

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

Order Instituting Rulemaking to Continue  
Implementation and Administration, and  
Consider Further Development of, California  
Renewables Portfolio Standard Program.

Rulemaking 15-02-020  
(Filed February 26, 2015)

**2015 ANNUAL 33% RPS COMPLIANCE REPORT AND FINAL  
VERIFIED 2011-2013 RPS COMPLIANCE REPORT OF  
PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)  
(CONFIDENTIAL VERSION)**

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**I. INTRODUCTION AND OVERVIEW OF RENEWABLES PORTFOLIO  
STANDARD COMPLIANCE STATUS**

Pacific Gas and Electric Company (“PG&E”) hereby submits its 2015 Annual 33% Renewables Portfolio Standard (“RPS”) Compliance Report (the “Report”) in accordance with the California Public Utilities Commission’s (“CPUC” or “Commission”) RPS reporting requirements.<sup>1/</sup> This Report is intended to show PG&E’s progress toward achieving the statutory RPS compliance targets, as implemented by the Commission.<sup>2/</sup> Information

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<sup>1/</sup> See Commission Decision (“D.”) 12-06-038, p. 102 (Ordering Paragraph 34) (requiring submission of annual RPS compliance reports on August 1); *but see* Extension Letter from Edward Randolph to the service list for R.15-02-020, June 24, 2016 (extending the August 1 reporting date and requiring all load-serving entities to file an annual compliance report within 30 days of the California Energy Commission’s Notice of Availability of the final RPS 2011-2013 Retail Sellers Verification Report; E-mail Courtesy Notice from Robert Blackney, Commission Energy Division, on the service list for R.15-02-020, August 2, 2016 (notifying retail sellers that the RPS compliance reporting deadline was September 1, 2016). See also Decision (“D.”) 06-10-050 at 64, Ordering Paragraph (“OP”) 3; “Assigned Commissioner’s Ruling with Final Document Addressing Process Issues Relative to RPS Compliance Report,” issued November 20, 2008 in R.08-08-009; “Administrative Law Judge’s Ruling Adopting Standardized Reporting Format, Setting Schedule for Filing Updated Reports and Addressing Subsequent Process,” issued March 12, 2007 in R. 06-05-027.

<sup>2/</sup> See Cal. Pub. Util. Code § 399.11 *et seq.*; D.11-12-020; D.11-12-052; D.12-06-038.

demonstrating this progress is shown in the CPUC Energy Division's revised Report template,<sup>3/</sup> which is attached as Appendix A to this filing. PG&E is submitting the following appendices as part of its Report:<sup>4/</sup>

Appendix A: 2015 Annual 33% RPS Compliance Report and Final Verified 2011-2013 RPS Compliance Reports

- Appendix B: RPS Static Contract Information
- Appendix C: WREGIS e-Tag Summary Report
- Appendix D: Hourly Meter and e-Tag Reconciliation Report
- Appendix E1: Renewable Net Short Calculation
- Appendix E2: Alternate Renewable Net Short Calculation
- Appendix F: RPS Compliance Permitting Information

PG&E Pursuant to Commission decisions implementing the 33% RPS statute, PG&E's compliance with its RPS procurement quantity requirement ("PQR")<sup>5/</sup> for the 2011-2013 compliance period or "First Compliance Period" will be determined conclusively through the submission and approval of this Verified 2011-2013 RPS Compliance Report since the California Energy Commission ("CEC") has issued its final RPS 2011-2013 Retail Sellers Verification Report.<sup>6/</sup>

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<sup>3/</sup> By an e-mail dated July 15, 2016 to the service list for R.15-02-020, Robert Blackney of the Commission's Energy Division provided revised RPS compliance reporting templates for the compliance years 2011-2015 and directed that these templates be used for purposes of this filing.

<sup>4/</sup> PG&E previously provided an "Auditable Package" of its executed contracts substantiating RPS portfolio content category classification claims consistent with Energy Division direction.

<sup>5/</sup> The Commission established the RPS PQRs for each compliance period in D.11-12-020.

<sup>6/</sup> D.11-12-020 at 23-24, OP 1; D.12-06-038 at 48-51 (clarifying that Renewable Energy Credits must be retired for compliance in order to count toward RPS targets).

With regard to the First Compliance Period, this Final Verified 2011-2013 RPS Compliance Report shows that PG&E met the procurement quantity requirement of an average of 20% of retail sales from RPS-eligible resources. PG&E procured approximately 20.5% of its retail sales from RPS-eligible resources during the First Compliance Period. PG&E retired and applied approximately 20.4% of its retail sales<sup>7/</sup> in Renewable Energy Credits (“RECs”) associated with RPS-eligible generation<sup>8/</sup> to meet the First Compliance Period PQR. PG&E also requests a Commission determination through approval of this Report that PG&E complied with the RPS Portfolio Balancing Requirements (“PBRs”) in the First Compliance Period,<sup>9/</sup> as the compliance documentation that PG&E has submitted to the Energy Division demonstrate that all of its non-grandfathered<sup>10/</sup> procurement in the first compliance period is

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<sup>7/</sup> PG&E’s Report excludes 134,323 MWh associated with 2011 generation from the Hay Canyon Wind Facility and the Nine Canyon Wind Phase 3 because the Western Renewable Energy Generation Information System (“WREGIS”) certificates associated with these volumes were not retired within the RPS statute’s 36-month retirement deadline for RECs. The inability to claim these volumes for compliance reduced PG&E’s percentage of retail sales met by RPS-eligible products in the 2011-2013 Compliance Period by 0.1%.

