11.77329		
9/9/2016	14	\$35.93	\$37.90	\$2.77	12.97256318	13.68267148	9/9/2016	14	12.97256	13.68267		
9/9/2016	15	\$37.68	\$40.44	\$2.77	13.60252708	14.59747292	9/9/2016	15	13.60253	14.59747		
9/9/2016	16	\$39.98	\$37.01	\$2.77	14.43393502	13.36101083	9/9/2016	16	14.43393	13.36101		
9/9/2016	17	\$43.92	\$35.35	\$2.77	15.85523466	12.76101083	9/9/2016	17	15.85523	12.76101		
9/9/2016	18	\$46.97	\$55.37	\$2.77	16.95703971	19.98808664	9/9/2016	18	16.95704	19.98809		
9/9/2016	19	\$53.78	\$47.16	\$2.77	19.41371841	17.02454874	9/9/2016	19	19.41372	17.02455		
9/10/2016	12	\$35.39	\$18.42	\$2.72	13.00257164	6.767450404	9/10/2016	12	13.00257	6.76745	15.63	15.48
9/10/2016	13	\$34.86	\$25.00	\$2.72	12.80749449	9.183321087	9/10/2016	13	12.80749	9.183321		
9/10/2016	14	\$31.87	\$26.92	\$2.72	11.70903747	9.887950037	9/10/2016	14	11.70904	9.88795		
9/10/2016	15	\$33.92	\$30.63	\$2.72	12.4617928	11.25385746	9/10/2016	15	12.46179	11.25386		
9/10/2016	16	\$36.54	\$34.17	\$2.72	13.42395298	12.55473916	9/10/2016	16	13.42395	12.55474		
9/10/2016	17	\$37.27	\$46.80	\$2.72	13.69140338	17.19470977	9/10/2016	17	13.6914	17.19471		
9/10/2016	18	\$42.65	\$45.11	\$2.72	15.67009552	16.57274063	9/10/2016	18	15.6701	16.57274		
9/10/2016	19	\$53.74	\$42.45	\$2.72	19.7421014	15.59478325	9/10/2016	19	19.7421	15.59478		
9/11/2016	12	\$22.56	\$3.23	\$2.72	8.28949302	1.18662748	9/11/2016	12	8.289493	1.186627	13.31	10.55
9/11/2016	13	\$25.19	\$19.05	\$2.72	9.252755327	6.996693608	9/11/2016	13	9.252755	6.996694		
9/11/2016	14	\$26.90	\$22.07	\$2.72	9.881337252	8.109110948	9/11/2016	14	9.881337	8.109111		
9/11/2016	15	\$26.26	\$21.35	\$2.72	9.648420279	7.843130051	9/11/2016	15	9.64842	7.84313		
9/11/2016	16	\$29.31	\$25.22	\$2.72	10.76818516	9.26671565	9/11/2016	16	10.76819	9.266716		
9/11/2016	17	\$31.93	\$27.66	\$2.72	11.73034533	10.16127847	9/11/2016	17	11.73035	10.16128		
9/11/2016	18	\$38.02	\$26.06	\$2.72	13.96767083	9.574577517	9/11/2016	18	13.96767	9.574578		
9/11/2016	19	\$45.70	\$35.90	\$2.72	16.79022777	13.18809699	9/11/2016	19	16.79023	13.1881		
9/12/2016	12	\$23.84	\$21.12	\$2.72	8.758633358	7.759000735	9/12/2016	12	8.758633	7.759001	12.39	8.90
9/12/2016	13	\$23.36	\$18.12	\$2.72	8.580822924	6.657972079	9/12/2016	13	8.580823	6.657972		
9/12/2016	14	\$24.96	\$8.94	\$2.72	9.169728141	3.283247612	9/12/2016	14	9.169728	3.283248		
9/12/2016	15	\$26.17	\$17.82	\$2.72	9.613519471	6.547391624	9/12/2016	15	9.613519	6.547392		
9/12/2016	16	\$27.11	\$21.90	\$2.72	9.958853784	8.044085231	9/12/2016	16	9.958854	8.044085		
9/12/2016	17	\$30.79	\$22.68	\$2.72	11.31227039	8.331741367	9/12/2016	17	11.31227	8.331741		
9/12/2016	18	\$34.05	\$22.88	\$2.72	12.50918442	8.405216752	9/12/2016	18	12.50918	8.405217		
9/12/2016	19	\$42.99	\$29.45	\$2.72	15.79206466	10.81925055	9/12/2016	19	15.79206	10.81925		
9/13/2016	12	\$22.75	\$18.71	\$2.88	7.898263889	6.495486111	9/13/2016	12	7.898264	6.495486	11.38	4.65
9/13/2016	13	\$23.62	\$15.67	\$2.88	8.200347222	5.442361111	9/13/2016	13	8.200347	5.442361		
9/13/2016	14	\$24.47	-\$0.58	\$2.88	8.497569444	-0.200694444	9/13/2016	14	8.497569	-0.20069		
9/13/2016	15	\$25.39	-\$3.42	\$2.88	8.815625	-1.188194444	9/13/2016	15	8.815625	-1.18819		
9/13/2016	16	\$26.28	\$0.75	\$2.88	9.125694444	0.261111111	9/13/2016	16	9.125694	0.261111		

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
9/13/2016	17	\$28.46	\$28.46	\$2.64	\$2.88	9.88125	9/13/2016	17	9.88125	0.9166667		
9/13/2016	18	\$34.39	\$34.39	\$20.77	\$2.88	11.94097222	9/13/2016	18	11.94097	7.210416667		
9/13/2016	19	\$41.98	\$29.38	\$29.38	\$2.88	14.57604167	9/13/2016	19	14.57604	10.20034722		
9/14/2016	12	\$26.88	-\$10.03	-\$10.03	\$2.92	9.206849315	9/14/2016	12	9.206849	-3.433219178	12.69	9.68
9/14/2016	13	\$27.52	\$9.38	\$9.38	\$2.92	9.425342466	9/14/2016	13	9.425342	3.21369863		
9/14/2016	14	\$28.02	\$17.38	\$17.38	\$2.92	9.597260274	9/14/2016	14	9.59726	5.953424658		
9/14/2016	15	\$29.94	\$18.66	\$18.66	\$2.92	10.25410959	9/14/2016	15	10.25411	6.389726027		
9/14/2016	16	\$31.92	\$22.88	\$22.88	\$2.92	10.92979452	9/14/2016	16	10.92979	7.836986301		
9/14/2016	17	\$34.63	\$27.86	\$27.86	\$2.92	11.86061644	9/14/2016	17	11.86062	9.542123288		
9/14/2016	18	\$37.58	\$28.78	\$28.78	\$2.92	12.87123288	9/14/2016	18	12.87123	9.856506849		
9/14/2016	19	\$44.09	\$33.51	\$33.51	\$2.92	15.10068493	9/14/2016	19	15.10068	11.47705479		
9/15/2016	12	\$28.00	-\$8.50	-\$8.50	\$2.95	9.502544961	9/15/2016	12	9.502545	-2.883949779	12.84	11.27
9/15/2016	13	\$28.23	\$12.64	\$12.64	\$2.95	9.579911775	9/15/2016	13	9.579912	4.289107567		
9/15/2016	14	\$29.29	\$8.07	\$8.07	\$2.95	9.940278249	9/15/2016	14	9.940278	2.739395996		
9/15/2016	15	\$31.09	\$24.54	\$24.54	\$2.95	10.54937224	9/15/2016	15	10.54937	8.326094333		
9/15/2016	16	\$33.46	\$26.46	\$26.46	\$2.95	11.3522226	9/15/2016	16	11.35222	8.978283		
9/15/2016	17	\$35.03	\$34.06	\$34.06	\$2.95	11.88530709	9/15/2016	17	11.88531	11.5585341		
9/15/2016	18	\$37.35	\$37.61	\$37.61	\$2.95	12.67526298	9/15/2016	18	12.67526	12.76145232		
9/15/2016	19	\$45.52	\$34.70	\$34.70	\$2.95	15.4475738	9/15/2016	19	15.44757	11.77400747		
