

File No. 130224

Committee Item No. 3

Board Item No. 2

## COMMITTEE/BOARD OF SUPERVISORS

### AGENDA PACKET CONTENTS LIST

Committee: Budget and Finance Sub-Committee

Date: 04/24/2013

Board of Supervisors Meeting

Date: May 14, 2013

#### Cmte Board

<input type="checkbox"/>	<input type="checkbox"/>	Motion
<input type="checkbox"/>	<input type="checkbox"/>	Resolution
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Ordinance
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Legislative Digest
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Budget and Legislative Analyst Report
<input type="checkbox"/>	<input type="checkbox"/>	Legislative Analyst Report
<input type="checkbox"/>	<input type="checkbox"/>	Youth Commission Report
<input type="checkbox"/>	<input type="checkbox"/>	Introduction Form (for hearings)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Department/Agency Cover Letter and/or Report
<input type="checkbox"/>	<input type="checkbox"/>	MOU
<input type="checkbox"/>	<input type="checkbox"/>	Grant Information Form
<input type="checkbox"/>	<input type="checkbox"/>	Grant Budget
<input type="checkbox"/>	<input type="checkbox"/>	Subcontract Budget
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Contract/Agreement
<input type="checkbox"/>	<input type="checkbox"/>	Form 126 – Ethics Commission
<input type="checkbox"/>	<input type="checkbox"/>	Award Letter
<input type="checkbox"/>	<input type="checkbox"/>	Application
<input type="checkbox"/>	<input type="checkbox"/>	Public Correspondence

#### OTHER

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Completed by: Victor Young

Date: April 19, 2013

Completed by: Victor Young

Date: 4/26/13

1 [Agreement - Pacific Gas and Electric Company - University Mound Reservoir Project -  
2 \$86,765.18]

3 Ordinance authorizing the Public Utilities Commission General Manager to enter into a  
4 long-term interconnection agreement with Pacific Gas and Electric Company to  
5 connect a small renewable energy project at University Mound Reservoir to the electric  
6 system; and waiving specific requirements of the Administrative Code and the  
7 Environment Code in the best interests of the City for an amount of \$86,765.18 with a  
8 duration of ten years and automatic renewal every year thereafter.

9 NOTE: Additions are *single-underline italics Times New Roman*;  
10 deletions are ~~*strike-through italics Times New Roman*~~.  
11 Board amendment additions are double-underlined;  
12 Board amendment deletions are ~~strikethrough-normal~~.

13 Be it ordained by the People of the City and County of San Francisco:

14 Section 1. FINDINGS. The Board of Supervisors of the City and County of San  
15 Francisco hereby finds that:

16 (a) The University Mound Project (the Project) is a small renewable hydroelectric  
17 project located in the Portola neighborhood, at Woolsey and Bowdoin Streets, adjacent to the  
18 existing McLaren Pumping Plant, that will produce electricity derived solely from excess  
19 hydraulic energy in the water that is already flowing in the San Francisco Public Utilities  
20 Commission's (SFPUC) water pipelines that deliver water from Crystal Springs Reservoir to  
21 the University Mound Reservoir.

22 (b) The Project will contribute in a cost-effective way to the City's renewable energy  
23 portfolio, will generate low cost electricity that is greenhouse gas free, and qualifies as a  
24 renewable electricity resource under state law.

25 Supervisor Campos  
BOARD OF SUPERVISORS

1 (c) To connect the Project to the electric grid and ensure the power can be used by  
2 other City facilities, the SFPUC must enter into a Small Generator Interconnection Agreement  
3 (Agreement) with Pacific Gas and Electric Company (PG&E), based on a PG&E form  
4 agreement approved by the Federal Energy Regulatory Commission (FERC).

5 (d) On March 26, 2012, the San Francisco Planning Department determined the  
6 Project was categorically exempt from environmental review under the California  
7 Environmental Quality Act. The City has also received an exemption for the Project from  
8 stringent licensing requirements from FERC, the agency with exclusive lead jurisdiction over  
9 hydroelectricity.

10 (e) The Board of Supervisors has previously approved similar interconnection  
11 agreements for renewable energy projects at Alvarado Elementary School (Resolution No.  
12 374-12), Chinatown Public Health Center and MUNI Woods Motor Coach Facility (Resolution  
13 No. 441-11), Moscone Center, Southeast Treatment Plant, Pier 96, Chinatown Public Library,  
14 Maxine Hall Medical Center, City Distribution Division Warehouse, North Point Treatment  
15 Plant, and San Francisco International Airport Terminal 3 (Resolution No. 554-07).

16 (f) The SFPUC approved the Agreement on February 26, 2013, in Resolution 13-  
17 0037, on file with the Clerk of the Board in File No. 130224.

18 The Agreement

19 (g) The Agreement is based on a form interconnection agreement approved by  
20 FERC, and only limited changes to that form may be made. The Agreement lacks certain  
21 required City contract clauses; for this reason, these provisions must be waived by the Board  
22 in order to enter the agreement. However, Section 12.1 of the Agreement provides that  
23 PG&E is subject to valid laws, orders, rules and regulations of duly constituted authorities  
24 having jurisdiction, thereby incorporating applicable San Francisco Administrative Code  
25

1 requirements.

2 (h) The Agreement includes non-standard hold-harmless, indemnity and insurance  
3 provisions, which SFPUC's Risk Manager has reviewed and approved.

4 (i) The term of the Agreement is ten years, after which it is subject to automatic  
5 renewal every year. SFPUC may terminate the agreement at any time with twenty days  
6 written notice. Section 9.118 of the San Francisco Charter requires approval by the Board of  
7 Supervisors for agreements with a term of ten years or more. This approval is reasonable  
8 because it is in the City's interest to ensure that this renewable energy will be available for  
9 City facilities over the long-term.

10 (j) The Agreement does not provide for incidental and consequential  
11 damages in the event of a breach, but waiver of this provision is in the best interests of the  
12 City because the project is a small hydroelectric project which will utilize safe and reliable  
13 protective equipment to protect PG&E's distribution lines.

14 (k) The Agreement provides for a maximum guaranteed cost of \$86,765 which  
15 includes \$49,500 for network upgrades, and \$37,265.18 for a one-time charge to cover  
16 PG&E's long term cost of ownership of said upgrades.

17 Section 2. WAIVERS. For the purpose of the Agreement, the Board of Supervisors  
18 finds that it is reasonable and in the public interest to waive the following San Francisco  
19 Codes:

20 (a) San Francisco Administrative Code Section 21.35, which requires every  
21 contract to include a statement regarding liability of claimants for submitting false claims to the  
22 City;

23 (b) San Francisco Administrative Code Section 21.19, which bars automatic  
24 renewal provisions in City contracts;

1 (c) San Francisco Administrative Code Chapter 12O, which requires City  
2 contractors to provide Earned Income Credit Information to their employees;

3 (d) San Francisco Administrative Code Chapter 83, the First Source Hiring  
4 Program;

5 (e) San Francisco Administrative Code Chapter 12F - the MacBride Principles;

6 (f) San Francisco Environment Code Chapter 5 - the San Francisco Resource  
7 Conservation Ordinance;

8 ~~(g) San Francisco Administrative Code, Chapter 12G - Political Activity with City~~  
9 ~~Funds for Political Activity by Recipients of City Contracts, Grants, and Loans;~~

10 ~~(h) San Francisco Campaign and Governmental Conduct Code Section 1.126 -~~  
11 ~~Contribution Limits Contractors Doing Business with the City.~~

12 Section 3. AUTHORIZATION:

13 (a) Pursuant to Section 9.118 of the San Francisco Charter, which requires  
14 approval by the Board of Supervisors for agreements with a term of ten years or more, the  
15 Board of Supervisors authorizes the SFPUC General Manager to execute the Agreement with  
16 PG&E in substantially the form on file with the Clerk of the Board of Supervisors, in File No.  
17 130224, with such changes or modifications, including without limitation modifications to the  
18 exhibits, as may be acceptable to the General Manager and the City Attorney, and which do  
19 not materially increase the obligations and liabilities of the City

20 ///

21 ///

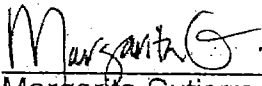
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1 (b) Upon execution of the agreement with PG&E, the General Manager of the  
2 SFPUC shall transmit a copy of the Agreement to the Clerk of the Board of Supervisors, for  
3 inclusion in File No. 130224.  
4

5  
6 APPROVED AS TO FORM:  
DENNIS J. HERRERA, City Attorney

7 By:   
8 Margarita Gutierrez  
9 Deputy City Attorney

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AMENDED IN COMMITTEE

4/24/13

FILE NO. 130224

LEGISLATIVE DIGEST

[Agreement - Pacific Gas and Electric Company - University Mound Reservoir Project - \$86,765.18]

Ordinance authorizing the Public Utilities Commission General Manager to enter into a long-term interconnection agreement with Pacific Gas and Electric Company to connect a small renewable energy project at University Mound Reservoir to the electric system; and waiving specific requirements of the Administrative Code and the Environment Code in the best interests of the City for an amount of \$86,765.18 with a duration of ten years and automatic renewal every year thereafter.

Amendments to Current Law

None.

Background Information

The University Mound Project (the Project) is a small renewable hydroelectric project located in the Portola neighborhood, at Woolsey and Bowdoin Streets, adjacent to the existing McLaren Pumping Plant. The Project will produce electricity using the water that is already flowing in the San Francisco Public Utilities Commission's (SFPUC) water pipelines that deliver water from Crystal Springs Reservoir to the University Mound Reservoir. The Project must be connected to the electric grid to ensure the power can be used by other City facilities. To do this, the SFPUC must enter into a Small Generator Interconnection Agreement (Agreement) with Pacific Gas and Electric Company (PG&E). The agreement is based on a PG&E form agreement approved by the Federal Energy Regulatory Commission (FERC). Because the Agreement is a form interconnection agreement approved by FERC, only limited changes to that form may be made.

The Board of Supervisors has previously approved similar interconnection agreements for renewable energy projects at Alvarado Elementary School (Resolution No. 374-12), Chinatown Public Health Center and MUNI Woods Motor Coach Facility (Resolution No. 441-11), Moscone Center, Southeast Treatment Plant, Pier 96, Chinatown Public Library, Maxine Hall Medical Center, City Distribution Division Warehouse, North Point Treatment Plant, and San Francisco International Airport Terminal 3 (Resolution No. 554-07).

Approvals and Waivers Required

Section 9.118 of the San Francisco Charter requires approval by the Board of Supervisors for agreements with a term of ten years or more. The initial term of the Agreement is ten years, after which it is subject to automatic renewal every year. This approval is reasonable because it is in the City's interest to ensure that this renewable energy will be available for City facilities

AMENDED IN COMMITTEE

4/24/13

FILE NO. 130224

over the long-term. In addition, SFPUC may terminate the agreement at any time with twenty days written notice.

The Agreement lacks certain required City contract clauses and these provisions listed below must be waived by the Board in order to enter the Agreement. However, Section 12.1 of the Agreement states that PG&E is subject to valid laws, orders, rules and regulations; under this provision San Francisco Administrative Code requirements will be incorporated into the Agreement.

The provisions which must be waived are: San Francisco Administrative Code Section [SFAC] 21.35 which requires every contract to include a statement regarding liability of claimants for submitting false claims, SFAC 21.19 barring automatic renewal provisions in City contracts, SFAC Chapter 12 which requires City Contractors to provide Earned Income Credit forms to their eligible employees, SFAC Chapter 83 which requires City contractors to comply with San Francisco's First Source Hiring Code, SFAC Chapter 12F which requires the inclusion of the MacBride Principles in every City contract, and SF Environment Code Chapter 5 which requires all City contracts to incorporate the provisions of the City's Environment Code in City contracts, ~~SFAC Chapter 12G which bars political activity by recipients of City funds, and the San Francisco Campaign and Governmental Conduct Code Section 1.126 which limits contributions from contractors doing business with the City.~~ The Agreement includes non-standard hold-harmless, indemnity and insurance provisions, which SFPUC's Risk Manager has reviewed and approved. In addition, the Agreement does not provide for incidental and consequential damages in the event of a breach, but SFPUC believes waiver of this provision will not create undue risk of damages to the City as the project is a small hydroelectric project which will utilize safe and reliable protective equipment to protect PG&E's distribution lines and is in the best interests of the City.

The Agreement provides for a maximum guaranteed cost of \$86,765 which includes \$49,500 for network upgrades, and \$37,265.18 for a one-time charge to cover PG&E's long term cost of ownership of said upgrades.



**CITY AND COUNTY OF SAN FRANCISCO**

**BOARD OF SUPERVISORS**

**BUDGET AND LEGISLATIVE ANALYST**

1390 Market Street, Suite 1150, San Francisco, CA 94102 (415) 552-9292  
FAX (415) 252-0461

April 18, 2013

**TO:** Budget and Finance Sub-Committee  
**FROM:** Budget and Legislative Analyst  
**SUBJECT:** April 24, 2013 Budget and Finance Sub-Committee Meeting

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Item 3  
File 13-0224

Department:  
Public Utilities Commission

## EXECUTIVE SUMMARY

### Legislative Objectives

The proposed ordinance would authorize the Public Utilities Commission (PUC) to enter into a new interconnection agreement with Pacific Gas and Electric (PG&E) for the interconnection of a City-owned renewable energy generating plant, the University Mound Reservoir Facility, to PG&E's distribution system to transmit and distribute the generated electricity to another City load.

### Background

- The University Mound Reservoir Facility is a small renewable hydroelectric project adjacent to the existing McLaren Pumping Plant. Construction of the project is expected to be completed in November 2014 and fully operational by March 2015. The project is estimated to generate approximately 1,600,000 kilowatt-hours (kWh) of renewable energy per year.

### Key Points

- The proposed new interconnection agreement between PUC and PG&E is for ten years, after which it is subject to automatic renewal every year. Under the agreement, PUC would pay PG&E one-time costs for the interconnection of the University Mound Reservoir Facility to PG&E's distribution system.
- PUC has an existing Hetch Hetchy Interconnection Agreement with PG&E through July 2015 for the transmission and distribution of Hetch Hetchy electricity over PG&E's distribution system to City loads. Once the University Mound Reservoir Facility is operational, PUC would pay annual costs to PG&E under the Hetch Hetchy Interconnection Agreement for transmitting the generated electricity to another City load, such as City Hall.
- The proposed ordinance waives the City's standard contracting requirements, pursuant to the City's Administrative Code because the proposed interconnection agreement is based on a Small Generator Interconnection Agreement (SGIA), which is a standard agreement between PG&E and a generation facility interconnecting with PG&E's distribution system. The SGIA has been approved by the Federal Energy Regulatory Commission (FERC) and as such, there is limited ability to modify the agreement to include the City's standard contracting requirements. According to PUC, the City's contracting requirements must be waived to conform to FERC's approved agreement.

### Fiscal Impact

- The total estimated maximum cost of the proposed interconnection agreement is \$86,765, which includes (a) one-time costs of \$49,500 for network upgrades, and (b) a one-time charge of \$37,265 to cover PG&E's long term cost of ownership of these upgrades.
- Additionally PUC would pay annual costs to PG&E to transmit and distribute the electricity generated by the University Mound Reservoir Facility over PG&E's distribution system under an existing Hetch Hetchy Interconnection Agreement. The net estimated annual cost to transmit and distribute an estimated 1,600,000 kWh of electricity generated by the University Mound Reservoir Facility ranges from \$8,713 to \$16,553.

