

DRAFT

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION

2010

ID #9807  
RESOLUTION E-4369  
October 28,

REDACTED

R E S O L U T I O N

Resolution E-4369. Pacific Gas and Electric Company requests approval of two amended power purchase agreements with BrightSource Energy, Inc.

PROPOSED OUTCOME: This Resolution approves Pacific Gas and Electric Company's amended renewable energy power purchase agreements with BrightSource Energy, Inc. The amended power purchase agreements are approved without modification.

ESTIMATED COST: Costs of the amended power purchase agreements are confidential at this time.

By Advice Letter 3703-E filed on July 9, 2010.

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SUMMARY

**Pacific Gas and Electric Company's amended power purchase agreements with BrightSource Energy, Inc. comply with the Renewables Portfolio Standard (RPS) procurement guidelines and are approved without modification.**

PG&E filed Advice Letter (AL) 3703-E on July 9, 2010, requesting California Public Utilities Commission (Commission) review and approval of two amended power purchase agreements with BrightSource Energy, Inc. (BrightSource). The PG&E and BrightSource agreements concern two new solar thermal facilities that are being developed in Ivanpah, California. The PPAs for the BrightSource Ivanpah 1 and Ivanpah 3 facilities were originally approved by the Commission on August 21, 2009 in Resolution E-4266. The PPAs are amended to reflect and accommodate significant project development changes required for permitting and project financing purposes.

The amendments reflect changes to the projects' installed capacity, expected generation, commercial online date and the price that PG&E will pay for delivered energy. Other major terms of the PPAs as originally approved in Resolution E-4266 are unchanged and continue in full force and effect.

The amended PPAs are approved because PG&E's procurement under these contracts is consistent with PG&E's most recent Commission-approved RPS Procurement Plan (2009), approved in Decision 09-06-018, and because the amended terms and conditions are reasonable. Deliveries from the amended PPAs are reasonably priced and fully recoverable in rates over the life of the contract, subject to Commission review of PG&E's administration of the contracts.

The following table summarizes specific features of the facilities and compares the terms of original and amended PPAs

<b>Generating Facility</b>	<b>Amended Ivanpah 1</b>	<b>Original Ivanpah 1</b>	<b>Amended Ivanpah 3</b>	<b>Original Ivanpah 3</b>
<b>Capacity (megawatts)</b>	118 MW	110 MW	130 MW	200 MW
<b>Expected Deliveries (gigawatt-hours per year)</b>	304 GWh/yr	284 GWh/yr	336 GWh/yr	516 GWh/yr
<b>Commercial Operation Date</b>	July 1, 2013	July 1, 2012	December 31, 2013	July 31, 2013

## **BACKGROUND**

### **Overview of the Renewables Portfolio Standard (RPS) Program**

The California RPS Program was established by Senate Bill (SB) 1078, and has been subsequently modified by SB 107 and SB 1036.<sup>1</sup> The RPS program is codified in Public Utilities Code Sections 399.11-399.20.<sup>2</sup> The RPS program administered by the Commission requires each utility to increase its total procurement of eligible renewable energy resources by at least one percent of retail sales per year so that 20 percent of the utility's retail sales are procured from eligible renewable energy resources no later than December 31, 2010.<sup>3</sup>

Additional background information about the Commission's RPS Program, including links to relevant laws and Commission decisions, is available at <http://www.cpuc.ca.gov/PUC/energy/Renewables/overview.htm> and <http://www.cpuc.ca.gov/PUC/energy/Renewables/decisions.htm>.

## **NOTICE**

Notice of AL 3703-E was made by publication in the Commission's Daily Calendar. PG&E states that a copy of the Advice Letter was mailed and distributed in accordance with Section IV of General Order 96-B.

## **PROTESTS**

Advice Letters 3703-E was not protested.

## **DISCUSSION**

### **Pacific Gas and Electric Company requests approval of two amended power purchase agreements with BrightSource Energy, Inc.**

On July 9, 2010, Pacific Gas and Electric Company (PG&E) filed Advice Letter (AL) 3703-E requesting Commission approval of amendments to PG&E's 25-year power purchase agreements (PPAs) with BrightSource Energy, Inc. (BrightSource) for the Ivanpah 1 and Ivanpah 3 facilities.