9/16/2016	12	\$24.21	\$21.67	\$21.67	\$2.87	8.436585366	9/16/2016	12	8.436585	7.551219512	13.98	11.62
9/16/2016	13	\$26.14	\$24.50	\$24.50	\$2.87	9.106620209	9/16/2016	13	9.10662	8.536585366		
9/16/2016	14	\$29.16	\$25.41	\$25.41	\$2.87	10.16062718	9/16/2016	14	10.16063	8.854703833		
9/16/2016	15	\$32.21	\$26.37	\$26.37	\$2.87	11.22404181	9/16/2016	15	11.22404	9.186759582		
9/16/2016	16	\$35.17	\$31.73	\$31.73	\$2.87	12.25470383	9/16/2016	16	12.2547	11.05400697		
9/16/2016	17	\$35.57	\$30.92	\$30.92	\$2.87	12.39303136	9/16/2016	17	12.39303	10.77317073		
9/16/2016	18	\$40.98	\$35.42	\$35.42	\$2.87	14.27979094	9/16/2016	18	14.27979	12.34146341		
9/16/2016	19	\$48.72	\$35.33	\$35.33	\$2.87	16.97700348	9/16/2016	19	16.977	12.30905923		
9/17/2016	12	\$17.64	-\$16.18	-\$16.18	\$2.78	6.350611951	9/17/2016	12	6.350612	-5.825053996	14.30	17.84
9/17/2016	13	\$21.75	-\$8.23	-\$8.23	\$2.78	7.829733621	9/17/2016	13	7.829734	-2.961843053		
9/17/2016	14	\$23.94	\$10.11	\$10.11	\$2.78	8.618070554	9/17/2016	14	8.618071	3.638948884		
9/17/2016	15	\$27.43	\$22.08	\$22.08	\$2.78	9.872210223	9/17/2016	15	9.87221	7.948164147		
9/17/2016	16	\$31.20	\$35.90	\$35.90	\$2.78	11.2300216	9/17/2016	16	11.23002	12.92152628		
9/17/2016	17	\$35.24	\$36.77	\$36.77	\$2.78	12.68430526	9/17/2016	17	12.68431	13.23650108		
9/17/2016	18	\$42.50	\$91.84	\$91.84	\$2.78	15.29769618	9/17/2016	18	15.2977	33.0611951		
9/17/2016	19	\$50.00	\$33.74	\$33.74	\$2.78	17.99856012	9/17/2016	19	17.99856	12.14470842		
9/18/2016	12	\$22.89	-\$9.83	-\$9.83	\$2.78	8.238660907	9/18/2016	12	8.238661	-3.538156947	17.17	17.98
9/18/2016	13	\$26.94	\$19.70	\$19.70	\$2.78	9.695824334	9/18/2016	13	9.695824	7.090712743		
9/18/2016	14	\$31.89	\$24.18	\$24.18	\$2.78	11.47984161	9/18/2016	14	11.47984	8.703023758		
9/18/2016	15	\$34.67	\$35.44	\$35.44	\$2.78	12.479121267	9/18/2016	15	12.47912	12.75701944		
9/18/2016	16	\$37.67	\$48.24	\$48.24	\$2.78	13.56083513	9/18/2016	16	13.56084	17.36429086		
9/18/2016	17	\$42.49	\$38.40	\$38.40	\$2.78	15.29553636	9/18/2016	17	15.29554	13.82397408		
9/18/2016	18	\$49.97	\$66.91	\$66.91	\$2.78	17.98704104	9/18/2016	18	17.98704	24.08603312		
9/18/2016	19	\$60.68	\$46.19	\$46.19	\$2.78	21.84197264	9/18/2016	19	21.84197	16.62670986		
9/19/2016	12	\$33.68	\$111.48	\$111.48	\$2.78	12.12455004	9/19/2016	12	12.12455	40.12887969	18.44	100.33
9/19/2016	13	\$35.48	\$85.07	\$85.07	\$2.78	12.77285817	9/19/2016	13	12.77286	30.62203024		
9/19/2016	14	\$37.86	\$103.95	\$103.95	\$2.78	13.6299496	9/19/2016	14	13.62995	37.41864651		
9/19/2016	15	\$40.20	\$339.51	\$339.51	\$2.78	14.4712023	9/19/2016	15	14.4712	122.2141829		
9/19/2016	16	\$44.06	\$44.96	\$44.96	\$2.78	15.86105112	9/19/2016	16	15.86105	16.1850252		
9/19/2016	17	\$48.22	\$121.68	\$121.68	\$2.78	17.35673146	9/19/2016	17	17.35673	43.80165587		
9/19/2016	18	\$55.93	\$608.66	\$608.66	\$2.78	20.13354932	9/19/2016	18	20.13355	219.0993521		
9/19/2016	19	\$56.71	\$45.74	\$45.74	\$2.78	20.4150468	9/19/2016	19	20.41505	16.464		
9/20/2016	12	\$35.39	\$35.10	\$35.10	\$3.03	11.69144367	9/20/2016	12	11.69144	11.59531	16.57	28.70
9/20/2016	13	\$37.00	\$31.66	\$31.66	\$3.03	12.22200198	9/20/2016	13	12.222	10.45854		
9/20/2016	14	\$38.68	\$34.10	\$34.10	\$3.03	12.7789891	9/20/2016	14	12.77899	11.26560951		
9/20/2016	15	\$40.84	\$34.21	\$34.21	\$3.03	13.4909151	9/20/2016	15	13.49092	11.30260984		
9/20/2016	16	\$43.55	\$119.02	\$119.02	\$3.03	14.38586059	9/20/2016	16	14.38586	39.32011893		
9/20/2016	17	\$48.64	\$49.77	\$49.77	\$3.03	16.06937562	9/20/2016	17	16.06938	16.44235216		
9/20/2016	18	\$53.22	\$140.66	\$140.66	\$3.03	17.58077304	9/20/2016	18	17.58077	46.46745953		
9/20/2016	19	\$55.27	\$38.02	\$38.02	\$3.03	18.25900231	9/20/2016	19	18.259	12.56029072		
9/21/2016	12	\$35.33	\$33.95	\$33.95	\$3.05	11.59566787	9/21/2016	12	11.59567	11.14243518	14.82	68.73
9/21/2016	13	\$34.93	\$35.16	\$35.16	\$3.05	11.4643912	9/21/2016	13	11.46439	11.5402		
9/21/2016	14	\$38.17	\$32.97	\$32.97	\$3.05	12.52641943	9/21/2016	14	12.52642	10.81982278		
9/21/2016	15	\$39.35	\$89.61	\$89.61	\$3.05	12.91467017	9/21/2016	15	12.91467	29.40761405		
9/21/2016	16	\$40.03	\$258.49	\$258.49	\$3.05	13.13587135	9/21/2016	16	13.13587	84.83491959		
9/21/2016	17	\$43.49	\$212.85	\$212.85	\$3.05	14.27239908	9/21/2016	17	14.2724	69.85527		
9/21/2016	18	\$45.74	\$276.68	\$276.68	\$3.05	15.01214309	9/21/2016	18	15.01214	90.80439777		
9/21/2016	19	\$51.39	\$68.08	\$68.08	\$3.05	16.86642599	9/21/2016	19	16.86643	22.34427		
9/22/2016	12	\$21.76	-\$7.28	-\$7.28	\$3.09	7.044998381	9/22/2016	12	7.044998	-2.35804	11.06	6.40

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
9/22/2016	13	\$21.30	-\$0.12	\$3.09	6.895759145	-0.038523794	9/22/2016	13	6.895759	-0.03852		
9/22/2016	14	\$25.05	-\$5.01	\$3.09	8.108773066	-1.620912917	9/22/2016	14	8.108773	-1.62091		
9/22/2016	15	\$27.57	\$7.53	\$3.09	8.926189705	2.437682098	9/22/2016	15	8.92619	2.437682		
9/22/2016	16	\$28.58	\$16.04	\$3.09	9.253480091	5.192295241	9/22/2016	16	9.25348	5.192295		