<sup>8/</sup> For purposes of this Report, PG&E considered a REC “procured” in the year in which the REC was generated. Once procured, the REC may remain in PG&E’s active trading account in WREGIS or be retired for RPS compliance use. If the REC is retired in WREGIS within 36 months of the generation of the REC, PG&E applied the REC toward its PQR and other RPS requirements, as reflected in the 36 Month Retirement tabs and Accounting tab of Appendix A. The procured and retired figures in each year and for the compliance period are different because 1) some RECs are retired in different years than when they were procured, 2) some procured RECs were not applied toward the PQR, and 3) for the other technical reasons more fully described in the explanatory note box in the Procurement Detail tab of Appendix A.

<sup>9/</sup> Under statute and the Commission’s implementing decisions, at least 50% of procurement associated with contracts executed after June 1, 2010 and applied to compliance in the 2011-2013 compliance period must be from Portfolio Content Category (“PCC”) 1, and no more than 25% of procurement from PCC 3. *See* Cal. Pub. Util. Code § 399.16(c).

<sup>10/</sup> “Grandfathered” procurement refers to contracts executed prior to June 1, 2010, as set forth in California Public Utilities Code Section 399.16(d).

within the first portfolio content category (“PCC”) established by Section 399.16(b)(1) of the California Public Utilities Code.<sup>11/</sup>

PG&E’s Report also shows that actual 2015 deliveries from approved RPS-eligible procurement comprised approximately 29.5 percent of PG&E’s 2015 retail sales.

Approximately 82 percent of the RPS-eligible products procured in 2015 were associated with grandfathered (PCC 0) contracts. The remaining approximately 18 percent of PG&E’s 2015 RPS procurement is eligible for categorization as PCC 1.

## **II. NARRATIVE REPORTING REQUIREMENTS**

Pursuant to the instructions included in the Commission’s RPS Report template, PG&E provides the following narrative description of its RPS procurement activities for the reporting period.

### **A. The Status of Any Necessary Siting and Permitting Approvals from Federal, State, and Local Agencies for Those Eligible Renewable Energy Resources Procured by PG&E That Have Not Yet Attained Their Commercial On-Line Dates.**

Appendix F provides a table showing the status of siting and permitting approvals for the projects in PG&E’s RPS portfolio that have not yet come online (excluding contracts executed under the Assembly Bill (“AB”) 1969 feed-in tariff (“FIT”) program and the Renewable Market Adjusting Tariff (“ReMAT”) program). While PG&E’s ability to comply with the RPS procurement requirement targets remains contingent on a number of factors outside of PG&E’s control, including the ability of independent power producers that have executed Power Purchase Agreements (“PPAs”) with PG&E to receive necessary siting and permitting approvals, PG&E continued to see significant progress during 2015 in the ability of

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<sup>11/</sup> All subsequent statutory references in this report are to sections of the California Public Utilities Code, unless specified otherwise.

its counterparties to meet key development milestones. Overall, PG&E currently projects substantial incremental RPS-eligible deliveries in 2016.

As more fully detailed in Appendix F, PG&E currently has 32<sup>12/</sup> contracts (excluding contracts executed under the AB 1969 FIT program and the ReMAT program) with RPS-eligible facilities that are under development and that have not started the delivery term under their PPAs with PG&E. Of these 32 contracts, 19 have successfully obtained their permits and the remaining 13 are still in the permitting process.

In addition, 8 of the 32 RPS-eligible projects still under development are designated for the Green Tariff Shared Renewables (“GTSR”) Program.<sup>13/</sup> All 8 projects have not currently started construction and are expected to come online by April 2018.

**B. Identification of Procurement from Eligible Renewable Energy Resources Located Outside California and within the Western Electricity Coordinating Council (“WECC”) during the Period Covered by the Report.**

The table below identifies all procurement during 2015 from eligible renewable energy resources located outside California and within the WECC. This table lists the facility name, location (City and State), and the amount of RPS-eligible products procured during 2015.

<b>Project Name</b>	<b>City</b>	<b>State</b>	<b>2015 Procurement (MWhs)</b>
Agua Caliente Solar Project	Roll	Arizona	739,734
Halkirk I Wind Project	Stettler, Canada	Alberta	460,177
Blackspring Ridge 1A	Lethbridge, Canada	Alberta	459,193
Blackspring Ridge 1B	Lethbridge, Canada	Alberta	493,690
Mesquite Solar 1	Tonopah	Arizona	397,596

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<sup>12/</sup> The vintage date for this information is July 25, 2016.

<sup>13/</sup> The GTSR Program was established by Senate Bill 43 and initially implemented in Commission Decision (“D.”) 15-01-051.

<b>Project Name</b>	<b>City</b>	<b>State</b>	<b>2015 Procurement (MWhs)</b>
Rattlesnake Road Wind (Arlington) Project	Arlington	Oregon	185,532
Copper Mountain Solar 2	Boulder City	Nevada	357,916
Klondike IIIA	Wasco	Oregon	213,618
Vantage Wind Energy Center	Ellensburg	Washington	237,043
Klondike III	Wasco	Oregon	206,718
CM48 (fka <sup>14/</sup> Sempra Copper Mountain 1)	Boulder City	Nevada	101,936
CM10 (fka Sempra El Dorado Solar)	Boulder City	Nevada	19,885

**C. Identification of All Procurement of Unbundled RECs during the Period Covered by the Report.**

The table below identifies all procurement during 2015 of unbundled RECs. The table lists the facility name, location (City and State), and the amount of unbundled RECs procured during 2015.

