



**Pacific Gas and
Electric Company™**

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***E-Filing
ARB's Cap-and-Trade Website***

Dr. Steven Cliff
Chief - Climate Change Markets Branch
California Air Resources Board
1001 I Street
Sacramento, CA 95812-2828

**Re: Pacific Gas and Electric Company's Comments on Compliance Requirements for
First Deliverers of Electricity in the Cap and Trade Program**

Dear Dr. Cliff:

Pacific Gas and Electric Company ("PG&E") welcomes the opportunity to submit these comments following the Air Resources Board's ("ARB") May 4, 2012, public meeting to discuss compliance requirements for first deliverers of electricity under the Greenhouse Gas ("GHG") cap-and-trade regulations. We look forward to continuing our work with the ARB and all stakeholders to ensure the successful implementation of AB 32.

**A. Further Clarification is Needed Regarding Resource Shuffling
Provisions to Ensure Transactions Carried Out in Line with
Least Cost Dispatch Provisions Do Not Result in a Violation**

As demonstrated by the comments made at the public meeting on May 4, there is uncertainty regarding how ARB's resource shuffling provisions will be applied. PG&E urges ARB to clarify the prohibition on resource shuffling to avoid conflicts with the California Public Utilities Commission's least cost dispatch requirements. PG&E also recommends that ARB develop a process to enable entities to obtain an advance determination from ARB as to whether a particular type of transaction would constitute a violation.

PG&E is required to meet its electric load obligations consistent with the California Public Utilities Commission's "Least-Cost Dispatch" ("LCD") requirements to dispose of economic long power and purchase economic short power in a manner that minimizes ratepayer costs. "Least-cost dispatch refers to a situation in which the most cost-effective mix of total resources is used, thereby minimizing the cost of delivering electric services." (CPUC Decision 06-12-009, p. 3.) Dispatch of resources and contracts in the daily, hourly and real-time markets is subject to review in annual compliance filings to the CPUC.

In accordance with LCD requirements, PG&E minimizes its total cost of energy required to meet load and ancillary service requirements, subject to regulatory, legal, operational, contractual and financial requirements, by explicitly considering the incremental costs of all resources available to it in dispatch decisions. Beginning on January 1, 2013, GHG compliance costs will be included in the incremental costs considered in LCD. This may lead to changes in dispatch order compared to the status quo if a particular resource has a lower nominal price (or for utility retained generation, marginal cost) than another resource, but a higher GHG emissions factor.

As PG&E continues to apply LCD principles in its dispatch decisions associated with imported electricity, it is not entirely clear how these principles will interact with the resource shuffling provisions currently in the ARB's Cap-and-Trade Regulation. Consider the following example where Seller A offers to sell at the California-Oregon border unspecified power at \$30/MWh from Resource A, while Seller B offers specified power that has an emissions factor of zero at \$33/MWh from Resource B.

Example: GHG Obligation for Out-of-State Imports			
Allowance Price \$/MT	\$15		
Location	California-Oregon Border (COB)		
		Unspecified (A)	Specified (B)
Emissions Factor (MT/MWh)		0.4280	0.0000
Implied Emissions Cost (\$/MWh)	Import	\$6.420	\$0.000
	2% Losses	\$0.128	\$0.000
	Total Implied Emissions Cost (\$/MWh)	\$6.548	\$0.000
Bilateral Electricity Price (\$/MWh)		\$30.000	\$33.000
Total Procurement Cost Inclusive of Carbon Obligation (\$/MWh)		\$36.548	\$33.000

At an assumed allowance price of \$15/MT, the total implied emissions cost associated with Seller A's unspecified power would be equivalent to \$6.548 ((1 MWh* 0.428*1.02)*\$15/MT). Adding in the assumed bilateral price, the total procurement cost for Seller A's power would be \$36.548/MWh. In contrast, Seller B's specified power would have zero implied emissions cost, and a total procurement cost of \$33/MWh. From a least cost dispatch perspective, PG&E would be better off procuring the specified power in this example, rather than the unspecified power

otherwise available in the market. This is because from a total procurement perspective inclusive of GHG, the specified power is less expensive than the unspecified power.

If changing the dispatch order when compliance costs are factored in is considered resource shuffling, then the prohibition acts as a legal requirement (constraint), and PG&E's LCD process would dispatch Resource A first. If not, Resource B would be dispatched first, at lower total cost. PG&E believes that the selection of Resource B in this example should not be considered resource shuffling because it was chosen through conformance with PG&E's LCD process, and was not a "plan, scheme or artifice to receive credit based on emissions reductions that have not occurred, involving delivery of electricity to the California grid." PG&E requests an up-front determination from ARB so that we can design our scheduling software to comply with the provisions of Least Cost Dispatch and Cap and Trade, both of which are subject to penalties if not followed.

If ARB determines that choosing Resource B in the above example does constitute resource shuffling, would PG&E be required to: (1) eliminate Resource B from procurement entirely; (2) assume, for least cost dispatch purposes, that the default emissions factor applies to all out-of-state resources; (3) assume the default emissions factor applies only to those resources that have traditionally served native (out-of-state) load and are now offering energy into the California market; or (4) only accept unspecified power if it comes with allowances sufficient to cover its GHG obligation? Such additional details will affect cost minimization related to both imports and in-state generation, which we assume should include all incremental costs using actual emissions factors.

PG&E supports recommendations made by other stakeholders that ARB establish a process or protocol for submitting examples of various transactions and receiving pre-transaction determinations from ARB so that electricity stakeholders get the guidance they need in order to avoid inadvertent violations of the resource shuffling provisions in the regulation.

**B. Harmonize the Existing Renewable Portfolio Standard ("RPS")
Adjustment Provisions with 33% RPS Rules**

PG&E appreciates the provisions in Section 95852 that establish a mechanism to account for the GHG reductions associated with out-of-state RPS eligible resources via the RPS adjustment. At the May 4th workshop, a few stakeholders noted however that the provisions could better align with the existing 33 percent RPS rules that enable entities to bank RECs for compliance in future years. We support those stakeholders recommendations to modify the RPS adjustment provisions in 95852(b)(4)(B) to allow entities to report the RPS adjustment in the year in which the renewable facility generated electricity and then retire the REC in a separate year for RPS compliance.

Mr. Stephen Cliff
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Thank you for the opportunity to submit these comments.

Very truly yours,

/s/

Judi K. Mosley

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