9/22/2016	17	\$30.07	\$16.09	\$3.09	9.733570735	5.207186792	9/22/2016	17	9.733571	5.207187		
9/22/2016	18	\$35.14	\$19.34	\$3.09	11.37423114	6.259307219	9/22/2016	18	11.37423	6.259307		
9/22/2016	19	\$42.87	\$27.66	\$3.09	13.87892522	8.953382972	9/22/2016	19	13.87893	8.953383		
9/23/2016	12	\$27.93	-\$12.64	\$3.05	9.173070608	-4.152380952	9/23/2016	12	9.173071	-4.15238	13.22	1.34
9/23/2016	13	\$28.26	\$8.18	\$3.05	9.28045977	2.6863711	9/23/2016	13	9.28046	2.686371		
9/23/2016	14	\$28.56	-\$2.06	\$3.05	9.377668309	-0.677175698	9/23/2016	14	9.377668	-0.67718		
9/23/2016	15	\$31.22	-\$15.45	\$3.05	10.25287356	-5.074220033	9/23/2016	15	10.25287	-5.07422		
9/23/2016	16	\$33.42	-\$12.16	\$3.05	10.97536946	-3.993431856	9/23/2016	16	10.97537	-3.99343		
9/23/2016	17	\$37.94	-\$11.81	\$3.05	12.46075534	-3.877832512	9/23/2016	17	12.46076	-3.87783		
9/23/2016	18	\$43.60	\$14.50	\$3.05	14.31921182	4.761576355	9/23/2016	18	14.31921	4.761576		
9/23/2016	19	\$46.00	\$25.74	\$3.05	15.10673235	8.452545156	9/23/2016	19	15.10673	8.452545		
9/24/2016	12	\$18.90	-\$13.60	\$3.06	6.185270049	-4.45106383	9/24/2016	12	6.18527	-4.45106	16.16	36.51
9/24/2016	13	\$23.98	-\$5.57	\$3.06	7.850409165	-1.823567921	9/24/2016	13	7.850409	-1.82357		
9/24/2016	14	\$27.66	\$21.23	\$3.06	9.054337152	6.949918167	9/24/2016	14	9.054337	6.949918		
9/24/2016	15	\$32.84	\$25.52	\$3.06	10.75090016	8.353191489	9/24/2016	15	10.7509	8.353191		
9/24/2016	16	\$37.11	\$20.14	\$3.06	12.14631751	6.591162029	9/24/2016	16	12.14632	6.591162		
9/24/2016	17	\$43.93	\$25.41	\$3.06	14.3787234	8.315875614	9/24/2016	17	14.37872	8.315876		
9/24/2016	18	\$51.80	\$361.01	\$3.06	16.95450082	118.1708674	9/24/2016	18	16.9545	118.1709		
9/24/2016	19	\$64.59	\$39.63	\$3.06	21.14206219	12.97283142	9/24/2016	19	21.14206	12.97283		
9/25/2016	12	\$19.07	-\$13.30	\$3.06	6.241571195	-4.352864157	9/25/2016	12	6.241571	-4.35286	18.20	26.50
9/25/2016	13	\$27.49	\$7.03	\$3.06	8.999672668	2.300490998	9/25/2016	13	8.999673	2.300491		
9/25/2016	14	\$32.94	\$21.58	\$3.06	10.7806874	7.064811784	9/25/2016	14	10.78069	7.064812		
9/25/2016	15	\$35.59	\$23.64	\$3.06	11.6507365	7.737152209	9/25/2016	15	11.65074	7.737152		
9/25/2016	16	\$40.24	\$25.53	\$3.06	13.17152209	8.357446809	9/25/2016	16	13.17152	8.357447		
9/25/2016	17	\$47.95	\$30.71	\$3.06	15.69492635	10.05368249	9/25/2016	17	15.69493	10.05368		
9/25/2016	18	\$58.06	\$103.52	\$3.06	19.00621931	33.88641571	9/25/2016	18	19.00622	33.88642		
9/25/2016	19	\$76.11	\$164.06	\$3.06	24.91456628	53.700491	9/25/2016	19	24.91457	53.70049		
9/26/2016	12	\$41.81	\$62.06	\$3.06	13.68576105	20.31456628	9/26/2016	12	13.68576	20.31457	29.17	96.15
9/26/2016	13	\$42.50	\$82.50	\$3.06	13.91031097	27.00621931	9/26/2016	13	13.91031	27.00622		
9/26/2016	14	\$49.67	\$81.67	\$3.06	16.25793781	26.73322422	9/26/2016	14	16.25794	26.73322		
9/26/2016	15	\$55.64	\$236.98	\$3.06	18.21243863	77.57021277	9/26/2016	15	18.21244	77.57021		
9/26/2016	16	\$64.27	\$238.27	\$3.06	21.03666121	77.99312602	9/26/2016	16	21.03666	77.99313		
9/26/2016	17	\$95.51	\$286.49	\$3.06	31.26448445	93.77839607	9/26/2016	17	31.26448	93.7784		
9/26/2016	18	\$97.71	\$259.51	\$3.06	31.98428805	84.94468085	9/26/2016	18	31.98429	84.94468		
9/26/2016	19	\$98.99	\$390.70	\$3.06	32.40360065	127.8870704	9/26/2016	19	32.4036	127.8871		
9/27/2016	12	\$38.74	\$144.12	\$3.24	11.96787149	44.5214705	9/27/2016	12	11.96787	44.52147	19.54	33.23
9/27/2016	13	\$42.87	\$87.24	\$3.24	13.24467099	26.94964473	9/27/2016	13	13.24467	26.94964		
9/27/2016	14	\$46.28	\$73.91	\$3.24	14.29749768	22.83194316	9/27/2016	14	14.2975	22.83194		
9/27/2016	15	\$50.79	\$124.97	\$3.24	15.68952734	38.60735249	9/27/2016	15	15.68953	38.60735		
9/27/2016	16	\$49.97	\$50.18	\$3.24	15.43713315	15.50200803	9/27/2016	16	15.43713	15.50201		
9/27/2016	17	\$54.82	\$44.31	\$3.24	16.93636083	13.6879827	9/27/2016	17	16.93636	13.68798		
9/27/2016	18	\$69.75	\$40.41	\$3.24	21.54742045	12.48409021	9/27/2016	18	21.54742	12.48409		
9/27/2016	19	\$78.43	\$50.12	\$3.24	24.2304603	15.48439914	9/27/2016	19	24.23046	15.4844		
9/28/2016	12	\$37.66	\$27.07	\$3.08	12.2246024	8.785459266	9/28/2016	12	12.2246	8.785459	19.18	19.26
9/28/2016	13	\$42.10	\$29.37	\$3.08	13.66471925	9.533268419	9/28/2016	13	13.66472	9.533268		
9/28/2016	14	\$50.31	\$36.58	\$3.08	16.32911392	11.87341772	9/28/2016	14	16.32911	11.87342		
9/28/2016	15	\$52.47	\$102.78	\$3.08	17.03115871	33.3596235	9/28/2016	15	17.03116	33.35962		
9/28/2016	16	\$54.34	\$44.85	\$3.08	17.63777994	14.55696203	9/28/2016	16	17.63778	14.55696		
9/28/2016	17	\$59.08	\$41.72	\$3.08	19.17689062	13.53975982	9/28/2016	17	19.17689	13.53976		
9/28/2016	18	\$59.81	\$47.98	\$3.08	19.41123012	15.5712431	9/28/2016	18	19.41123	15.57124		
9/28/2016	19	\$63.14	\$36.29	\$3.08	20.49334632	11.77929244	9/28/2016	19	20.49335	11.77929		
9/29/2016	12	\$35.92	\$32.16	\$2.99	12.02242303	10.76405622	9/29/2016	12	12.02242	10.76406	17.47	14.18
9/29/2016	13	\$39.00	\$31.63	\$2.99	13.05321285	10.58601071	9/29/2016	13	13.05321	10.58601		
9/29/2016	14	\$44.23	\$40.32	\$2.99	14.80287818	13.49531459	9/29/2016	14	14.80288	13.49531		
