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October 1, 2015

Advice 4713-E

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: Submission of Data Necessary to Calculate the Market Price Benchmark for 2016 in Compliance With Resolution E-4475

Purpose

In compliance with Ordering Paragraph (OP) 4, of California Public Utilities Commission's (Commission or CPUC) Resolution E-4475, Pacific Gas and Electric Company (PG&E) is submitting data necessary to calculate the market price benchmark (MPB) for 2016, in accordance with that resolution. In addition, the value of the capacity PG&E plans to include in the benchmark calculation is discussed below.

Background

Resolution E-4475, OP 4, requires that by October 1 of each year, PG&E, San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE), shall file Tier 1 advice letters to update the data specified in OP 4 of Decision (D.)11-12-018 so that the applicable percentage weightings (32% for Department of Energy (DOE) data and 68% for utility data) are updated in subsequent years.

OP 4 of D.11-12-018 requires PG&E, SDG&E, and SCE to identify the data necessary to revise the Power Charge Indifference Amount (PCIA), Ongoing Competition Transition Charge (CTC), and Transitional Bundled Service (TBS) tariffs. Specifically, the information to be provided includes:

- a. most recent 12-month figures derived from US Department of Energy survey of Western US renewable energy premiums in calculating a weighted proxy for the Market Price Benchmark compiled by the National Renewable Energy Laboratory; and

- b. all Renewable Portfolio Standard (RPS)-compliant resources that are used to serve Investor Owned-Utility (IOU) customers during the current year (i.e., most recent 12 months) and those projected to serve customers during the next year, including both contracts and IOU-owned resources, including the projected costs together with the net qualifying capacity of energy produced by each of these resources (providing relevant costs in dollars and volumes in MWh and qualifying capacity in kW).

From this information, the Commission will then adopt an RPS adder to be used to determine a MPB. The RPS adder proxy value will be based on a 32% weighting of the DOE data in relation to a 68% weighting of the IOU cost data and will reflect renewable resources in the calculation of the PCIA and Ongoing CTC.

The average cost of power from the IOU RPS resources will be determined by summing up all the costs from all three IOUs, subtracting the product of the net qualifying capacity of those resources times the IOU's current resource adequacy capacity adder used in the MPB, and dividing by the sum of all the MWhs from all three IOUs.

Appendix A provides the most recent data from the DOE survey of Western US renewable energy premiums. Confidential Appendix B provides all RPS-compliant resources that began serving customers in 2015 or are forecast to begin serving customers in 2016. Energy Division will combine this data with SDG&E's and SCE's data and will provide a renewable adder for 2015. This adder will be used to update the 2016 forecast PCIA and Ongoing CTC in PG&E's November Update of the 2016 ERRRA Forecast.

Resource Adequacy Capacity Value

D.11-12-018 agreed that it is reasonable to provide a means for updating the Resource Adequacy (RA) capacity value included in the MPB and adopted SCE's proposal to update the RA capacity adder using the Net Qualifying Capacity of the utility electric supply portfolio and the most recent California Energy Commission (CEC) estimate of the going forward costs of a combustion turbine.¹ Based on the CEC's most recent estimate, the RA capacity value to be included in the MPB would be \$58.27/kW-yr. This estimate is based on data from Table E-4 of the CEC's Final Staff Report of the Estimated Cost of New Renewable and Fossil Generation in California, and is the summation of three components: (1) Insurance (\$9.29), (2) Ad Valorem (\$13.47) and (3) Fixed Operations & Maintenance (O&M) (\$35.51).²

¹ D.11-12-018 at p. 115.

² See: [California Energy Commission, Estimated Cost of New Renewable and Fossil Generation in California Final Staff Report, Appendix E, Table E-4](#)

Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, facsimile or E-mail, no later than October 21, which is 20 days after the date of this filing. Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: EDTariffUnit@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest shall also be sent to PG&E either via E-mail or U.S. mail (and by facsimile, if possible) at the address shown below on the same date it is mailed or delivered to the Commission:

Erik Jacobson
Director, Regulatory Relations
c/o Megan Lawson
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-7226
E-mail: PGETariffs@pge.com

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

Effective Date

PG&E requests that this Tier 1 advice filing become effective October 1, 2015, which is the date of filing.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the parties on the service lists for R.07-05-025 and A.15-06-001. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter filings can also be accessed electronically at: <http://www.pge.com/tariffs/>.