<b>Contract Detail</b>	<b>City</b>	<b>State</b>	<b>2015 Procurement (MWhs)</b>
SPI (RECs)	Anderson, Burney, Lincoln, Quincy, Sonora	California	95,948

**D. Recommendations to Remove Impediments to Making Progress toward Achieving the Renewable Energy Resources Procurement Requirements Established by Statute and Implemented by Commission Decision.**

As discussed above and shown in Appendix A, PG&E expects that the operational RPS-eligible projects and the RPS projects under development will enable PG&E to comply with the Second RPS Compliance Period requirements. PG&E's 2016 RPS Procurement Plan, filed on August 8, 2016 in this Rulemaking, also demonstrates the likelihood that PG&E's existing RPS portfolio will allow PG&E to meet its RPS compliance obligations well into the future. At this time, PG&E does not believe there are significant impediments to achieving its near-term RPS requirements.

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<sup>14/</sup> "FKA" stands for "formerly known as." PG&E is providing both names in order to avoid confusion.

While PG&E has been successful in procuring to meet its RPS requirements, it is important to note that RPS procurement has resulted in increased costs to customers. PG&E recommends that the Commission establish a meaningful RPS procurement cost limitation, as required by statute,<sup>15/</sup> in an expedited fashion in order to prevent disproportionate rate impacts from RPS-eligible procurement. Additionally, the portfolio content requirements in statute limit PG&E's ability to procure unbundled RPS-eligible products and RPS-eligible products that are not delivered in real-time to a California Balancing Authority. These restrictions reduce PG&E's flexibility to procure the least-cost, best-fit resources from anywhere within the Western electricity grid.

**E. The Current Status and Progress Made During the Prior Year toward Construction of, and Upgrades to, Transmission and Distribution Facilities and Other Electrical System Components Owned by PG&E to Interconnect Eligible Renewable Energy Resources and to Supply the Electricity Generated by Those Resources to Load.**

PG&E describes the status of planning, siting, and permitting of transmission facilities by Federal, State, and local agencies, in the following sections. Please note that this data reflects projects interconnecting with PG&E's system, including projects that may not be under contract to deliver output to PG&E.

**1. Status and Progress of Interconnection Planning Studies for Renewable Resources**

To evaluate the impact of interconnection of new renewable resources on the transmission network, the California Independent System Operator ("CAISO") and the

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<sup>15/</sup> See Cal. Pub. Util. Code § 399.15(c).



applicable Participating Transmission Owners (“PTOs”) conduct generation interconnection studies. These studies follow the requirements set forth in the CAISO’s tariff.<sup>16/</sup>

Following is a timeline of the renewable cluster studies performed by CAISO and PG&E during the 2011 through 2016 cluster windows:

- Clusters 1&2 Phase 2 (January to July 2011) - Reports issued August 2011
- Cluster 3 Phase 1 (October 2010 to March 2011) - Reports issued May 2011
- Cluster 4 Phase 1 (June to November 2011) - Reports issued January 2012
- Clusters 3&4 Phase 2 (April to November 2012) - Reports issued November 2012
- Cluster 5 Phase 1 (June 2012 to January 2013) - Reports issued January 2013
- Cluster 5 Phase 2 (May 2013 to December 2013) – Reports issued December 2013
- Cluster 6 Phase 1 (July 2013 to January 2014) – Reports issued January 2014
- Cluster 6 Phase 2 (May 2014 to November 2014) – Reports issued November 2014
- Cluster 7 Phase 1 (July 2014 to December 2014) – Reports issued December 2014
- Cluster 7 Phase 2 (May 2015 to November 2015) – Reports issued December 2015
- Cluster 8 Phase 1 (July 2015 to January 2016) – Reports issued January 2015
- Cluster 8 Phase 2 (May 2016 – November 2016) – Reports are to be released beginning in November 2016
- Cluster 9 Phase 1 (July 2016 – January 2017) – Reports are to be released beginning in December of 2016

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<sup>16/</sup> CAISO Tariff, Appendix Y, “Generator Interconnection Procedures (“GIP”) (available at [https://www.caiso.com/Documents/AppendixY\\_GeneratorInterconnectionProceduresForInterconnectionRequests\\_asof\\_Mar8\\_2016.pdf](https://www.caiso.com/Documents/AppendixY_GeneratorInterconnectionProceduresForInterconnectionRequests_asof_Mar8_2016.pdf)); Appendix DD, “Generator Interconnection and Deliverability Allocation Procedures (“GIDAP”) (available at [https://www.caiso.com/Documents/AppendixDD\\_GeneratorInterconnectionAndDeliverabilityAllocationProcess\\_asof\\_Mar8\\_2016.pdf](https://www.caiso.com/Documents/AppendixDD_GeneratorInterconnectionAndDeliverabilityAllocationProcess_asof_Mar8_2016.pdf)).

In addition to the cluster studies, as a part of CAISO's Transmission Planning Process ("TPP"), CAISO conducts policy-driven studies to identify transmission needs to identify potential system limitations as well as system reinforcements that improve the reliability and efficiency of the CAISO-controlled grid. These improvements serve to support the interconnection of generation required to achieve the 33% RPS portfolios approved by the Commission<sup>17/</sup> and the subsequent 50% RPS target adopted in Senate Bill 350. PG&E actively participates in this study process as a stakeholder. For the 2016-2017 TPP cycle, the CAISO has published its study plan and process documents and, at the time of this report, is currently in Phase 2 of the study process.<sup>18/</sup> The study plan includes details of the studies that the CAISO is performing to assess the transmission needs for meeting 33% RPS and 50% RPS.