9/29/2016	15	\$46.46	\$42.17	\$2.99	15.5478581	14.11311914	9/29/2016	15	15.54786	14.11312		
9/29/2016	16	\$48.42	\$43.32	\$2.99	16.20548862	14.49832664	9/29/2016	16	16.20549	14.49833		
9/29/2016	17	\$52.45	\$41.56	\$2.99	17.55287818	13.90729585	9/29/2016	17	17.55288	13.9073		
9/29/2016	18	\$52.18	\$42.45	\$2.99	17.46318608	14.20615797	9/29/2016	18	17.46319	14.20616		
9/29/2016	19	\$55.70	\$38.09	\$2.99	18.64257028	12.7476573	9/29/2016	19	18.64257	12.74766		
9/30/2016	12	\$38.20	\$35.01	\$2.92	13.0742642	11.98117728	9/30/2016	12	13.07426	11.98118	14.94	13.98
9/30/2016	13	\$37.26	\$33.20	\$2.92	12.74982888	11.362423	9/30/2016	13	12.74983	11.36242		
9/30/2016	14	\$35.54	\$33.16	\$2.92	12.16221766	11.34907598	9/30/2016	14	12.16222	11.34908		
9/30/2016	15	\$36.67	\$38.04	\$2.92	12.54859685	13.01916496	9/30/2016	15	12.5486	13.01916		
9/30/2016	16	\$40.17	\$33.52	\$2.92	13.74606434	11.47193703	9/30/2016	16	13.74606	11.47194		

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
9/30/2016	17	\$41.24	\$41.24	\$34.53	\$2.92	14.11259411	9/30/2016	17	14.11259	11.8169623		
9/30/2016	18	\$43.92	\$43.92	\$57.26	\$2.92	15.02977413	9/30/2016	18	15.02977	19.59582478		
9/30/2016	19	\$49.35	\$49.35	\$29.82	\$2.92	16.88911704	9/30/2016	19	16.88912	10.20396988		
10/1/2016	12	\$25.47	\$25.47	\$36.00	\$2.75	9.277595628	10/1/2016	12	9.277596	13.11584699	14.48	21.34
10/1/2016	13	\$27.60	\$27.60	\$37.02	\$2.75	10.05464481	10/1/2016	13	10.05464	13.4856102		
10/1/2016	14	\$28.13	\$28.13	\$109.79	\$2.75	10.24918033	10/1/2016	14	10.24918	39.99781421		
10/1/2016	15	\$29.31	\$29.31	\$45.33	\$2.75	10.67868852	10/1/2016	15	10.67869	16.5147541		
10/1/2016	16	\$31.82	\$31.82	\$31.95	\$2.75	11.59307832	10/1/2016	16	11.59308	11.63752277		
10/1/2016	17	\$34.47	\$34.47	\$47.25	\$2.75	12.55555556	10/1/2016	17	12.55556	17.21457195		
10/1/2016	18	\$41.35	\$41.35	\$53.14	\$2.75	15.06448087	10/1/2016	18	15.06448	19.35956284		
10/1/2016	19	\$51.32	\$51.32	\$44.43	\$2.75	18.69581056	10/1/2016	19	18.69581	16.1847		
10/2/2016	12	\$16.61	\$16.61	-\$3.95	\$2.75	6.050637523	10/2/2016	12	6.050638	-1.438615665	12.08	12.00
10/2/2016	13	\$19.29	\$19.29	\$17.88	\$2.75	7.026593807	10/2/2016	13	7.026594	6.5143898		
10/2/2016	14	\$20.38	\$20.38	\$15.70	\$2.75	7.424772313	10/2/2016	14	7.424772	5.718761384		
10/2/2016	15	\$23.02	\$23.02	\$13.12	\$2.75	8.386156648	10/2/2016	15	8.386157	4.777777778		
10/2/2016	16	\$23.83	\$23.83	-\$9.09	\$2.75	8.681602914	10/2/2016	16	8.681603	-3.310018215		
10/2/2016	17	\$26.63	\$26.63	-\$0.97	\$2.75	9.700182149	10/2/2016	17	9.700182	-0.353369763		
10/2/2016	18	\$35.31	\$35.31	\$24.28	\$2.75	12.86156648	10/2/2016	18	12.86157	8.843351548		
10/2/2016	19	\$46.89	\$46.89	\$117.55	\$2.75	17.08160291	10/2/2016	19	17.0816	42.82295082		
10/3/2016	12	\$23.97	\$23.97	-\$15.12	\$2.75	8.732240437	10/3/2016	12	8.73224	-5.509653916	14.94	48.35
10/3/2016	13	\$25.10	\$25.10	-\$11.28	\$2.75	9.1428051	10/3/2016	13	9.142805	-4.108925319		
10/3/2016	14	\$25.60	\$25.60	-\$0.69	\$2.75	9.324590164	10/3/2016	14	9.32459	-0.249908925		
10/3/2016	15	\$30.00	\$30.00	-\$11.03	\$2.75	10.92786885	10/3/2016	15	10.92787	-4.018579235		
10/3/2016	16	\$32.70	\$32.70	\$27.84	\$2.75	11.91183971	10/3/2016	16	11.91184	10.1435337		
10/3/2016	17	\$34.88	\$34.88	\$30.46	\$2.75	12.70819672	10/3/2016	17	12.7082	11.09763206		
10/3/2016	18	\$44.37	\$44.37	\$431.73	\$2.75	16.16357013	10/3/2016	18	16.16357	157.2772313		
10/3/2016	19	\$52.04	\$52.04	\$40.85	\$2.75	18.95956284	10/3/2016	19	18.95956	14.88233151		
10/4/2016	12	\$15.90	\$15.90	-\$155.21	\$2.86	5.562281316	10/4/2016	12	5.562281	-54.30650805	11.17	-1.71
10/4/2016	13	\$20.00	\$20.00	-\$141.19	\$2.86	6.998250525	10/4/2016	13	6.998251	-49.40027992		
10/4/2016	14	\$18.54	\$18.54	-\$119.15	\$2.86	6.488453464	10/4/2016	14	6.488453	-41.6903429		
10/4/2016	15	\$19.64	\$19.64	-\$49.34	\$2.86	6.870538838	10/4/2016	15	6.870539	-17.26487054		
10/4/2016	16	\$22.93	\$22.93	-\$24.39	\$2.86	8.021343597	10/4/2016	16	8.021344	-8.534639608		
10/4/2016	17	\$23.35	\$23.35	-\$15.92	\$2.86	8.17109867	10/4/2016	17	8.171099	-5.571028691		
10/4/2016	18	\$35.09	\$35.09	\$9.59	\$2.86	12.27606718	10/4/2016	18	12.27607	3.355143457		
10/4/2016	19	\$46.37	\$46.37	\$11.21	\$2.86	16.22323303	10/4/2016	19	16.22323	3.92232303		
10/5/2016	12	\$4.06	\$4.06	-\$5.87	\$2.86	1.4185884	10/5/2016	12	1.418588	-2.051712089	9.61	15.52
10/5/2016	13	\$5.08	\$5.08	\$7.22	\$2.86	1.775681342	10/5/2016	13	1.775681	2.523759609		
10/5/2016	14	\$6.03	\$6.03	\$8.90	\$2.86	2.107617051	10/5/2016	14	2.107617	3.109014675		
10/5/2016	15	\$8.56	\$8.56	\$16.12	\$2.86	2.991614256	10/5/2016	15	2.991614	5.632424878		
10/5/2016	16	\$13.57	\$13.57	\$12.57	\$2.86	4.740391335	10/5/2016	16	4.740391	4.390985325		
10/5/2016	17	\$18.43	\$18.43	\$21.93	\$2.86	6.440251572	10/5/2016	17	6.440252	7.661076171		
10/5/2016	18	\$33.58	\$33.58	\$112.09	\$2.86	11.73340321	10/5/2016	18	11.7334	39.16422082		
10/5/2016	19	\$44.38	\$44.38	\$31.10	\$2.86	15.50733753	10/5/2016	19	15.50734	10.8665269		
