

**SUPPLEMENTAL SETTLEMENT AGREEMENT ON
STREETLIGHT RATE DESIGN ISSUES
IN PG&E'S APPLICATION 10-03-014**

I. INTRODUCTION

In accordance with Article 12 of the Rules of Practice and Procedure of the California Public Utilities Commission (CPUC), the parties to this Streetlight Rate Design Settlement Agreement (STL Settling Parties) agree on a mutually acceptable outcome to the rate design issues for the streetlight class¹ in Application (A.) 10-03-014, Application of Pacific Gas and Electric Company to Revise Its Electric Marginal Costs, Revenue Allocation, and Rate Design.²

Although the active parties held differing views on numerous aspects of streetlight rate design, they bargained earnestly and in good faith to seek a compromise and to develop this Settlement, which is the product of arms-length negotiations. These negotiations considered the interests of all active parties on streetlight rate design issues, and the Settlement addresses each of these issues in a fair and balanced manner.

The STL Settling Parties crafted this Settlement by agreeing to concessions and trade-offs among themselves. Thus the various elements and sections of this Settlement are intimately interrelated, and should not be altered as the Settling Parties intend that the Settlement be treated as a package solution which strives to balance and align the interests of each party. Accordingly, the STL Settling Parties respectfully request that the Commission approve each and every aspect

¹ The Streetlight (STL) customer class encompasses and is defined as: Schedules LS-1, LS-2, LS-3 and OL-1, and CCSF Streetlight rates as described in PG&E's January 7, 2011 update Exhibit PGE-14 Chapter 8.

of the Settlement without modification. Any material change to this Settlement shall render it null and void, unless all of the STL Settling Parties agree in writing to such changes.

This Streetlight Settlement is supplemental to the Settlement in A. 10-03-014 filed with the CPUC on March 14, 2011 (March 14 Settlement), in that it uses the revenue allocation agreed to in the March 14 Settlement and addresses Streetlight issues that were not resolved in the March 14 Settlement. The Streetlight Settlement's outcomes are complementary with those of the March 14 Settlement. Ordinarily, the entirety of this settlement would be consolidated in the Commission's final decision in this proceeding. However, there is time sensitivity for implementing the new network controlled dimmable streetlight pilot program, specifically in or about August 2011 if possible, so as to allow the very earliest adopter city(ies) to realize savings from reduced usage as soon as they begin such installations. Therefore, the STL Settling Parties agree that the network controlled streetlight pilot program portion (set forth in Section V. C of this Settlement) should proceed on an expedited basis. To that end, they have agreed that PG&E will submit an Advice Letter seeking a variance from LS-2 to allow the pilot to go forward upon approval of the Advice Letter, without having to wait for a final decision on all GRC Phase 2 issues.

The details of this Streetlight Settlement are set forth herein.

II. STREETLIGHT SETTTLING PARTIES

The STL Settling Parties are as follows:

- Pacific Gas and Electric Company (PG&E)
- California City-County Street Light Association (CAL-SLA)

CAL-SLA represents cities and counties throughout California, including in PG&E's service territory. Specifically, CAL-SLA's membership includes the Cities of San Jose and Oakland,

who each submitted testimony in Phase 2 seeking a network controlled streetlight rate. The Cities of San Jose and Oakland participated in and were directly involved in settlement discussions in addition to staff for CAL-SLA itself. In signing this Settlement, CAL-SLA is representing the interests of these cities.

III. STREETLIGHT SETTLEMENT CONDITIONS

This Streetlight Settlement resolves the issues raised by the STL Settling Parties in A.10-03-014 on streetlight rate design, subject to the conditions set forth below:

1. This STL Settlement embodies the entire understanding and agreement of the STL Settling Parties with respect to the matters described, and it supersedes prior oral or written agreements, principles, negotiations, statements, representations, or understandings among the STL Settling Parties with respect to those matters. This STL Settlement builds on the underlying marginal cost and revenue allocation in the March 14 Settlement and incorporates that agreement by reference.
2. This STL Settlement represents a negotiated compromise among the STL Settling Parties' respective litigation positions on the matters described, and the Settling Parties have assented to the terms of this Settlement only to arrive at the agreement embodied herein. Nothing contained in this STL Settlement should be considered an admission of, acceptance of, agreement to, or endorsement of any disputed fact, principle, or position previously presented by any of the STL Settling Parties on these matters in this proceeding. This STL Settlement does not constitute and should not be used as a precedent regarding any principle or issue in this proceeding or in any future proceeding.

3. The STL Settling Parties agree that this STL Settlement is reasonable in light of the testimony submitted, consistent with law, and in the public interest.
4. The STL Settling Parties agree that no provision of this STL Settlement shall be construed against any Settling Party because that Settling Party or its counsel or advocate drafted the provision.
5. This STL Settlement may be amended or changed only by a written agreement signed by the STL Settling Parties.
6. The STL Settling Parties shall jointly request Commission approval of this STL Settlement and shall actively support its prompt approval. Active support shall include written and oral testimony if testimony is required, briefing if briefing is required, comments and reply comments on the proposed decision, advocacy to Commissioners and their advisors as needed, and other appropriate means as needed to obtain the requested approval.
7. The STL Settling Parties intend that the terms of the STL Settlement are to be interpreted and treated as a unified, integrated agreement incorporating the March 14 Settlement, which forms the foundation for the STL rate design agreed to herein. In the event the Commission rejects or modifies any portion of this STL Settlement or the underlying March 14 Settlement, the STL Settling Parties reserve their rights under CPUC Rule 12.4.

IV. PROCEDURAL AND SETTLEMENT HISTORY

The overall procedural and settlement history of A.10-03-14 is set forth in Section IV of the March 14, 2011 Settlement on marginal cost and revenue allocation issues in this proceeding, to which this STL Settlement is supplemental, and which is incorporated herein by reference.

V. STL SETTLEMENT TERMS

A. General Terms

The STL Settling Parties agree that the primary purpose of rate design for the STL customer classes is to take the revenue allocations reached for those classes in the March 14 Settlement and ensure that they are fully recovered through STL rates in a manner that is just and reasonable, is in the public interest, is reasonably based on the marginal costs from the March 14 Settlement, and reflects a reasonable compromise of STL Settling Parties' proposals.