### Recommendation

- Approval of the proposed ordinance is a policy matter for the Board of Supervisors.

**MANDATE STATEMENT / BACKGROUND****Mandate Statement**

Pursuant to San Francisco Charter Section 9.118, agreements of \$10,000,000 or more, or for a term of more than ten years, are subject to Board of Supervisors approval.

**Background**

The Hetch Hetchy Water and Power (HHWP) system is a consortium of dams, hydroelectric plants, reservoirs, pipelines, and transmission lines operated by the San Francisco Public Utilities Commission (PUC), which provides drinking water, wastewater, hydroelectric power, and other municipal services to San Francisco. Section 2828 of the California Public Utilities Code allows the PUC to designate all renewable electric generation facilities to be eligible for a unique arrangement where the Pacific Gas and Electric Company (PG&E) is required to take electricity from the generator and offset the City's municipal load.

**The City's Renewable Energy Project at University Mound Reservoir**

The University Mound Reservoir Renewable Hydroelectric Facility (University Mound Reservoir Facility) is a small renewable hydroelectric project located in the Portola neighborhood, at Woolsey and Bowdoin Streets, adjacent to the existing McLaren Pumping Plant. File 11-1192, as previously approved by the Board of Supervisors on November 22, 2011, authorized the PUC to issue Renewable Energy Bonds for a not-to-exceed amount of \$6,600,000 to finance the costs of acquiring and installing solar energy facilities at the City Hall Solar Energy Facility, the Davies Symphony Hall Solar Energy Facility and the University Mound Reservoir Facility. Of the not-to-exceed amount of \$6,600,000, \$2,500,000 was allocated for the University Mound Reservoir Facility for the installation of a non-hydroelectric dam facility.

In contrast to the City Hall Solar Energy Facility and the Davies Symphony Hall Solar Energy Facility projects, which will install solar energy systems, the University Mound Reservoir Facility will produce electricity derived solely from excess hydraulic energy in the water that is already flowing in the PUC's water pipelines that deliver water from Crystal Springs Reservoir to the University Mound Reservoir. The electricity generated from this facility would be exported via the existing McLaren Pumping Plant to serve other off-site City municipal loads. The project is estimated to generate approximately 1,600,000 kilowatt-hours (kWh) of renewable energy per year.

According to Mr. John Doyle, PUC Energy Infrastructure Manager, the expected completion date of the University Mound Reservoir Facility is November 25, 2014 and its anticipated commercial operation date is March 2, 2015. Mr. Doyle reports that the University Mound Reservoir Facility project is currently in the final design stage and the total estimated cost for the project, as previously approved by the Board of Supervisors in the PUC capital budget, is \$4,290,687 of which \$2,500,000 is to be funded from Renewable Energy Bonds with the remainder financed from Hetch Hetchy Power Enterprise revenues.

**DETAILS OF PROPOSED LEGISLATION**

The proposed ordinance would authorize PUC to enter into a new interconnection agreement with PG&E for a maximum cost of \$86,765 to connect a small renewable energy project at University Mound Reservoir to the City's electric system.

The proposed ordinance would waive specific requirements of the City's municipal codes, including the Environment Code, Administrative Code, and Campaign and Governmental Conduct Code. Under the proposed ordinance, the University Mound Reservoir Facility project would be categorically exempt from environmental review under the California Environmental Quality Act (CEQA) as determined by the Planning Department.

Under the proposed ordinance, standard contracting requirements, pursuant to the City's Administrative, Environment, and Campaign and Government Conduct Codes, would be waived as follows:

- (a) Administrative Code Section 21.35, which requires every contract to include a statement regarding liability of claimants for submitting false claims to the City;
- (b) Administrative Code Section 21.19, which bars automatic renewal provisions in City contracts;
- (c) Administrative Code Chapter 12 O, which requires City contractors to provide Earned Income Credit Information to their employees;
- (d) Administrative Code Chapter 83, the First Source Hiring Program;
- (e) Administrative Code Chapter 12F - the MacBride Principles;
- (f) Environment Code Chapter 5 - the San Francisco Resource Conservation Ordinance;
- (g) Administrative Code, Chapter 12G - Political Activity with City Funds; and
- (h) Campaign and Governmental Conduct Code Section 1.126 - Contribution Limits- Contractors Doing Business with the City

These requirements would be waived because the proposed interconnection agreement is based on a Small Generator Interconnection Agreement (SGIA), which is a standard agreement signed between PG&E and the generation facility that is interconnecting with PG&E's distribution system. The SGIA has been approved by the Federal Energy Regulatory Commission (FERC) and as such, there is limited ability to alter the agreement to modify the terms. According to Mr. Russell Stepp, PUC Power Enterprise, City Administrative Code requirements must be waived to be in accordance with the FERC-approved interconnection agreement.

The proposed interconnection agreement between the PUC and PG&E provides for (a) the interconnection of a City-owned renewable generating plant, the University Mound Reservoir Facility, to PG&E's electrical system to transmit the generated electricity to another City load

such as City Hall, a City pumping plant or school, (b) PG&E's oversight and analysis of the PUC final design to ensure that the interconnection is safe and electrically compliant, (c) PG&E supplying special and necessary physical features (the electric metering equipment), and (d) PG&E's continued maintenance of their special features.

According to Mr. Doyle, the expected effective date of the proposed new PUC agreement with PG&E is May 24, 2013, pending approval by the Board of Supervisors. Mr. Doyle reports that after the initial ten year term of the agreement between the PUC and PG&E, the agreement would automatically be renewed on a year-by-year basis for as long as the hydroelectric plant at the University Mound Reservoir Facility exists. The PUC estimates that the plant will have an effective lifespan of 50 plus years. According to Mr. Stepp, PUC wants to execute the proposed interconnection agreement approximately 18 months prior to the completion of the University Mound Reservoir Facility, which is expected in November 2014, in order to reserve the City's right to this distribution line capacity.

PUC has an existing Hetch Hetchy Interconnection Agreement with PG&E through July 1, 2015, which was previously approved by the Board of Supervisors. Under that Hetch Hetchy Interconnection Agreement, the City transmits electricity generated by PUC's Hetch Hetchy facility over PG&E's distribution system to the City's power grid.

The University Mound Reservoir Facility is expected to generate 1,600,000 kilowatt/hours annually. Mr. Doyle reports that the renewable electricity generated by the University Mound Reservoir Facility will be transmitted over PG&E lines to other City-owned facilities since the University Mound Reservoir Facility cannot utilize all the electricity that will be produced. PUC will pay PG&E for transmitting electricity generated by the University Mound Reservoir Facility under the existing Hetch Hetchy Interconnection Agreement.

## **FISCAL IMPACT**

According to Mr. Doyle and as shown in Table 1 below, the total estimated cost to be paid by PUC to PG&E under the proposed interconnection agreement is a maximum of \$86,765, which includes (a) one-time costs of \$49,500 for network upgrades, and (b) a one-time charge of \$37,265 cover PG&E's long term cost of ownership of these upgrades. The proposed interconnection agreement includes base costs plus a 50% margin applied to PG&E cost estimates, which, according to Mr. Doyle, is standard with PG&E in order to cover the highest potential cost of the proposed agreement. PG&E can only charge PUC for actual costs, which are expected to be less than the \$86,765 maximum cost of the proposed agreement.

Funds for the proposed agreement cost of \$86,765 are available in the PUC's FY 2012-13 budget as previously appropriated by the Board of Supervisors.

**Table 1. Interconnection One-Time Estimated Costs at the  
University Mound Reservoir Facility**

	One-Time Network Upgrades	One-Time Charge, Cost of Ownership	Total Interconnection Costs
<b>Base Costs of the Agreement</b>			
Installation of PG&E Revenue Metering	\$18,000		
Engineering Costs	5,000		
Pre-Parallel Inspection <sup>1</sup>	10,000		
<b>Subtotal</b>	<b>\$33,000</b>	<b>\$24,843</b>	<b>\$57,843</b>
50% Margin	\$16,500	\$12,422	\$28,922
<b>Total</b>	<b>\$49,500</b>	<b>\$37,265</b>	<b>\$86,765</b>

In addition to the one-time maximum costs of \$86,765 under the proposed agreement, the PUC will pay PG&E for the transmission and distribution of the expected 1,600,000 kw/h of renewable energy generated by the University Mound Reservoir Facility under the existing Hetch Hetchy Interconnection Agreement with PG&E. Under the existing Hetch Hetchy Interconnection Agreement, PUC is charged by PG&E for all electric loads for transmission and distribution. All electric loads are charged (a) a transmission fee of \$0.0059756 per kilowatt-hour; and (b) an additional distribution fee of \$0.00747 per kilowatt-hour for delivery to a primary service site; or (c) an additional distribution fee of \$0.01237 per kilowatt-hours for delivery to a secondary service site<sup>2</sup>. However, per the existing Hetch Hetchy Interconnection Agreement, renewable energy generation designated to serve specific load within 20 miles of the plant is credited \$0.008 per kilowatt-hour to offset the transmission and distribution fees.

As shown in Table 2 below, based on the expected 1,600,000 kilowatt-hours of renewable energy produced per year from the University Mound Reservoir Facility, the PUC would pay PG&E between an estimated \$21,513 to \$29,353 annually for the transmission and delivery of electricity generated to a City service site. The actual cost to deliver the expected 1,600,000 kilowatt-hours of renewable energy will be dependent on the delivery of the renewable energy to the primary or the secondary service sites, which has not been determined at the writing of this report.

As also shown in Table 2 below, the annual cost would be offset by the estimated \$12,800 credit from PG&E for a net cost of between \$8,713 to \$16,553 annually for the delivery and transmission of the expected 1,600,000 kilowatt-hours of renewable energy produced from the University Mound Reservoir Facility.

<sup>1</sup> This is PG&E's on-site inspection of the generating equipment and electrical protection equipment at the time of plant start-up to be sure it is safe to interconnect with the PG&E electric system.

<sup>2</sup> Primary service sites include large high schools or pumping plants like the Alemany Pumping Plant. Secondary service sites include small elementary schools or playgrounds.

**Table 2. Estimated Annual Cost of the Expected 1,600,000 kilowatt-hours of Renewable Energy Generated from the University Mound Reservoir Facility**

	Primary Service Site		Secondary Service Site	
	Cost/kWh	Total for 1,600,000 kWh	Cost/kWh	Total for 1,600,000 kWh
Transmission Fee	\$0.005976	\$9,561	\$0.0059756	\$9,561
Delivery Fee (Range)	\$0.007470	11,952	\$0.012370	\$19,792
Subtotal		21,513		29,353
Renewable Energy Credit	\$0.008000	(12,800)	\$0.008000	(12,800)
Net Cost (Range)		\$8,713		\$16,553

PUC paid PG&E \$13,457,656 in FY 2011-12 for services under the existing Hetch Hetchy Interconnection Agreement. Of the total \$13,457,656 paid in Fiscal Year 2011-12, the total estimated annual cost up to \$16,553 for the transmission and distribution of the expected 1,600,000 kilowatt-hours of renewable energy produced from the University Mound Reservoir Facility would be approximately 0.1 percent of PUC's total annual payments to PG&E under the existing agreement.

As noted above, the existing Hetch Hetchy Interconnection Agreement expires on July 1, 2015. According to Mr. Stepp, the PUC is currently working on a new interconnection agreement, which will be subject to future approval by the Board of Supervisors, which the PUC expects to be in place prior to the termination of the existing Hetch Hetchy Interconnection Agreement. According to Mr. Stepp, because PUC expects that PG&E's current obligation under California Public Utilities Code Section 2828 to distribute electricity generated by renewable sources will not change, PUC does not anticipate significant changes in the cost to deliver renewable energy in the City.

## POLICY CONSIDERATION

### Waiver of Standard City Contracting Requirements

The proposed ordinance waives the City's standard contracting requirements, pursuant to the City's Administrative Code, as noted above, because the proposed interconnection agreement is a standard agreement between PG&E and the generation facility that is interconnecting with PG&E's distribution system, which in this instance is the PUC's University Mound Reservoir Facility. Because the proposed interconnection agreement has been approved by the Federal Energy Regulatory Commission (FERC), there is limited ability to alter the agreement to modify the terms. Therefore, according to Mr. Stepp, various City Administrative Code standard contracting requirements must be waived to be in accordance with the FERC-approved proposed interconnection agreement. Because the proposed ordinance waives the City's standard contracting requirements, including, for example, a waiver of the contribution limits of contractors doing business with the City, approval of the proposed ordinance is a policy matter for the Board of Supervisors.

## RECOMMENDATION

Approval of the proposed ordinance is a policy matter for the Board of Supervisors.





# **SMALL GENERATOR INTERCONNECTION AGREEMENT (SGIA)**

(For Generating Facilities No Larger Than 20 MW)

**BETWEEN**

**PACIFIC GAS AND ELECTRIC COMPANY**

**AND**

**SAN FRANCISCO PUBLIC UTILITIES COMMISSION**

For Project:

**University Mound Reservoir Renewable Hydroelectric  
Facility  
0530-WD**

**San Francisco, CA 94103  
County: San Francisco**



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Attachment 6 – Distribution Provider's Description of its Upgrades and Best Estimate of Upgrade Costs

This Interconnection Agreement ("Agreement") is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by **PACIFIC GAS AND ELECTRIC COMPANY** ("Distribution Provider"), and **San Francisco Public Utilities Commission** ("Interconnection Customer"), each hereinafter sometimes referred to individually as "Party" or both referred to collectively as the "Parties."

#### **Distribution Provider Information**

Pacific Gas and Electric Company  
Attention: Electric Generation Interconnection - Contract Management  
245 Market Street  
Mail Code N7L  
San Francisco, California 94105-1702  
Phone: (415) 972-5394  
Email: [gen@pge.com](mailto:gen@pge.com)

#### **Interconnection Customer Information**

San Francisco Public Utilities Commission  
Attention: John Doyle  
525 Golden Gate Avenue, 7th Floor  
San Francisco, CA 94102  
Phone: 415-554-1541  
Email: [jdoyle@sfgwater.org](mailto:jdoyle@sfgwater.org)

Interconnection Customer Application No: **PG&E Project ID# 50H3124, Queue# 0530-WD**  
In consideration of the mutual covenants set forth herein, the Parties agree as follows:

#### **Article 1. Scope and Limitations of Agreement**

- 1.1 This Agreement shall be used for all Interconnection Requests submitted under the Small Generator Interconnection Procedures (SGIP) except for those submitted under the 10 kW Inverter Process contained in SGIP Attachment 5.
- 1.2 This Agreement governs the terms and conditions under which the Interconnection Customer's Small Generating Facility will interconnect with, and operate in parallel with, the Distribution Provider's Distribution System.
- 1.3 This Agreement does not constitute an agreement to purchase or deliver the Interconnection Customer's power. The purchase or delivery of power and other services that the Interconnection Customer may require will be covered under separate agreements. The Interconnection Customer will be responsible for separately making all necessary arrangements (including scheduling) for delivery of electricity.
- 1.4 Nothing in this Agreement is intended to affect any other agreement between the Distribution Provider and the Interconnection Customer.
- 1.5 Responsibilities of the Parties

- 1.5.1 The Parties shall perform all obligations of this Agreement in accordance with all Applicable Laws and Regulations, Operating Requirements, and Good Utility

Practice.