_____/s/

Erik Jacobson
Director, Regulatory Relations

Attachments**Public Attachments:**

Appendix A: Department of Energy Renewable Data
Appendix B: Renewable Resources Online in 2015 and 2016 (Public)
Appendix C: Confidentiality Declaration and Matrix

Confidential Attachment:

Appendix B: Renewable Resources Online in 2015 and 2016

cc: Service List R.07-05-025
Service List A.15-06-001

Appendix A

Department of Energy Renewable Data

PE-04

Pacific Gas And Electric
 Advice 4713-E pursuant to D.11-01-016
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Appendix A Western States Utility Green Pricing Programs

State-Specific Utility Green Pricing Programs (<http://apps3.cere.energy.gov/greenpower/markets/pricing.shtml?page=1>) Western US Only
 Western US Only

State-Specific Utility Green Pricing Programs (verified January 2015)						
State	Utility Information	Enrollment Information	Type	Start Date	Premium	Premium (cents/kWh)
AZ	Arizona Public Service	Green Choice	wind, biomass, landfill gas, geothermal, and	2007	1.02c/kWh	1.02
AZ	Salt River Project	EarthWise Energy	PV for non-profits	1998/2001	Contribution	
AZ	Tri-State Generation & Transmission: Columbus Electric Cooperative, Inc.	Renewable Resource Power Rider	wind, hydro	2001	1.25c/kWh	1.25
AZ	Tucson Electric	Bright Tucson Community Solar Program	local PV	2010	2.0c/kWh	2.00
AZ	UniSource Energy Services	Bright Arizona Community Solar Program	local PV	2004	2.0c/kWh	2.00
CA	Alameda Municipal Power	Alameda Green	wind, solar	2012	1.5c/kWh	1.50
CA	Anaheim Public Utilities	Green Power for the Grid	various renewables	2002	2.0c/kWh	2.00
CA	Anaheim Public Utilities	Sun Power for the Schools	PV	2002	Contribution	
CA	Los Angeles Department of Water and Power	Green Power for a Green LA	wind, hydro and PV	1999	3.0c/kWh	3.00
CA	Marin Clean Energy: City of Belvedere, Town of Fairfax, County of Marin, City of Mill Valley, Town of San Anselmo	Local Sol	100% local solar	2014	6.0c/kWh	6.00
CA	Marin Clean Energy: City of Belvedere, Town of Fairfax, County of Marin, City of Mill Valley, Town of San Anselmo	Deep Green	100% renewable	2010	1.0c/kWh	1.00
CA	Marin Clean Energy: City of Belvedere, Town of Fairfax, County of Marin, City of Mill Valley, Town of San Anselmo	Light Green	50% renewable	2008	0.0c/kWh	0.00
CA	PacifiCorp: Pacific Power	Blue Sky Block	wind	2000	1.95c/kWh	1.95
CA	Pasadena Water & Power	Green Power	wind	2003	2.5c/kWh	2.50
CA	Roseville Electric	Green Roseville	wind, PV	2005	0.5c/kWh	0.50
CA	Sacramento Municipal Utility District	Greenenergy	100% wind, PV, landfill gas, hydro, geother	1997	\$6/month	1.00
CA	Sacramento Municipal Utility District	SolarShares	PV	2007	\$10.75/mo	1.79
CA	Silicon Valley Power / 3Degrees	Santa Clara Green Power	wind, PV	2004	1.5c/kWh	1.50
CA	Sonoma Clean Power	Clear Start	36% biomass, geothermal, wind	2014	0.0c/kWh	0.00
CA	Sonoma Clean Power	Evergreen	100% geothermal	2014	3.5c/kWh	3.50
CO	Colorado Springs Utilities	Renewable Energy Certificates Program	wind and geothermal	2008	0.34c/kWh	0.34
