

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

**To: CPUC Energy Division  
ED Tariff Unit  
505 Van Ness Avenue, 4<sup>th</sup> Floor  
San Francisco, California 94102**

**PROTEST OF ALLCO RENEWABLE ENERGY LIMITED OF  
ADVICE LETTER 4346-E FILED BY  
PACIFIC GAS AND ELECTRIC COMPANY (U39 E)**

Allco Renewable Energy Limited (“Allco”) submits this protest of Advice Letter 4336-E dated January 29, 2014 (the “Advice Letter”), filed by Pacific Gas and Electric Company (“PG&E”). The Advice Letter seeks to change the time of day (“TOD”) factors for PG&E’s Renewable Market Adjusting Tariff (“ReMAT”) program. Allco is directly impacted by the new proposed TOD factors because it is developing projects in PG&E territory that would receive service under PG&E Section 399.20<sup>1</sup> tariff, which is currently the Re-MAT. For the reasons set forth below, the Commission should reject PG&E’s proposed TOD changes, or in the alternative set the matter for a hearing.

**I. D. 13-11-024 DID NOT AUTHORIZE THE CHANGE OF THE TOD FACTORS FOR THE RE-MAT TARIFF. (GENERAL ORDER 96-B, SEC. 7.4.2(2)).**

In the Advice Letter, PG&E cites D.13-11-024’s approval of certain TOD for purposes of PG&E’s 2013 solicitation as justifying the change of TOD factors for the Re -MAT program.

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<sup>1</sup> All section references herein are to the California Public Utilities Code unless otherwise noted.

D.13-11-024 made it clear that the new TOD factors were approved solely for the 2013 solicitation and that no broader approval was provided. See, D.13 -11-024 at p. 36 (stating “PG&E and SCE are authorized to use in their 2013 RPS solicitation two sets of TOD factors to reflect energy -only and fully deliverable status. . . . Changes to the TOD periods are also authorized. This authorization only applies to the 2013 RPS solicitation.”)

The Re-MAT program is not part of the PG&E 2013 solicitation, which solicitation has closed.<sup>2</sup> As a result, the proposed TOD factor adjustments for the Re -MAT program were clearly not authorized by D.13 -11-024 and must be rejected , or, in the alternative , reviewed in the context of a separate hearing.

## **II. THE TOD FACTORS VIOLATE THE PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978 (PURPA”). (GENERAL ORDER 96-B, SEC. 7.4.2(2)).**

In the case of a standard fixed tilt, solar project, the new TOD factors result in a solar project with deliverability receiving a lower PPA rate than an energy only solar project.

A production report for a standard fixed tilt solar project in PG&E territory is attached hereto. Table 1 below shows the comparison of the current and proposed TOD factors for a fixed tilt project.

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<sup>2</sup> See, PG&E 2013 Solicitation Protocol available at [http://www.pge.com/includes/docs/pdfs/b2b/wholesaleelectricssuppliersolicitation/RPS/2013/2013\\_Solicitation\\_Protocol\\_12162013.pdf](http://www.pge.com/includes/docs/pdfs/b2b/wholesaleelectricssuppliersolicitation/RPS/2013/2013_Solicitation_Protocol_12162013.pdf)