To improve the management of the transmission planning and interconnection processes, the CAISO developed the Transmission Planning Process and Generator Interconnection Procedures ("TPP-GIP") Integration initiative. The TPP-GIP process has been implemented and is now known as the Generator Interconnection and Deliverability Allocation Procedures ("GIDAP"). The process, which PG&E supports, identifies and approves ratepayer-funded transmission additions and upgrades under a single comprehensive process. It provides incentives for renewable energy developers to interconnect to the CAISO grid at the

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<sup>17/</sup> See CAISO, "2014-15 Transmission Plan," March 27, 2015 (results from most recently concluded TPP) (available at <http://www.caiso.com/Documents/Board-Approved2014-2015TransmissionPlan.pdf>). The 2016-2017 plan is currently under development.

<sup>18/</sup> See generally CAISO 2016-2017 Transmission Planning Process homepage (available at <https://www.caiso.com/planning/Pages/TransmissionPlanning/2016-2017TransmissionPlanningProcess.aspx>).

most cost-effective locations by promoting early withdrawal of unviable projects while decreasing the uncertainty for viable generation requests.<sup>19/</sup>

To evaluate the impact of interconnection of new renewable resources on PG&E's distribution system, PG&E conducts generation interconnection studies. These studies follow the Commission's Rule 21 and the Federal Energy Regulatory Commission ("FERC")-approved Wholesale Distribution Tariff ("WDT"). Over the last several years, RPS-eligible interconnection requests to PG&E's distribution system have significantly increased. These increases have posed significant challenges to distribution system owners in California, including PG&E, and PG&E has initiated a number of internal efforts, and collaborated on external initiatives, to address these challenges.

The most notable changes in the distribution-level interconnection study process since 2011 include:

- The WDT was amended in March 2011 to address modifications similar to those made to the CAISO's Tariff in December 2010. The process that was previously acceptable for smaller volumes of interconnection requests was improved to handle higher volumes of interconnection requests. These amendments created a path for distribution resources to seek deliverability and the following three separate study paths:
  - Fast Track: for small interconnection requests that pass a screening process where no impacts to the system are likely.
  - Independent Study Process: for interconnection requests not eligible for the Fast Track that are electrically isolated from other interconnection requests.
  - Cluster Study Process: for interconnection requests not eligible for the Fast Track that are not electrically isolated from other interconnection requests.

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<sup>19/</sup> The GIDAP establishes a method for awarding transmission capacity to generation projects considered most viable, for the areas of the grid where the volume of interconnection requests exceed the capacity of transmission developed through the TPP.

- Rule 21 was amended in September 2012 to include a process and agreements for RPS-eligible generators. The prior version of Rule 21 did not provide an interconnection path for exporting generators that ultimately enter into a PURPA PPA with PG&E. The new Rule 21 was modeled after the WDT to provide a consistent process between Rule 21 and the WDT.
- The WDT was amended in December 2012 to align the generator interconnection process with Rule 21 to provide consistency for Interconnection Customers applying for interconnection to PG&E's distribution system.
- In June 2014, PG&E, along with Southern California Edison Company and San Diego Gas & Electric Company, filed revisions to their respective Rule 21 tariffs with the Commission to incorporate the Distribution Group Study Process to allow for a process similar to the FERC Cluster Study Process for Commission-jurisdictional generators.
- In October 2014, PG&E collaborated with other stakeholders to amend the WDT to address modifications similar to those made to the CAISO's Tariff.
- In January 2015, Rule 21 was amended to capture the technological advances offered by smart inverters.
- In 2016, PG&E has made further program-specific amendments to Rule 21. Additionally, there are various proceedings underway at the Commission to address storage, cost certainty, and pre-application reports under Rule 21. Finally, amendments to the WDT are underway to address recent proposals for a Distributed Group Study Process, naming convention, process for allocating deliverability, and to clarify financial security requirements and procedures.

## **2. Status and Progress of Improvements to the Bulk Transmission System that May Help to Supply RPS-Eligible Electricity to Load.**

In June 2011, the CAISO ten-year transmission plan noted that additional study of a Central California 500 kilovolt ("kV") project was warranted, which prompted a new Central California transmission study for the 2012/2013 TPP. One of the project objectives is the integration of renewable resources, in addition to supporting reliability in the greater Fresno area. In September 2012, PG&E proposed the Greater Fresno Area Upgrade 230kV Project to the CAISO to address some of the transmission needs identified in Central California. In March 2013, the CAISO approved one element of this proposal, the Gates-Gregg 230kV transmission line, as part of the final 2012/2013 TPP. Because the Gates-Gregg project will

provide economic and public policy benefits, the CAISO has deemed it to be subject to a competitive bid process to finance, construct and own the new line. PG&E submitted a joint bid proposal with MidAmerican, LLC (now Berkshire Hathaway Energy (BHE)) in June 2013. The project was awarded by the CAISO to PG&E and BHE.

### **3. Status and Progress of Renewable Generation Interconnection Projects within the PG&E-owned Transmission and Distribution Systems.**

A large wave of transmission voltage and distribution voltage grid development to interconnect eligible renewable energy resources, triggered by RPS procurement requirements, has reached commercial operation. Starting in 2011, a mass of transmission-voltage interconnection upgrade projects associated with this development wave underwent Interconnection Study (“Study”) and progressed through the Interconnection Agreement (“IA”) negotiation and construction process through 2012 and 2013. Since then, the majority of these projects have reached commercial operation.

Approximately 333 megawatts (“MW”) of RPS-eligible generation has interconnected to PG&E’s transmission grid between July 15, 2015 and July 6, 2016. An additional 39 MW of RPS-eligible renewable generation has interconnected to PG&E’s distribution system during this period.