- 1.5.2 The Interconnection Customer shall construct, interconnect, operate and maintain its Small Generating Facility and construct, operate, and maintain its Interconnection Facilities in accordance with the applicable manufacturer's recommended maintenance schedule, in accordance with this Agreement, and with Good Utility Practice.
- 1.5.3 The Distribution Provider shall construct, operate, and maintain its Distribution System, Transmission System and Interconnection Facilities in accordance with this Agreement, and with Good Utility Practice.
- 1.5.4 The Interconnection Customer agrees to construct its facilities or systems in accordance with applicable specifications that meet or exceed those provided by the National Electrical Safety Code, the American National Standards Institute, IEEE, Underwriter's Laboratory, and Operating Requirements in effect at the time of construction and other applicable national and state codes and standards. The Interconnection Customer agrees to design, install, maintain, and operate its Small Generating Facility so as to reasonably minimize the likelihood of a disturbance adversely affecting or impairing the system or equipment of the Distribution Provider or Affected Systems. The Interconnection Customer shall comply with the Distribution Provider's Interconnection Handbook. In the event of a conflict between the terms of this SGIA and the terms of the Distribution Provider's Interconnection Handbook, the terms in this SGIA shall govern.
- 1.5.5 Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for the facilities that it now or subsequently may own unless otherwise specified in the Attachments to this Agreement. Each Party shall be responsible for the safe installation, maintenance, repair and condition of their respective lines and appurtenances on their respective sides of the point of change of ownership. The Distribution Provider and the Interconnection Customer, as appropriate, shall provide Interconnection Facilities that adequately protect the Distribution Provider's Distribution and Transmission Systems, personnel, and other persons from damage and injury. The allocation of responsibility for the design, installation, operation, maintenance and ownership of Interconnection Facilities shall be delineated in the Attachments to this Agreement.
- 1.5.6 The Distribution Provider shall coordinate with all Affected Systems to support the interconnection.

#### 1.6 Parallel Operation Obligations

Once the Small Generating Facility has been authorized by the Distribution Provider to commence parallel operation, the Interconnection Customer shall abide by all rules and procedures pertaining to the parallel operation of the Small Generating Facility in the applicable control area, including, but not limited to; 1) the rules and procedures concerning the operation of generation set forth in the Tariff or by the applicable system operator(s) for the Distribution Provider's Distribution and Transmission Systems and; 2) the Operating Requirements set forth in Attachment 5 of this Agreement.

#### 1.7 Metering

The Interconnection Customer shall be responsible for the Distribution Provider's reasonable and necessary cost for the purchase, installation, operation, maintenance, testing, repair, and replacement of metering and data acquisition equipment specified in Attachments 2 and 3 of this Agreement. The Interconnection Customer's metering (and data acquisition, as required) equipment shall conform to applicable industry rules and Operating Requirements.

## **1.8 Reactive Power**

1.8.1 The Interconnection Customer shall design its Small Generating Facility to maintain a composite power delivery at continuous rated power output at the Point of Interconnection at a power factor within the range of 0.95 leading to 0.95 lagging, unless the Distribution Provider has established different requirements that apply to all similarly situated generators in the control area on a comparable basis. The requirements of this paragraph shall not apply to wind generators.

1.8.2 Payment to the Interconnection Customer for reactive power that the Interconnection Customer provides or absorbs from the Small Generating Facility when the ISO or, at the direction of the ISO, the Distribution Provider requests the Interconnection Customer to operate its Small Generating Facility outside the range specified in article 1.8.1 will be made by the ISO in accordance with the applicable provisions of the ISO Tariff.

1.8.3 Payments to the Interconnection Customer for reactive power that the Interconnection Customer provides or absorbs from the Small Generation Facility when, in response to an emergency on the Distribution System, the Distribution Provider requests the Interconnection Customer to operate its Small Generating Facility outside the range specified in article 1.8.1 shall be in accordance with the Interconnection Customer's applicable rate schedule then in effect unless the provision of such service(s) is subject to a regional transmission organization or independent system operator FERC-approved rate schedule. To the extent that no rate schedule is in effect at the time the Interconnection Customer is required to provide or absorb reactive power under this Agreement, the Parties agree to expeditiously file such rate schedule and agree to support any request for waiver of the Commission's prior notice requirement in order to compensate the Interconnection Customer from the time service commenced. In addition, if the Distribution Provider pays its own affiliated generators for reactive power service within the specified range, it must also pay the Interconnection Customer.

1.9 Capitalized terms used herein shall have the meanings specified in the Glossary of Terms in Attachment 1 or the body of this Agreement.

## **Article 2. Inspection, Testing, Authorization, and Right of Access**

### **2.1 Equipment Testing and Inspection**

2.1.1 The Interconnection Customer shall test and inspect its Small Generating Facility and Interconnection Facilities prior to interconnection. The Interconnection Customer shall notify the Distribution Provider of such activities no fewer than five Business Days (or as may be agreed to by the Parties) prior to such testing

and inspection. Testing and inspection shall occur on a Business Day. The Distribution Provider may, at its own expense, send qualified personnel to the Small Generating Facility site to inspect the interconnection and observe the testing. The Interconnection Customer shall provide the Distribution Provider a written test report when such testing and inspection is completed.

- 2.1.2 The Distribution Provider shall provide the Interconnection Customer written acknowledgment that it has received the Interconnection Customer's written test report. Such written acknowledgment shall not be deemed to be or construed as any representation, assurance, guarantee, or warranty by the Distribution Provider of the safety, durability, suitability, or reliability of the Small Generating Facility or any associated control, protective, and safety devices owned or controlled by the Interconnection Customer or the quality of power produced by the Small Generating Facility.

## 2.2 Authorization Required Prior to Parallel Operation

- 2.2.1 The Distribution Provider shall use Reasonable Efforts to list applicable parallel operation requirements in Attachment 5 of this Agreement. Additionally, the Distribution Provider shall notify the Interconnection Customer of any changes to these requirements as soon as they are known. The Distribution Provider shall make Reasonable Efforts to cooperate with the Interconnection Customer in meeting requirements necessary for the Interconnection Customer to commence parallel operations by the in-service date.
- 2.2.2 The Interconnection Customer shall not operate its Small Generating Facility in parallel with the Distribution Provider's Distribution System without prior written authorization of the Distribution Provider. The Distribution Provider will provide such authorization once the Distribution Provider receives notification that the Interconnection Customer has complied with all applicable parallel operation requirements. Such authorization shall not be unreasonably withheld, conditioned, or delayed.

## 2.3 Right of Access

- 2.3.1 Upon reasonable notice, the Distribution Provider may send a qualified person to the premises of the Interconnection Customer at or immediately before the time the Small Generating Facility first produces energy to inspect the interconnection, and observe the commissioning of the Small Generating Facility (including any required testing), startup, and operation for a period of up to three Business Days after initial start-up of the unit. In addition, the Interconnection Customer shall notify the Distribution Provider at least five Business Days prior to conducting any on-site verification testing of the Small Generating Facility.
- 2.3.2 Following the initial inspection process described above, at reasonable hours, and upon reasonable notice, or at any time without notice in the event of an emergency or hazardous condition, the Distribution Provider shall have access to the Interconnection Customer's premises for any reasonable purpose in connection with the performance of the obligations imposed on it by this Agreement or if necessary to meet its legal obligation to provide service to its customers.



- 2.3.3 Each Party shall be responsible for its own costs associated with following this article.

### **Article 3. Effective Date, Term, Termination, and Disconnection**

3.1 Effective Date

This Agreement shall become effective upon execution by the Parties subject to acceptance by FERC (if applicable), or if filed unexecuted, upon the date specified by the FERC. The Distribution Provider shall promptly file this Agreement with the FERC upon execution, if required.

3.2 Term of Agreement

This Agreement shall become effective on the Effective Date and shall remain in effect for a period of ten years from the Effective Date and shall be automatically renewed for each successive one-year period thereafter, unless terminated earlier in accordance with article 3.3 of this Agreement.

3.3 Termination

No termination shall become effective until the Parties have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with FERC of a notice of termination of this Agreement (if required), which notice has been accepted for filing by FERC.

3.3.1 The Interconnection Customer may terminate this Agreement at any time by giving the Distribution Provider 20 Business Days written notice.

3.3.2 Either Party may terminate this Agreement after Default pursuant to article 7.6.

3.3.3 Upon termination of this Agreement, the Small Generating Facility will be disconnected from the Distribution Provider's Distribution System. The termination of this Agreement shall not relieve either Party of its liabilities and obligations, owed or continuing at the time of the termination.

3.3.4 This provisions of this article shall survive termination or expiration of this Agreement.

3.4 Temporary Disconnection

Temporary disconnection shall continue only for so long as reasonably necessary under Good Utility Practice.

3.4.1 Emergency Conditions -- "Emergency Condition" shall mean a condition or situation: (1) that in the judgment of the Party making the claim is imminently likely to endanger life or property; or (2) that, in the case of the Distribution Provider, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to the Distribution System, the Distribution Provider's Interconnection Facilities any Affected Systems; or (3) that, in the case of the Interconnection Customer, is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Small Generating Facility or

the Interconnection Customer's Interconnection Facilities. Under Emergency Conditions, the Distribution Provider may immediately suspend interconnection service and temporarily disconnect the Small Generating Facility. The Distribution Provider shall notify the Interconnection Customer promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Interconnection Customer's operation of the Small Generating Facility. The Interconnection Customer shall notify the Distribution Provider promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect the Distribution Provider's Distribution System or any Affected Systems. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the operation of both Parties' facilities and operations, its anticipated duration, and the necessary corrective action.

**3.4.2 Routine Maintenance, Construction, and Repair**

The Distribution Provider may interrupt interconnection service or curtail the output of the Small Generating Facility and temporarily disconnect the Small Generating Facility from the Distribution Provider's Distribution System when necessary for routine maintenance, construction, and repairs on the Distribution Provider's Distribution System and/or Transmission System. The Distribution Provider shall provide the Interconnection Customer with five Business Days notice prior to such interruption. The Distribution Provider shall use Reasonable Efforts to coordinate such reduction or temporary disconnection with the Interconnection Customer.

**3.4.3 Forced Outages**

During any forced outage, the Distribution Provider may suspend interconnection service to effect immediate repairs on the Distribution Provider's Distribution System and/or Transmission System. The Distribution Provider shall use Reasonable Efforts to provide the Interconnection Customer with prior notice. If prior notice is not given, the Distribution Provider shall, upon request, provide the Interconnection Customer written documentation after the fact explaining the circumstances of the disconnection.

**3.4.4 Adverse Operating Effects**

The Distribution Provider shall notify the Interconnection Customer as soon as practicable if, based on Good Utility Practice, operation of the Small Generating Facility may cause disruption or deterioration of service to other customers served from the same electric system, or if operating the Small Generating Facility could cause damage to the Distribution Provider's Distribution System or Affected Systems. Supporting documentation used to reach the decision to disconnect shall be provided to the Interconnection Customer upon request. If, after notice, the Interconnection Customer fails to remedy the adverse operating effect within a reasonable time, the Distribution Provider may disconnect the Small Generating Facility. The Distribution Provider shall provide the Interconnection Customer with five Business Day notice of such disconnection, unless the provisions of article 3.4.1 apply.

**3.4.5 Modification of the Small Generating Facility**

The Interconnection Customer must receive written authorization from the Distribution Provider before making any change to the Small Generating Facility

that may have a material impact on the safety or reliability of the Distribution System and/or Transmission System. Such authorization shall not be unreasonably withheld. Modifications shall be done in accordance with Good Utility Practice. If the Interconnection Customer makes such modification without the Distribution Provider's prior written authorization, the latter shall have the right to temporarily disconnect the Small Generating Facility.

**3.4.6 Reconnection**

The Parties shall cooperate with each other to restore the Small Generating Facility, Interconnection Facilities, and the Distribution Provider's Distribution System or Transmission System to their normal operating state as soon as reasonably practicable following a temporary disconnection.

**Article 4. Cost Responsibility for Interconnection Facilities and Distribution Upgrades**

**4.1 Interconnection Facilities**

4.1.1 The Interconnection Customer shall pay for the cost of the Interconnection Facilities itemized in Attachment 2 of this Agreement. The Distribution Provider shall provide a best estimate cost, including overheads, for the purchase and construction of its Interconnection Facilities and provide a detailed itemization of such costs. Costs associated with Interconnection Facilities may be shared with other entities that may benefit from such facilities by agreement of the Interconnection Customer, such other entities, and the Distribution Provider.

4.1.2 The Interconnection Customer shall be responsible for its share of all reasonable expenses, including overheads, associated with (1) owning, operating, maintaining, repairing, and replacing its own Interconnection Facilities, and (2) operating, maintaining, repairing, and replacing the Distribution Provider's Interconnection Facilities.

**4.2 Distribution Upgrades**

The Distribution Provider shall design, procure, construct, install, and own the Distribution Upgrades described in Attachment 6 of this Agreement. If the Distribution Provider and the Interconnection Customer agree, the Interconnection Customer may construct Distribution Upgrades that are located on land owned by the Interconnection Customer. The actual cost of the Distribution Upgrades, including overheads, shall be directly assigned to the Interconnection Customer.

**Article 5. Cost Responsibility for Network Upgrades**

**5.1 Applicability**

No portion of this article 5 shall apply unless the interconnection of the Small Generating Facility requires Network Upgrades.

**5.2 Network Upgrades**

The Distribution Provider or the Transmission Owner shall design, procure, construct, install, and own the Network Upgrades described in Attachment 6 of this Agreement. If the Distribution Provider and the Interconnection Customer agree, the Interconnection Customer may construct Network Upgrades that are located on land owned by the

Interconnection Customer. Unless the Distribution Provider elects to pay for Network Upgrades, the actual cost of the Network Upgrades, including overheads, shall be borne initially by the Interconnection Customer.

5.2.1 Repayment of Amounts Advanced for Network Upgrades

The Interconnection Customer shall be entitled to a cash repayment, equal to the total amount paid to the Distribution Provider and Affected System operator, if any, for Network Upgrades, including any tax gross-up or other tax-related payments associated with the Network Upgrades, and not otherwise refunded to the Interconnection Customer, to be paid to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, as payments are made under the Distribution Provider's Tariff and Affected System's Tariff for transmission services with respect to the Small Generating Facility. Any repayment shall include interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. '35.19a(a)(2)(iii) from the date of any payment for Network Upgrades through the date on which the Interconnection Customer receives a repayment of such payment pursuant to this subparagraph. The Interconnection Customer may assign such repayment rights to any person.

5.2.1.1 Notwithstanding the foregoing, the Interconnection Customer, the Distribution Provider, and Affected System operator may adopt any alternative payment schedule that is mutually agreeable so long as the Distribution Provider and Affected System operator take one of the following actions no later than five years from the Commercial Operation Date: (1) return to the Interconnection Customer any amounts advanced for Network Upgrades not previously repaid, or (2) declare in writing that the Distribution Provider or Affected System operator(s) will continue to provide payments to the Interconnection Customer on a dollar-for-dollar basis for the non-usage sensitive portion of transmission charges, or develop an alternative schedule that is mutually agreeable and provides for the return of all amounts advanced for Network Upgrades not previously repaid; however, full reimbursement shall not extend beyond twenty (20) years from the commercial operation date.