<b>TABLE 1</b>							
<b>PG&amp;E Re-MAT Energy Production and TOD calculator</b>							
<b>CURRENT TOD FACTORS</b>							
<u>Energy Only</u>				<u>Energy and Deliverability</u>			
<u>Production Results (kWh)</u>	<u>Super Peak</u>	<u>Shoulder</u>	<u>Night</u>	<u>Production Results (kWh)</u>	<u>Super Peak</u>	<u>Shoulder</u>	<u>Night</u>
July-Sep	774,010	1,419,206	1,520	July-Sep	774,010	1,419,206	1,520
Oct - March	1,100,670	1,504,512	-	Oct - March	1,100,670	1,504,512	-
April-June	779,767	1,452,783	4,033	April-June	779,767	1,452,783	4,033
Total Generation	2,654,448	4,376,501	5,553	Total Generation	2,654,448	4,376,501	5,553
Unweighted Production	7,036,501			Unweighted Production	7,036,501		
Weighted Production	6,323,646			Weighted Production	7,531,555		
<b>TOD Factor</b>	<b>-10.1%</b>			<b>TOD Factor</b>	<b>7.0%</b>		
Super Peak = Hours Ending 13-20, Mon-Fri (Except NERC holidays)							
Shoulder = Hours Ending 7-12, 21 and 22, Mon-Fri (except NERC holidays) and 7-22 Sat-Sun and all NERC holidays							
Night = Hours Ending 1-6, 23-24 all days including NERC holidays							
<b>Proposed TOD factors</b>							
<u>Production Results (kWh)</u>	<u>Peak</u>	<u>Shoulder</u>	<u>Night</u>	<u>Production Results (kWh)</u>	<u>Peak</u>	<u>Shoulder</u>	<u>Night</u>
July-Sep	334,917	1,858,299	1,520	July-Sep	334,917	1,858,299	1,520
Oct - March	469,636	2,135,546	-	Oct - March	469,636	2,135,546	-
April-June	357,650	1,874,900	4,033	April-June	357,650	1,874,900	4,033
Total Generation	1,162,203	5,868,745	5,553	Total Generation	1,162,203	5,868,745	5,553
Unweighted Production	7,036,501			Unweighted Production	7,036,501		
Weighted Production	6,140,285			Weighted Production	6,128,830		
<b>TOD Factor</b>	<b>-12.7%</b>			<b>TOD Factor</b>	<b>-12.9%</b>		
Peak = Hours Ending 16-21							
Shoulder = Hours Ending 7-15							
Night = Hours Ending 1-6, 22-24							
<b>Decrease in PPA rate from proposed change in TOD factor</b>							
	<b>-2.6%</b>				<b>-19.9%</b>		

With the new TOD factors, the net adjustment to the base Re -MAT rate<sup>3</sup> would be -12.7% for an energy only project and -12.9% for a project with deliverability. Such a result clearly violates PURPA. A qualifying facility has the option to sell energy only or energy and capacity. It may choose to sell energy only to PG&E and retain the capacity to sell separately.

<sup>3</sup> The base Re-MAT rate was determined based upon results of the 2011 Renewable Auction Mechanism, which did not require projects to have full deliverability. Therefore if the \$89.23 Re-MAT initial post-TOD rate was based upon energy only projects and was determined to be “avoided costs”, then an energy only Re-MAT fixed tilt solar project would have been paid 10.1% less than avoided costs at the commencement of the program.

The new TOD factors place a negative value on capacity, which is absurd. At worst, capacity would have a zero value, and it would only have a zero value if PG&E's integrated resources plan provided for no need during the next 20 years for capacity based upon its own generating resources and existing contracts.

**III. THE NEW TOD FACTORS ARE UNJUST AND UNREASONABLE. (GENERAL ORDER 96-B, SEC. 7.4.2(6)).**

Section 451 provides that all rules made by PG&E affecting or pertaining to its service shall be just and reasonable. In addition, Section 761 provides:

Whenever the commission, after a hearing, finds that the rules, practices, . . . or service of any public utility. . . are unjust [or] unreasonable . . . , the commission shall determine and, by order or rule, fix the rules, practices, . . . service, or methods to be observed, . . . enforced, or employed.

Here PG&E new TOD factors would violate that requirement by providing an unreasonably low PPA rate under its Section 399.20 tariff the proposed change.

In addition, it would be unjust and unreasonable for any new TOD factors to apply to any Re-MAT project that has already submitted a PPR. Developers have relied on the fact that there should be no adverse changes from the tariff when service was requested and their PPR fee paid.

**IV. THE NEW PPA RATE USING THE NEW TOD FACTORS DO NOT REFLECT PG&E'S AVOIDED COSTS. (GENERAL ORDER 96-B, SEC. 7.4.2(2) AND 7.4.2(3)).**

The new TOD factors result in a substantial change for a solar project. Under the current TOD factors, standard fixed tilt, solar project would have a TOD adjustment as against the base Re-MAT rate of approximately -10.1% for an energy only project and + 7.0% for a project with deliverability. Under the new TOD factors, the net adjustment would be approximately -12.7% for an energy only project and -12.9% for a project with deliverability. PG&E offers no evidence that the new TOD factors properly represent PG&E's avoided costs under PURPA. Nor has there been any review by the Commission as to whether the PPA rates that would result

from the new TOD rates are representative of PG&E's avoided costs.