10/6/2016	12	\$27.10	\$27.10	\$25.06	\$2.90	9.344482759	10/6/2016	12	9.344483	8.642413793	14.86	11.00
10/6/2016	13	\$29.43	\$29.43	\$23.42	\$2.90	10.14793103	10/6/2016	13	10.14793	8.074137931		
10/6/2016	14	\$32.36	\$32.36	\$24.97	\$2.90	11.15793103	10/6/2016	14	11.15793	8.61137931		
10/6/2016	15	\$33.97	\$33.97	\$20.60	\$2.90	11.71344828	10/6/2016	15	11.71345	7.102068966		
10/6/2016	16	\$34.86	\$34.86	\$24.68	\$2.90	12.02137931	10/6/2016	16	12.02138	8.511724138		
10/6/2016	17	\$37.75	\$37.75	\$25.37	\$2.90	13.01758621	10/6/2016	17	13.01759	8.749655172		
10/6/2016	18	\$43.36	\$43.36	\$46.73	\$2.90	14.95	10/6/2016	18	14.95	16.11448276		
10/6/2016	19	\$56.36	\$56.36	\$30.77	\$2.90	19.43275862	10/6/2016	19	19.43276	10.60896552		
10/7/2016	12	\$32.96	\$32.96	\$25.82	\$3.05	10.82107682	10/7/2016	12	10.82108	8.47800394	17.40	11.79
10/7/2016	13	\$35.49	\$35.49	\$25.45	\$3.05	11.65265923	10/7/2016	13	11.65266	8.355876559		
10/7/2016	14	\$40.42	\$40.42	\$23.45	\$3.05	13.26854892	10/7/2016	14	13.26855	7.699606041		
10/7/2016	15	\$43.93	\$43.93	\$24.68	\$3.05	14.42120814	10/7/2016	15	14.42121	8.101444517		
10/7/2016	16	\$43.95	\$43.95	\$26.05	\$3.05	14.42777413	10/7/2016	16	14.42777	8.552856205		
10/7/2016	17	\$45.13	\$45.13	\$29.58	\$3.05	14.81516743	10/7/2016	17	14.81517	9.712081418		
10/7/2016	18	\$52.66	\$52.66	\$52.33	\$3.05	17.28824688	10/7/2016	18	17.28825	17.17925148		
10/7/2016	19	\$70.27	\$70.27	\$35.74	\$3.05	23.06992777	10/7/2016	19	23.06993	11.73309258		
10/8/2016	12	\$30.99	\$30.99	\$35.18	\$2.96	10.46858108	10/8/2016	12	10.46858	11.88547297	17.35	19.95
10/8/2016	13	\$31.68	\$31.68	\$36.68	\$2.96	10.70135135	10/8/2016	13	10.70135	12.39290541		
10/8/2016	14	\$36.04	\$36.04	\$29.60	\$2.96	12.17635135	10/8/2016	14	12.17635	9.998310811		
10/8/2016	15	\$37.26	\$37.26	\$29.14	\$2.96	12.58682432	10/8/2016	15	12.58682	9.843243243		
10/8/2016	16	\$38.78	\$38.78	\$33.72	\$2.96	13.10135135	10/8/2016	16	13.10135	11.39222973		
10/8/2016	17	\$42.96	\$42.96	\$91.29	\$2.96	14.51351351	10/8/2016	17	14.51351	30.84054054		
10/8/2016	18	\$52.61	\$52.61	\$78.87	\$2.96	17.77398649	10/8/2016	18	17.77399	26.64425676		
10/8/2016	19	\$71.10	\$71.10	\$32.28	\$2.96	24.02027027	10/8/2016	19	24.02027	10.90675676		
10/9/2016	12	\$28.60	\$28.60	\$24.70	\$2.96	9.662837838	10/9/2016	12	9.662838	8.344256757	17.07	11.67

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
10/9/2016	13	\$29.65	\$26.81	\$2.96	10.01824324	9.057094595	10/9/2016	13	10.01824	9.057095		
10/9/2016	14	\$33.10	\$25.72	\$2.96	11.18108108	8.6875	10/9/2016	14	11.18108	8.6875		
10/9/2016	15	\$35.66	\$31.55	\$2.96	12.04831081	10.6597973	10/9/2016	15	12.04831	10.6598		
10/9/2016	16	\$37.96	\$34.01	\$2.96	12.82297297	11.48885135	10/9/2016	16	12.82297	11.48885		
10/9/2016	17	\$40.94	\$36.00	\$2.96	13.83040541	12.1625	10/9/2016	17	13.83041	12.1625		
10/9/2016	18	\$50.78	\$36.45	\$2.96	17.15675676	12.3125	10/9/2016	18	17.15676	12.3125		
10/9/2016	19	\$72.46	\$31.76	\$2.96	24.48006757	10.72871622	10/9/2016	19	24.48007	10.72872		
10/10/2016	12	\$32.99	\$26.18	\$2.96	11.14594595	8.844256757	10/10/2016	12	11.14595	8.844257	17.06	25.49
10/10/2016	13	\$37.11	\$26.33	\$2.96	12.53682432	8.894932432	10/10/2016	13	12.53682	8.894932		
10/10/2016	14	\$39.73	\$27.15	\$2.96	13.4222973	9.170608108	10/10/2016	14	13.4223	9.170608		
10/10/2016	15	\$42.88	\$27.10	\$2.96	14.48513514	9.153716216	10/10/2016	15	14.48514	9.153716		
10/10/2016	16	\$42.34	\$33.29	\$2.96	14.30439189	11.2472973	10/10/2016	16	14.30439	11.2473		
10/10/2016	17	\$44.26	\$33.84	\$2.96	14.95405405	11.43378378	10/10/2016	17	14.95405	11.43378		
10/10/2016	18	\$49.17	\$203.53	\$2.96	16.61216216	68.76148649	10/10/2016	18	16.61216	68.76149		
10/10/2016	19	\$66.25	\$31.08	\$2.96	22.38243243	10.50067568	10/10/2016	19	22.38243	10.50068		
10/11/2016	12	\$31.12	\$23.05	\$3.20	9.731081926	7.206378987	10/11/2016	12	9.731082	7.206379	12.90	10.31
10/11/2016	13	\$30.21	\$21.36	\$3.20	9.447467167	6.677923702	10/11/2016	13	9.447467	6.677924		
10/11/2016	14	\$33.65	\$21.30	\$3.20	10.52157598	6.661038149	10/11/2016	14	10.52158	6.661038		
10/11/2016	15	\$33.26	\$22.56	\$3.20	10.39993746	7.054409006	10/11/2016	15	10.39994	7.054409		
10/11/2016	16	\$32.31	\$28.72	\$3.20	10.10350219	8.979362101	10/11/2016	16	10.1035	8.979362		
10/11/2016	17	\$36.71	\$31.43	\$3.20	11.47904941	9.826766729	10/11/2016	17	11.47905	9.826767		
10/11/2016	18	\$42.54	\$39.58	\$3.20	13.30268918	12.37585991	10/11/2016	18	13.30269	12.37586		
10/11/2016	19	\$53.46	\$32.10	\$3.20	16.71669794	10.03877423	10/11/2016	19	16.7167	10.03877		
10/12/2016	12	\$26.21	\$26.37	\$3.05	8.593770492	8.646885246	10/12/2016	12	8.59377	8.646885	12.63	8.40
10/12/2016	13	\$26.95	\$22.99	\$3.05	8.835737705	7.536065574	10/12/2016	13	8.835738	7.536066		
10/12/2016	14	\$27.57	\$24.62	\$3.05	9.04	8.073114754	10/12/2016	14	9.04	8.073115		
10/12/2016	15	\$27.69	\$17.06	\$3.05	9.077704918	5.594098361	10/12/2016	15	9.077705	5.594098		
10/12/2016	16	\$28.65	\$6.49	\$3.05	9.392459016	2.127868852	10/12/2016	16	9.392459	2.127869		
10/12/2016	17	\$32.04	\$16.96	\$3.05	10.5042623	5.560983607	10/12/2016	17	10.50426	5.560984		