5.2.1.2 If the Small Generating Facility fails to achieve commercial operation, but it or another generating facility is later constructed and requires use of the Network Upgrades, the Distribution Provider and Affected System operator shall at that time reimburse the Interconnection Customer for the amounts advanced for the Network Upgrades. Before any such reimbursement can occur, the Interconnection Customer, or the entity that ultimately constructs the generating facility, if different, is responsible for identifying the entity to which reimbursement must be made.

5.3 Special Provisions for Affected Systems

Unless the Distribution Provider provides, under this Agreement, for the repayment of amounts advanced to Affected System operator(s) for Network Upgrades, the Interconnection Customer and Affected System operator shall enter into an agreement that provides for such repayment. The agreement shall specify the terms governing

payments to be made by the Interconnection Customer to Affected System operator as well as the repayment by Affected System operator.

**5.4 Rights Under Other Agreements**

Notwithstanding any other provision of this Agreement, nothing herein shall be construed as relinquishing or foreclosing any rights, including but not limited to firm transmission rights, capacity rights, transmission congestion rights, or transmission credits, that the Interconnection Customer shall be entitled to, now or in the future, under any other agreement or tariff as a result of, or otherwise associated with, the transmission capacity, if any, created by the Network Upgrades, including the right to obtain cash reimbursements or transmission credits for transmission service that is not associated with the Small Generating Facility.

**Article 6. Billing, Payment, Milestones, and Financial Security**

**6.1 Billing and Payment Procedures and Final Accounting**

6.1.1 The Distribution Provider shall bill the Interconnection Customer for the design, engineering, construction, and procurement costs of Interconnection Facilities and Upgrades contemplated by this Agreement on a monthly basis, or as otherwise agreed by the Parties. The Interconnection Customer shall pay each bill within 30 calendar days of receipt, or as otherwise agreed to by the Parties.

6.1.2 Within three months of completing the construction and installation of the Distribution Provider's Interconnection Facilities and/or Upgrades described in the Attachments to this Agreement, the Distribution Provider shall provide the Interconnection Customer with a final accounting report of any difference between (1) the Interconnection Customer's cost responsibility for the actual cost of such facilities or Upgrades, and (2) the Interconnection Customer's previous aggregate payments to the Distribution Provider for such facilities or Upgrades. If the Interconnection Customer's cost responsibility exceeds its previous aggregate payments, the Distribution Provider shall invoice the Interconnection Customer for the amount due and the Interconnection Customer shall make payment to the Distribution Provider within 30 calendar days. If the Interconnection Customer's previous aggregate payments exceed its cost responsibility under this Agreement, the Distribution Provider shall refund to the Interconnection Customer an amount equal to the difference within 30 calendar days of the final accounting report.

**6.2 Milestones**

The Parties shall agree on milestones for which each Party is responsible and list them in Attachment 4 of this Agreement. A Party's obligations under this provision may be extended by agreement. If a Party anticipates that it will be unable to meet a milestone for any reason other than an Uncontrollable Force Event, it shall immediately notify the other Party of the reason(s) for not meeting the milestone and (1) propose the earliest reasonable alternate date by which it can attain this and future milestones, and (2) requesting appropriate amendments to Attachment 4. The Party affected by the failure to meet a milestone shall not unreasonably withhold agreement to such an amendment unless it will suffer significant uncompensated economic or operational harm from the delay, (2) attainment of the same milestone has previously been delayed, or (3) it has

reason to believe that the delay in meeting the milestone is intentional or unwarranted notwithstanding the circumstances explained by the Party proposing the amendment.

### 6.3 Financial Security Arrangements

At least 20 Business Days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of the Distribution Provider's Interconnection Facilities and Upgrades, the Interconnection Customer shall provide the Distribution Provider, at the Interconnection Customer's option, a guarantee, a surety bond, letter of credit or other form of security that is reasonably acceptable to the Distribution Provider and is consistent with the Uniform Commercial Code of the jurisdiction where the Point of Interconnection is located. Such security for payment shall be in an amount sufficient to cover the costs for constructing, designing, procuring, and installing the applicable portion of the Distribution Provider's Interconnection Facilities and Upgrades and shall be reduced on a dollar-for-dollar basis for payments made to the Distribution Provider under this Agreement during its term. In addition:

- 6.3.1 The guarantee must be made by an entity that meets the creditworthiness requirements of the Distribution Provider, and contain terms and conditions that guarantee payment of any amount that may be due from the Interconnection Customer, up to an agreed-to maximum amount.
- 6.3.2 The letter of credit or surety bond must be issued by a financial institution or insured reasonably acceptable to the Distribution Provider and must specify a reasonable expiration date.

## **Article 7. Assignment, Liability, Indemnity, Uncontrollable Force, Consequential Damages, and Default**

### 7.1 Assignment

This Agreement may be assigned by either Party upon 15 Business Days prior written notice and opportunity to object by the other Party; provided that:

- 7.1.1 Either Party may assign this Agreement without the consent of the other Party to any affiliate of the assigning Party with an equal or greater credit rating and with the legal authority and operational ability to satisfy the obligations of the assigning Party under this Agreement;
- 7.1.2 The Interconnection Customer shall have the right to assign this Agreement, without the consent of the Distribution Provider, for collateral security purposes to aid in providing financing for the Small Generating Facility, provided that the Interconnection Customer will promptly notify the Distribution Provider of any such assignment.
- 7.1.3 Any attempted assignment that violates this article is void and ineffective. Assignment shall not relieve a Party of its obligations, nor shall a Party's obligations be enlarged, in whole or in part, by reason thereof. An assignee is responsible for meeting the same financial, credit, and insurance obligations as the Interconnection Customer. Where required, consent to assignment will not be unreasonably withheld, conditioned or delayed.

7.2 Limitation of Liability

Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages, except as authorized by this Agreement.

7.3 Indemnity

7.3.1 This provision protects each Party from liability incurred to third parties as a result of carrying out the provisions of this Agreement. Liability under this provision is exempt from the general limitations on liability found in article 7.2.

7.3.2 The Parties shall at all times indemnify, defend, and hold the other Party harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demand, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the other Party's action or failure to meet its obligations under this Agreement on behalf of the indemnifying Party, except in cases of gross negligence or intentional wrongdoing by the indemnified Party.

7.3.3 If an indemnified person is entitled to indemnification under this article as a result of a claim by a third party, and the indemnifying Party fails, after notice and reasonable opportunity to proceed under this article, to assume the defense of such claim, such indemnified person may at the expense of the indemnifying Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

7.3.4 If an indemnifying party is obligated to indemnify and hold any indemnified person harmless under this article, the amount owing to the indemnified person shall be the amount of such indemnified person's actual loss, net of any insurance or other recovery.

7.3.5 Promptly after receipt by an indemnified person of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the indemnity provided for in this article may apply, the indemnified person shall notify the indemnifying party of such fact. Any failure of or delay in such notification shall not affect a Party's indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying party.

7.4 Consequential Damages

Other than as expressly provided for in this Agreement, neither Party shall be liable under any provision of this Agreement for any losses, damages, costs or expenses for any special, indirect, incidental, consequential, or punitive damages, including but not limited to loss of profit or revenue, loss of the use of equipment, cost of capital, cost of temporary equipment or services, whether based in whole or in part in contract, in tort, including negligence, strict liability, or any other theory of liability; provided, however, that damages for which a Party may be liable to the other Party under another

agreement will not be considered to be special, indirect, incidental, or consequential damages hereunder.

## 7.5 Uncontrollable Force

7.5.1 As used in this article, an Uncontrollable Force shall mean "any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm, flood, earthquake, explosion, breakage or accident to machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond the reasonable control of the Distribution Provider or Interconnection Customer which could not be avoided through the exercise of Good Utility Practice. An Uncontrollable Force Event does not include an act of negligence or intentional wrongdoing by the Party claiming Uncontrollable Force."

7.5.2 If an Uncontrollable Force Event prevents a Party from fulfilling any obligations under this Agreement, the Party affected by the Uncontrollable Force Event (Affected Party) shall promptly notify the other Party, either in writing or via the telephone, of the existence of the Uncontrollable Force Event. The notification must specify in reasonable detail the circumstances of the Uncontrollable Force Event, its expected duration, and the steps that the Affected Party is taking to mitigate the effects of the event on its performance. The Affected Party shall keep the other Party informed on a continuing basis of developments relating to the Uncontrollable Force Event until the event ends. The Affected Party will be entitled to suspend or modify its performance of obligations under this Agreement (other than the obligation to make payments) only to the extent that the effect of the Uncontrollable Force Event cannot be mitigated by the use of Reasonable Efforts. The Affected Party will use Reasonable Efforts to resume its performance as soon as possible.

## 7.6 Default

7.6.1 No Default shall exist where such failure to discharge an obligation (other than the payment of money) is the result of an Uncontrollable Force Event as defined in this Agreement or the result of an act or omission of the other Party. Upon a Default, the non-defaulting Party shall give written notice of such Default to the defaulting Party. Except as provided in article 7.6.2, the defaulting Party shall have 60 calendar days from receipt of the Default notice within which to cure such Default; provided however, if such Default is not capable of cure within 60 calendar days, the defaulting Party shall commence such cure within 20 calendar days after notice and continuously and diligently complete such cure within six months from receipt of the Default notice; and, if cured within such time, the Default specified in such notice shall cease to exist.

7.6.2 If a Default is not cured as provided in this article, or if a Default is not capable of being cured within the period provided for herein, the non-defaulting Party shall have the right to terminate this Agreement by written notice at any time until cure occurs, and be relieved of any further obligation hereunder and, whether or not that Party terminates this Agreement, to recover from the defaulting Party all amounts due hereunder, plus all other damages and remedies to which it is entitled at law or in equity. The provisions of this article will survive termination of



this Agreement.

## **Article 8. Insurance**

- 8.1 The Interconnection Customer shall, at its own expense, maintain in force general liability insurance without any exclusion for liabilities related to the interconnection undertaken pursuant to this Agreement. The amount of such insurance shall be sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. The Interconnection Customer shall obtain additional insurance only if necessary as a function of owning and operating a generating facility. Such insurance shall be obtained from an insurance provider authorized to do business in the State where the interconnection is located. Certification that such insurance is in effect shall be provided upon request of the Distribution Provider, except that the Interconnection Customer shall show proof of insurance to the Distribution Provider no later than ten Business Days prior to the anticipated commercial operation date. An Interconnection Customer of sufficient credit-worthiness may propose to self-insure for such liabilities, and such a proposal shall not be unreasonably rejected.
- 8.2 The Distribution Provider agrees to maintain general liability insurance or self-insurance consistent with the Distribution Provider's commercial practice. Such insurance or self-insurance shall not exclude coverage for the Distribution Provider's liabilities undertaken pursuant to this Agreement.
- 8.3 The Parties further agree to notify each other whenever an accident or incident occurs resulting in any injuries or damages that are included within the scope of coverage of such insurance, whether or not such coverage is sought.

## **Article 9. Confidentiality**

- 9.1 Confidential Information shall mean any confidential and/or proprietary information provided by one Party to the other Party that is clearly marked or otherwise designated "Confidential." For purposes of this Agreement all design, operating specifications, and metering data provided by the Interconnection Customer shall be deemed Confidential Information regardless of whether it is clearly marked or otherwise designated as such.
- 9.2 Confidential Information does not include information previously in the public domain, required to be publicly submitted or divulged by Governmental Authorities (after notice to the other Party and after exhausting any opportunity to oppose such publication or release), or necessary to be divulged in an action to enforce this Agreement. Each Party receiving Confidential Information shall hold such information in confidence and shall not disclose it to any third party nor to the public without the prior written authorization from the Party providing that information, except to fulfill obligations under this Agreement, or to fulfill legal or regulatory requirements.
- 9.2.1 Each Party shall employ at least the same standard of care to protect Confidential Information obtained from the other Party as it employs to protect its own Confidential Information.

9.2.2 Each Party is entitled to equitable relief, by injunction or otherwise, to enforce its rights under this provision to prevent the release of Confidential Information without bond or proof of damages, and may seek other remedies available at law or in equity for breach of this provision.

9.3 Notwithstanding anything in this article to the contrary, and pursuant to 18 CFR § 1b.20, if FERC, during the course of an investigation or otherwise, requests information from one of the Parties that is otherwise required to be maintained in confidence pursuant to this Agreement, the Party shall provide the requested information to FERC, within the time provided for in the request for information. In providing the information to FERC, the Party may, consistent with 18 CFR § 388.112, request that the information be treated as confidential and non-public by FERC and that the information be withheld from public disclosure. Parties are prohibited from notifying the other Party to this Agreement prior to the release of the Confidential Information to FERC. The Party shall notify the other Party to this Agreement when it is notified by FERC that a request to release Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 CFR § 388.112. Requests from a state regulatory body conducting a confidential investigation shall be treated in a similar manner if consistent with the applicable state rules and regulations.

#### **Article 10. Disputes**

- 10.1 The Parties agree to attempt to resolve all disputes arising out of the interconnection process according to the provisions of this article.
- 10.2 In the event of a dispute, either Party shall provide the other Party with a written Notice of Dispute. Such Notice shall describe in detail the nature of the dispute.
- 10.3 If the dispute has not been resolved within two Business Days after receipt of the Notice, either Party may contact FERC's Dispute Resolution Service (DRS) for assistance in resolving the dispute.
- 10.4 The DRS will assist the Parties in either resolving their dispute or in selecting an appropriate dispute resolution venue (e.g., mediation, settlement judge, early neutral evaluation, or technical expert) to assist the Parties in resolving their dispute. DRS can be reached at 1-877-337-2237 or via the internet at <http://www.ferc.gov/legal/adr.asp>.
- 10.5 Each Party agrees to conduct all negotiations in good faith and will be responsible for one-half of any costs paid to neutral third-parties.
- 10.6 If neither Party elects to seek assistance from the DRS, or if the attempted dispute resolution fails, then either Party may exercise whatever rights and remedies it may have in equity or law consistent with the terms of this Agreement.

#### **Article 11. Taxes**

- 11.1 The Parties agree to follow all applicable tax laws and regulations, consistent with FERC

policy and Internal Revenue Service requirements.

- 11.2 Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Agreement is intended to adversely affect the Distribution Provider's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

## **Article 12. Miscellaneous**

### **12.1 Governing Law, Regulatory Authority, and Rules**

The validity, interpretation and enforcement of this Agreement and each of its provisions shall be governed by the laws of the state of California (where the Point of Interconnection is located), without regard to its conflicts of law principles. This Agreement is subject to all Applicable Laws and Regulations. Each Party expressly reserves the right to seek changes in, appeal, or otherwise contest any laws, orders, or regulations of a Governmental Authority.

### **12.2 Amendment**

The Parties may amend this Agreement by a written instrument duly executed by both Parties.

### **12.3 No Third-Party Beneficiaries**

This Agreement is not intended to and does not create rights, remedies, or benefits of any character whatsoever in favor of any persons, corporations, associations, or entities other than the Parties, and the obligations herein assumed are solely for the use and benefit of the Parties, their successors in interest and where permitted, their assigns.