The STL Settling Parties agree that the illustrative rates set forth herein are consistent with the revenue allocation set forth in Tables 1 and 2 of the March 14 Settlement, which was based on January 1, 2011 effective rates and revenue requirements. The STL Settling Parties agree that the actual rates derived at the time of implementation of this STL Settlement, once adopted by the CPUC, shall be designed on an overall revenue-neutral basis to collect the then-current revenue allocated to the STL classes. Adopted revenue requirements in effect at the time of settlement implementation shall be applied to determine initial settlement rates. Therefore, the actual rates that will result when the Phase 2 rate changes are implemented will vary from those shown in Attachment 2. However, these actual rates shall be based on the rate design methods described in this STL Settlement Agreement.

The STL Settling Parties agree that all testimony served prior to the date of this STL Settlement that addresses the issues resolved by this STL Settlement should be admitted into evidence without cross-examination by the STL Settling Parties.

The STL Settling Parties further agree that this STL Settlement resolves all STL rate design issues in A.10-03-014.

B. STL Settlement Rates

1. Illustrative Settlement Rates

The STL Settling Parties agree that rates to collect the revenue allocated to the STL customer class under the March 14 Settlement shall be designed consistent with the illustrative rates set forth below and in Attachments 1 and 2 to this agreement.

As detailed below, the STL Settling Parties agree that it is reasonable to adopt the facility charge rates for Schedules LS-1, LS-2, OL-1 and CCSF that are presented in Attachment 1. The agreed total rates for each lamp type for Schedules LS-1, LS-2, and OL-1 are presented in Attachment 2 and are based on the revenue allocation settlement presented in the Settlement Agreement on Marginal Cost and Revenue Allocation dated March 14, 2011.

2. Methods Used To Develop Illustrative Settlement Rates

The STL Settling Parties agree that the basic rate designs on the energy charge portion of the rate for each of the applicable STL rate schedules will be updated upon implementation of this STL Settlement using the methods underlying development of the illustrative settlement rates for Schedules LS-1, LS-2, LS-3 and OL-1 set forth in this supplemental settlement agreement.

The above methods shall be used to set initial energy charge portion of the street light rates upon implementation of this STL Settlement at the then-current revenue requirements using settlement revenue allocation principles. The facility charge portion of the rate as shown in Attachment 1 will remain unchanged until they are revised in PG&E's next GRC Phase 2 proceeding.

All subsequent rate changes on the energy charge portion of the street light rates, until PG&E's next GRC Phase 2 decision, shall be governed by the principles set forth, in the March

14, 2011 Revenue Allocation Settlement Agreement, in Section VIII, 3a and 3f, for Rate Changes Between General Rate Cases.

C. Pilot Program for Network Controlled Dimmable Streetlights

The STL Settling Parties agree that the new Pilot Program for Network Controlled Dimmable Streetlights, which is set forth in detail in Attachment 3 to this Settlement, is reasonable and should be adopted.

Ordinarily, the entirety of this Settlement would be consolidated with all the other Supplemental Settlements on rate design in the Commission's final rate design decision in the GRC Phase 2 proceeding. However, time sensitivity for potential participants in the pilot program argues for more prompt implementation of the new network controlled dimmable streetlight pilot program so that participants may more promptly realize savings due to expected reduced energy usage using network control technologies as soon as they begin to be installed, which may be as soon as August 2011. For this reason, this STL Settlement Agreement provides that, upon execution, by the STL Settling Parties, PG&E will promptly file an Advice Letter seeking CPUC authorization for a variance to the current LS-2 schedule to create a pilot program, establishing a "Special Contract for Unmetered Service." Thus, the proposal to establish a network controlled dimmable streetlight pilot program will become effective upon approval of the Advice Letter, which may be issued before a final decision on all GRC Phase 2 issues.

D. Future Workshops on Streetlight Marginal Costs and Rate Design Model

As part of the marginal customer cost analysis PG&E conducts for streetlighting in preparation for filing PG&E's 2014 GRC Phase 2 application, PG&E will identify which costs

are marginal and which costs are facilities for purposes of streetlight rate design in order to ensure that these costs are not double counted.

PG&E will also develop a simplified streetlight rate design model and share that model with CAL-SLA for its review and input at the workshop that will address revenue allocation issues prior to the next GRC Phase 2, pursuant to the March 14, 2011 Settlement Agreement.

E. Other

Unless otherwise specifically agreed by the parties or addressed in this STL Settlement Agreement above and in the attachments hereto, the proposals, methods and explanations contained in revenue allocation and rate design Exhibit PG&E-14. Chapter 8, served on January 7, 2011, shall be adopted for the purpose of implementing rates under this Settlement.

V. TIMING OF RATE CHANGES

The provisions regarding the timing of this GRC rate change and rate changes between General Rate Cases agreed to in the March 14 Settlement, Term VIII. Subsections 2 and 3, shall apply to this STL Settlement Agreement, unless specifically noted above.

Certain elements of this STL Settlement Agreement will require employee training and/or changes to PG&E systems beyond those required for a normal change in rate value. These structural and system changes will be implemented by PG&E diligently as time permits in a manner consistent with smooth operations of the systems involved. The STL Settling Parties recognize that these changes could take several months to implement.