<sup>1</sup> SB 1078 (Sher, Chapter 516, Statutes of 2002); SB 107 (Simitian, Chapter 464, Statutes of 2006); SB 1036 (Perata, Chapter 685, Statutes of 2007).

<sup>2</sup> All further references to sections refer to Public Utilities (Pub. Util.) Code unless otherwise specified.

<sup>3</sup> See, Pub. Util. Code § 399.15(b)(1).

PG&E's original PPAs with BrightSource for generation from the Ivanpah facilities were approved by Resolution E-4266 on August 12, 2009. BrightSource is developing the Ivanpah Solar Electric Generating System, comprised of three concentrating solar thermal facilities, based on distributed power tower and heliostat mirror technology, in which heliostat (mirror) fields focus solar energy on power tower receivers near the center of each heliostat array.

On September 22, 2010, the California Energy Commission<sup>4</sup> (CEC) approved BrightSource's Application for Certification<sup>5</sup> (AFC) to develop the Ivanpah Solar Electric Generating System. The Ivanpah project is located in San Bernardino County, California on federal land managed by the Bureau of Land Management (BLM).<sup>6</sup> The BLM is expected to issue its Record of Decision for the Ivanpah project in October. The CEC's AFC process, in conjunction with the BLM, and other agencies as necessary, considers Best Management Practices that have been developed for solar energy projects in order to minimize or mitigate negative impacts on natural resources.<sup>7</sup>

It is evident through documents filed by BrightSource in the CEC's proceeding and by the CEC's final decision issuing an AFC that the development of the Ivanpah 1 and 3 facilities has been modified significantly from what was envisioned under the original PPAs. The most notable change to the projects is that the capacity of Ivanpah 3 will be reduced from 200 megawatts (MW) to 130 MW. During the permitting process for the Ivanpah facilities, stakeholders identified significant environmental concerns, most notably with the Ivanpah 3 facility, which was found to have desert tortoises on site. The desert tortoise, *Gopherus agassizii* is a federally listed threatened species. In order to obtain the necessary permits, BrightSource amended its application to reduce the project's footprint. This modification resulted in a 35% decrease in capacity for Ivanpah 3 and an 8% increase in capacity for Ivanpah 1. The contract quantities, or expected generation, for each PPA were adjusted to account for the modified

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<sup>4</sup> The California Energy Commission is the lead agency (for licensing thermal power plants 50 megawatts and larger) under the California Environmental Quality Act (CEQA) and has a certified regulatory program under CEQA.

<sup>5</sup> The Ivanpah Solar Electric Generating System AFC filed with the CEC is available at: <http://www.energy.ca.gov/sitingcases/ivanpah/index.html>

<sup>6</sup> Because the Project would be located on BLM administered land, the Project must also be compliant with the National Environmental Policy Act (NEPA).

<sup>7</sup> The CEC's Best Management Practices are available at: <http://www.energy.ca.gov/2009publications/CEC-700-2009-016/CEC-700-2009-016-SD-REV.PDF>

capacity of each facility. BrightSource's security requirements were also adjusted to reflect the change in contract capacities.

According to PG&E, BrightSource sought amendments to the Ivanpah 1 and 3 PPAs in order to accommodate significant changes to the projects and project development plan as a result of the conditions for obtaining permits from the CEC and the BLM, as well as, financing the project, including conditions for obtaining a Department of Energy (DOE) Loan Guarantee. AL 3703-E included detailed analysis on the projects' cost, documenting specific cost drivers and how the inputs and assumptions have changed from the original PPAs. Consistent with Resolution E-4199, BrightSource provided cash flow models comparing the original cost assumptions for the Ivanpah 1 and Ivanpah 3 facilities and updated models documenting the cost impacts (positive and negative) associated with unforeseen project development requirements. PG&E asserts that it reviewed the cost information provided by BrightSource to verify whether the cost changes justify the price increase. PG&E also compared the higher priced Ivanpah PPAs to offers received in its most recent RPS solicitation to determine whether the amended PPAs are competitive with other market opportunities.