### **12.4 Waiver**

12.4.1 The failure of a Party to this Agreement to insist, on any occasion, upon strict performance of any provision of this Agreement will not be considered a waiver of any obligation, right, or duty of, or imposed upon, such Party.

12.4.2 Any waiver at any time by either Party of its rights with respect to this Agreement shall not be deemed a continuing waiver or a waiver with respect to any other failure to comply with any other obligation, right, duty of this Agreement. Termination or default of this Agreement for any reason by Interconnection Customer shall not constitute a waiver of the Interconnection Customer's legal rights to obtain an interconnection from the Distribution Provider. Any waiver of this Agreement shall, if requested, be provided in writing.

### **12.5 Entire Agreement**

This Agreement, including all Attachments, constitutes the entire agreement between the Parties with reference to the subject matter hereof, and supersedes all prior and contemporaneous understandings or agreements, oral or written, between the Parties with respect to the subject matter of this Agreement. There are no other agreements, representations, warranties, or covenants which constitute any part of the consideration for, or any condition to, either Party's compliance with its obligations under this Agreement.

12.6 Multiple Counterparts

This Agreement may be executed in two or more counterparts, each of which is deemed an original but all constitute one and the same instrument.

12.7 No Partnership

This Agreement shall not be interpreted or construed to create an association, joint venture, agency relationship, or partnership between the Parties or to impose any partnership obligation or partnership liability upon either Party. Neither Party shall have any right, power or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, the other Party.

12.8 Severability

If any provision or portion of this Agreement shall for any reason be held or adjudged to be invalid or illegal or unenforceable by any court of competent jurisdiction or other Governmental Authority, (1) such portion or provision shall be deemed separate and independent, (2) the Parties shall negotiate in good faith to restore insofar as practicable the benefits to each Party that were affected by such ruling, and (3) the remainder of this Agreement shall remain in full force and effect.

12.9 Security Arrangements

Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. FERC expects all transmission providers, market participants, and Interconnection Customers interconnected to electric systems to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and, eventually, best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for system infrastructure and operational security, including physical, operational, and cyber-security practices.

12.10 Environmental Releases

Each Party shall notify the other Party, first orally and then in writing, of the release of any hazardous substances, any asbestos or lead abatement activities, or any type of remediation activities related to the Small Generating Facility or the Interconnection Facilities, each of which may reasonably be expected to affect the other Party. The notifying Party shall (1) provide the notice as soon as practicable, provided such Party makes a good faith effort to provide the notice no later than 24 hours after such Party becomes aware of the occurrence, and (2) promptly furnish to the other Party copies of any publicly available reports filed with any governmental authorities addressing such events.

12.11 Subcontractors

Nothing in this Agreement shall prevent a Party from utilizing the services of any subcontractor as it deems appropriate to perform its obligations under this Agreement; provided, however, that each Party shall require its subcontractors to comply with all applicable terms and conditions of this Agreement in providing such services and each Party shall remain primarily liable to the other Party for the performance of such subcontractor.

12.11.1 The creation of any subcontract relationship shall not relieve the hiring Party of

any of its obligations under this Agreement. The hiring Party shall be fully responsible to the other Party for the acts or omissions of any subcontractor the hiring Party hires as if no subcontract had been made; provided, however, that in no event shall the Distribution Provider be liable for the actions or inactions of the Interconnection Customer or its subcontractors with respect to obligations of the Interconnection Customer under this Agreement. Any applicable obligation imposed by this Agreement upon the hiring Party shall be equally binding upon, and shall be construed as having application to, any subcontractor of such Party.

12.11.2 The obligations under this article will not be limited in any way by any limitation of subcontractor's insurance.

**12.12 Reservation of Rights**

The Distribution Provider shall have the right to make a unilateral filing with FERC to modify this Agreement with respect to any rates, terms and conditions, charges, classifications of service, rule or regulation under section 205 or any other applicable provision of the Federal Power Act and FERC's rules and regulations thereunder, and the Interconnection Customer shall have the right to make a unilateral filing with FERC to modify this Agreement under any applicable provision of the Federal Power Act and FERC's rules and regulations; provided that each Party shall have the right to protest any such filing by the other Party and to participate fully in any proceeding before FERC in which such modifications may be considered. Nothing in this Agreement shall limit the rights of the Parties or of FERC under sections 205 or 206 of the Federal Power Act and FERC's rules and regulations, except to the extent that the Parties otherwise agree as provided herein.

**Article 13. Notices**

**13.1 General**

Unless otherwise provided in this Agreement, any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person, delivered by recognized national carrier service, or sent by first class mail, postage prepaid, to the person specified below:

If to the Interconnection Customer:

San Francisco Public Utilities Commission  
Attention: John Doyle  
525 Golden Gate Avenue, 7th Floor  
San Francisco, CA 94102  
Phone: 415-554-1541  
Email: [jdoyle@sfwater.org](mailto:jdoyle@sfwater.org)

If to the Distribution Provider:

Pacific Gas and Electric Company  
Attention: Electric Generation Interconnection - Contract Management  
245 Market Street  
Mail Code N7L  
San Francisco, California 94105-1702

Phone: (415) 972-5394  
Email: [gen@pge.com](mailto:gen@pge.com)

13.2 Billing and Payment

Billings and payments shall be sent to the addresses below:

Interconnection Customer:

San Francisco Public Utilities Commission  
Attention: John Doyle  
525 Golden Gate Avenue, 7th Floor  
San Francisco, CA 94102  
Phone: 415-554-1541  
Email: [jdoyle@sfgwater.org](mailto:jdoyle@sfgwater.org)

Distribution Provider:

Pacific Gas and Electric Company  
Attention: Electric Generation Interconnection - Contract Management  
245 Market Street  
Mail Code N7L  
San Francisco, California 94105-1702  
Phone: (415) 972-5394  
Email: [gen@pge.com](mailto:gen@pge.com)

13.3 Alternative Forms of Notice

Any notice or request required or permitted to be given by either Party to the other and not required by this Agreement to be given in writing may be so given by telephone, facsimile or e-mail to the telephone numbers and e-mail addresses set out below:

If to the Interconnection Customer:

San Francisco Public Utilities Commission  
Attention: John Doyle  
525 Golden Gate Avenue, 7th Floor  
San Francisco, CA 94102  
Phone: 415-554-1541  
Email: [jdoyle@sfgwater.org](mailto:jdoyle@sfgwater.org)

If to the Distribution Provider:

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Attention: Electric Generation Interconnection - Contract Management  
245 Market Street  
Mail Code N7L  
San Francisco, California 94105-1702  
Phone: (415) 972-5394  
Email: [gen@pge.com](mailto:gen@pge.com)

13.4 Designated Operating Representative

The Parties may also designate operating representatives to conduct the communications which may be necessary or convenient for the administration of this Agreement. This person will also serve as the point of contact with respect to operations and maintenance of the Party's facilities.

Interconnection Customer's Operating Representative:

San Francisco Public Utilities Commission  
Attention: John Doyle  
525 Golden Gate Avenue, 7th Floor  
San Francisco, CA 94102  
Phone: 415-554-1541  
Email: jdoyle@sfwater.org

Distribution Provider's Operating Representative:

Pacific Gas and Electric Company  
San Francisco – Electric Control Center Operations  
731 Schwerin Ave, Daily City 94014  
Attention: San Francisco Desk - Distribution Operator  
Phone: (415) 330-2309

13.5 Changes to the Notice Information

Either Party may change this information by giving five Business Days written notice prior to the effective date of the change.

**Article 14. Signatures**

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their respective duly authorized representatives.

For the Distribution Provider: Pacific Gas and Electric Company

Signature: \_\_\_\_\_  
Name: Mark Esguerra  
Title: Manager, EGI, Contract/Program Management  
Date: \_\_\_\_\_

For the Interconnection Customer: San Francisco Public Utilities Commission

Signature: \_\_\_\_\_  
Name: Harlan L. Kelly, Jr.  
Title: General Manager, San Francisco Public Utilities Commission  
Date: \_\_\_\_\_

Approved as to Form:

Dennis J. Herrera  
City Attorney

By: Margarita G.  
Margarita Gutierrez  
Deputy City Attorney



## Glossary of Terms

**Affected System** – An electric system other than the Distribution Provider's Distribution System that may be affected by the proposed interconnection, including but not limited to the Transmission System.

**Applicable Laws and Regulations** – All duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority.

**Business Day** – Monday through Friday, excluding Federal Holidays.

**Default** – The failure of a breaching Party to cure its Breach under the Small Generator Interconnection Agreement.

**Distribution Owner** – The entity that owns, leases or otherwise possesses an interest in the portion of the Distribution System at the Point of Interconnection and may be a Party to the Small Generator Interconnection Agreement to the extent necessary.

**Distribution Provider** – The public utility (or its designated agent) that owns, controls, or operates transmission or distribution facilities used for the transmission of electricity in interstate commerce and provides transmission or wholesale distribution service under the Tariff. The term Distribution Provider should be read to include the Distribution Owner when the Distribution Owner is separate from the Distribution Provider.

**Distribution System** – Those non-ISO Transmission and distribution facilities owned, controlled and operated by the Distribution Provider that are used to provide distribution service under the Tariff, which facilities and equipment are used to transmit electricity to ultimate usage points such as homes and industries directly from nearby generators or from interchanges with higher voltage transmission networks which transport bulk power over longer distances. The voltage levels at which Distribution Systems operate differ among areas.

**Distribution Upgrades** – The additions, modifications, and upgrades to the Distribution Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Small Generating Facility and render the service necessary to effect the Interconnection Customer's wholesale sale of electricity in interstate commerce. Distribution Upgrades do not include Interconnection Facilities.

**Good Utility Practice** – Any of the practices, methods and acts engaged in or approved by a significant portion of the electric industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

**Governmental Authority** – Any federal, state, local or other governmental regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, or other governmental authority having jurisdiction over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power.

**Interconnection Customer** – Any entity, including the Distribution Provider, the Distribution Owner, the

Transmission Owner or any of the affiliates or subsidiaries of either, that proposes to interconnect its Small Generating Facility with the Distribution Provider's Distribution System.

**Interconnection Facilities** – The Distribution Provider's Interconnection Facilities and the Interconnection Customer's Interconnection Facilities. Collectively, Interconnection Facilities include all facilities and equipment between the Small Generating Facility and the Point of Interconnection, including any modification, additions or upgrades that are necessary to physically and electrically interconnect the Small Generating Facility to the Distribution Provider's Distribution System. Interconnection Facilities are sole use facilities and shall not include Distribution Upgrades or Network Upgrades.

**Interconnection Handbook** - A handbook, developed by the Distribution Provider and posted on the Distribution Provider's website or otherwise made available by the Distribution Provider, describing the technical and operational requirements for wholesale generators and loads connected to the Distribution System, as such handbook may be modified or superseded from time to time. In the event of a conflict between the terms of this SGIA and the terms of the Distribution Provider's Interconnection Handbook, the terms in this SGIA shall govern.

**Interconnection Request** – The Interconnection Customer's request, in accordance with the Tariff, to interconnect a new Small Generating Facility, or to increase the capacity of, or make a Material Modification to the operating characteristics of, an existing Small Generating Facility that is interconnected with the Distribution Provider's Distribution System.

**ISO Tariff** – The California Independent System Operator Agreement and Tariff, dated March 31, 1997, as it may be modified from time to time, and accepted by the Commission.

**Material Modification** – A modification that has a material impact on the cost or timing of any Interconnection Request of any other valid interconnection request to the Distribution Provider or the ISO with a later queue priority date.

**Network Upgrades** – Additions, modifications, and upgrades to the Distribution Provider's Transmission System required at or beyond the point at which the Distribution System connects to the Distribution Provider's Transmission System to accommodate the interconnection of the Small Generating Facility to the Distribution Provider's Distribution System. Network Upgrades do not include Distribution Upgrades.

**Operating Requirements** – Any operating and technical requirements that may be applicable due to Regional Transmission Organization, California Independent System Operator, control area, or the Distribution Provider's requirements, including those set forth in the Small Generator Interconnection Agreement.

**Party or Parties** – The Distribution Provider, Distribution Owner, Transmission Owner, Interconnection Customer or any combination of the above.

**Point of Interconnection** – The point where the Interconnection Facilities connect with the Distribution Provider's Distribution System.

**Reasonable Efforts** – With respect to an action required to be attempted or taken by a Party under the Small Generator Interconnection Agreement, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a Party would use to protect its own interests.

**Small Generating Facility** – The Interconnection Customer's device for the production of electricity identified in the Interconnection Request, but shall not include the Interconnection Customer's Interconnection Facilities.

**Tariff** – The Distribution Provider's Wholesale Distribution Tariff through which open access distribution

service and Interconnection Service are offered, as filed with the FERC, and as amended or supplemented from time to time, or any successor tariff.

**Transmission System** – Those facilities owned by the Distribution Provider that have been placed under the ISO's operational control and are part of the ISO Grid.

**Upgrades** – The required additions and modifications to the Distribution Provider's Distribution System, at or beyond the Point of Interconnection. Upgrades may be Network Upgrades or Distribution Upgrades. Upgrades do not include Interconnection Facilities.

### Description and Costs of the Small Generating Facility, Interconnection Facilities and Metering Equipment

**San Francisco Public Utilities Commission** (Interconnection Customer) has submitted an Interconnection Request under the provisions of Pacific Gas and Electric's (PG&E) Wholesale Distribution Tariff, and is proposing to install a 240 kW photovoltaic generator located at 960 Bowdoin St. San Francisco, CA. The Small Generating Facility will be connected to PG&E's H-1106 circuit 12 kV distribution circuit. This circuit is supplied by 115/12 kV Bank 1 at PG&E's Substation H.

Equipment, including the Small Generating Facility, Interconnection Facilities, and metering equipment shall be itemized and identified as being owned by the Interconnection Customer, the Distribution Provider, Distribution Owner or the Transmission Owner. The Distribution Provider will provide a best estimate itemized cost, including overheads, of its Interconnection Facilities and metering equipment, and a best estimate itemized cost of the annual operation and maintenance expenses associated with its Interconnection Facilities and metering equipment.

#### Project Information

<b>Project Name:</b>	University Mound Reservoir Renewable Hydroelectric Facility
<b>Number of Generators:</b>	Three (3) Fixed Flow Francis Hydroelectric Turbines
<b>Manufacturer Model Name &amp; Number:</b>	Francis Hydroelectric Turbines
<b>Total Output:</b>	240 KW
<b>Transformer Data:</b>	Three Phase 300 kVA, 12,000 / 480Y Volt Delta-Wye Grounded. Z = 2.48, X = 2.34, R = .81
<b>PG&amp;E Grid Voltage at Interconnection:</b>	12.47 KV

#### Interconnection Facilities

The estimated costs associated with the Interconnection Facilities required to interconnect the project to Distribution Provider's Distribution System.