ATTACHMENT 1

ILLUSTRATIVE STL SETTLEMENT FACILITY CHARGE RATES FOR SCHEDULES LS-1, LS-2, OL-1 and CCSF

	A	B	C	D	E	F	G	H	I	J	K
1	2011 GRC SIMPLIFIED STREETLIGHT MODEL										
2	Facility Charges (Settlement) for LS-1, LS-2, OL-1 and City and County of San Francisco										
3											
4	Rate Schedule	Service	2011 Lamp Count for Plant Charge	2011 Lamp Count for Universal Charge	2011 Lamp Count for O&M Charge	Plant Charge per Month	Universal Charge (Settlement Proposal)	O&M Charge (Settlement Proposal)	Total Monthly Facility Charge	Annual Revenues - Full Cost (\$000)	
5	1 LS-1A	PG&E owns and maintains luminaire, control facilities, support arm, and service wiring on its existing distribution pole, and all lights	84,972	84,972	84,972	\$3,988	\$0,206	\$2,176	\$6,370	\$	6,496
6	2 LS-1B	PG&E owns and maintains luminaire, control facilities, support arm, pole or post, foundation and service connection and where customer has paid the estimated installed cost of the luminaire, support arm and control facilities	45	45	45	\$2,190	\$0,206	\$2,176	\$4,572	\$	2
7	3 LS-1C	PG&E owns and maintains its standard luminaire, control facility, internal pole wiring as required (ownership of pole or post, support arm and foundation by customer).	19,988	19,988	19,988	\$2,261	\$0,206	\$2,176	\$4,643	\$	1,114
8	4 LS-1D	PG&E owns and maintains its standard post top luminaire, control facility, internal post wiring, standard galvanized steel post (20-foot mounting height or less) and foundation where customer pays for the estimated and installed cost of the post, support arm (if any) and foundation	15,687	15,687	15,687	\$4,861	\$0,206	\$2,176	\$7,243	\$	1,364
9	5 LS-1E	PG&E owns and maintains its standard luminaire, control facility, internal pole wiring, service connection, galvanized steel pole and foundation where the customer has paid to PG&E the estimated installed cost of the pole, support arm and foundation.	36,820	36,820	36,820	\$4,473	\$0,206	\$2,176	\$6,855	\$	3,029
10	6 LS-1F	PG&E owns and maintains a standard luminaire, control facility, support arm, and service connection on its wood pole or post, installed solely for the luminaire.	27,852	27,852	27,852	\$5,527	\$0,206	\$2,176	\$7,909	\$	2,643
11	7 LS-2A	City Owned and Maintained		536,017		\$0,000	\$0,206		\$0,206	\$	1,325
12	8 LS-2B	City Owned and PG&E Maintained		0	0	\$0,000	\$0,206	\$2,176	\$2,382	\$	-
13	9 LS-2C	City Owned and PG&E Maintained		25,724	25,724	\$0,000	\$0,206	\$2,176	\$2,382	\$	735
14	10 OL-1	Outdoor area lighting service where street lighting schedules are not applicable and where PG&E installs, owns, operates and maintains the complete lighting installation on PG&E's existing wood distribution poles or on customer-owned poles acceptable to PG&E installed by the customer on his private property.	21,660	21,660	21,660	\$3,988	\$0,206	\$2,176	\$6,370	\$	1,656
15	CCSF Standard:										
16	11	CCSF Rate Schedule No. 1 (LS-1A HPSV 100W)	16,749	16,749	16,749	\$4,048	\$0,206	\$2,176	\$6,430	\$	1,292
17	12	CCSF Rate Schedule No. 3 (LS-1A HPSV 150W)	198	198	198	\$4,054	\$0,206	\$2,176	\$6,436	\$	15
18	13	CCSF Rate Schedule No. 4E (LS-1E HPSV 100W)	1,009	1,009	1,009	\$4,564	\$0,206	\$2,176	\$6,946	\$	84
19	14	CCSF Rate Schedule No. 4A (LS-1E Mercury Vapor 175W)	8	8	8	\$6,181	\$0,206	\$2,176	\$8,563	\$	1
20	15	CCSF Rate Schedule No. 6 (LS-2B)		24	24	\$0,000	\$0,206	\$2,176	\$2,382	\$	1
21	16	CCSF Rate Schedule No. 7									
22	CCSF Non-Standard										
23	17	CCSF Rate Schedule No. 4A									
24	18	Incandescent 295W	894	894	894	\$5,701	\$0,206	\$2,176	\$8,083	\$	87
25	19	Mercury Vapor 400W	2	2	2	\$5,978	\$0,206	\$2,176	\$8,360	\$	0
26	20	CCSF Rate Schedule No. 5									
27	21	HPSV 100W	54	54	54	\$6,000	\$0,206	\$2,176	\$8,381	\$	5
28	22	Incandescent 405W	132	132	132	\$7,096	\$0,206	\$2,176	\$9,478	\$	15
29	23	CCSF Rate Schedule No. 6A (Chinatown Area) - HSPV 250W	59	59	59	\$7,534	\$0,206	\$2,176	\$74,916	\$	53
30	24	CCSF Rate Schedule No. 9 (Triangle District)									
31	25	HPSV:									
32	26	150W 16,000 LUMENS DUPLEX (1)	193	193	193	\$26,718	\$0,206	\$2,176	\$29,100	\$	67
33	27	150W 16,000 LUMENS DUPLEX (2)	193	193	193	\$0,949	\$0,206	\$2,176	\$3,331	\$	8
34	28	CCSF Subtotal	19,491	19,515	19,515	\$4,579	\$0,206	\$2,176	\$6,961	\$	1,629
35	29	24 Subtotal	226,515	788,280	252,263					\$	19,992
36	30	25 SP-2A1		21			\$0,206		\$0,206	\$	0
37	31	26 Lamp Count	226,515	788,301	252,263						
38	32	27 Annual Revenues (\$000)	\$11,456	\$1,949	\$6,587					\$	19,992

NOMINAL LAMP RATINGS			
AVERAGE			
LAMP	kWhr PER		
WATTS	MONTH	LUMENS	LS-2A
LIGHT EMITTING DIODE (LED) LAMPS			
0.0-5.0	0.9		\$0.315
5.1-10.0	2.6		\$0.521
10.1-15.0	4.3		\$0.727
15.1-20.0	6.0		\$0.933
20.1-25.0	7.7		\$1.139
25.1-30.0	9.4		\$1.344
30.1-35.0	11.1		\$1.550
35.1-40.0	12.8		\$1.756
40.1-45.0	14.5		\$1.962
45.1-50.0	16.2		\$2.168
50.1-55.0	17.9		\$2.374
55.1-60.0	19.6		\$2.580
60.1-65.0	21.4		\$2.798
65.1-70.0	23.1		\$3.004
70.1-75.0	24.8		\$3.210
75.1-80.0	26.5		\$3.415
80.1-85.0	28.2		\$3.621
85.1-90.0	29.9		\$3.827
90.1-95.0	31.6		\$4.033
95.1-100.0	33.3		\$4.239
100.1-105.1	35.0		\$4.445
105.1-110.0	36.7		\$4.651
110.1-115.0	38.4		\$4.857
115.1-120.0	40.1		\$5.062
120.1-125.0	41.9		\$5.280
125.1-130.0	43.6		\$5.486
130.1-135.0	45.3		\$5.692
135.1-140.0	47.0		\$5.898
140.1-145.0	48.7		\$6.104
145.1-150.0	50.4		\$6.310
150.1-155.0	52.1		\$6.516
155.1-160.0	53.8		\$6.722
160.1-165.0	55.5		\$6.928
165.1-170.0	57.2		\$7.133
170.1-175.0	58.9		\$7.339
175.1-180.0	60.6		\$7.545
180.1-185.0	62.4		\$7.763
185.1-190.0	64.1		\$7.969
190.1-195.0	65.8		\$8.175
195.1-200.0	67.5		\$8.381
200.1-205.0	69.2		\$8.587
205.1-210.0	70.9		\$8.793
210.1-215.0	72.6		\$8.999
215.1-220.0	74.3		\$9.204
220.1-225.0	76.0		\$9.410