PG&E involved an independent evaluator (IE), according to the Commission's procurement rules where a contract amendment results in a price that exceeds the market price referent. Consistent with Resolution E-4199, the IE was provided cash flow models for the original PPA and updated models to reflect current project costs and assumptions. AL 3703-E included an IE report that concluded that the amended PPAs were reasonable considering the modifications made to the projects since the PPAs were originally approved. The IE also validated PG&E's assertion that the Ivanpah PPAs at the higher price remain competitive with other comparable procurement opportunities available to PG&E. Energy Division staff issued a data request to PG&E seeking further clarification on the cost changes discussed in the advice letter and the corresponding changes to the PPA price.

Based on the information provided in AL 3703-E, amendments to the Ivanpah PPAs are reasonable given the changes in capacity and other environmental mitigation measures, as well as, changes to the projects' development plan in order to facilitate financing.

All other terms and conditions of the Ivanpah PPAs, as originally approved in Resolution E-4266, are unchanged and continue in full force and effect. This resolution only concerns the proposed amendments.

**PG&E requests that the Commission issue a resolution containing the following findings:**

1. Approves the PPAs as amended by the First Amendments in their entirety, including payments to be made by PG&E pursuant to the PPAs as amended by the First Amendments, subject to the Commission's review of PG&E's administration of the PPAs as amended by the First Amendments.
2. Finds that any procurement pursuant to the PPAs as amended by the First Amendments is procurement from eligible renewable energy resources for purposes of determining PG&E's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California Renewables Portfolio Standard (Public Utilities Code Section 399.11 et seq.) ("RPS"), Decision ("D.") 03-06-071 and D.06-10-050, or other applicable law.
3. Finds that all procurement and administrative costs, as provided by Public Utilities Code section 399.14(g), associated with the PPAs as amended by the First Amendments shall be recovered in rates.
4. Adopts the following finding of fact and conclusion of law in support of CPUC Approval:
  - a. The PPAs as amended by the First Amendments are consistent with PG&E's 2009 RPS procurement plan.
  - b. The terms of the PPAs as amended by the First Amendments, including the price of delivered energy, are reasonable.
5. Adopts the following finding of fact and conclusion of law in support of cost recovery for the PPAs as amended by the First Amendments:
  - a. The utility's costs under the PPAs as amended by the First Amendments shall be recovered through PG&E's Energy Resource Recovery Account.
  - b. Any stranded costs that may arise from the PPAs as amended by the First Amendments are subject to the provisions of D.04-12-048 that authorize recovery of stranded renewables procurement costs over the life of the contract. The implementation of the D.04-12-048 stranded cost recovery mechanism is addressed in D.08-09-012.
6. Adopts the following findings with respect to resource compliance with the Emissions Performance Standard ("EPS") adopted in R.06-04-009:
  - a. The PPAs as amended by the First Amendments are not a covered procurement subject to the EPS because the generating facilities have a forecast capacity factor of less than 60 percent each and,

therefore, are not baseload generation under paragraphs 1(a)(ii) and 3(2)(a) of the Adopted Interim EPS Rules.

**Energy Division evaluated the amended Ivanpah PPAs for the following criteria:**

- Consistency with PG&E's 2009 RPS Procurement Plan
- Consistency with least-cost, best-fit methodology in PG&E's RPS Procurement Plan
- Procurement Review Group participation
- Independent Evaluator review
- Cost reasonableness
- Cost containment
- Project viability
- Consistency with RPS standard terms and conditions

**Consistency with PG&E's 2009 RPS Procurement Plan**

California's RPS statute requires that the Commission review the results of a renewable energy resource solicitation submitted for approval by a utility.<sup>8</sup> PG&E's 2009 RPS procurement plan (Plan) was approved by D.09-06-018 on June 8, 2009.<sup>9</sup> Pursuant to statute, PG&E's Plan includes an assessment of supply and demand to determine the optimal mix of renewable generation resources, consideration of flexible compliance mechanisms established by the Commission, and a bid solicitation protocol setting forth the need for renewable generation of various operational characteristics.<sup>10</sup>

The stated goal of PG&E's 2009 Plan was to procure approximately 1-2 percent of retail sales volume or between 800 and 1,600 GWh per year of renewable energy in order to meet PG&E's RPS energy need. In cases where a Commission-approved project seeks significant amendments, most notably price,

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<sup>8</sup> See §399.14.