10/12/2016	18	\$40.79	\$31.58	\$3.05	13.37278689	10.35377049	10/12/2016	18	13.37279	10.35377		
10/12/2016	19	\$52.56	\$47.50	\$3.05	17.23147541	15.57508197	10/12/2016	19	17.23148	15.57508		
10/13/2016	12	\$24.90	\$31.75	\$3.03	8.229345671	10.49272968	10/13/2016	12	8.229346	10.49273	13.40	80.38
10/13/2016	13	\$27.34	\$36.74	\$3.03	9.035690681	12.14011897	10/13/2016	13	9.035691	12.14012		
10/13/2016	14	\$28.55	\$127.80	\$3.03	9.434567085	42.23364177	10/13/2016	14	9.434567	42.23364		
10/13/2016	15	\$29.70	\$39.76	\$3.03	9.814606742	13.1397885	10/13/2016	15	9.814607	13.13979		
10/13/2016	16	\$31.80	\$290.63	\$3.03	10.50727032	96.04461335	10/13/2016	16	10.50727	96.04461		
10/13/2016	17	\$33.32	\$115.77	\$3.03	11.01123596	38.25842697	10/13/2016	17	11.01124	38.25843		
10/13/2016	18	\$42.11	\$526.73	\$3.03	13.91473893	174.0684071	10/13/2016	18	13.91474	174.0684		
10/13/2016	19	\$54.97	\$31.16	\$3.03	18.16688698	10.29610046	10/13/2016	19	18.16689	10.2961		
10/14/2016	12	\$19.67	\$19.52	\$2.97	6.61466039	6.563887021	10/14/2016	12	6.61466	6.563887	12.31	27.39
10/14/2016	13	\$20.83	\$19.26	\$2.97	7.003698722	6.475117687	10/14/2016	13	7.003699	6.475118		
10/14/2016	14	\$21.90	\$26.29	\$2.97	7.362474781	8.839273705	10/14/2016	14	7.362475	8.839274		
10/14/2016	15	\$21.99	\$24.19	\$2.97	7.392737054	8.135171486	10/14/2016	15	7.392737	8.135171		
10/14/2016	16	\$26.03	\$31.65	\$2.97	8.753194351	10.64324143	10/14/2016	16	8.753194	10.64324		
10/14/2016	17	\$30.20	\$40.27	\$2.97	10.15400134	13.54068594	10/14/2016	17	10.154	13.54069		
10/14/2016	18	\$39.79	\$211.60	\$2.97	13.3802959	71.14862139	10/14/2016	18	13.3803	71.14862		
10/14/2016	19	\$50.42	\$42.33	\$2.97	16.95258911	14.23234701	10/14/2016	19	16.95259	14.23235		
10/15/2016	12	\$18.10	\$5.99	\$2.74	6.604888727	2.183874498	10/15/2016	12	6.604889	2.183874	13.38	31.98
10/15/2016	13	\$20.11	\$2.79	\$2.74	7.335643926	1.019336009	10/15/2016	13	7.335644	1.019336		
10/15/2016	14	\$21.31	\$2.93	\$2.74	7.77307552	1.070047428	10/15/2016	14	7.773076	1.070047		
10/15/2016	15	\$22.42	\$4.17	\$2.74	8.180955856	1.522437067	10/15/2016	15	8.180956	1.522437		
10/15/2016	16	\$24.99	\$20.74	\$2.74	9.116380883	7.568040861	10/15/2016	16	9.116381	7.568041		
10/15/2016	17	\$30.58	\$255.81	\$2.74	11.15724188	93.32615834	10/15/2016	17	11.15724	93.32616		
10/15/2016	18	\$39.72	\$35.98	\$2.74	14.4892375	13.12477198	10/15/2016	18	14.48924	13.12477		
10/15/2016	19	\$51.46	\$38.13	\$2.74	18.77234586	13.91134622	10/15/2016	19	18.77235	13.91135		
10/16/2016	12	\$18.96	\$0.82	\$2.74	6.916453849	0.299525721	10/16/2016	12	6.916454	0.299526	13.97	10.07
10/16/2016	13	\$19.87	\$27.05	\$2.74	7.24771981	9.868296242	10/16/2016	13	7.24772	9.868296		
10/16/2016	14	\$19.36	\$18.81	\$2.74	7.062750821	6.861729296	10/16/2016	14	7.062751	6.861729		
10/16/2016	15	\$22.58	\$18.40	\$2.74	8.239328712	6.713973003	10/16/2016	15	8.239329	6.713973		
10/16/2016	16	\$24.91	\$25.96	\$2.74	9.087194455	9.470995987	10/16/2016	16	9.087194	9.470996		
10/16/2016	17	\$31.29	\$28.05	\$2.74	11.41444728	10.23458592	10/16/2016	17	11.41445	10.23459		
10/16/2016	18	\$41.09	\$27.90	\$2.74	14.99087924	10.17767238	10/16/2016	18	14.99088	10.17767		
10/16/2016	19	\$55.89	\$28.48	\$2.74	20.39036848	10.38854433	10/16/2016	19	20.39037	10.38854		
10/17/2016	12	\$28.53	\$29.36	\$2.74	10.40861	10.71251368	10/17/2016	12	10.40861	10.71251	15.90	32.71
10/17/2016	13	\$29.45	\$28.46	\$2.74	10.74534841	10.38307187	10/17/2016	13	10.74535	10.38307		
10/17/2016	14	\$29.18	\$26.03	\$2.74	10.6442904	9.49470996	10/17/2016	14	10.64429	9.49471		
10/17/2016	15	\$31.95	\$26.84	\$2.74	11.65632981	9.790587377	10/17/2016	15	11.65633	9.790587		
10/17/2016	16	\$32.39	\$189.21	\$2.74	11.81758482	69.02955126	10/17/2016	16	11.81758	69.02955		

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMBtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
10/17/2016	17	\$34.41	\$33.26	\$2.74	12.5552718	12.13389274	10/17/2016	17	12.55527	12.13389		
10/17/2016	18	\$44.69	\$106.29	\$2.74	16.30390368	38.77927764	10/17/2016	18	16.3039	38.77928		
10/17/2016	19	\$62.86	\$29.87	\$2.74	22.93141189	10.89748267	10/17/2016	19	22.93141	10.89748		
10/18/2016	12	\$27.44	-\$6.00	\$3.05	9.008207485	-1.970453053	10/18/2016	12	9.008207	-1.97045	14.81	14.46
10/18/2016	13	\$28.76	\$1.66	\$3.05	9.443204202	0.546290217	10/18/2016	13	9.443204	0.54629		
10/18/2016	14	\$29.88	\$11.60	\$3.05	9.807944846	3.807288247	10/18/2016	14	9.807945	3.807288		
10/18/2016	15	\$30.80	\$15.27	\$3.05	10.1112935	5.011818779	10/18/2016	15	10.11129	5.011819		
10/18/2016	16	\$33.74	\$24.05	\$3.05	11.07780696	7.895929087	10/18/2016	16	11.07781	7.895929		
10/18/2016	17	\$40.08	\$91.37	\$3.05	13.15659882	29.9977019	10/18/2016	17	13.1566	29.9977		
10/18/2016	18	\$44.68	\$31.05	\$3.05	14.6667761	10.19369665	10/18/2016	18	14.66678	10.1937		
10/18/2016	19	\$62.01	\$29.75	\$3.05	20.35718976	9.766250821	10/18/2016	19	20.35719	9.766251		
10/19/2016	12	\$39.53	\$6.92	\$3.14	12.57188295	2.202290076	10/19/2016	12	12.57188	2.20229	19.02	9.42