NOMINAL LAMP RATINGS			
AVERAGE			
LAMP	kWhr PER		
WATTS	MONTH	LUMENS	LS-2A
LIGHT EMITTING DIODE (LED) LAMPS			
225.1-230.0	77.7		\$9.616
230.1-235.0	79.4		\$9.822
235.1-240.0	81.1		\$10.028
240.1-245.0	82.9		\$10.246
245.1-250.0	84.6		\$10.452
250.1-255.0	86.3		\$10.658
255.1-260.0	88.0		\$10.864
260.1-265.0	89.7		\$11.070
265.1-270.0	91.4		\$11.275
270.1-275.0	93.1		\$11.481
275.1-280.0	94.8		\$11.687
280.1-285.0	96.5		\$11.893
285.1-290.0	98.2		\$12.099
290.1-295.0	99.9		\$12.305
295.1-300.0	101.6		\$12.511
300.1-305.0	103.4		\$12.729
305.1-310.0	105.1		\$12.935
310.1-315.0	106.8		\$13.141
315.1-320.0	108.5		\$13.346
320.1-325.0	110.2		\$13.552
325.1-330.0	111.9		\$13.758
330.1-335.0	113.6		\$13.964
335.1-340.0	115.3		\$14.170
340.1-345.0	117.0		\$14.376
345.1-350.0	118.7		\$14.582
350.1-355.0	120.4		\$14.788
355.1-360.0	122.1		\$14.993
360.1-365.0	123.9		\$15.211
365.1-370.0	125.6		\$15.417
370.1-375.0	127.3		\$15.623
375.1-380.0	129.0		\$15.829
380.1-385.0	130.7		\$16.035
385.1-390.0	132.4		\$16.241
390.1-395.0	134.1		\$16.447
395.1-400.0	135.8		\$16.653

Attachment 3

NETWORK CONTROLLED DIMMABLE STREETLIGHT PILOT PROGRAM

Preamble

The Streetlight Settling Parties' intent is to explore the usage reduction potential of new streetlight control devices to be demonstrated in certain local governmental jurisdictions, and to find a viable means of reflecting, during this rate case cycle, any related energy savings in a timely, mutually workable way that:

1. Starts to capture additional energy savings as soon as possible after dimmable lights are installed
2. Ensures that self-reported usage data is accurate, revenue quality data
3. Ensures that parasitic loss from the equipment is accounted for. Other non-streetlight or parasitic load will continue to be under separate agreements in accordance with LS-2.
4. Minimize pilot costs, including through eligibility limits, standardized data transfer from loggers, and other conditions of service.
5. Works within interim work-schedule constraints on PG&E's IT/Billing System, as well as those of participating cities.
6. Drive systems standardization for these emerging technologies
7. Provides data and experience from early adopters under the pilot that will allow all participants to work to define and evaluate the viability of longer-term approaches to dimmable streetlight rates.

Interim Billing Pilot Option

Upon finalization of a Settlement Agreement by the Settling Parties, PG&E will, as soon as possible, file an Advice Letter seeking CPUC authorization for a variance to the current LS-2 schedule to create a pilot program, establishing a "Special Contract for Unmetered Service" with the following features:

1. Eligibility

A limited number participants (no more than five) may participate in the pilot, subject to the following eligibility requirements:

- a. In consideration of their significant efforts and expenditures of resources to develop this pilot, and to move forward with network controlled streetlights, the Cities of San Jose and Oakland will receive the first two reservations to participate, subject to their meeting all of the other eligibility requirements below. The three remaining slots shall be available to all other eligible potential participants as of the date the CPUC approves this pilot program.
- b. A jurisdiction may secure a "reservation" for one of five slots for potential participation in the pilot program as follows:

- i. During its process of preparing and issuing an RFP, each potential participant, other than San Jose or Oakland, must contact PG&E to confirm whether there are still any of the remaining three of the total of five pilot reservation slots potentially available.
- ii. Once that potential participant receives a proposal or proposals in response to its RFP or RFB that would enable it to purchase equipment that would result in installation by December 31, 2012 of network control systems for at least 300 networked streetlights (or the difference between the number of networked streetlights previously installed and 300), that potential participant shall provide written notice to PG&E attaching the response(s) to its RFP or RFB. PG&E shall review the responses to RFP or RFB to evaluate whether they have met the requirements set forth in this section (including project installation timeline and minimum number of networked streetlights), and confirm in writing within 14 calendar days of receipt that that potential participant has qualified to reserve one of the 5 total pilot slots. Reservations will be issued on a first-come-first-served basis. If a potential participant satisfies all of the above requirements, but its notice is received by PG&E after five slots have been reserved by other jurisdictions, it shall be placed on the waiting list in the order received and PG&E shall notify it that it has qualified for the waiting list and inform it of its waiting list number.
- iii. Each potential participant who has secured a reservation must, within 90 days of receiving PG&E's notification of reservation, provide PG&E with written notice that it has executed a contract with a vendor to install equipment that would result in at least 300 networked streetlights (or the difference between the number of networked streetlights previously installed and 300) by December 31, 2012, and attach to such notice a copy of that contract. PG&E shall, within 14 calendar days of receipt of such contract, review it and provide notice to the potential participant as to whether it has qualified as a pilot participant.
- iv. If the potential participant does **not** fully execute a contract within 90 days of receiving PG&E's notification of its reservation in the pilot program, or if PG&E determines that its contract could not result in installation of equipment that would result in at least 300 networked streetlights (or the difference between the number of networked streetlights previously installed and 300) by December 31, 2012, that potential participant shall lose its reservation and be placed on the end of the pilot waiting list, and PG&E would invite the next potential participant who can meet these requirements to complete the reservation process.