<b>Interconnection Facilities (Subject to Cost-of-Ownership)</b>	
Install PG&E revenue metering (one on the PCC breaker)	\$18,000.00
Engineering	\$5,000.00
Pre-Parallel Inspection	\$10,000.00
<b>Subtotal (Subject to Cost-of-Ownership)</b>	<b>\$33,000.00<sup>1</sup></b>
<b>Interconnection Facilities (Not subject to Cost-of-Ownership)</b>	
<b>Subtotal (Not subject to Cost-of-Ownership)</b>	<b>\$0</b>
<b>Total-Interconnection Facilities</b>	<b>\$33,000.00</b>
<b>ITCC Tax<sup>2</sup></b>	

<sup>1</sup> The project costs are estimated to be within +/- 50% of actual costs.

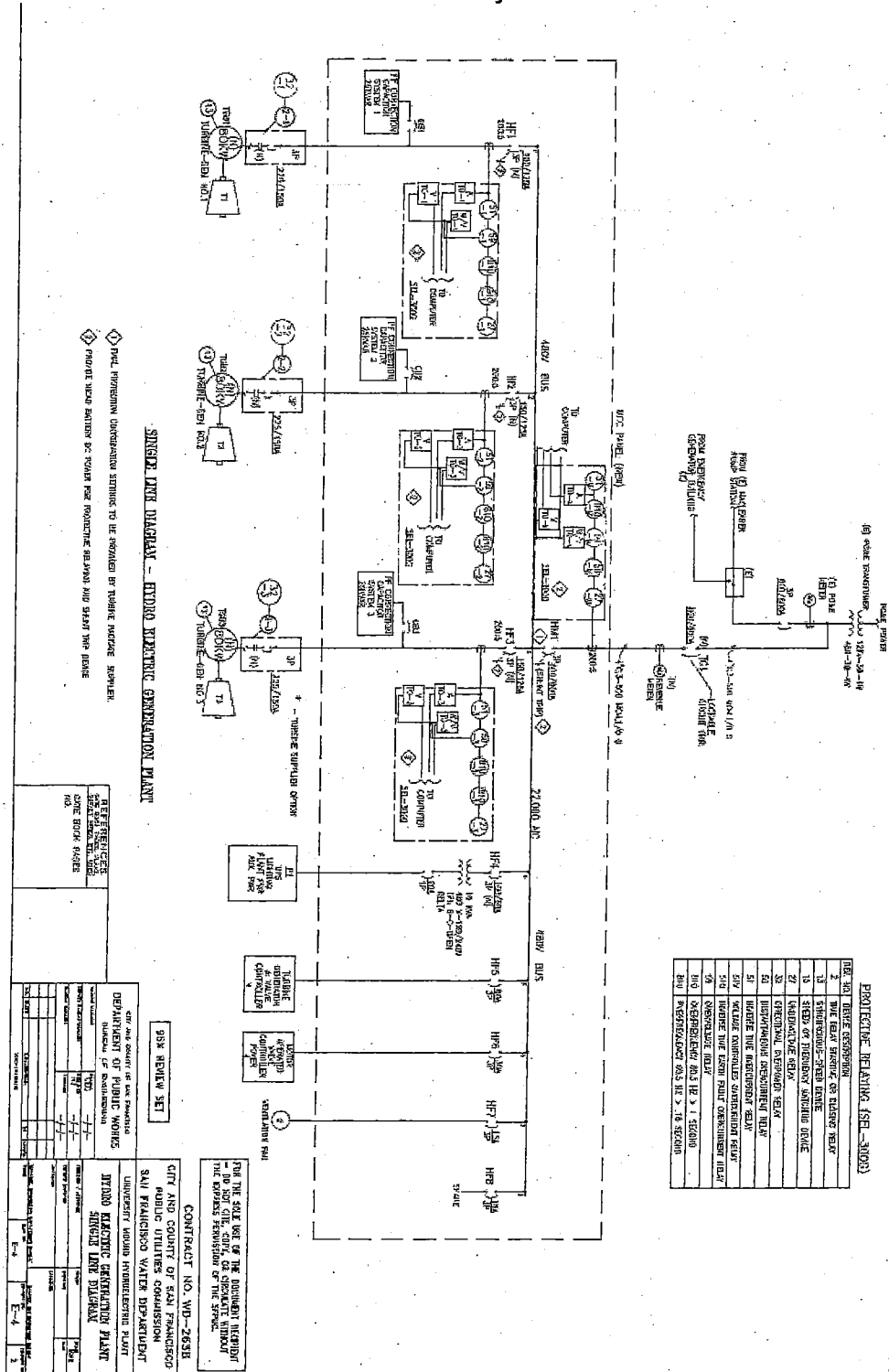
<sup>2</sup> Not subject to ITCC (Income Tax Calculation Component) on contribution. ITCC is exempt for wholesale generators that meet the IRS Safe Harbor Provisions. PG&E currently does not require the Interconnection Customer to provide security to cover the potential tax liability on the Interconnection Facilities, Distribution Upgrades, and Network Upgrades per the IRS Safe Harbor Provisions (IRS Notice 88-129). PG&E reserves the right to require, on a nondiscriminatory basis, the Interconnection Customer to

Monthly Cost-of-Ownership = $\$33,000.00 \times 0.48\%$	\$ 158.40
Equivalent One-Time Charge = $\$33,000.00 \times 0.48\% \times 12 \times 13.07$	\$24,843.46

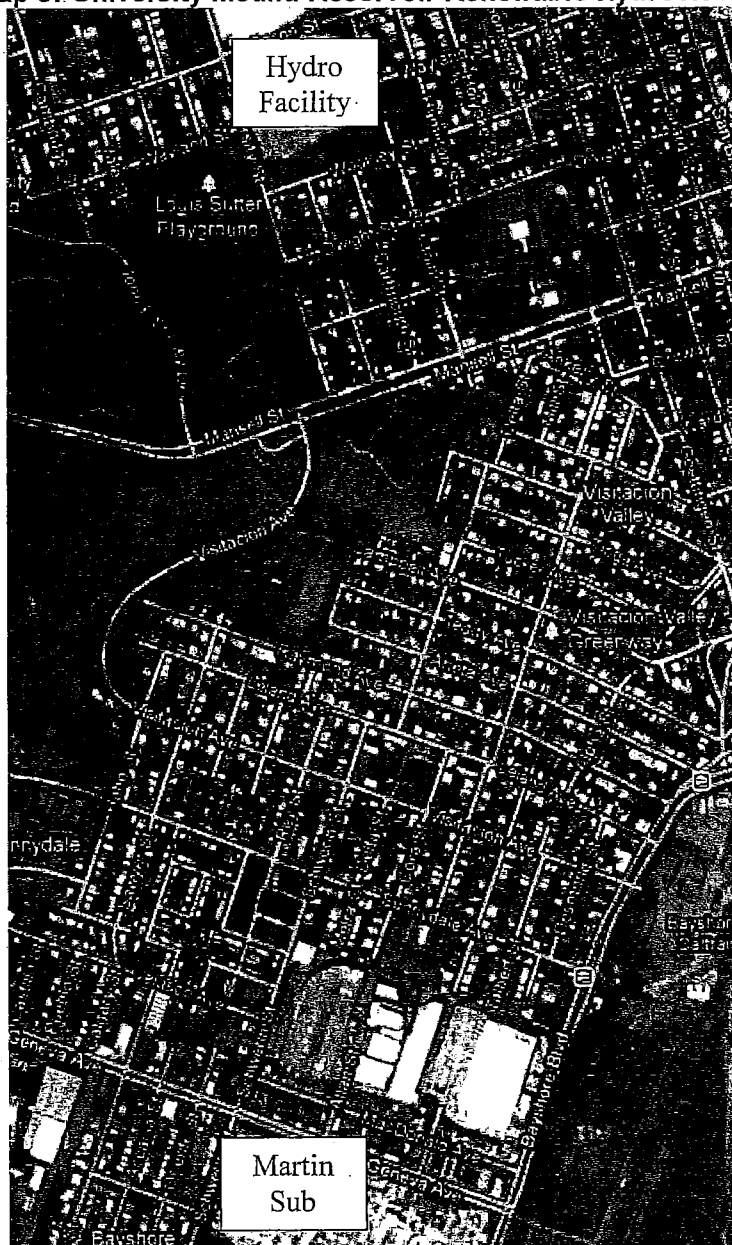
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provide such security, in a form reasonably acceptable to PG&E as indicated in Article 11 of the SGIA, an amount up to the cost consequences of any current tax liability. Upon request and within sixty (60) Calendar Days' notice, the Interconnection Customer shall provide PG&E such ITCC security or ITCC payment in the event that Safe Harbor Provisions have not been met, in the form requested by PG&E.

# One-Line Conceptual Diagram of University Mound Reservoir Renewable Hydroelectric Facility



# Vicinity Map of University Mound Reservoir Renewable Hydroelectric Facility



## Milestones

In-Service Date: December 2, 2014

Critical milestones and responsibility as agreed to by the Parties:

	Milestone	Date	Responsible Party
1	Completion of the Interconnection Facilities, Distribution Upgrades, and Network Upgrade facilities	November 25, 2014	Distribution Provider & Interconnection Customer
2	In-Service Date (back-feed power)	December 2, 2014	Distribution Provider & Interconnection Customer
3	Pre-parallel Inspection and Testing	January 2, 2015	Distribution Provider & Interconnection Customer
4	Initial Synchronization	February 2, 2015	Interconnection Customer
5	Provide written approval to Interconnection Customer for the operation of the facilities – minimum 15 calendar days prior to the Commercial Operation Date	February 15, 2015	Distribution Provider
6	Commercial Operation Date	March 2, 2015	Interconnection Customer

\* Note: Supplemental Billing and Payment Provisions:

Under 6.1.1 of this Agreement, PG&E's preference is to collect 100% of estimated costs and will invoice within 30 calendar days of the execution of this Agreement.

Agreed to by:

For the Distribution Provider

Date: \_\_\_\_\_

For the Interconnection Customer

Date: \_\_\_\_\_



**Additional Operating Requirements for the Distribution Provider's Distribution System,  
Transmission System and Affected Systems Needed to Support  
the Interconnection Customer's Needs**

The Distribution Provider shall also provide requirements that must be met by the Interconnection Customer prior to initiating parallel operation with the Distribution Provider's Distribution System.

The Interconnection Customer must comply with all applicable rules and tariffs including but not limited to the Distribution Interconnection Handbook and the Wholesale Distribution Tariff.

### Distribution Provider's Description of its Upgrades and Best Estimate of Upgrade Costs

The Distribution Provider shall describe Upgrades and provide an itemized best estimate of the cost, including overheads, of the Upgrades and annual operation and maintenance expenses associated with such Upgrades. The Distribution Provider shall functionalize Upgrade costs and annual expenses as either transmission or distribution related.

#### Distribution Upgrades

The estimated costs associated with the system upgrades required to interconnect the project to the Distribution Provider's Distribution System.

**Distribution Upgrades: None**

**Network Upgrades: None**

#### Total Project Costs:

Total Project Cost (excludes COO)	\$33,000.00
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#### Total Cost-of-Ownership Charges for Project:

The Interconnection Customer has elected the following by placing a check mark against it for Cost-of-Ownership for the applicable Interconnection Facilities and/or Distribution Upgrade. Details on the scope that is subject to Cost-of-Ownership are found in Attachment 2 for Interconnection Facilities and Attachment 6 (above) for Distribution Upgrade. The Cost-of-Ownership will commence upon the In-Service Date per Section 4.1.2.

A. ☐ Monthly Cost-of-Ownership Charge

$$\text{\$ } 33,000.00 \times 0.48\% \text{ (current percentage rate)} = \text{\$ } 158.40$$

Total Monthly Cost-of-Ownership Charge	\$158.40 / month
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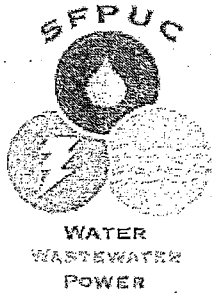
<sup>3</sup> The COST-OF-OWNERSHIP Charge for Interconnections provided under this Agreement is determined in accordance with PG&E's applicable percentage rates calculated using PG&E's most recent distribution owner revenue requirement on file with and accepted by FERC. PG&E currently charges the following COST-OF-OWNERSHIP rates for distribution facilities: Customer financed, Distribution-level Rate of 0.48% monthly.

B. ☒ Equivalent One-Time Charge (in lieu of recurring Monthly Cost-of-Ownership Charge)

\$ 158.40 / month x 12 months x 13.07 (present worth factor<sup>4</sup>) = \$ 24,843.46

Total Equivalent One-Time Charge	\$ 24,843.46
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<sup>4</sup> The Present Worth Factor (PWF), which is also known as the perpetuity factor, is used under this agreement to determine the equivalent One-Time Payment. This financial factor is the reciprocal of the after-tax Rate of Return on Rate Base (ROR). The after-tax ROR is calculated by the Economic and Project Analysis Department and is based on CPUC decisions, which establish the Return on Rate Base.



## SAN FRANCISCO PUBLIC UTILITIES COMMISSION

BUREAU OF ENVIRONMENTAL MANAGEMENT  
1145 Market St., Suite 500, San Francisco, CA 94103 • Tel. (415) 934-5700 • Fax (415) 934-5750 • TTY (415) 554-3468



May 2, 2011

EDWIN M. LEE  
MAYOR

FRANCESCA VIETOR  
PRESIDENT

ANSON MORAN  
VICE PRESIDENT

ANN MOLLER CAEN  
COMMISSIONER

ART TORRES  
COMMISSIONER

VINCE COURTNEY  
COMMISSIONER

ED HARRINGTON  
GENERAL MANAGER

John Rahaim, Director of Planning  
San Francisco Planning Department  
1650 Mission Street, Suite 400  
San Francisco, CA 94103

Attention: Diana Sokolove, Senior Environmental Planner  
Environmental Planning Division

Stephen Shotland, Senior Planner  
Citywide Planning Division

RE: CEQA Exemption Request and  
General Plan Conformity Request for the  
University Mound Reservoir South Basin  
Renewable Hydroelectric Facility Project  
Index Code: 519941

Dear Diana and Stephen:

The San Francisco Public Utilities Commission (SFPUC) requests review of the proposed Power Enterprise University Mound Reservoir South Basin Renewable Hydroelectric Facility Project under the California Environmental Quality Act (CEQA). The purposes of this letter are to (1) provide the Major Environmental Analysis (MEA) Division of the San Francisco Planning Department with a detailed description of the Project, and (2) request MEA concurrence that the proposed Project is categorically exempt under CEQA Section 15301, Class I (Existing Facilities). Class I, Subsections (b) provides for the operation, repair, maintenance, permitting, leasing, licensing or minor alteration of existing facilities of both investor and publicly owned utilities use to provide electric power, natural gas, sewerage, or other public utility services. The following description illustrates the proposed Project would not result in adverse environmental effects, and provides support for our recommendation that the activities are categorically exempt under CEQA. The Project would be conducted in compliance with applicable federal, State, and local regulations and under contractual provisions prohibiting work in violation of applicable regulations and plans.

Provided below is relevant background information regarding the purpose and need for the Project. Also below, environmental information regarding potential environmental effects, as well as CEQA compliance, is addressed. Attached are figures showing the proposed Project location and design.

Also attached is an application for General Plan Conformity Determination Request for issuance by the Planning Director and relevant policies and objectives specified in the San Francisco General Plan.