**V. NO FURTHER PRICE EROSION UNDER RE-MAT SHOULD BE PERMITTED UNTIL THE VALUE OF LOCATIONAL ADJUSTERS IS PROPERLY ADDRESSED. (GENERAL ORDER 96-B, SEC. 7.4.2(2) AND 7.4.2(3)).**

In D.13-05-034 the Commission stated:

Regarding locational adjusters, the Commission is working toward developing a methodology to value avoided transmission and distribution costs, if possible. The Commission's Energy Division held a workshop in R.11-05-005 related to this topic on January 31, 2013 and will continue to work on this matter. More information on this topic will be provided later in the proceeding.

It would be unjust and unreasonable to allow further price degradation for the Re-MAT program based upon TOD factors when the value of locational adjusters has not yet been adopted.

**VI. THE NEW PPA RATE USING THE NEW TOD FACTORS DOES NOT COMPORT WITH SECTION 399.20(D)(4). (GENERAL ORDER 96-B, SEC. 7.4.2(2) AND 7.4.2(3)).**

Under the current TOD factors, a standard fixed tilt, solar project would have a TOD adjustment as against the base Re-MAT rate of approximately -10.1% for an energy only project and +7.0% for a project with deliverability. Under the new TOD factors, the net adjustment would be -12.7% for an energy only project and -12.9% for a project with deliverability. PG&E offers no evidence that the new TOD factors will result in a PPA rate that satisfies the ratepayer indifference requirement of Section 399.20(d)(4). Nor has there been any review by the Commission as to whether the PPA rates that would result from the new TOD rates satisfy the ratepayer indifference requirement of Section 399.20(d)(4).

**VII. THE CHANGE OF TOD FACTORS FOR THE RE-MAT IS INAPPROPRIATE FOR THE ADVICE LETTER PROCESS AND REQUIRES A FORMAL HEARING. (GENERAL ORDER 96-B, SEC. 7.4.2(5)).**

The new TOD factors result in a substantial change for a Re-MAT solar project—almost a 20% drop for a fixed-tilt solar project with deliverability. With the necessity that any resulting PPA rate satisfies the requirements of PURPA and Section 399.20, and be just and reasonable,

the Advice Letter process is inappropriate. Rather the TOD factors and the resulting PPA rate require a formal hearing. An evidentiary hearing is needed in order to determine the appropriate TOD factors from projects that qualify for the Re-MAT, and whether the resulting PPA rate satisfies the requirements of PURPA, Section 399.20, and is just and reasonable.

**VIII. PG&E HAS NOT STATED WHETHER THEY HAVE PROVIDED NOTICE TO ALL AFFECTED CUSTOMERS . (GENERAL ORDER 96-B, SEC. 7.4.2(1)).**

The Commission's policy as stated in General Order 96-B, § 4.1, is that all interested persons have the opportunity to receive notice of advice letter filings. In addition, General Order 96-B, § 4.2, requires that a utility give affected customers at least 30 days' prior notice before the effective date of any advice letter requesting more restrictive terms. Each of the entities that submitted PPRs under the Re-MAT to PG&E and paid the required fee are customers and interested persons entitled to 30 days' advance notice. There is no evidence that such customers and interested persons received such notice.

**IX. SERVICE .**

Service of notices, orders, and other communications and correspondence related to this protest should be directed to the following:

Thomas Melone  
President  
Allco Renewable Energy Limited  
14 Wall Street, 20<sup>th</sup> floor  
New York, NY 10005  
Phone: (212) 681-1120  
Email: [Thomas.Melone@AllcoUS.com](mailto:Thomas.Melone@AllcoUS.com)

A copy of this protest has been sent to PG&E on this date, February 14, 2014.

**X. CONCLUSION .**

For the reasons stated above, the new TOD rates have not been approved by the Commission, and should not be approved without substantial evidence after a hearing that the

new TOD factors are just and reasonable and comport with PURPA and Section 399.20. No such evidence has been presented. As a result there is no basis on which the Commission could reasonably approve the new TOD factors. Accordingly, the new TOD factors should be rejected.

Respectfully submitted,

/s/Thomas Melone  
Thomas Melone  
President  
Allco Renewable Energy Limited  
14 Wall Street, 20<sup>th</sup> floor  
New York, NY 10005  
Phone: (212) 681-1120  
Email: [Thomas.Melone@AllcoUS.com](mailto:Thomas.Melone@AllcoUS.com)

February 14, 2014

Copy to:

Brian K. Cherry  
Vice President, Regulatory Relations  
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](mailto:PGETariffs@pge.com)

Service list for R.11-05-005

## VERIFICATION

I, Thomas Melone, am the President of Allco Renewable Energy Limited and am authorized to make this verification on its behalf. I have read the foregoing *PROTEST OF ALLCO RENEWABLE ENERGY LIMITED OF ADVICE LETTER 4346 -E FILED BY PACIFIC GAS AND ELECTRIC COMPANY (U39 E)*. The statements in the foregoing document are true based upon my knowledge. I declare under penalty of perjury that the foregoing is true and correct.