- v. Each participant that has received a slot in the pilot must still meet all other eligibility requirements set forth in Section 1. If at any time during the pilot PG&E determines that a participant does not meet all eligibility requirements, PG&E shall provide a notice of ineligibility to that participant specifying each and every requirement it has been found not to meet. If it cannot document that it has cured and now meets each and every such eligibility requirement within 60 days of such notice, it shall be removed from the pilot program.
 - vi. Once a potential participant has been provided notice that it has qualified for a slot as one of the total of no more than 5 pilot participants, even if that participant later becomes ineligible or opts out of further participation, its slot in the pilot cannot later be filled by any other potential participant from the waiting list.
 - vii. The enrolled participants in the pilot program as of December 31, 2012 shall be the only participants eligible for the pilot, and there shall be no further admittances to the program from the waiting list.
- c. Each participant who has qualified for one of the five pilot slots must have installed equipment that equips at least 300 public streetlights with a working remote control/monitoring system before December 31, 2012; and
 - d. Each participant's and potential participant's control/monitoring system must include revenue-grade data loggers capable of meeting Rule 17 and Direct Access (DASMMD) standards for operational accuracy; and
 - e. Each participant and potential participant must inform PG&E in writing how many new lights it plans to include in the pilot as it makes that determination. Participants will provide more specific information on the streetlights as they are installed, including, but not limited to: the model and manufacturer of the light and monitor/control system as well as the energy consumption of the monitor/control device (*See also*, Section 2 below); and
 - f. All other non-streetlight or parasitic load must be accounted for and billed under separate agreements; and
 - g. Each control device must record its own usage, or, per agreement, for total device consumption greater than one watt, the participating customer and PG&E may determine the estimated usage of each device and agree to a fixed adjustment in advance; and
 - h. To be eligible to for participation in the pilot the potential participant must also meet the following initial technology qualifications:

- i. Otherwise eligible customers that have not issued an RFP before this agreement was reached, must first, as part of their RFP process:
 - a) Arrange for each network control system vendor finalist to do a proof of concept demonstration of its network control technology with PG&E, and
 - b) Produce and provide to PG&E before selection of final vendor:
 - A test export of usage data that meets PG&E's data requirement specifications as set forth below. PG&E will consider utilizing industry standard communications protocols, such as EDI or IEC-CIM, after conclusion of the pilot and when a new rate schedule is implemented; and
 - Vendor documentation substantiating network control system data logger accuracy within +/- 2 percent, consistent with Rule 17 and the Direct Access Standards (DASMMD); and
 - Documentation showing that there will be a vendor/manufacture warranty or other enforceable contractual provision that ensures the network control system would be judged to have failed and be eligible for replacement if it does not perform to within +/- 2% throughout the pilot period.
 - c) Otherwise eligible customers that have completed their purchasing process before this settlement agreement was executed shall work with PG&E and shall ensure that the above technical qualification provisions do not pose a barrier to participation in the pilot.
 - d) The provision of information to PG&E under this initial technology qualification section for the pilot program does not insert PG&E as an evaluator of finalists for the RFP itself, rather if the potential participant, who is still solely responsible for its own RFP process, selects a vendor that does not meet the above technical qualification provisions, it does so at its own risk of non-eligibility for the pilot program.

2. Notification to PG&E of Controls Deployment by Eligible Participating Customers

- a. Eligible customers shall have 5 calendar days from the installation date of any network controlled streetlight device(s) in the field to notify PG&E of the

installation. Data files supplying this information are to follow a format to be agreed upon between PG&E and the eligible customer. Data files will be emailed to a dedicated PG&E mailbox to be specified by PG&E. (See pilot workflow timeline in Appendix B hereto, and see footnote 4)

- b. For purposes of calculating the bill adjustment, installations received by PG&E with dates less than 5 calendar days from the next billing cycle end date, will not be processed and adjusted in the current month's billing cycle, but will be retroactively adjusted from the install date forward in the following bill cycle.
- c. Installations provided to PG&E with dates greater than 5 calendar days since install shall received a bill adjustment for the billing cycle in which they are received, and will include retroactively applied adjustments back to the date of installation.

3. Account Setup

All controlled streetlights will be grouped in a single Account and multiple Service Agreements for bill adjustment on an aggregated basis. Individual Service Agreements will be created for different lighting technologies and fixture wattages. The Service Agreements and Account will be assigned to a billing cycle according to Appendix A. For eligible customers selected to participate in the pilot program, the effective date for the assignment of a controlled light to the new Account and Service Agreements will be the later of the date of the control device installation as reported by the customer, or the date the Account is established. With the exception of the first participant in the pilot program (*see* 1.a above), account set-up shall commence within a reasonable time after PG&E has verified that the customer has qualified for participation and determined that the eligible customer will receive a slot in the pilot program. To facilitate process and procedure development, the new Account and associated Service Agreements for the first participant in the pilot program will be established as soon as possible after approval of this settlement proposal, and controlled lights will be assigned to Service Agreements associated with the Account as soon as practicable after PG&E has received notification of controls deployment.

4. Participant Reporting

Within a customer-specific PG&E-specified time schedule relative to the customer's pilot billing schedule (i.e. within three calendar days of the end of each monthly billing cycle hereto), each and every month during the pilot program³ each participating customer must report to PG&E the information from the data logger showing the daily energy consumed by each participating streetlight fixture operating under the control and monitoring

³ See Appendix B for pilot workflow timeline showing the various milestone deadlines within each bi-monthly adjustment cycle, including participant reporting of usage data every month (not only in the even numbered "adjustment months" but also in the odd-numbered non adjustment months)

system (both by streetlight as well as aggregated), **and other data meeting the requirements/format specified in Appendix A hereto:**

- a. Customer reports energy consumed by each control device, adjustment made when control device's energy use exceeds 1.0 Watts
- b. Equipment Changes: For lights included in the pilot, the participating customer will report all changes to lighting fixtures (fixtures added or removed, or a change in fixture size or type) within 5 calendar days of installation to the PG&E mailbox to be specified by PG&E for data files (See section 2 above). The participating customer will use the reconciliation spreadsheet provided by PG&E to report all lighting changes. (See Appendix A hereto) If the participant requires that the network controlled data logger be removed from a streetlight, the participant must notify PG&E within 5 calendar days of removal. PG&E will then move this streetlight off the pilot account and back onto regular service under Schedule LS-2.

5. PG&E Monthly Validation

Upon receipt of the participating customer's monthly data, PG&E will promptly perform a set of validations on the submitted data to ensure completeness and accuracy, and, if deemed usable, will utilize that data to create a credit/adjustment to the standard LS-2 tariff charges to be included in the customer's bill on a bi-monthly basis (as set forth in Section 6 below).

- a. If data is missing, inaccurate, or otherwise found by PG&E to be unusable for this purpose (see Section 8 below), PG&E will promptly communicate that to the submitting customer and request re-submittal, and may take other action as specified below.
- b. If the customer has timely submitted daily cumulative usage measurements from its network controlled data loggers, that PG&E has found to be accurate and usable for this purpose, PG&E will calculate the total kilowatt hour usage from the first day of the billing cycle through the last day of the billing cycle by subtraction (*See* Section 6.)