The proposed Project would install a distributed generation resource, and a qualifying renewable energy resource that would produce no greenhouse gas. The purpose of this proposed Project is to promote sustainability and good stewardship of the SFPUC resources, and to further the development of the City and County of San Francisco's renewable generation resources.

### **Project Description**

The proposed Project would consist of the installation of a 240 kW small conduit type mini-hydroelectric project, located at the southeast corner of the City Distribution Division (CDD) University Mound Reservoir (South Basin), on the blocks bounded by Bowdoin Street, Bacon Street, University Street, and Woolsey Street (Assessor's Block/Lot: 5973-002). The proposed mini-hydroelectric project would connect to the potable water transmission pipelines that feed the University Mound Reservoir, and adjacent to the automatic electric McLaren Park Pumping Station which is located at the northwest corner of the intersection of Bowdoin and Woolsey streets. (See attachment G2: Location & Vicinity Map.)

University Mound Reservoir is zoned P (Public) and in an OS (Open Space) height and bulk district surrounded predominately by a Single-Family (RH-1 zoning) residential neighborhood in the Portola neighborhood (except the southwest corner of the Reservoir which is adjacent to McLaren Park, operated and maintained by the City's Recreation and Park Department). University Mound consists of two potable water reservoirs (North and South Basins), which are off-stream, covered water supply reservoirs serving the SFPUC's municipal water system in the eastern half of the City. As off-stream reservoirs, they do not acquire water from or discharge water into any natural stream or local storm water basin. All the water that supplies the reservoirs is delivered from the two transmission system Crystal Springs Pipelines Numbers. 1 and 2 (CSPL1 and CSPL2) which bring system water into San Francisco. Water from the University Mound Reservoir feeds the City Distribution Division system to serve retail customers on the east side of San Francisco.

Similarly, the proposed mini hydroelectric project simply reroutes, through new underground supply and return lines interconnecting to CSPL 1 and CSPL2, all the water flowing in these pipelines which would pass through new turbines to generate hydroelectric power. No other water acquisition or water discharge would result from construction of the proposed Project.

Currently, there is approximately 100 feet of excess water pressure ("head") available in both CSPL1 and CSPL2 delivering water to the University Mound Reservoir. The proposed Project would utilize this excess water pressure to rotate hydroelectric turbine generators which would create the renewable hydroelectric energy.

The power produced by this Project, estimated at approximately 1,586,494 kW hours annually, would contribute to the clean and renewable electric load-serving capacity of the SFPUC, which serves the City's aggregated municipal electric load (City facilities such as City Hall, the Municipal Railway and the San Francisco International Airport). Since there is no reliable or equivalent load at

John Rahaim, Director of Planning

Attention: Diana Sokolove, Senior Environmental Planner & Stephen Shotland, Senior Planner  
University Mound Reservoir South Basin Renewable Hydroelectric Facility Project

May 2, 2011

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the Project site to serve, power from this Project would be exported over the local electric distribution system to serve another SFPUC-served municipal electric load.

The proposed Project would consist of three (3) mini hydroelectric fixed flow-rate Francis turbines, coupled to induction generators, bypass valves (to regulate accurate flows when necessary), all connection piping, isolation and control valves, instrumentation, and electrical controls, meters and protective devices for safe operation. The electrical interconnection to the utility grid via the existing McLaren Park Pumping Station's electric service connection avoids the need for new overhead poles or power lines. The proposed Project would be designed for normal automatic unmanned operation, with minimal maintenance requirements. The Project would also provide full manual operation capabilities.

The Project would be housed in a new 33 foot by 40-1/2 foot 1-story building (approximately 1,340 square foot) adjacent to, and located directly north of the existing McLaren Park Pumping Station Standby Generator house. The proposed building and all equipment would be placed on a mat slab foundation with integral retaining walls, and would abut the existing pedestrian and vehicle surface pavement within the McLaren Park Pumping Station (see attachments Plan Numbers **G-3: Site Survey** and **G-6: General Arrangement Site Plan**). The building would be excavated into the existing grade with the finished floor level at elevation 114 feet. The height of the structure would vary from 10-1/2 to 12-1/2 feet (see attachment Plan Number **A-3, Exterior Elevations**). The proposed Project site would be accessible through existing gates and driveways along Bowdoin Street.

The proposed Project would not alter or increase the current acquisition, or delivery of water into the municipal potable water distribution system. Nor would the Project change the use or operation of the adjacent McLaren Park Pumping Station or the University Mound reservoirs.

All work, facilities, equipment, materials, and ongoing operation and maintenance would be in compliance with the requirements of SFPUC Power Enterprise specifications and safe practices.

The SFPUC has submitted a separate application to the Federal Energy Regulatory Commission for a "Small Conduit Hydroelectric Facility Exemption" for this proposed Project.

Construction equipment used for this Project would include:

- a. Drill rig to construct temporary shoring (soldier pile) drilled pier systems (i.e. boring holes)
- b. Crane to erect soldier pile
- c. Excavator to level the site for the replacement building and remove existing onsite loose fill
- d. Truck to haul excess soil off site
- e. Compaction equipment to compact onsite soil or imported engineering fill
- f. Concrete pumping truck either from the street or within the site
- g. Crane to assist in lifting and placing heavy building, piping, and hydro turbine components
- h. Backhoe/loader for trenching of mechanical systems and sewer/drainage systems.

The Project construction contract is scheduled to be advertised during the Winter 2011 - Spring 2012, with construction commencing in the Fall 2012. Construction is estimated to be completed in approximately nine months (Early 2013). Construction would occur Monday through Friday, between 7:00 am and 5:00 pm. Evening and weekend work is not anticipated.

John Rahaim, Director of Planning

Attention: Diana Sokolove, Senior Environmental Planner & Stephen Shotland, Senior Planner

University Mound Reservoir South Basin Renewable Hydroelectric Facility Project

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### Background Information

The Major Environmental Analysis Division and Citywide Planning Division previously reviewed recent projects at the University Mound Reservoir under the Water System Improvement Program (WSIP) identified in the table below:

Project	File Number	Location	Description
Alemaný Pump Station	2006.1100R	South side of intersection of Felton and Dartmouth streets	Construct 8,800 square foot one-story replacement pump station
Vehicle Service Facility	2007.0108R	Southwest corner of intersection of Felton and Bowdoin streets	Construct 16,000 square foot one-story vehicle/equipment storage warehouse
University Mound Reservoir North Basin Seismic Upgrade	2007.0425E	Block bounded by Felton, Bowdoin, Bacon and University streets	Complete seismic repairs to Reservoir roof and support structure
East-West Transmission Main	2006.011E	Alemaný Pump Station west to Junipero Serra and Holloway	Construct 4.5 mile potable water transmission pipeline
Key Motorized and Other Critical Valves	No File Number (Exemption Approved by MEA 09/19/2005)	North Basin, Intersection of Felton and Dartmouth streets	Replacement of valve and pipeline segment from Gaven Street to North Basin

### Environmental Effects

#### Aesthetics/Visual Quality:

The proposed Proposed would include construction of a 1-story building which would provide security and weather protection for the hydroelectric turbine generators and electrical controls. The new building would be a design similar in character and compatible with the McLaren Park Pumping Station; therefore adverse effects to surrounding visual resources are not anticipated..

The proposed building design presented on the attached Architectural Renderings prepared by the Department of Public Works Bureau of Architecture, has 1) been displayed for interested neighborhood residents at an open-house meeting, and 2) has received Civic Design Phase I and Phase II approval from the Art Commission's Civic Design Review Committee.

John Rahaim, Director of Planning

Attention: Diana Sokolove, Senior Environmental Planner & Stephen Shotland, Senior Planner

University Mound Reservoir South Basin Renewable Hydroelectric Facility Project

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### Biological Resources:

#### Vegetation

Native habitat and native plant species have not been identified at the Project site. Much of the site is paved, and the remainder is previously graded landscape vegetation, primarily sod. There are no undeveloped native habitat areas at the site or surrounding the adjacent University Mound Reservoir. The unpaved areas at the site and in the vicinity are covered by volunteer grasses and Monterey pine trees. No trees would be trimmed or removed to construct the proposed building. Therefore the proposed Project would not affect biological resources.

#### Wildlife

There are no endangered or threatened animal species that are known to exist on site. The adjacent north and south basins of University Mound are both covered by concrete roofs; there are no local wetlands or other water habitat existing at the site or nearby. Prior to the start of construction a qualified biologist would conduct a nesting bird survey of the Project site according to SFPUC Standard Construction Measure Number 8 dated February 7, 2007 (on file at the San Francisco Planning Department Environmental Planning Division). The proposed Project would be constructed and operated in an already developed area; therefore adverse effects to local wildlife are unlikely.

### Cultural Resources:

There are no known historical or archeological resources existing at the site. Although the proposed Project includes excavation to install underground valves and pipelines, the work would occur in land previously disturbed by construction of the reservoir embankment, pipelines, other utilities, and subsequent construction activities. Previous construction activity at the Project site did not encounter any historical or archeological resources. The construction contractor would be required to comply with Standard Construction Measure Number 9 related to the accidental discovery of sub-surface cultural resources. Should such resources be encountered construction would stop in the vicinity of the find and the Environmental Review Officer would be notified. Therefore the proposed Project would not affect cultural resources.

### Hazardous Materials & Waste:

The proposed Project would not increase the use or storage of any hazardous materials at this site. The McLaren Park Pumping Station is identified by the State of California Water Resources Control Board (SWRCB) GeoTracker and Department of Toxic Substances Control (DTSC) Envirostor databases as a permitted Underground Storage Tank (UST), Facility (File Number 21058). Proposed Project excavation would not take place in the vicinity of the existing UST. Neither the Project site nor any surrounding locations were identified as "Open" cases under active remediation. A previous geotechnical investigation (November 2006) conducted for the WSIP University Mound North Basin Seismic Improvements Project (Planning Department File Number 2007.0425E, Approved July 18, 2007) determined that soil and groundwater beneath the Project site are within background levels and should not be considered a hazardous waste.



John Rahaim, Director of Planning  
Attention: Diana Sokolove, Senior Environmental Planner & Stephen Shotland, Senior Planner  
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The construction contractor would be required to maintain a spill kit on site should fuels or lubricants be spilled during excavation or construction. In addition, the construction contractor would be precluded from refueling vehicles on site.

It is not expected that any hazardous materials would be encountered during excavation or grading activities; however, the construction contractor would be required to comply with Standard Construction Measure Number 7 related to characterization, transportation and disposal should hazardous materials be identified.

#### Hydrology/Water Quality:

Storm water runoff from the Project site drains to catch basins and storm drains located both on-site and along the streets that border the site. These drains connect to the City's combined sanitary and storm water system, which transports wastewater to the nearby Southeast Water Pollution Control Plant for treatment. The construction contractor would be required to obtain a permit from the SFPUC Bureau of Environmental Regulation and Management Pollution Prevention Program before collected runoff could be directed to the nearest catch basin or storm drain.

The proposed Project would involve excavation to a depth 14 feet below ground surface to install underground valves and pipelines, and grading for the Project foundation and driveway (see attachments Plans Numbers G-6, **General Arrangement Site Plan** and G-8, **General Arrangement Building and Piping Sections**). Because of the topography, relative shallowness of the excavation activities, and shallowness of bedrock, groundwater would unlikely be encountered. Therefore, the proposed Project would not deplete or contaminate groundwater supplies.

The 1,340 square foot Project footprint is relatively small and would not alter the existing site drainage patterns. Runoff interrupted by the proposed structure would be captured in concrete-lined swales and directed into the existing on-site collection system. Water collected on roof of the building would be directed to sheet flow off the eastern edge into a new vegetated swale, which under a heavy rain would also overflow into the existing on-site collection system. Finally, the existing access driveway would not be altered.

The proposed Project Site is less than 1 acre, so preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) would not be required. Nonetheless, the SFPUC contract technical specifications would require the construction contractor to implement Best Management Practices for control of storm water runoff. These measures would minimize soil erosion in the construction areas and prevent sediment from entering the City's combined sanitary and storm water collection system.

#### Noise:

The proposed Project has been designed for quiet, vibration-free operation. Any noise generated during construction would not exceed residential noise standards and the construction contractor would be required to comply with Standard Construction Measure Noise 6 (refer to City & County of San Francisco Municipal Code, Police Code – Article 29: Regulation of Noise).

John Rahaim, Director of Planning

Attention: Diana Sokolove, Senior Environmental Planner & Stephen Shotland, Senior Planner

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#### Population and Housing:

The proposed Project would install a 240 kW small conduit type mini hydroelectric project adjacent to the existing McLaren Park Pumping Station. Electric power generated by the proposed Project would serve municipal loads currently served by SFPUC Power Enterprise, and not residential and commercial loads served by Pacific Gas & Electric Company. Therefore, the proposed Project would not contribute to population growth by serving new customers.

#### Transportation (during construction):

As indicated in the Project Description above, the proposed Project would be constructed during normal daytime work hours. During the construction period, the University Mound Reservoir and the McLaren Park Pumping Station would continue to function during their normal hours of operation. Bowdoin Street would be temporarily restricted at times to a single lane of traffic during the installation of pipe connections. The SFPUC and its construction contractor would coordinate with the San Francisco Municipal Transportation Agency (SFMTA) Department of Parking and Traffic and the Municipal Railway Service Planning Group to prepare and implement a traffic routing plan. The 54-Felton crosstown diesel bus line runs east- and west-bound along Woolsey Street adjacent to the Project site. Work would be staged to minimize disruption of traffic and local residents' access to their driveways. Construction traffic to and from the Project site would be considered temporary and would not contribute more than approximately 10 round-trip vehicles per day. Therefore, the Project would not cause any traffic hazards or contribute to cumulative traffic increases in the area.

#### Transportation (during operation):

As indicated in the Project Description above, the proposed Project would operate as an unmanned facility. Regular testing and maintenance of the turbines and related equipment would likely require an operator to visit the site weekly or monthly for an hour or two. An operator in a single passenger vehicle would park on site and would not disrupt the flow of traffic along these residential streets.

If, however, repair or replacement of equipment would be required then additional construction equipment could necessitate closure of a lane of traffic and a parking lane.

#### CEQA Compliance/Recommendation

The SFPUC suggests that the proposed 240 kW small conduit type mini-hydroelectric project at University Mound is categorically exempt under CEQA, Section 15301, Existing Facilities, Class 1: The operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. Listed as a specific example under Section 15301: (b): Existing facilities of both investor and publicly-owned utilities used to provide electric power, natural gas, sewerage, or other public utility services.

### **General Plan Conformity Determination Request**

As discussed in the attached Application form, the proposed project is consistent with the Eight Priority Master Plan Policies contained in Section 101.1 of the San Francisco Planning Code. We also recommend the Planning Director find the proposed project is in conformity with the following policies and objectives of the San Francisco General Plan:

#### **Urban Design Element**

##### **NEIGHBORHOOD ENVIRONMENT**

- Objective 4: IMPROVEMENT OF THE NEIGHBORHOOD ENVIRONMENT TO INCREASE PERSONAL SAFETY, COMFORT, PRIDE AND OPPORTUNITY.
- Policy 15: Protect the livability and character of residential properties from the intrusion of incompatible new buildings.