CO	Colorado Springs Utilities	Green Power	wind	1999	3.0c/kWh	3.00
CO	Holy Cross Energy	Wind Power Pioneers	wind	1998	0.5c/kWh-1.25c/kWh	0.88
CO	Holy Cross Energy	Local Renewable Energy Pool	small hydro	2002	2.33c/kWh	2.33
CO	Platte River Power Authority: Estes Park, Fort Collins Utilities, Longmont Power & Communications, Loveland Water	Nature's Energy	wind	1999	1.3c/kWh-2.96c/kWh	2.13
CO	Tri-State Generation & Transmission: Delta-Montrose Electric Association, Empire Electric Association, Inc., Gunnison	Green Power Program	wind, solar, and hydro	1998	1.25c/kWh	1.25
CO	Xcel Energy	WindSource	wind	1997	2.16c/kWh	2.16
CO	Yampa Valley Electric Association	Green Power Options	wind and solar	1999	0.6c/kWh	0.60
ID	Avista Utilities	Buck-A-Block	wind, solar and biomass	2002	0.35c/kWh	0.35
ID	Idaho Power	Green Power Program	wind	2001	Contribution	
ID	PacifiCorp: Rocky Mountain Power	Blue Sky	wind	2003	1.95c/kWh	1.95
ID	Vigilante Electric Cooperative	Alternative Renewable Energy Program	wind	2003	1.1c/kWh	1.10
MT	Basin Electric Power Cooperative: Flathead Electric Coop, Lower Yellowstone, Powder River Energy	Prairie Winds	wind	2000	varies by utility	
MT	Northwestern Energy	E+ Green	wind, PV	2003	2.0c/kWh	2.00
MT	Park Electric Cooperative	Green Power Program	various renewables	2002	0.09c/kWh	0.09
MT	Tri-State Generation & Transmission: Big Horn Rural Electric Company	Renewable Resource Power Service	wind, hydro	2001	1.25c/kWh	1.25
MT	Vigilante Electric Cooperative	Alternative Renewable Energy Program	wind	2003	1.1c/kWh	1.10
NV	Deseret Power: Mt. Wheeler Power Cooperative	GreenWay	various	2005	1.95c/kWh	1.95
NV	NV Energy	Desert Research Institute's GreenPower Pro	PV on schools	Unknown	Contribution	
NV	NV Energy	NV Green Energy Rate	50% or 100% renewables	2013	varies quarterly	
NM	El Paso Electric Company	Renewable Energy Tariff	solar, wind, geothermal, hydro and biomass	2003	5.84c/kWh	5.84
NM	Los Alamos Department of Public Utilities	LA Green	wind, solar and hydro	2013	0.5c/kWh	0.50
NM	Public Service of New Mexico	PNM Sky Blue	solar and wind	2003	1.7c/kWh	1.70
NM	Tri-State Generation & Transmission: Central New Mexico Electric Cooperative, Inc., Columbus Electric Cooperative	Renewable Resource Power Service	wind, hydro	2001	varies by utility	
NM	Xcel Energy	WindSource	wind	1999	4.12c/kWh	4.12
OR	City of Ashland / Bonneville Environmental Foundation	Renewable Pioneers	PV, wind	2003	2.0c/kWh	2.00
OR	Columbia River PUD	Choice Energy	wind	2005	1.5c/kWh	1.50
OR	Emerald People's Utility District	GREEN for Homes	wind and landfill gas	2011	0.8c/kWh	0.80
OR	Eugene Water & Electric Board	EWEB Greenpower	various renewables	2007	1.0c/kWh-1.5c/kWh	1.25
OR	Idaho Power	Green Power Program	wind	2001	Contribution	
OR	Midstate Electric Cooperative	Environmentally-Preferred Power	wind	1999	2.5c/kWh	2.50
OR	Oregon Trail Electric Cooperative	Green Power	wind	2002	1.5c/kWh	1.50
OR	Pacific Northwest Generating Cooperative: Blachly-Lane Electric Cooperative, Central Electric Cooperative, Clearwater	Green Power	landfill gas	1998	1.8c/kWh-2.0c/kWh	1.90