6. Bill

PG&E will provide participating customers with a credit/adjustment, calculated from the validated energy measurements provided by the customer's Streetlight Control and Monitoring system for that month, as an adjustment to the customer's monthly bill under the applicable LS 2 tariff energy charges. Application of the adjustment will be made every other month (bimonthly), with a monthly report to also be provided by PG&E itemizing the basis for adjustment. The adjustment will appear on the bill as a lump sum adjustment to the

otherwise applicable LS-2 charges. Participating customers may receive adjustments starting with the date of installation or the date of onset of the pilot whichever date is later.

- a. PG&E will sum the validated daily usage values in watt hours or kilowatt hours, submitted by the customer, from the first day of the billing cycle through the last day of the two-month billing adjustment cycle to establish total usage for the period.
- b. Using the validated total kilowatt hour values, for each individual streetlight, PG&E will calculate an adjustment equal to the product of the applicable LS-2 energy charge multiplied by the difference between the standard LS-2 usage (all night) and the reported usage (per dimming).
- c. The cumulative calculated adjustment for the two prior months will be displayed on the bill every other month at both the individual service agreement level (for the number of lights contained on that service agreement) and at the account level for all lights contained on that account, both of which will be single, aggregated dollar values for the combined number of control equipped lights for which the participating customer has submitted validated data.
- d. Participating customers will then pay the amount equal to the overall LS-2 charges after the adjustment reflecting validated controls operation data.
- e. In addition to and shortly after PG&E issues the billing statement, PG&E shall also provide participating customers with a bi-monthly electronic report detailing, for each individual streetlight, the validated measured kilowatt hour usage, and the amount of the adjustment calculated, for each separate billing cycle month.
- f. For any light with data receipt failure or other data issue that prevents recording or reporting of accurate usage information for a reporting period (per Section 9), the base monthly LS-2 tariff rate will be applied without adjustment. If missing data is subsequently made available within the period specified in Rule 17.1, billing adjustments will be made based on reported data.
- g. Where a change in electric rates occurs within a reporting period, daily load information will be used to calculate adjustments based on the effective date of the rate change.
- h. The cumulative calculated adjustment will be displayed on the bill every other month at both the individual service agreement level (for the number of lights contained on that service agreement) and at the account level for all lights

contained on that account, both of which will be single, aggregated dollar values for the combined number of control equipped lights for which the participant has submitted validated data. The bi-monthly adjustments will be provided to the customer on the bills that nominally end in the following, “even numbered” months:

- i. August
- ii October
- iii December
- iv February
- v April
- vi June

For the other, “odd-numbered” months (July, September, November, January, March and May) the participant will be billed under Schedule LS-2 and shall timely pay its bill without a contemporaneous adjustment for any usage reductions due to streetlight dimming through the network controller.

7. Audit

During the pilot’s second year, PG&E will conduct an audit to determine whether actual, reported usage from the network control system’s data loggers is accurate. Each participant will cooperate with PG&E, including but not limited to, providing data and information requested by PG&E (such as any changes in operating schedule), and providing access to and the ability to test the lights, circuitry and loggers and other equipment used for the operation of the participating customer’s program, including information from suppliers of equipment and/or services for the participant’s program. PG&E shall provide the participant with no less than 48 hours’ advance notice of any intended site visit. The site visit will be scheduled during the standard work week, between 8 AM and 2 PM. At its own expense, the Customer may attend and observe the field audit.

a. All participants will meet after audit to: evaluate the first year of the pilot program, discuss proposing any mid-term adjustments, and begin to discuss potential longer-term billing solutions (cost, structure, etc.), if data logger output has been found to be consistent with both Rule 17 and Direct Access standards (DASMMD). Audit requirements and basic outline are included in Attachment 1.

b. At the sole discretion of the participating customer, the participant may also test data logger devices to ensure proper reporting of energy consumption (e.g. whether it is recording data to within +/- 2% accuracy). The participant will also monitor its software reports for anomalies (e.g. system alarm and error messages). If any of the participant’s tests or monitoring ever reveals any such anomalies, within 5 days the participant shall report such findings to PG&E.

8. Conditions of Service

a. Missing, Inaccurate or Otherwise Unusable Data

- i. If during monthly operation of the pilot PG&E determines that more than 5% of the expected data logger readings of the electrical usage are either missing, inaccurate, or otherwise unusable, PG&E will alert the participating customer of the specific streetlights and records involved. If the nature of the problem is data-related, such participating customer will have 5 days to provide the data in question or demonstrate that the problem is not on the customer side. If the nature of the problem is hardware related, PG&E will afford such participating customer two weeks to test its equipment (control and luminaire) and review its maintenance records. The participant shall provide PG&E with the results of its test and other efforts, in writing. Until any such data-related or hardware-related problems are cured, PG&E shall bill the problem service accounts at the standard LS-2 charges and fixed kilowatt hour amounts, without adjustment. When the customer is able to demonstrate that the problem service accounts have been cured, PG&E will once again adjust those bills in accordance with the data logger readings. If the customer is able to demonstrate to PG&E's satisfaction that the problem relates solely to PG&E's processing of participant data, PG&E will adjust the participating customer's bill in accordance with the participant's usage reports when the next bi-monthly bill adjustment is made.
- ii. If more than 5% of the expected data logger readings continue to be missing, inaccurate or otherwise unusable for any 4 months or greater period (either consecutive or not) during any 12 month period within the pilot's term, PG&E reserves the right in its sole discretion to suspend pilot participation for that participant. The participant may seek reinstatement through demonstration of resolution of these deficiencies.
- iii. If during monthly operation of the pilot PG&E determines that less than 5% of the expected data logger readings of the electrical usage are either missing, inaccurate, or otherwise unusable, PG&E will notify the customer that they have 5 days to provide the data in question or demonstrate that the problem is not on the customer side. During this period PG&E will delay issuing the customer's adjusted bill with the expectation of data submission. If PG&E has not received the requested data within this 5-day period, PG&E will bill the customer at the standard LS-2 charges and fixed kilowatt hour amounts. If the data is provided after this bill, PG&E will credit the customer in a subsequent bill. If the participant is able to demonstrate to PG&E's satisfaction that that the problem relates solely to PG&E's processing of the participant's data, PG&E will make the adjustment for that participant on the basis of logger readings supplied by the participating customer.