The current PG&E portfolio of RPS-eligible, transmission voltage interconnection projects with executed IAs would serve 2,658 MW of transmission voltage generation. These interconnection projects are in the implementation phase, including permitting, if required. An additional 116 MW and 3,739 MW of RPS-eligible generation are in the IA Negotiation and Study phases, respectively. This generation has yet to execute an IA with PG&E, though developers may have begun their own permitting and siting processes. The most recent

Cluster 9 group represents significant RPS generation, but it is too early in the study cycle to determine which of these projects will result in an executed IA.

PG&E's RPS-eligible distribution-voltage interconnection portfolio consists of 51 MW and 245 MW of generation in the IA negotiation and Study phases, respectively for Wholesale Distribution. Additionally, there are 22 MW and 45 MW of generation in IA negotiation and Study phases, respectively for Rule 21 Export. An additional 155 MW of RPS-eligible projects within PG&E's distribution-voltage interconnection portfolio are in the project implementation phase with permitting, if required, and/or construction in progress under Wholesale Distribution. Under Rule 21 Export, there are an additional 137 MW of RPS-eligible generation within PG&E's distribution interconnection portfolio that are in the project implementation phase with permitting, if required, and/or construction in progress.

PG&E notes that many RPS-related interconnection projects to date have been exempt from the Commission's Permit to Construct ("PTC") and Certificate of Public Convenience and Necessity ("CPCN") requirements. Currently, no PTC or CPCN for an RPS-related interconnection project within the PG&E-owned grid is pending before the Commission.

<b>Progress of Current RPS-related Interconnection Projects<sup>20/</sup></b>		
	<b>Transmission (MW)</b>	<b>Distribution (MW)</b>
<b>Achieved Commercial Operation</b>	333	39
<b>Implementation (Development)</b>	2,658	292
<b>IA Negotiation</b>	116	73
<b>Study</b>	3,739	290
<b>Total</b>	6,846	694

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<sup>20/</sup> Table reflects interconnection activities from July 15, 2015 through July 1, 2016.

### III. DISCUSSION OF APPENDICES

#### A. Technical Issues with the Annual 33% RPS Compliance Report Spreadsheet (Appendix A)

As indicated above, PG&E's RPS Report includes Appendix A, which is a populated version of the final Report template distributed by Energy Division. In PG&E's cover pleading accompanying its 2014 Preliminary Annual RPS Compliance Report, filed on September 4, 2015 in this docket, PG&E commented on concerns it had with the then-current Report template issued by the Energy Division. Because this filing is meant to provide a final, verified compliance report for the 2011-2013 compliance period and because the current Report template has not been corrected to address an issue that causes PG&E to not get RPS credit for RPS procurement verified by the California Energy Commission ("CEC"), PG&E is raising one of these concerns again here and separately sent a letter on August 23, 2016, to the Director of the Commission's Energy Division asking him to exercise his authority pursuant to D.12-06-038 to revise the Report template and allow PG&E to re-file its 2011-2013 Verified RPS Compliance Report.

The issue relates to the 36 Month REC Retirement Tab in the Report template relying exclusively on WREGIS Certificates. Given the exclusive reliance on WREGIS Certificates in that tab, PG&E is prevented from being able to fully report all of its CEC-verified RPS procurement during the first compliance period (2011-2013). Accordingly, Appendix A to this Report does not credit PG&E fully for its RPS-eligible procurement in the 2011-2013 period.

The current Energy Division RPS Report template does not allow any adjustments to historic procurement amounts that are required pursuant to CEC verification. Energy Division's "Comment Summary" from its *Summary of Comments on the RPS Compliance Report Template* states:

Energy Division staff will consider implementing this idea on the reports that are submitted after the CEC issues their verification report. Energy Division staff does not believe this change should be implemented for the Annual RPS compliance report.

The inability to count generation for which REC's were not created in WREGIS (but for which there is verified underlying generation), prevents PG&E from being able to credit toward its RPS compliance requirements 5,633.05 megawatt-hours ("MWh") corresponding to 2011 and 2012 procurement from three facilities<sup>21/</sup> that had been reported in WREGIS but were requested to be withdrawn as result of the 2008-2010 RPS Verification Report review. The CEC determined that certain RPS procurement that PG&E retired and claimed in its WREGIS Reports was ineligible for the RPS, but since the WREGIS certificates had been retired more than 12 months prior to that determination, PG&E could not unretire and remove the REC's from its WREGIS Reports. Therefore, at the CEC's request, PG&E withdrew a total of 5,633.05 MWh of procurement claims from its 2008 to 2010 procurement claims from these three facilities. At the same time however, WREGIS made a duplicate downward meter data adjustment that resulted in the creation of less WREGIS Certificates during the then-current 2011 and 2012 periods. Recognizing that PG&E had effectively lost the value of that procurement twice, the CEC's 2008-2010 RPS Verification Report<sup>22/</sup> specifically provided upward adjustments to PG&E's 2011-2013 procurement to compensate for the double-counted WREGIS reductions in the number of REC's created during the First Compliance Period. On page 44 of the 2008-2010 Verification Report, the CEC identified five claims involving these three facilities:

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<sup>21/</sup> Waste Management Renewable Energy - RPS ID 60096, Amedee Geothermal Venture I - RPS ID 60111, and Wineagle Developers 1 - RPS ID 60193.