Executed this 14th day of February 2014 at New York, NY.

/s/ Thomas Melone

Thomas Melone  
President  
Allco Renewable Energy Limited  
14 Wall Street, 20<sup>th</sup> floor  
New York, NY 10005  
Phone: (212) 681-1120





### Grid-Connected System: Simulation parameters

**Project :** Merced Solar

<b>Geographical Site</b>	<b>Merced/macready Fld</b>	<b>Country</b>	<b>USA</b>
<b>Situation</b>	Latitude 37.3°N	Longitude	120.5°W
Time defined as	Legal Time Time zone UT-8	Altitude	47 m
	Albedo 0.20		

**Meteo data :** Merced/macready Fld, NREL TMY3

**Simulation variant :** Merced Solar

Simulation date 01/02/14 11h52

**Simulation parameters**

<b>Collector Plane Orientation</b>	Tilt 30°	Azimuth 0°
<b>Horizon</b>	Free Horizon	
<b>Near Shadings</b>	No Shadings	

**PV Array Characteristics**

<b>PV module</b>	Si-poly	Model	<b>TSM-300 P14A</b>	
		Manufacturer	Trina Solar	
Number of PV modules		In series	19 modules	In parallel 750 strings
Total number of PV modules		Nb. modules	14250	Unit Nom. Power 300 Wp
Array global power		Nominal (STC)	<b>4275 kWp</b>	At operating cond. 4091 kWp (36°C)
Array operating characteristics (50°C)		U mpp	665 V	I mpp 6155 A
Total area		Module area	<b>27650 m²</b>	

**Inverter**

	Model	<b>!Sunny Tripower 24000TL-US-10</b>		
	Manufacturer	SMA		
Characteristics	Operating Voltage	150-1000 V	Unit Nom. Power	24.0 kW AC
Inverter pack	Number of Inverter	125 units	Total Power	3000.0 kW AC

**PV Array loss factors**

Thermal Loss factor	Uc (const)	26.7 W/m²K	Uv (wind)	0.0 W/m²K / m/s
=> Nominal Oper. Coll. Temp. (G=800 W/m², Tamb=20°C, Wind=1 m/s.)			NOCT	47 °C
Wiring Ohmic Loss	Global array res.	1.2 mOhm	Loss Fraction	1.1 % at STC
Array Soiling Losses			Loss Fraction	3.0 %
Module Quality Loss			Loss Fraction	0.1 %
Module Mismatch Losses			Loss Fraction	2.0 % at MPP
Incidence effect, ASHRAE parametrization	IAM =	1 - bo (1/cos i - 1)	bo Parameter	0.05

**System loss factors**

External transformer	Iron loss (Night disconnect)	0 W	Loss Fraction	0.0 % at STC
	Resistive/Inductive losses	0.5 mOhm	Loss Fraction	1.0 % at STC