10/19/2016	13	\$42.58	\$19.70	\$3.14	13.5423028	6.266221374	10/19/2016	13	13.5423	6.266221		
10/19/2016	14	\$42.49	\$19.45	\$3.14	13.51399491	6.187659033	10/19/2016	14	13.51399	6.187659		
10/19/2016	15	\$49.12	\$18.81	\$3.14	15.6221374	5.984096692	10/19/2016	15	15.62214	5.984097		
10/19/2016	16	\$48.80	\$16.52	\$3.14	15.52226463	5.253816794	10/19/2016	16	15.52226	5.253817		
10/19/2016	17	\$50.52	\$28.92	\$3.14	16.06902036	9.196882952	10/19/2016	17	16.06902	9.196883		
10/19/2016	18	\$60.66	\$35.50	\$3.14	19.29357506	11.29262087	10/19/2016	18	19.29358	11.29262		
10/19/2016	19	\$79.23	\$37.48	\$3.14	25.19942748	11.92048346	10/19/2016	19	25.19943	11.92048		
10/20/2016	12	\$45.64	\$17.45	\$3.27	13.96053839	5.336494341	10/20/2016	12	13.96054	5.336494	21.76	13.24
10/20/2016	13	\$49.68	\$22.42	\$3.27	15.19639033	6.857448761	10/20/2016	13	15.19639	6.857449		
10/20/2016	14	\$49.16	\$40.93	\$3.27	15.03762619	12.5194249	10/20/2016	14	15.03763	12.51942		
10/20/2016	15	\$53.30	\$50.22	\$3.27	16.30498623	15.36341389	10/20/2016	15	16.30499	15.36341		
10/20/2016	16	\$54.69	\$37.17	\$3.27	16.73111043	11.37075558	10/20/2016	16	16.73111	11.37076		
10/20/2016	17	\$64.27	\$44.82	\$3.27	19.66014072	13.71092077	10/20/2016	17	19.66014	13.71092		
10/20/2016	18	\$71.07	\$40.48	\$3.27	21.73906393	12.38360355	10/20/2016	18	21.73906	12.3836		
10/20/2016	19	\$94.51	\$37.44	\$3.27	28.91128786	11.45243194	10/20/2016	19	28.91129	11.45243		
10/21/2016	12	\$36.98	\$26.19	\$3.18	11.64629921	8.25007874	10/21/2016	12	11.6463	8.250079	19.05	12.11
10/21/2016	13	\$42.81	\$30.62	\$3.18	13.48377953	9.644409449	10/21/2016	13	13.48378	9.644409		
10/21/2016	14	\$44.49	\$34.53	\$3.18	14.01228346	10.87433071	10/21/2016	14	14.01228	10.87433		
10/21/2016	15	\$47.94	\$35.07	\$3.18	15.0976378	11.04535433	10/21/2016	15	15.09764	11.04535		
10/21/2016	16	\$48.12	\$37.09	\$3.18	15.15590551	11.68125984	10/21/2016	16	15.15591	11.68126		
10/21/2016	17	\$50.31	\$41.71	\$3.18	15.84598425	13.13574803	10/21/2016	17	15.84598	13.13575		
10/21/2016	18	\$62.15	\$39.93	\$3.18	19.57417323	12.57700787	10/21/2016	18	19.57417	12.57701		
10/21/2016	19	\$81.36	\$34.82	\$3.18	25.62456693	10.96755906	10/21/2016	19	25.62457	10.96756		
10/22/2016	12	\$24.13	-\$16.21	\$2.88	8.393391304	-5.637913043	10/22/2016	12	8.393391	-5.63791	15.30	14.92
10/22/2016	13	\$27.47	-\$12.21	\$2.88	9.554434783	-4.247652174	10/22/2016	13	9.554435	-4.24765		
10/22/2016	14	\$28.31	\$5.33	\$2.88	9.847304348	1.855304348	10/22/2016	14	9.847304	1.855304		
10/22/2016	15	\$29.07	\$23.44	\$2.88	10.11269565	8.15373913	10/22/2016	15	10.1127	8.153739		
10/22/2016	16	\$33.18	\$29.82	\$2.88	11.53982609	10.37043478	10/22/2016	16	11.53983	10.37043		
10/22/2016	17	\$37.64	\$60.54	\$2.88	13.09182609	21.05808696	10/22/2016	17	13.09183	21.05809		
10/22/2016	18	\$45.37	\$42.68	\$2.88	15.78156522	14.84521739	10/22/2016	18	15.78157	14.84522		
10/22/2016	19	\$59.72	\$38.56	\$2.88	20.77321739	13.41356522	10/22/2016	19	20.77322	13.41357		
10/23/2016	12	\$19.07	\$24.01	\$2.88	6.634434783	8.350956522	10/23/2016	12	6.634435	8.350957	14.92	17.43
10/23/2016	13	\$24.87	\$27.30	\$2.88	8.650086957	9.496695652	10/23/2016	13	8.650087	9.496696		
10/23/2016	14	\$26.29	\$22.26	\$2.88	9.145043478	7.742608696	10/23/2016	14	9.145043	7.742609		
10/23/2016	15	\$27.90	\$27.79	\$2.88	9.702608696	9.665043478	10/23/2016	15	9.702609	9.665043		
10/23/2016	16	\$32.26	\$113.31	\$2.88	11.21913043	39.41182609	10/23/2016	16	11.21913	39.41183		
10/23/2016	17	\$36.34	\$29.17	\$2.88	12.6413913	10.14434783	10/23/2016	17	12.64139	10.14435		
10/23/2016	18	\$45.00	\$28.98	\$2.88	15.65147826	10.07826087	10/23/2016	18	15.65148	10.07826		
10/23/2016	19	\$57.99	\$29.02	\$2.88	20.16973913	10.09217391	10/23/2016	19	20.16974	10.09217		
10/24/2016	12	\$33.68	\$35.60	\$2.88	11.71582609	12.38156522	10/24/2016	12	11.71583	12.38157	15.65	72.54
10/24/2016	13	\$33.49	\$51.34	\$2.88	11.65008696	17.85773913	10/24/2016	13	11.65009	17.85774		
10/24/2016	14	\$35.61	\$124.45	\$2.88	12.38434783	43.28521739	10/24/2016	14	12.38435	43.28522		
10/24/2016	15	\$35.57	\$135.04	\$2.88	12.37356522	46.97008696	10/24/2016	15	12.37357	46.97009		
10/24/2016	16	\$39.21	\$449.75	\$2.88	13.63721739	156.4333913	10/24/2016	16	13.63722	156.4334		
10/24/2016	17	\$40.62	\$124.97	\$2.88	14.12765217	43.46608696	10/24/2016	17	14.12765	43.46609		
10/24/2016	18	\$43.85	\$36.91	\$2.88	15.25078261	12.83791304	10/24/2016	18	15.25078	12.83791		
10/24/2016	19	\$56.36	\$31.35	\$2.88	19.60313043	10.90365217	10/24/2016	19	19.60313	10.90365		
10/25/2016	12	\$39.84	\$1.93	\$2.88	13.81997919	0.669441554	10/25/2016	12	13.81998	0.669442	16.32	19.95
10/25/2016	13	\$36.91	\$20.31	\$2.88	12.80402359	7.04578564	10/25/2016	13	12.80402	7.045786		
10/25/2016	14	\$34.64	\$28.26	\$2.88	12.01387444	9.802289282	10/25/2016	14	12.01387	9.802289		
10/25/2016	15	\$35.56	\$29.21	\$2.88	12.33576136	10.13215401	10/25/2016	15	12.33576	10.13215		
10/25/2016	16	\$37.60	\$26.17	\$2.88	13.04023587	9.078390565	10/25/2016	16	13.04024	9.078391		
10/25/2016	17	\$41.59	\$116.03	\$2.88	14.42559834	40.2448838	10/25/2016	17	14.4256	40.24488		