<sup>22/</sup> CEC's RPS 2008-2010 Procurement Verification Report, dated November 2013.



in which a portion of the procurement was requested to be withdrawn involved RECs that, for various reasons, were erroneously created in WREGIS. To correct the errors, WREGIS will withhold creation of an equal number of RECs for each facility's 2011 or 2012 REC amounts. Energy Commission staff determined that PG&E could correct the error in a future year to account for when WREGIS reduces the amount of RECs create for these particular facilities.... [B]y allowing the withdrawn amount to be counted in a future *Verification Report*, this process prevents PG&E from being doubly discredited through the verification process when WREGIS withholds creation of an equivalent amount of RECs from the specific facilities to correct the error.

Therefore, the CEC's 2008-2010 RPS Verification Report specifically allows these withdrawn claims amounts to be credited to PG&E in a future verification report, stating that the "CPUC should consider the withdrawn RECs reported below to represent actual 2011 and 2012 generation, but for which there are no WREGIS certificates."<sup>23/</sup>

The CEC's 2011-2013 RPS Verification Report acknowledges this adjustment:

"**Table 3** shows the claim amounts that had previously been reported in a WREGIS report but were withdrawn in the *2008-2010 RPS Verification Report*. PG&E reported these claims on the CEC-RPS-Track form to account for the adjustments made in WREGIS. These claims have been verified as RPS-eligible and are included in the "Claims Eligible Toward the RPS" amount listed in **Table 2**."<sup>24/</sup> Table 3 includes a total of 5,633.05 MWh corresponding to 2011 and 2012 claim amounts from these three facilities. The failure to incorporate these CEC-approved adjustments in the 36 Month REC Retirement Tab impacts PG&E's First Compliance Period showing by improperly reducing PG&E's First Compliance Period RPS procurement claims for three facilities by a total of 5,633.05 MWh.

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<sup>23/</sup> CEC's RPS 2008-2010 Procurement Verification Report, dated November 2013, p. 43 and 44-  
<http://www.energy.ca.gov/2013publications/CEC-300-2013-010/CEC-300-2013-010-CMF.pdf>

<sup>24/</sup> CEC's RPS 2011-2013 Procurement Verification Report, dated July 2016, p.16 and 17.  
<http://www.energy.ca.gov/2016publications/CEC-300-2016-004/CEC-300-2016-004-CMF.pdf>

Concurrent with the filing of this Report, PG&E is filing a motion in this docket requesting that the Commission revise its RPS compliance reporting template and grant leave to PG&E to file a revised Report so that PG&E receives appropriate RPS credit for these CEC-approved adjustments. In that motion, PG&E proposes that these adjustments be reflected in the 36 Month REC Retirement Tab, or, alternatively, to report these adjustments outside of WREGIS onto the Accounting Tab, with the net result being that the additional 5,633.05 MWh of grandfathered procurement be added to PG&E's end of the first RPS Compliance Period surplus procurement bank.

**B. Appendix C and D Explanation**

PG&E does not have any PCC 1 claims for RPS-eligible electricity that is either dynamically scheduled or scheduled into a CBA on an hourly or sub-hourly basis. Therefore, PG&E's Appendix C RPS Hourly e-Tag Summary Report and Appendix D RPS Hourly Meter and e-Tag Reconciliation Report are intentionally left blank.

**IV. UPDATED RENEWABLE NET SHORT CALCULATIONS**

Consistent with the Energy Division Staff methodology for calculating the renewable net short ("RNS"),<sup>25/</sup> PG&E is attaching updated RNS calculations in Appendices E1 and E2. As more fully described in those appendices and in PG&E's Draft 2016 RPS Procurement Plan,<sup>26/</sup> the RNS may show different anticipated deliveries from RPS-eligible resources under contract than the volumes shown in Appendix A to this Report. This is because the RNS in Appendix E1 takes into account the risk that contracts will be terminated or delayed, and will

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<sup>25/</sup> See Administrative Law Judge's Ruling on Renewable Net Short issued in R. 11-05-005 on May 21, 2014, including subsequent changes to the RNS reporting template per direction from the Energy Division on June 2, 2014.

<sup>26/</sup> See PG&E's Draft 2016 Renewable Energy Procurement Plan, filed in R.15-02-020, submitted on August 8, 2016, Appendices C.1 and C.2.

fail to deliver the contracted volumes. The stochastically-adjusted RNS in Appendix E2 includes additional risk-adjustments, including risks due to retail sales variability, project failure variability (above and beyond that captured in Appendix E1), generation variability, and curtailment. Appendix E1 calculates the volumes that PG&E projects it will need for RPS compliance based on direction provided in the May 21, 2014 ALJ Ruling. Appendix E2 provides an Alternative RNS calculation (the “Alternative RNS”).

There are two main differences between the RNS and the Alternative RNS. First, the RNS utilizes PG&E’s Bundled Retail Sales Forecast for years 2016-2020 and the Long Term Procurement Plan proceeding (i.e., R.13-12-010) methodology for 2021-2036, while the Alternative RNS relies on PG&E’s internal Bundled Retail Sales Forecast for 2016-2036. Second, the Alternative RNS includes additional risk-adjustments as mentioned above and presents a modified display of PG&E’s RNS in order to adequately show the results from PG&E’s stochastic optimization of its RPS position. Further details on PG&E’s stochastic optimization approach can be found in the PG&E’s Draft 2016 RPS Plan submitted on August 8, 2016.

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PG&E's Alternative RNS in Appendix E2 shows that PG&E's existing RPS portfolio is expected to provide sufficient RPS-eligible deliveries to meet PG&E's RPS compliance requirements in the Second (2014-2016), Third (2017-2020), and Fourth (2021-2024) Compliance Periods.