**User's needs :** Unlimited load (grid)



## Grid-Connected System: Main results

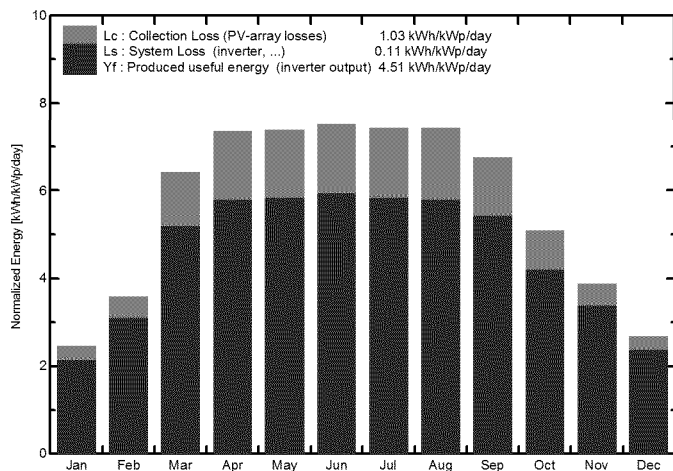
**Project :** Merced Solar

**Simulation variant :** Merced Solar

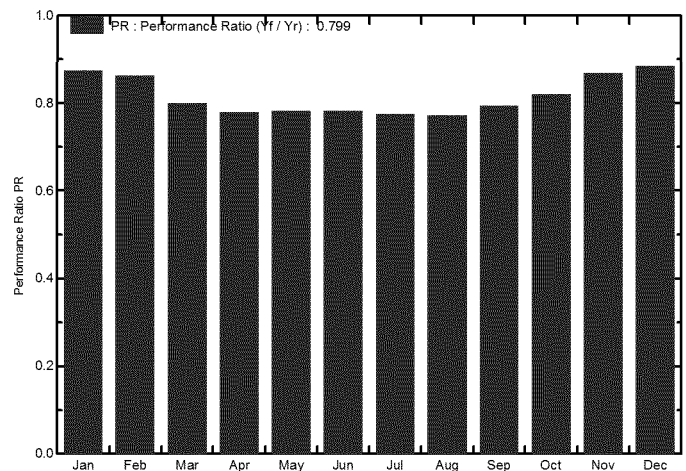
<b>Main system parameters</b>		<b>System type</b>	<b>Grid-Connected</b>	
PV Field Orientation		tilt	30°	azimuth 0°
PV modules		Model	TSM-300 P14A	Pnom 300 Wp
PV Array		Nb. of modules	14250	Pnom total <b>4275 kWp</b>
Inverter		Model	Sunny Tripower 24000TL-USP10m	P10m 24.00 kW ac
Inverter pack		Nb. of units	125.0	Pnom total <b>3000 kW ac</b>
User's needs		Unlimited load (grid)		

<b>Main simulation results</b>				
System Production	<b>Produced Energy</b>	<b>7036 MWh/year</b>	Specific prod.	1646 kWh/kWp/year
	Performance Ratio PR	79.9 %		

**Normalized productions (per installed kWp): Nominal power 4275 kWp**



**Performance Ratio PR**



### Merced Solar Balances and main results

	GlobHor kWh/m <sup>2</sup>	T Amb °C	GlobInc kWh/m <sup>2</sup>	GlobEff kWh/m <sup>2</sup>	EArray MWh	E_Grid MWh	EffArrR %	EffSysR %
January	54.3	7.70	75.0	72.9	286.1	279.6	13.80	13.48
February	77.9	11.00	99.8	96.8	374.7	366.5	13.58	13.28
March	161.7	14.70	198.1	193.1	691.5	675.0	12.62	12.32
April	205.2	17.21	219.7	213.8	747.0	729.3	12.30	12.00
May	236.3	19.22	228.1	221.4	778.2	759.5	12.34	12.04
June	244.2	23.66	224.7	217.8	766.0	747.7	12.33	12.04
July	243.5	26.06	229.7	223.0	777.0	758.4	12.24	11.94
August	223.0	24.77	229.0	222.8	772.1	753.5	12.19	11.90
September	173.7	20.68	201.9	196.8	699.4	682.8	12.53	12.23
October	118.4	16.63	156.6	152.7	560.1	547.2	12.93	12.63
November	79.9	11.60	115.2	112.0	435.8	426.2	13.69	13.39
December	56.8	8.59	82.4	80.0	317.6	310.6	13.93	13.63
Year	1874.8	16.85	2060.1	2002.9	7205.5	7036.2	12.65	12.35

Legends:

GlobHor	Horizontal global irradiation	EArray	Effective energy at the output of the array
T Amb	Ambient Temperature	E_Grid	Energy injected into grid
GlobInc	Global incident in coll. plane	EffArrR	Effic. Eout array / rough area
GlobEff	Effective Global, corr. for IAM and shadings	EffSysR	Effic. Eout system / rough area

### Grid-Connected System: Loss diagram

**Project :** Merced Solar  
**Simulation variant :** Merced Solar

<b>Main system parameters</b>	System type	<b>Grid-Connected</b>		
PV Field Orientation	tilt	30°	azimuth	0°
PV modules	Model	TSM-300 P14A	Pnom	300 Wp
PV Array	Nb. of modules	14250	Pnom total	<b>4275 kWp</b>
Inverter	Model	Sunny Tripower 24000TL-USP10	P10m	24.00 kW ac
Inverter pack	Nb. of units	125.0	Pnom total	<b>3000 kW ac</b>
User's needs	Unlimited load (grid)			

#### Loss diagram over the whole year