<sup>9</sup> D.09-06-018 is available at :  
[http://docs.cpuc.ca.gov/published/FINAL\\_DECISION/102099.htm](http://docs.cpuc.ca.gov/published/FINAL_DECISION/102099.htm).

<sup>10</sup> See §399.14(a)(3).

the utility must demonstrate that the amended contract is consistent with the utilities' RPS procurement plan and that there is continued need for the resource. In AL 3703-E, PG&E explains that the Ivanpah projects are consistent with PG&E's anticipated portfolio of resources where solar is expected to account for approximately 70% of PG&E's RPS resource mix. Also, PG&E states that the Ivanpah projects expected online dates of approximately 3 years out are superior to PG&E's estimate that the average development timeframe for projects in the 2009 RPS solicitation is between 4-6 years.

The amended Ivanpah PPAs are consistent with PG&E's 2009 RPS Procurement Plan approved by D. 09-06-018.

### **Consistency with PG&E's Least-Cost, Best-Fit Criteria**

The RPS statute requires that the utilities procure the least-cost, best-fit (LCBF) eligible renewable resources.<sup>11</sup> The LCBF evaluation is generally used to establish a shortlist of proposals from PG&E's solicitation with whom PG&E will engage in contract negotiations. In this case, PG&E examined the reasonableness of the amended Ivanpah PPAs using its LCBF evaluation methodology and comparing the results to offers PG&E received in its 2009 RPS solicitation and with bilaterals currently being offered to PG&E.

PG&E's LCBF evaluation includes a quantitative and qualitative analysis, which focuses on four primary areas: 1) determination of a bid's market value; 2) calculation of transmission adders and integration costs; 3) evaluation of portfolio fit; and 4) consideration of non-price factors. These criteria are explained in detail in PG&E's 2009 RPS Plan and in AL 3703-E.

PG&E asserts that the amended Ivanpah PPAs were compared to other procurement options received in the 2009 RPS solicitation and recent bilateral proposals using its Commission approved least-cost, best-fit evaluation methodology.

### **Procurement Review Group participation**

The Procurement Review Group (PRG) was initially established in D.02-08-071 as an advisory group to review and assess the details of the utilities' overall

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<sup>11</sup> See § 399.14(a)(2)(B)



procurement strategy, solicitations, specific proposed procurement contracts and other procurement processes prior to submitting filings to the Commission.<sup>12</sup> PG&E states that it discussed the Ivanpah amendments with its PRG on April 9, 2010 and May 14, 2010.

Pursuant to D.02-08-071, PG&E's briefed its Procurement Review Group on the Ivanpah PPA amendments.

### **Independent Evaluator Review of the Amended PPA**

The Commission requires the use of an IE when a utility negotiates a price increase to a Commission-approved RPS PPA. PG&E retained Lewis Hashimoto of Arroyo Seco Consulting to evaluate the fairness of the negotiations between the PG&E and BrightSource, to review the developer's cash flow models, and an assessment of the relative value of the amended Ivanpah PPAs compared to other RPS procurement opportunities available to PG&E.

AL 3703-E included a public and confidential IE report. In its report, the IE confirmed that PG&E negotiated the contract amendments fairly. The IE also performed detailed and independent analysis of the projects' cash flow models. While the IE was unable to validate all the cost inputs and assumptions for the projects, the IE concluded that the amended PPAs appear reasonable in light of the modifications that were necessary to facilitate permitting and financing. The IE also concluded that the all-in costs of the amended Ivanpah PPAs are reasonable when compared to other RPS procurement opportunities including PG&E's most recently conducted RPS solicitation.