Respectfully submitted,

M. GRADY MATHAI-JACKSON  
CHARLES R. MIDDLEKAUFF

By: /s/ M. Grady Mathai-Jackson  
M. Grady Mathai-Jackson

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Dated: September 1, 2016

Attorneys for  
PACIFIC GAS AND ELECTRIC COMPANY

## **VERIFICATION**

I am an employee of PACIFIC GAS AND ELECTRIC COMPANY, a corporation, and am authorized to make this verification on its behalf. I have read the foregoing “2015 PRELIMINARY ANNUAL 33% RPS COMPLIANCE REPORT AND FINAL VERIFIED 2011-2013 RPS COMPLIANCE REPORT OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) (CONFIDENTIAL VERSION)” dated September 1, 2016. The statements in the foregoing document are true of my own knowledge, except as to matters which are therein stated on information and belief, and as to those matters I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on this 1st day of September, 2016 at San Francisco, California.

/s/ John Pappas

John Pappas  
Principal, Renewable Energy  
Pacific Gas and Electric Company

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

**PACIFIC GAS AND ELECTRIC COMPANY  
RENEWABLES PORTFOLIO STANDARD RULEMAKING – R. 15-02-020**

**DECLARATION OF JOHN PAPPAS  
SEEKING CONFIDENTIAL TREATMENT  
FOR CERTAIN DATA AND INFORMATION  
CONTAINED IN PG&E’S 2015 ANNUAL 33% RENEWABLES PORTFOLIO  
STANDARD (“RPS”) COMPLIANCE REPORT AND FINAL VERIFIED 2011-2013 RPS  
COMPLIANCE REPORT**

I, John Pappas, declare:

1. I am a Principal in the Renewable Energy group of the Energy Policy and Procurement organization at Pacific Gas and Electric Company (PG&E). In this position, my responsibilities include renewable energy procurement strategy, policy, compliance, and reporting. Prior to my current position, I have had extensive commercial transaction and regulatory proceeding experience involving PG&E’s Renewable Energy and Qualifying Facility portfolios. This declaration is based on my personal knowledge of PG&E’s practices and my understanding of the Commission’s decisions protecting the confidentiality of market-sensitive information.

2. Based on my knowledge and experience, and in accordance with the Decisions 06-06-066, 08-04-023, and relevant Commission rules, I make this declaration seeking confidential treatment for certain data and information contained in PG&E’s 2015 Annual 33% Renewables Portfolio Standard (“RPS”) Compliance Report and Final Verified 2011-2013 RPS Compliance Report (together, the “Compliance Report”).

3. Attached to this declaration is a matrix identifying the data and information for which PG&E is seeking confidential treatment. The matrix specifies that the material PG&E is seeking to protect constitutes confidential market sensitive data and information covered by Commission Decision (“D.”) 06-06-066, the Commissions’s General Order 66-C, and/or the May 21, 2014 Administrative Law Judge’s Ruling on the Renewable Net Short in Rulemaking

11-05-005. The matrix also specifies why confidential protection is justified. Further, the data and information: (1) is not already public; and (2) cannot be aggregated, redacted, summarized or otherwise protected in a way that allows partial disclosure. By this reference, I am incorporating into this declaration all of the explanatory text that is pertinent to my testimony in the attached matrix.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct. Executed on September 1, 2016 at San Francisco, California.

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*/s/ John Pappas*  
JOHN PAPPAS

**PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)**

**Renewables Portfolio Standard Rulemaking 15-02-020**

**PG&E's 2015 Annual 33% RPS Compliance Report and Final Verified 2011-2013 RPS Compliance Report**

September 1, 2016

**IDENTIFICATION OF CONFIDENTIAL INFORMATION**

<b>Redaction Reference</b>	<b>Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To</b>	<b>Justification for Confidential Treatment</b>	<b>Length of Time Data To Be Kept Confidential</b>
<b>Document: Appendix A - 2015 Annual 33% RPS Compliance Report and Final Verified 2011-2013 RPS Compliance Report</b>			
<u>33% RPS Progress Summary Tab:</u> J-K10, J-K12, I13 – L13  <u>Accounting Tab:</u> J-K 18, J-L 21 I26 – L26, J-K32	Item V(C): LSE Total Energy Forecast Bundled Customer (MWh)  VI(B): Utility Bundled Net Open (Long or Short) Position for Energy	Front three years of PG&E's internal and proprietary forecast of its bundled customer total energy requirements. Linked cells whose values could reveal this confidential data are also redacted.  This information also indicates PG&E's net position for RPS-eligible energy in the periods within the front three years of the forecast.	Item V(C): Front three years.  Item VI(B): Front three years of forecast data confidential
<b>Document: Appendix A - 2015 Annual 33% RPS Compliance Report and Final Verified 2011-2013 RPS Compliance Report</b>			
<u>Procurement Detail Tab:</u> Facility Status Column AA (rows: 387-390, 428, 433, 439, 450, 451, 455, 456, 463, 466-468, 470-478, 481-483, 485-489, 492, 494-498, 504, 506, 509)	Item VII (un-numbered category following VII G) Score sheets, analyses, evaluations of proposed RPS projects.  General Order 66-C.	The information in these cells constitutes PG&E's analysis and evaluation of the current development status of the RPS projects in its portfolio. Furthermore, this data constitutes commercially sensitive and proprietary information that should be withheld from public disclosure under General Order 66-C paragraph 2.8. There are several reasons why it is in the public interest to protect the confidentiality of this information.  First, disclosure of this information could discourage developers from frankly communicating project status to PG&E, and thus undermine PG&E's ability to adequately monitor RPS development progress. Second, PG&E's counterparties oppose making this information public. If this information is not protected, developers may not respond to PG&E's solicitation for bids, impairing PG&E's ability to increase its procurement of renewable energy resources. In addition, release of this information may result in developers increasing project costs in the future to compensate them for competitive harm resulting from disclosure. It is also in the public interest to protect the confidentiality of this information to ensure a vibrant, viable competitive market for renewable energy supplies. Disclosure of this information would provide valuable market sensitive information to competitors and could damage ongoing and future negotiations by providing information about other potential renewables projects.	For VII (un-numbered category following VII G), remain confidential for three years from the 7/7/16 cut-off for this analysis.  Remain confidential until no longer protected pursuant to the provisions of G.O. 66-C.