OR	PacifiCorp: Pacific Power	Blue Sky Block	wind	2000	1.95c/kWh	1.95
OR	PacifiCorp: Pacific Power	Blue Sky OS (Commercial Only)	wind	2004	Sliding scale depending on size	
OR	Portland General Electric /	Clean Wind for Medium to Large Commercial	wind	2002	0.3c/kWh	0.30
OR	Portland General Electric /	Clean Wind	wind	2002	1.25c/kWh	1.25
OR	Portland General Electric /	Green Source	wind, landfill gas, low-impact hydro	2002	0.8c/kWh	0.80
OR	Springfield Utility Board	ECOchoice	various	2007	1.0c/kWh	1.00
UT	City of St. George	Clean Green Power	wind, small hydro	2005	2.95c/kWh	2.95
UT	Deseret Power: Bridger Valley Electric, Dixie Escalante Rural Electric, Flowell Electric, Garkane Energy, Moon Lake	GreenWay	various	2004	1.95c/kWh	1.95
UT	PacifiCorp: Rocky Mountain Power	Blue Sky	wind	2003	1.95c/kWh	1.95
UT	PacifiCorp: Utah Power	Blue Sky	wind	2000	1.95c/kWh	1.95
UT	Tri-State Generation & Transmission: Empire Electric Association, Inc.	Renewable Resource Power Service	wind, hydro	2001	1.25c/kWh	1.25
WA	Avista Utilities	Buck-A-Block	wind, solar and biomass	2002	0.35c/kWh	0.35
WA	Benton County Public Utility District	Green Power Program	landfill gas, wind, hydro	1999	Contribution	
WA	Chelan County PUD	Sustainable Natural Alternative Power (SNAP)	PV, wind, micro hydro	2001	Contribution	
WA	Clallam County PUD	Watts Green	landfill gas	2001	1.7c/kWh	1.70
WA	Clark Public Utilities	Green Lights	PV, wind	2002	1.5c/kWh	1.50
WA	Cowlitz PUD/Bonneville Environmental Foundation	Renewable Resource Energy	wind, PV	2002	0.8c/kWh	0.80
WA	Lewis County PUD	Green Power Energy Rate	wind	2003	2.0c/kWh	2.00
WA	Mason County PUD No. 3	Mason Evergreen Power	wind	2003	1.0c/kWh	1.00
WA	Northern Wasco County PUD	Pure Power	wind	2007	2.5c/kWh	2.50
WA	Orcas Power & Light	Go Green	wind, hydro	1999	4.0c/kWh	4.00
WA	Pacific County PUD	Green Power	landfill gas	2002	1.05c/kWh	1.05
WA	PacifiCorp: Pacific Power	Blue Sky Block	wind	2000	1.95c/kWh	1.95
WA	Peninsula Light	Renewable Option Program	wind	2002	1.5c/kWh	1.50
WA	Puget Sound Energy	Green Power Program	wind, hydro, biogas, solar	2002	1.25c/kWh	1.25
WA	Seattle City Light	Green Up	geothermal, biomass, wind, hydro	2005	1.5c/kWh	1.50
WA	Seattle City Light	Seattle Green Power	PV, biogas	2002	Contribution	
WA	Snohomish County Public Utility District	Planet Power	wind	2002	Contribution	
WA	Tacoma Power	EverGreen Options	wind	2000	1.2c/kWh	1.20
WY	Basin Electric Power Cooperative: Powder River Energy	Prairie Winds	wind	2000	varies by utility	
WY	Cheyenne Light, Fuel and Power Company/Bonneville Environmental Foundation	Renewable Premium Program	99% new wind, 1% new solar	2006	1.24c/kWh	1.24
WY	Lower Valley Energy	Green Power	wind	2003	1.2c/kWh	1.20
WY	PacifiCorp: Pacific Power	Blue Sky	wind	2000	1.95c/kWh	1.95
WY	Tri-State Generation & Transmission: Carbon Power & Light, Inc.	Renewable Resource Power Service	wind, hydro	2001	1.25c/kWh	1.25
WY	Yampa Valley Electric Association	Green Power Options	wind and solar	1999	0.6c/kWh	0.60
					Average Cents / kWh	1.66
					Average \$ / MWh	16.55