Consistent with D.06-05-039 and D.09-06-050, an IE reviewed the Ivanpah PPA amendments including detailed project cost information provided by BrightSource. The IE determined that the amended Ivanpah PPAs are reasonable.

### **Cost Reasonableness**

In AL 3703-E, PG&E states that it followed the guidance of Resolution E-4199 in assessing the reasonableness of the Ivanpah amendments. Specifically, PG&E reviewed detailed cost models provided by BrightSource to determine if the higher price is justified for each facility. PG&E also re-evaluated the

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<sup>12</sup> The PRG for PG&E includes representatives of the California Department of Water Resources, the Commission's Energy Division and Division of Ratepayer Advocates, Union of Concerned Scientists, The Utility Reform Network, the California Utility Employees, and Jan Reid, as a PG&E ratepayer.

competitiveness of the Ivanpah PPAs compared to projects that PG&E shortlisted in its 2009 RPS solicitation. Lastly, the IE independently reviewed the project cost models and assessed the competitiveness of the Ivanpah PPAs at the higher amended price.

Based on the detailed cost information and the independent evaluator's report provided in the advice letter and a staff data request, the Commission finds that the amended Ivanpah PPAs are reasonably priced. Confidential Appendix A includes a detailed discussion on the project costs and pricing terms and conditions.

The contract price and total expected costs of the amended Ivanpah PPAs are reasonable compared to offers from PG&E's 2009 solicitation and other comparable PPAs.

Payments made by PG&E under the amended Ivanpah PPAs are fully recoverable in rates over the life of the PPAs, subject to Commission review of PG&E's administration of the PPAs.

### **Cost containment**

The market price referent (MPR) is used by the Commission to assess the above-market costs of RPS contracts. There is a statutory limit on above-MPR costs which serves as a cost containment mechanism for the RPS program.<sup>13</sup> Based on a 2013 commercial online date for the project, the 25-year PPAs exceed the 2009 MPR.<sup>14</sup> However, as bilateral contracts, the amended Ivanpah PPAs do not meet the eligibility criteria for Above-MPR Funds<sup>15</sup> (AMFs) established in Pub. Util. Code §399.15(d)(2).<sup>16</sup> Additionally, PG&E has exhausted its AMFs

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<sup>13</sup> See §399.15.

<sup>14</sup> See Resolution E-4298.

<sup>15</sup> The \$/MWh portion of the contract price that exceeds the MPR, multiplied by the expected generation throughout the contract term, represents the total AMFs for a given PPA.

<sup>16</sup> The following eligibility criteria for AMFs: (1) contract was selected through a competitive solicitation, (2) contract covers a duration of no less than 10 year, (3) contracted project is a new facility that will commence commercial operations after January 1, 2005, (4) contract is not for renewable energy credits, and (5) the above-market costs of a contract do not include any indirect expenses including imbalance energy charges, sale of excess energy, decreased generation from existing resources, or transmission upgrades.

provided by statute; thus, PG&E is not required to enter into contracts that exceed the MPR.<sup>17</sup>

PG&E voluntarily enters into the amended Ivanpah PPAs at prices that exceed the applicable market price referent, as permitted by Pub. Utils. Code § 399.15(d).

### **Project Viability**

In Resolution E-4266, the Commission approved the original Ivanpah PPAs, in part, because PG&E demonstrated that the projects were sufficiently viable. PG&E continues to believe the Ivanpah facilities are viable and will be developed according to the terms and conditions in the amended PPAs. The amendments reflect modifications that BrightSource has made to the Ivanpah 1 and Ivanpah 3 facilities to account for permitting the Ivanpah Solar Electric Generating System. With the CEC's issuance of the PMPD for the Ivanpah Solar Electric Generating System, BrightSource is well advanced towards having site control and permitting in place to proceed with the project.<sup>18</sup> The amendments will also facilitate BrightSource's financing of the Ivanpah projects, including receiving a DOE Loan Guarantee.