<b>Document: Appendix E1 – Net Short Calculation</b>			
Gray Shading in Rows: 7, 9, 11, 25, 26, 28, 29, 31-37, 41-42	<p>Item V(C): LSE Total Energy Forecast Bundled Customer (MWh)</p> <p>Item VI(B): Utility Bundled Net Open (Long or Short) Position for Energy</p> <p>Item VII(H): Score sheets, analyses, evaluations of proposed RPS projects</p>	<p>Includes information that shows PG&amp;E's net position for RPS-eligible energy in the periods within the front three years of the forecast and also shows PG&amp;E's forecast of its bundled customer total energy requirements.</p> <p>The redacted information for rows related to PG&amp;E's optimized Renewable Net Short (RNS), including: PG&amp;E's assumptions for its overall portfolio optimization strategy; any plans to sell forecast Renewable Energy Credits (RECs) above the Procurement Quantity Requirements (PQR); application of forecast RECs above the PQR towards a future RPS compliance requirement; and any plan to procure of RECs above the PQR in future years. This information is expressly deemed confidential by the May 21, 2014 Administrative Law Judge's Ruling on Renewable Net Short issued in Rulemaking 11-05-005, pages 5, 24, and 27. Additionally, this information could be used to determine PG&amp;E's net open position for RPS-eligible products and constitutes analysis and evaluation of proposed RPS projects, including sales or transactions intended to create a compliance bank</p>	<p>Item V(C): Front three years.</p> <p>Item VI(B): Front three years of forecast data confidential</p> <p>Item VII(H): Confidential for three years</p> <p>May 21, 2014 ALJ Ruling: Indefinite.</p>
<b>Document: Appendix E2 – Alternate Net Short Calculation</b>			
Gray Shading in rows: 7, 9, 11, 25, 26, 31, 32, 34, 35, 37, 38-43, 47-48	<p>Item V(C): LSE Total Energy Forecast Bundled Customer (MWh)</p> <p>Item VI(B): Utility Bundled Net Open (Long or Short) Position for Energy</p> <p>Item VII(H): Score sheets, analyses, evaluations of proposed RPS projects</p>	<p>This information shows PG&amp;E's net position for RPS-eligible energy in the periods within the front three years of the forecast and also shows PG&amp;E's internal and proprietary forecast of its bundled customer total energy requirements.</p> <p>The redacted information for rows relates to PG&amp;E's optimized Renewable Net Short (RNS), including: PG&amp;E's assumptions for its overall portfolio optimization strategy; any plans to sell forecast Renewable Energy Credits (RECs) above the Procurement Quantity Requirements (PQR); application of forecast RECs above the PQR towards a future RPS compliance requirement; and any plan to procure of RECs above the PQR in future years. This information is expressly deemed confidential by the May 21, 2014 Administrative Law Judge's Ruling on Renewable Net Short issued in Rulemaking 11-05-005, pages 5, 24, and 27. Additionally, this information could be used to determine PG&amp;E's net open position for RPS-eligible products and constitutes analysis and evaluation of proposed RPS projects, including sales or transactions intended to create a compliance bank.</p>	<p>Item V(C): Front three years.</p> <p>Item VI(B): Front three years of forecast data confidential</p> <p>Item VII(H): Confidential for three years</p> <p>May 21, 2014 ALJ Ruling: Indefinite</p>
<b>Document: Appendix F RPS Compliance Permitting</b>			
Column F and G Rows: 6, 13, 16, 20, 22-24, 27-29, 31-33	<p>Item VII (un-numbered category following VII G) Score sheets, analyses, evaluations of proposed RPS projects.</p> <p>General Order 66-C.</p>	<p>This data constitutes commercially sensitive and proprietary information that should be withheld from public disclosure under General Order 66-C paragraph 2.8. It includes, for example, whether a particular project is on schedule in its permitting process. There are several reasons why it is in the public interest to protect the confidentiality of this information.</p> <p>First, disclosure of this information could discourage developers from frankly communicating project status to PG&amp;E, and thus undermine PG&amp;E's ability to adequately monitor RPS development progress. Second, PG&amp;E's counterparties oppose making this information public. If this information is not protected, developers may not respond to PG&amp;E's solicitation for bids, impairing PG&amp;E's ability to increase its procurement of renewable energy resources. In addition, release of this information may result in developers increasing project costs in the future to compensate them for competitive harm resulting from disclosure. It is also in the public interest to protect the confidentiality of this information to ensure a vibrant, viable competitive market for renewable energy supplies. Disclosure of this information would provide valuable market sensitive information to competitors and could damage negotiations by providing information about other potential renewables projects.</p>	<p>For VII (un-numbered category following VII G), remain confidential for three years from the 6/17/15 cut-off for this analysis.</p> <p>Remain confidential until no longer protected pursuant to the provisions of G.O. 66-C.</p>