#### **Environmental Protection Element**

##### **FRESH WATER**

- Objective 5: ASSURE A PERMANENT AND ADEQUATE SUPPLY OF FRESH WATER TO MEET THE PRESENT AND FUTURE NEEDS OF SAN FRANCISCO.
- Policy 1: Maintain an adequate water distribution system within San Francisco.
- Policy 3: Ensure water purity

##### **ENERGY MUNICIPAL**

- Objective 12: ESTABLISH THE CITY AND COUNTY OF SAN FRANCISCO AS A MODEL FOR ENERGY MANAGEMENT.
- Policy 3: Investigate and implement techniques to reduce municipal energy requirements.
- Policy 4: Encourage investment in capital projects that will increase municipal energy production in an environmentally responsible manner.
- Objective 16: PROMOTE THE USE OF RENEWABLE ENERGY SOURCES
- Policy 16.1 Develop land use policies that will encourage the use of renewable energy sources

#### **Community Safety Element**

##### **HAZARD MITIGATION**

- Objective 2: REDUCE STRUCTURAL AND NON-STRUCTURAL HAZARDS TO LIFE SAFETY, MINIMIZE PROPERTY DAMAGE AND RESULTING SOCIAL, CULTURAL AND ECONOMIC DISLOCATIONS RESULTING FROM FUTURE DISASTERS.
- Policy 2.1: Assure that new construction meets current structural and life safety standards.

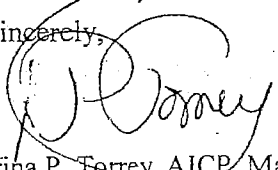
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University Mound Reservoir South Basin Renewable Hydroelectric Facility Project  
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### Conformity with the San Francisco General Plan

Based on the discussion above and the attached General Plan Conformity Determination Request, the SFPUC recommends the Planning Director find the proposed project is in conformity with the applicable policies and objectives of the General Plan.

Should you have questions regarding the proposed Project, please contact Russell Stepp, SFPUC Power Enterprise at 554-3267 or Barry Pearl, SFPUC Bureau of Environmental Management at 551-4573.

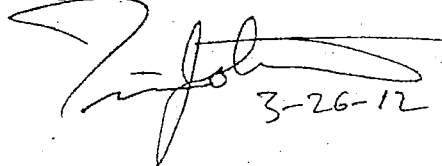
Sincerely,

  
Irina P. Torrey, AICP, Manager  
Bureau of Environmental Management  
San Francisco Public Utilities Commission

SAN FRANCISCO DEPARTMENT OF CITY PLANNING  
CATEGORICALLY EXEMPT FROM ENVIRONMENTAL REVIEW

**CLASS 1 (EXISTING FACILITIES)**

PER SEC. 15301 OF CEQA GUIDELINES

  
3-26-12

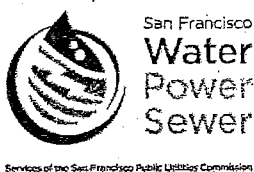
Attachments: (Drawings and Illustration, Prepared by SF DPW, Bureau of Engineering, Undated)

Plan No. G-2	General Notes, Location & Vicinity Map
Plan No. G-3	Site Survey and Project Boundaries
Plan No. G-6	General Arrangement Site Plan
Plan No. G-7	General Arrangement Floor Plan & Sections
Plan No. G-8	General Arrangement Building and Piping Sections
Plan No. A-3	Exterior Elevations
Plan No. A-4	Building Section

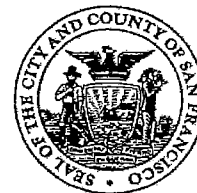
Architectural Rendering: University Mound Hydroelectric Plant / Perspectives, Prepared by  
SFPDW, Bureau of Architecture, Undated

Geotechnical Memorandum, Prepared by the San Francisco Department of Public Works,  
Bureau of Engineering, March 16, 2011

cc: John Doyle, Manager, Energy Generation Projects, SFPUC Power Enterprise  
Russell Stepp, Utility Specialist, SFPUC, Power Enterprise  
Randall Smith, Utility Specialist, SFPUC, Power Enterprise  
Barry Pearl, AICP, MPA, Senior Environmental Project Manager, SFPUC, BEM  
Austin M. Yang, Deputy City Attorney, Office of the City Attorney



**AGENDA ITEM**  
**Public Utilities Commission**  
*City and County of San Francisco*



DEPARTMENT Power Enterprise AGENDA NO. 10  
MEETING DATE February 26, 2013

**Authorize Agreement:** Regular Calendar  
**Project Manager:** John Doyle

**Pacific Gas and Electric Company, Small Generator Interconnection Agreement, for University Mound Reservoir Renewable Hydroelectric Facility**

<b>Summary of Proposed Commission Action:</b>	<p>Authorize the General Manager of San Francisco Public Utilities Commission (SFPUC) to enter into a Small Generator Interconnection Agreement (SGIA) with Pacific Gas and Electric Company (PG&amp;E) to connect the University Mound Renewable Hydroelectric Project to the PG&amp;E electric grid. The SGIA will have a maximum cost of \$86,765.18, which includes \$49,500 for network upgrades, and \$37,265.18 for a one-time charge to cover PG&amp;E's long term cost of ownership of said upgrades. The SGIA has a duration of 10 years subject to automatic renewal every year thereafter.</p>
<b>Background:</b>	<p>SFPUC Power Enterprise is planning the design and construction of a small 240 kilowatt capacity renewable hydroelectric project at University Mound Reservoir. It will deliver qualifying renewable electricity derived solely from excess hydraulic energy in the water that is already gravity flowing within the SFPUC's water pipelines delivering water from Crystal Springs to the University Mound Reservoirs.</p> <p>In addition to the qualifying renewable electricity, the project will provide significant operational enhancements for City Distribution Division's water system (i.e. automated reservoir level management, increased operational flexibility, and emergency pressure reduction and control capabilities). The project is estimated to produce 1,600 megawatt hours of renewable electricity, and will have a long plant life of 50 or more years.</p> <p>Environmental planning and licensing are complete, and final design is being completed. The project building design has received the Arts Commission Phase 3 approval, and a Categorical Exemption was received from City Planning. Federal Energy Regulatory Commission (FERC) issued the project's Conduit Exemption on Oct 4, 2012 (an</p>

**APPROVAL:** \_\_\_\_\_

COMMISSION  
SECRETARY

Donna Hood

exemption from extensive hydroelectric FERC licensing requirements). Extensive public outreach has been conducted by the SFPUC with the neighborhood.

An approved budget of \$4.3 million for CUH99401 - University Mound Hydro Project is currently included in the Hetch Hetchy Capital Improvement Program. The SFPUC is completing the final design and specification packages in anticipation of advertising for bids in the 4<sup>th</sup> quarter of this year. The PG&E electrical interconnection agreement is essential to finalize the construction specification package, and to maintain the overall project schedule. Power Enterprise will return to the Commission to seek approval prior to construction bid advertising.

#### The Agreement

The SGIA agreement is needed prior to finalization of the detailed design and specifications for the project, and subsequent issuance of an Request for Proposal (RFP) for construction; to define the electrical requirements needed to complete the final design and construction contract; to provide an accurate estimate of interconnection costs; and to reserve our electrical distribution access over the PG&E's electrical system.

The SGIA requires approval by the Board of Supervisors (BOS) because it has a duration exceeding 10 years. In addition, BOS approval is required because certain standard City contracting provisions are not included in the agreement. The SGIA is a form contract approved by the FERC, and there is limited ability to alter the agreement to include City provisions.

The estimated network upgrade costs of \$33,000 will be paid to PG&E up front and held in deposit. This payment compensates PG&E for modifying the local electrical system to safely carry electric output from this project to another local Hetch Hetchy served electric customer.

This upgrade work will not take place until after the Commission is presented with final construction contracts for approval, environmental findings, and any other necessary project actions.

The Cost of Ownership component of the total cost is estimated to be \$24,843.46 and is paid to PG&E later at the time of plant start-up. The estimated costs from PG&E are subject to revisions, plus or minus 50%. Applying this factor to the estimated costs results in the not-to-exceed amount of \$86,765.18. However, the final compensation to PG&E under this agreement is limited to actual costs subject to true-up and audit. Any balance retained by PG&E following completion, or if the project does not go forward, will be refunded to SFPUC.

**Commission Meeting Date:** February 26, 2013

<b>Result of Inaction:</b>	A delay in approving this project item will delay the issuance of the RFP for construction, and potentially extend construction time; it could contribute to the risk of not complying with a FERC requirement to begin construction prior to Oct 4, 2014; and it potentially affords some additional project risk should we delay execution of the agreement and relinquish our interconnection queue position.
<b>Budget &amp; Costs:</b>	Funds for this contract are available from CUH99401 - University Mound Hydro Project.  The cost related to this Electrical Interconnection Agreement will not exceed \$86,765.18. All costs will go to the design and building of this project.
<b>Description of Project Action:</b>	The project action is for the Commission to authorize the General Manager of the SFPUC to enter into an SGIA agreement with PG&E, in substantially the form of the draft SGIA that is attached to this item.
<b>Recommendation:</b>	SFPUC staff recommends that the Commission adopt the attached resolution.
<b>Attachments:</b>	1. SFPUC Resolution 2. Draft Small Generator Interconnection Agreement with PG&E

## PUBLIC UTILITIES COMMISSION

City and County of San Francisco

RESOLUTION NO. 13-0037

WHEREAS, San Francisco Public Utilities Commission (SFPUC) Power Enterprise is planning the design and construction of a small 240 kilowatt capacity hydroelectric project at University Mound reservoir which takes advantage of the available renewable resource, water energy, flowing in the pipes from Crystal Springs Reservoir to University Mound; and

WHEREAS, In order to make use of this renewable resource's electric generation, SFPUC must enter into a Small Generator Interconnection Agreement with Pacific Gas and Electric Company (PG&E), so that the electricity can be carried over PG&E lines to other SFPUC served electric customers; and

WHEREAS, The estimated cost of the services provided is \$57,843, including \$33,000 for network upgrades and a \$24,843.46 one-time charge to cover PG&E's long term cost of ownership of said upgrades; and

WHEREAS, The total contracting authority sought herein is \$86,765.18, which reflects a 50% contingency to account for the plus or minus 50% factor included in PG&E's cost estimate; and

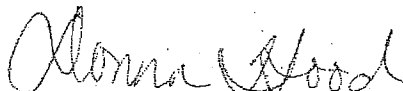
WHEREAS, The agreement has a duration of 10 years, subject to automatic renewal every year thereafter; and

WHEREAS, Funds for this agreement will be available at the time of award of the agreement from Project No. CUH99401 - University Mound Hydro Project; now, therefore, be it

RESOLVED, That this Commission hereby authorizes the General Manager of the San Francisco Public Utilities Commission to execute a Small Generator Interconnection Agreement with PG&E, substantially in the form of the draft agreement attached to this Resolution, with a cost cap not to exceed \$86,765.18, and with a total duration of 10 or more years; and be it

FURTHER RESOLVED, That this Commission authorizes the General Manager to submit the agreement to the Board of Supervisors for its review and approval.

*I hereby certify that the foregoing resolution was adopted by the Public Utilities Commission at its meeting of February 26, 2013.*



*Secretary, Public Utilities Commission*



**FORM SFEC-126:**  
**NOTIFICATION OF CONTRACT APPROVAL**  
(S.F. Campaign and Governmental Conduct Code § 1.126)

City Elective Officer Information <i>(Please print clearly.)</i>	
Name of City elective officer(s): Members, Board of Supervisors	City elective office(s) held: Members, Board of Supervisors

Contractor Information <i>(Please print clearly.)</i>
Name of contractor: <b>Pacific Gas &amp; Electric Co.</b>
<p><i>Please list the names of (1) members of the contractor's board of directors; (2) the contractor's chief executive officer, chief financial officer and chief operating officer; (3) any person who has an ownership of 20 percent or more in the contractor; (4) any subcontractor listed in the bid or contract; and (5) any political committee sponsored or controlled by the contractor. Use additional pages as necessary.</i></p> <p>(1) David R. Andrews Retired Senior Vice President Government Affairs, General Counsel, and Secretary of PepsiCo, Inc.</p> <p>Lewis Chew Former Senior Vice President, Finance and Chief Financial Officer of National Semiconductor Corporation</p> <p>C. Lee Cox Retired Vice Chairman of AirTouch Communications, Inc. and retired President and Chief Executive Officer of AirTouch Cellular</p> <p>Anthony F. Earley Jr. Chairman of the Board, Chief Executive Officer and President of PG&amp;E Corporation</p> <p>Fred J. Fowler Chairman of the Board of Spectra Energy Partners, LP</p> <p>Christopher P. Johns President, Pacific Gas and Electric Company</p> <p>Maryellen C. Herringer Retired Executive Vice President, General Counsel, and Secretary of APL Limited</p> <p>Roger H. Kimmel Vice Chairman of Rothschild Inc.</p> <p>Richard A. Meserve President of Carnegie Institution of Washington</p> <p>Forrest E. Miller Retired Group Vice President, Corporate Strategy and Development of AT&amp;T Inc.</p> <p>Rosendo (Ro) G. Parra Retired Senior Vice President of Dell Inc.</p>

Barbara L. Rambo  
Chief Executive Officer of Taconic Management Services

Barry Lawson Williams  
President of  
Williams Pacific Ventures, Inc.

- (2) Chief executive officer  
Anthony F. Earley Jr. Chairman of the Board,  
Chief Executive Officer  
and President of PG&E Corporation

Chief Financial Officer  
Kent M. Harvey Senior Vice President and Chief Financial Officer

Chief Operating Officer  
Christopher (Chris) P. Johns President Pacific Gas and Electric Co.

- (3) NA  
(4) None  
(5) NA

Contractor address:  
77 Beale St. San Francisco, CA 94105

Date that contract was approved:  
(By the SF Board of Supervisors)

Amount of contracts:  
\$86,765.18

Describe the nature of the contract that was approved:  
Small Generator Electrical Interconnection Agreement for connecting the future SFPUC's University Mound Renewable Hydroelectric Project to PG&E lines. This interconnection facilitates moving the plants generated renewable electric to be another Hetch Hetchy electricity served facility. Scope includes PG&E final engineering, installation of PG&E electric meter equipment, and PG&E pre parallel safety inspection services to assure a safe connection to PG&E power lines.

Comments:  
Information provided by Russell Stepp, SFPUC, Power Enterprise

This contract was approved by (check applicable):

☐ the City elective officer(s) identified on this form

☒ a board on which the City elective officer(s) serves: San Francisco Board of Supervisors  
Print Name of Board

☐ the board of a state agency (Health Authority, Housing Authority Commission, Industrial Development Authority Board, Parking Authority, Redevelopment Agency Commission, Relocation Appeals Board, Treasure Island Development Authority) on which an appointee of the City elective officer(s) identified on this form sits

Print Name of Board

**Filer Information** (Please print clearly.)

Name of filer:  
Angela Calvillo, Clerk of the Board

Contact telephone number:  
(415) 554-5184

Address:  
City Hall, Room 244, 1 Dr. Carlton B. Goodlett Pl., San Francisco, CA 94102

E-mail:  
Board.of.Supervisors@sfgov.org

Signature of City Elective Officer (if submitted by City elective officer)

Date Signed

Signature of Board Secretary or Clerk (if submitted by Board Secretary or Clerk)

Date Signed