The amendments increase the viability of the Ivanpah projects and do not introduce any new viability risks.

### **Consistency with RPS Standard Terms and Conditions**

The Commission adopted a set of standard terms and conditions (STCs) required in RPS contracts, four of which are considered "non-modifiable." The STCs were compiled in D.08-04-009 and subsequently amended in D.08-08-028. The Ivanpah PPAs also include the non-modifiable terms related to tradable renewable energy credits included in stayed Decision 10-03-021 and a proposed decision concerning tradable renewable energy credits.<sup>19</sup>

<sup>17</sup> On May 28, 2009, the Director of the Energy Division notified PG&E that it had exhausted its AMF funds.

<sup>18</sup> The Ivanpah site is on federal lands, which requires BrightSource to obtain a Right of Way from the Bureau of Land Management (BLM). The BLM's review is occurring concurrently with the CEC proceeding and develop the project. Information about the BLM's review process is available here:  
[http://www.blm.gov/ca/st/en/fo/needles/nefo\\_nepa.html](http://www.blm.gov/ca/st/en/fo/needles/nefo_nepa.html)

<sup>19</sup> See August 25, 2010 proposed decision in R. 06-02-012. "Decision Modifying Decision 10-03-021 Authorizing Use Of Renewable Energy Credits for Compliance With The California Renewables Portfolio Standard And Lifting Stay And Moratorium Imposed By Decision 10-05-018"

The amended Ivanpah PPAs include the Commission adopted RPS “non-modifiable” standard terms and conditions, as set forth in D.08-04-009 and amended by D.08-08-028.

### **RPS Eligibility and CPUC Approval**

Pursuant to Pub. Util. Code § 399.13, the CEC certifies eligible renewable energy resources. Generation from a resource that is not CEC-certified cannot be used to meet RPS requirements. To ensure that only CEC-certified energy is procured under a Commission-approved RPS contract, the Commission has required standard and non-modifiable “eligibility” language in all RPS contracts. That language requires a seller to warrant that the project qualifies and is certified by the CEC as an “Eligible Renewable Energy Resource,” that the project’s output delivered to the buyer qualifies under the requirements of the California RPS, and that the seller uses commercially reasonable efforts to maintain eligibility should there be a change in law affecting eligibility.<sup>20</sup>

The Commission requires a standard and non-modifiable clause in all RPS contracts that requires “CPUC Approval” of a PPA to include an explicit finding that “any procurement pursuant to this Agreement is procurement from an eligible renewable energy resource for purposes of determining Buyer's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California Renewables Portfolio Standard (*Public Utilities Code Section 399.11 et seq.*), Decision 03-06-071, or other applicable law.”<sup>21</sup>

Notwithstanding this language, the Commission has no jurisdiction to determine whether a project is an eligible renewable energy resource, nor can the Commission determine prior to final CEC certification of a project, that “any procurement” pursuant to a specific contract will be “procurement from an eligible renewable energy resource.”

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<sup>20</sup> See, e.g. D. 08-04-009 at Appendix A, STC 6, Eligibility.

<sup>21</sup> See, e.g. D. 08-04-009 at Appendix A, STC 1, CPUC Approval.

Therefore, while we include the required finding here, this finding has never been intended, and shall not be read now, to allow the generation from a non-RPS eligible resource to count towards an RPS compliance obligation. Nor shall such a finding absolve the seller of its obligation to obtain CEC certification, or the utility of its obligation to pursue remedies for breach of contract. Such contract enforcement activities shall be reviewed pursuant to the Commission's authority to review the administration of such contracts.

### **CONFIDENTIAL INFORMATION**

The Commission, in implementing Pub. Utils. Code § 454.5(g), has determined in D.06-06-066, as modified by D.07-05-032, that certain material submitted to the Commission as confidential should be kept confidential to ensure that market sensitive data does not influence the behavior of bidders in future RPS solicitations. D.06-06-066 adopted a time limit on the confidentiality of specific terms in RPS contracts. Such information, such as price, is confidential for three years from the date the contract states that energy deliveries begin, except contracts between IOUs and their affiliates, which are public.