10/25/2016	18	\$47.48	\$46.10	\$2.88	16.46860909	15.98959417	10/25/2016	18	16.46861	15.98959		
10/25/2016	19	\$61.57	\$41.72	\$2.88	21.35483871	14.47103711	10/25/2016	19	21.35484	14.47104		
10/26/2016	12	\$28.99	\$23.01	\$2.82	10.27943262	8.159219858	10/26/2016	12	10.27943	8.15922	16.57	36.38

Day	Hour Ending (HE)	California ISO LMP, Node DLAP_SDGE-APND, DAM Market (\$/MW)	California ISO LMP, Node DLAP_SDGE-APND, RTM Market (\$/MW)	ICE Social-Citygate Flow (\$/MMbtu)	DA HR	RT HR	DATE	HE	DA HR	RT HR	MAX DA HR	MAX RT HR
10/26/2016	13	\$30.81	\$26.66	\$2.82	10.9248227	9.45248227	10/26/2016	13	10.92482	9.452482		
10/26/2016	14	\$31.38	\$26.79	\$2.82	11.12624113	9.49822695	10/26/2016	14	11.12624	9.498227		
10/26/2016	15	\$32.22	\$30.01	\$2.82	11.42375887	10.6429078	10/26/2016	15	11.42376	10.64291		
10/26/2016	16	\$35.72	\$207.23	\$2.82	12.66524823	73.48510638	10/26/2016	16	12.66525	73.48511		
10/26/2016	17	\$36.81	\$129.95	\$2.82	13.0535461	46.08120567	10/26/2016	17	13.05355	46.08121		
10/26/2016	18	\$48.76	\$38.52	\$2.82	17.29219858	13.65992908	10/26/2016	18	17.2922	13.65993		
10/26/2016	19	\$65.62	\$34.67	\$2.82	23.2677305	12.29326241	10/26/2016	19	23.26773	12.29326		
10/27/2016	12	\$30.05	\$37.67	\$2.84	10.59111738	13.27740571	10/27/2016	12	10.59112	13.27741	16.57	50.35
10/27/2016	13	\$30.15	\$46.94	\$2.84	10.62777582	16.54388438	10/27/2016	13	10.62778	16.54388		
10/27/2016	14	\$31.13	\$45.54	\$2.84	10.97321114	16.05322524	10/27/2016	14	10.97321	16.05323		
10/27/2016	15	\$31.70	\$415.61	\$2.84	11.1741276	146.4977088	10/27/2016	15	11.17413	146.4977		
10/27/2016	16	\$37.23	\$37.83	\$2.84	13.12160733	13.3341558	10/27/2016	16	13.12161	13.33416		
10/27/2016	17	\$40.21	\$72.36	\$2.84	14.17448008	25.50652097	10/27/2016	17	14.17448	25.50652		
10/27/2016	18	\$46.21	\$38.15	\$2.84	16.2893902	13.446951	10/27/2016	18	16.28939	13.44695		
10/27/2016	19	\$64.40	\$61.82	\$2.84	22.69897779	21.79168135	10/27/2016	19	22.69898	21.79168		
10/28/2016	12	\$35.18	\$27.81	\$2.86	12.32294221	9.742206655	10/28/2016	12	12.32294	9.742207	15.98	16.78
10/28/2016	13	\$37.56	\$23.71	\$2.86	13.1558669	8.304028021	10/28/2016	13	13.15587	8.304028		
10/28/2016	14	\$37.21	\$21.94	\$2.86	13.03397548	7.68441331	10/28/2016	14	13.03398	7.684413		
10/28/2016	15	\$37.66	\$22.60	\$2.86	13.1915937	7.91558669	10/28/2016	15	13.19159	7.915587		
10/28/2016	16	\$36.85	\$28.83	\$2.86	12.90683012	10.0966725	10/28/2016	16	12.90683	10.09667		
10/28/2016	17	\$38.80	\$41.09	\$2.86	13.58949212	14.39264448	10/28/2016	17	13.58949	14.39264		
10/28/2016	18	\$46.38	\$38.37	\$2.86	16.24623468	13.43887916	10/28/2016	18	16.24623	13.43888		
10/28/2016	19	\$60.50	\$83.30	\$2.86	21.19124343	29.17548161	10/28/2016	19	21.19124	29.17548		
10/29/2016	12	\$23.87	\$19.40	\$2.64	9.034065102	7.344057532	10/29/2016	12	9.034065	7.344058	15.72	11.72
10/29/2016	13	\$26.24	\$24.27	\$2.64	9.930355791	9.184330053	10/29/2016	13	9.930356	9.18433		
10/29/2016	14	\$28.15	\$24.83	\$2.64	10.65367146	9.396290689	10/29/2016	14	10.65367	9.396291		
10/29/2016	15	\$28.84	\$27.52	\$2.64	10.91635125	10.41597275	10/29/2016	15	10.91635	10.41597		
10/29/2016	16	\$31.43	\$26.40	\$2.64	11.89629069	9.993565481	10/29/2016	16	11.89629	9.993565		
10/29/2016	17	\$35.18	\$34.22	\$2.64	13.31718395	12.95344436	10/29/2016	17	13.31718	12.95344		
10/29/2016	18	\$43.18	\$30.21	\$2.64	16.34481453	11.4333838	10/29/2016	18	16.34481	11.43338		
10/29/2016	19	\$56.38	\$33.04	\$2.64	21.33951552	12.50681302	10/29/2016	19	21.33952	12.50681		
10/30/2016	12	\$16.04	\$80.52	\$2.64	6.071158213	30.47691143	10/30/2016	12	6.071158	30.47691	13.37	15.62
10/30/2016	13	\$14.37	\$39.33	\$2.64	5.439818319	14.88531416	10/30/2016	13	5.439818	14.88531		
10/30/2016	14	\$15.64	\$25.51	\$2.64	5.920893263	9.653671461	10/30/2016	14	5.920893	9.653671		
10/30/2016	15	\$19.50	\$19.76	\$2.64	7.382286147	7.480317941	10/30/2016	15	7.382286	7.480318		
10/30/2016	16	\$23.11	\$24.36	\$2.64	8.747161241	9.220287661	10/30/2016	16	8.747161	9.220288		
10/30/2016	17	\$28.89	\$39.47	\$2.64	10.9345193	14.93943982	10/30/2016	17	10.93452	14.93944		
10/30/2016	18	\$39.84	\$38.71	\$2.64	15.07910674	14.65177896	10/30/2016	18	15.07911	14.65178		
10/30/2016	19	\$49.43	\$35.50	\$2.64	18.71006813	13.43679031	10/30/2016	19	18.71007	13.43679		
10/31/2016	12	\$25.20	-\$17.40	\$2.64	9.536336109	-6.585919758	10/31/2016	12	9.536336	-6.58592	13.87	12.41
10/31/2016	13	\$27.37	-\$15.53	\$2.64	10.36109008	-5.876230129	10/31/2016	13	10.36109	-5.87623		
10/31/2016	14	\$25.91	-\$17.96	\$2.64	9.805828917	-6.797880394	10/31/2016	14	9.805829	-6.79788		
10/31/2016	15	\$25.60	-\$18.84	\$2.64	9.690386071	-7.130961393	10/31/2016	15	9.690386	-7.13096		
10/31/2016	16	\$27.68	-\$15.11	\$2.64	10.47577593	-5.717638153	10/31/2016	16	10.47578	-5.71764		
10/31/2016	17	\$30.76	\$10.11	\$2.64	11.64383043	3.827781983	10/31/2016	17	11.64383	3.827782		
10/31/2016	18	\$39.00	\$110.53	\$2.64	14.76040878	41.83573051	10/31/2016	18	14.76041	41.83573		
10/31/2016	19	\$49.18	\$25.63	\$2.64	18.61582135	9.700227101	10/31/2016	19	18.61582	9.700227		