- iv. Should the audit reveal that, based on PG&E's actual administrative costs during the audit period, the projected total pilot costs are likely to exceed \$150,000 before the pilot concludes, PG&E and the participants will reach an agreement on a cost-sharing arrangement relating to the expected administrative costs per month to participate during the remainder of the pilot. If the parties cannot agree on mutually acceptable terms for cost-sharing, the participating customers have the option of withdrawing from the pilot, and PG&E has the option of suspending participation for such participants.
- v. Within a reasonable time after completion of the audit, PG&E will provide the pilot participants with a status report on PG&E's actual costs for the pilot to date and its projected costs to administer the pilot for the remainder of its term. Thereafter, PG&E shall provide to all participants, upon the request of any participant, a similar status report on total pilot costs, up to a maximum of one such report per quarter.
- vi. In circumstances where pilot participants pay PG&E's administrative costs after PG&E total expenditures has reached \$150,000, PG&E will submit to each participant a separate statement reflecting the agreed monthly administrative costs for that participant's continued participation in the pilot. As to any participant that does not pay such costs in a timely manner, PG&E may, in its sole discretion, suspend participation for any participant and bill without adjustment under LS-2 during that period. If and when the participant later pays such costs, PG&E shall resume making adjustments for the next bi-monthly adjustment period.
- vii. Missing, inaccurate and unusable data on electrical consumption shall be deemed to include:

Missing: The participant did not deliver expected read(s) for a data logger in service for that streetlight.

Inaccurate: The read delivered by the participant yielded a usage value outside anticipated tolerance on high / low validation

Unusable: The read delivered by the participant was not usable in PG&E's calculation process (e.g., expected 5 dial read received 4 dial, etc.)

- b. **Audit Results:** If the results of PG&E's audit of the data loggers or readings within the customer's system indicate that the data previously used to credit the participant was inaccurate or otherwise unusable, PG&E reserves the right to suspend the pilot for that participant, and bill that participant at the standard LS-2 charges and fixed kilowatt hour amounts, including retroactive billing, for any period previously credited up to 3 years consistent with CPUC

rules. PG&E will meet and confer with the participant before taking this action. If the participant is able to demonstrate, to the satisfaction of PG&E, that the problem with the data logger has been corrected, and the participant wishes to resume participation in the pilot, the participant shall be reinstated.

- c. **Overall Term of Pilot Agreement:** Unless otherwise terminated or suspended by operation of other provisions, the agreements under pilot program shall expire at the end of three years or when the CPUC issues a final decision in Phase 2 of PG&E's 2014 General Rate Case, whichever comes later.

8. **Request for CPUC Adoption**

PG&E will prepare, circulate and, once signed, file a non-precedential Settlement Agreement under Rule 12.1 which would resolve all Streetlight issues in PG&E's 2011 GRC Phase 2, and would reference support for approval of the Advice Letter and prompt implementation of the pilot program's special contract for unmetered service under LS-2 for participating cities. Time is of the essence for implementation of the pilot program given that at least one participating city, San Jose, is expected to begin installation of a network controlled system in or before August 2011. Therefore, the parties to this Settlement may request that the CPUC expedite the effective date of the Advice Letter implementing this network controlled streetlight pilot program, and if the CPUC believes it to be necessary, expediting approval of this settlement. All Settling Parties, including the Cities of San Jose and Oakland, agree to support CPUC approval of the Motion for Adoption of this Settlement as well as the Advice Letter agreed to herein for prompt implementation of the pilot program.

10. **Participants' Option to Opt Out**

If, for any reason, a participant determines that it is not in its interest to continue its participation in the pilot, it retains the right to opt out subject to the following conditions. Before it may opt out, a participant must first provide written notice to PG&E of its decision to opt out, and PG&E shall retain all of the participants' network controlled streetlights to their existing non-controlled light by lamp type and bill them under Schedule LS-2 in accordance with PG&E Rule 12 provisions for rate changes (i.e., effective the next bill cycle). Once a participant opts out of the pilot, it may not return to service under the pilot for a year, also in accordance with Rule 12. Even after opting out, the pilot participant shall provide PG&E with requested documentation reasonably necessary for PG&E to conduct an audit and evaluate the pilot.

**APPENDIX A – REQUIREMENTS
PG&E’s DATA, SCHEDULING & AUDIT REQUIREMENTS for PILOT**

I. DATA SUBMITTAL REQUIREMENTS

To be eligible for streetlight control billing credits, participating cities must submit monthly data files to PG&E (based on Detailed Schedule for Data Reporting discussed in the term sheet above as well as set forth below) that each contain:

A. Mandatory Data Fields for Monthly Reporting

(i) Base Data Fields from PG&E Records -- Provided Initially by PG&E but Included with Each Month Report by Customer

1. PG&E Account ID: Provided for each streetlight data row
2. PG&E Service Agreement ID (SAID): Provided for each streetlight data row
3. PG&E Service Point ID: Provided for each streetlight data row
4. Streetlight ID: The current PG&E or Agency assigned pole number identifying streetlight(s) with controls matching Badge Number included in PG&E billing record, required condition of LS-2 service.

(ii) Data Supplied with Each Monthly Report by Customer:

1. Install Date: The date the streetlight control was installed.
2. Wattage Rating of Control: The total wattage of installed control and monitoring equipment. <Required for energy use adjustment if control does not monitor own use and if control uses more than 1.0 Watt. Will be disregarded if control tests show less than 1 watt or if control reports its own use.>
3. Lamp Wattage and Type: The type of fixture installed and wattage of the installed lamp (PG&E will adjust for ballast wattage if applicable, does not apply to LED or Induction).
4. Individual Day: To facilitate the most accurate possible adjustment for the customer for the measurement period, and to avoid proration issues if a rate change occurs during the quarter, data for each lamp is to be reported for each individual day within the reporting period.
5. Read Date/Time: Date (MMDDYYYY) and time (HHMMSS) of each daily read for the reporting period.
6. Period Read: Native, unaltered cumulative watt hour reading from control system for the measurement period; or native, unaltered usage value for the measurement period and all succeeding usage values for entire measurement period.
7. Equipment Changes: Agency will report any change to equipment during the period, including lamp size, fixture, or monitoring and control changes, and all information included in items 1 - 6 above.

B. PG&E Manual Adjustment of Billing -- Monthly

- Per detailed schedule in Section II, PG&E will calculate elapsed KWH usage for measurement period, and apply tariff charges to produce adjustment (may increase bill during winter months).
- Where report data can't be validated due to data errors, or other technical issues, the base monthly tariff billing per lamp will be billed. If missing data is subsequently made available within the period specified in Rule 17.1, billing adjustments will be made based on reported data.