The confidential appendices, marked "[REDACTED]" in the public copy of this resolution, as well as the confidential portions of the advice letter, should remain confidential at this time.

### **COMMENTS**

Pub. Utils. Code § 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

### **FINDINGS AND CONCLUSIONS**

1. The amended Ivanpah power purchase agreements are consistent with Pacific Gas and Electric Company's 2009 Renewables Portfolio Standard procurement plan approved by Decision 09-06-018.

2. Pacific Gas and Electric Company asserts that the amended Ivanpah power purchase agreements were compared to other procurement options received in the 2009 Renewables Portfolio Standard solicitation and recent bilateral proposals using its Commission approved least-cost, best-fit evaluation methodology.
3. The contract price and total expected costs of the amended Ivanpah power purchase agreements are reasonable compared to offers from Pacific Gas and Electric Company's 2009 Renewables Portfolio Standard solicitation and recent bilateral agreements.
4. Payments made by Pacific Gas and Electric Company under the amended Ivanpah power purchase agreements are fully recoverable in rates over the life of the agreement, subject to Commission review of Pacific Gas and Electric Company's administration of the agreement.
5. Based on a 2013 commercial online date for the project, the 25-year power purchase agreements exceed the 2009 market price referent.
6. Pacific Gas and Electric Company voluntarily enters into the amended Ivanpah power purchase agreements at prices that exceed the applicable market price referent, as permitted by Public Utilities Code Section 399.15(d).
7. Pursuant to Decision 02-08-071, Pacific Gas and Electric Company briefed its Procurement Review Group on the amended Ivanpah power purchase agreement amendments.
8. Consistent with Decision 06-05-039 and Decision 09-06-050, an independent evaluator reviewed the Ivanpah power purchase agreement amendments, including detailed project cost information provided by BrightSource Energy, LLC. The independent evaluator determined that the amended Ivanpah power purchase agreements are reasonable.
9. Pacific Gas and Electric Company asserts that the Ivanpah facilities are viable and will be developed according to the terms and conditions in the amended power purchase agreements.
10. The amended Ivanpah power purchase agreements include the Commission adopted "non-modifiable" standard terms and conditions, as set forth in Decision 08-04-009 and amended by Decision 08-08-028.
11. Procurement pursuant to the amended Ivanpah power purchase agreements is procurement from eligible renewable energy resources for purposes of determining Pacific Gas and Electric Company's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California Renewables Portfolio Standard (Public Utilities Code Section 399.11 et seq.), Decision 03-06-071 and Decision 06-10-050, or other applicable law.

12. The immediately preceding finding shall not be read to allow generation from a non-RPS eligible renewable energy resource under the power purchase agreement to count towards an RPS compliance obligation. Nor shall that finding absolve Pacific Gas and Electric Company of its obligation to enforce compliance with this agreement.
13. The confidential appendices, marked "[REDACTED]" in the public copy of this Resolution, as well as the confidential portions of the advice letter, should remain confidential at this time.
14. Advice Letter 3703-E should be approved effective today.

**THEREFORE IT IS ORDERED THAT:**

1. Pacific Gas and Electric Company's Advice Letter 3703-E requesting Commission approval of amendments to two power purchase agreements with BrightSource Energy, Inc. is approved.  
This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on October 28, 2010; the following Commissioners voting favorably thereon:

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PAUL CLANON  
Executive Director

## **Confidential Appendix A**

Summary of amended PPA terms and conditions

[REDACTED]

## **Confidential Appendix B**



## Excerpt from the Independent Evaluator Project Specific-Report<sup>22</sup>

[REDACTED]

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<sup>22</sup> Pages C-12-28, C-34 of “Confidential Appendix C – Pacific Gas and Electric Company Bilateral Contract Evaluation - Confidential Appendix to the Advice Letter Report of the Independent Evaluator on Amendments to Contracts with Subsidiaries of BrightSource Energy, Inc.”, Arroyo Seco Consulting, July 9, 2010, submitted with PG&E AL 3703-E.