Additional Required Information

1. Group or Schedule Code: If participating customer operated multiple streetlights on similar dimming schedules, providing intended operating schedule assignment in group code form for each streetlight enhances audit/data quality assurance, for verification of actual operation/use to Agency's intended use.
2. Other System Collected Data: Upon request and assuming vendor system can provide it, PG&E is entitled to also receive Power (wattage), calculated burn hours, amperage, and voltage for each light, as well as certain system generated status, alarm, fault, or exception telemetry that would assist PG&E in verifying data accuracy.

II. Detailed Schedule for Data Reporting (for Monthly Billing Adjustments)

1. PG&E and the customer will agree on a monthly billing cycle for the new Service Agreement and Account for lights included in this pilot program. Processes will be implemented so that billing for the new Service Agreement and account will be made based on the following schedule for each billing cycle: PG&E and the customer will agree on a monthly "Bill Cycle." The Bill Cycle will be established, corresponding to PG&E metered account bill cycles, where the period covered by the cycle will be approximately 30 days, and may vary from 27 to 33 days.
2. Following the close of the "Billing Window" (see 4 below) of the prior month Bill Cycle, PG&E will place a "hold" on the account so that a standard automatic calculation of billing based on standard LS-2 lamp rates will not be performed.
3. For inclusion of newly retrofit lamps in the adjustment for the current "Bill Cycle" Customer must report changes by close of business on the fifth (5th) calendar day prior to the last day of the Bill Cycle. (For example, if the last day of the Bill Cycle is April 19th, the last day for the customer to be able to report a change is April 15th.)
4. The "Billing Window" for the Account and Service Agreement will be 10 days, and will start on the closing day of the Bill Cycle.
5. Customer must report data from its control and monitoring system to PG&E within 1 day of the close of the Bill Cycle.
6. PG&E will perform data validation processing and adjustment calculations, and provide the customer with notification of missing or unusable data (if any) within the next 5 days. The close of business on the 5th day following submission of customer data (the sixth day of the Billing Window) is the deadline for any adjustments to data, and standard LS-2 energy charges will apply for any light for which usable data is not received.
7. One day prior to the close of the Billing Window, PG&E will release the "hold" placed on the account so that billing may proceed.
8. The bill for the Account and Service Agreement included in the pilot program will be produced and mailed within 2-3 days of the close of the Billing Window.

III. AUDIT REQUIREMENTS

During pilot's second year, PG&E will audit data logging/reporting accuracy, including but not limited to the following:

1. Customer will provide appropriate vendor documentation, such as specification sheets, applicable certification testing and compliance documentation, 3rd party evaluations, etc., for each vendor technology. This will also include any data security studies and documentation detailing system data integrity features and performance.
2. PG&E will require a small number (to be determined and agreed upon later) of samples of each vendor control and monitoring technology for testing by PG&E.

3. Customer will provide, at PG&E's request, periodic on-site access to vendor system during the audit period to verify that system-resident readings for selected streetlight sample agrees with submitted readings.
4. PG&E may field-verify a sample of installed fixtures during the audit period to ensure a) fixture type and wattage agrees with the Customer's data file, and b) existence of control/monitoring devices there.
5. PG&E shall evaluate whether the network control system's data loggers meet utility revenue quality standards under both Rule 17 and the Direct Access standards (DASMMD).

After audit is complete, all participants will meet to:

- Evaluate the first year of the pilot program
- Discuss proposing any mid-term adjustments to the pilot, and
- Begin to discuss potential longer-term billing solutions, the nature of which will depend on whether the data loggers have been found to meet both Rule 17 and Direct Access standards (DASMMD).

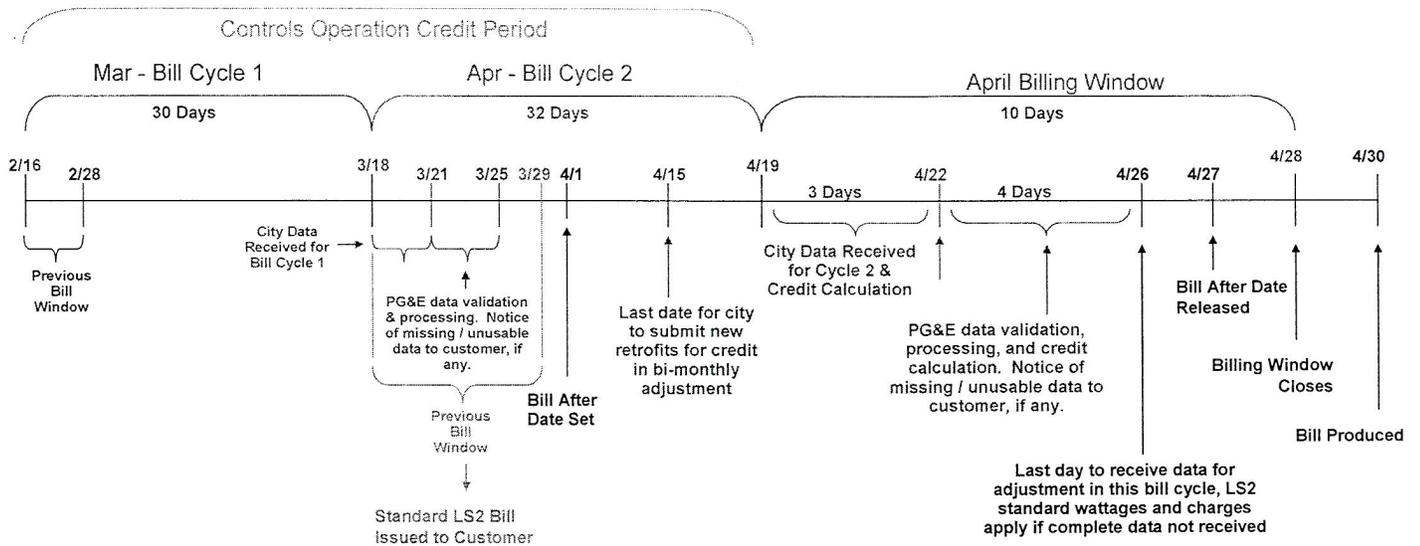
APPENDIX B

Network Controlled Dimmable Streetlight Pilot Timeline



Bi-Monthly Processing Timeline for Controls Credit

Example: February to March 2011 Controls Operation, with Retroactive Credit Applied in April 2011 Bill Statement.



(END OF APPENDIX D)