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1516 Ninth Street
Sacramento, CA 95814-5512

Re: Self Generation Incentive Program Cost Benefit Analysis

PG&E is pleased to provide comments to the CEC IEPR Staff Workshop on the Self-Generation Incentive Program Benefit-Cost Analysis Report. Please feel free to call me at the number above if you have any questions.

Sincerely,

Dan Patry

Attachment

PG&E's Comments in Response to the CEC IEPR Staff Workshop on the Self-Generation Incentive Program Benefit-Cost Analysis Report Held September 3, 2008

Pacific Gas and Electric Company (PG&E) appreciates the opportunity to comment on the development of the benefit-cost analysis (BCA) for the projects funded under the Self-Generation Incentive Program (SGIP) over the last several years. PG&E looks forward to the completion of this legislatively-mandated report and the IEPR Update report's recommendations. This study may help us, our regulators, and the State better understand the advantages and costs of the SGIP program to date.

PG&E looks forward to working with the Energy Commission, its consultants, the CPUC, and other entities in the finalization of this report, and respectfully offers the following initial recommendations.

1. **An important characteristic of a good benefit/cost analysis is a clear illustration of the chosen perspective(s).**

An important characteristic of a good benefit/cost analysis (BCA), and one of the hallmarks California's longstanding Standard Practice Manual (SPM), is a clear delineation of the chosen perspective – participating customer, non-participating customer, utility program administrator, or societal.

Indeed, what counts as a benefit and what counts as a cost changes when you take on the differing perspectives of society, a participating customer, or a ratepayer. For example, the incentives paid under the SGIP program are a cost to non-participating customers, a benefit for the participating customer, and irrelevant from a societal perspective. TIAX has chosen the societal perspective for this legislatively-driven analysis; however, PG&E believes that examining the non-participating customer perspective is also appropriate, as is suggested by the wording of AB 2778.[1] PG&E recommends that the SGIP report also reflect this perspective as much as possible, or be updated to include it as soon as possible.[2]

[1] PUC Section 379.6(f) requires the CEC to "evaluate the costs and benefits ... of providing ratepayer subsidies ..."

[2] The importance of evaluating cost-effectiveness from the non-participating customer's perspective is demonstrated by considering the effect that a doubling of the SGIP incentives would have on the results. From a societal perspective, as noted above, it would have no impact on the benefit-cost results, since incentives are a transfer payment from non-participants to participants. Yet it would significantly worsen the benefit-cost results from the non-participant perspective. Ignoring this effect results in an incomplete evaluation, especially since whatever societal benefits might be achieved for the state as a whole are not paid for statewide, but rather just by the customers of the state's investor-owned utilities.

2. Transparency with regard to data sources and any input assumptions for the quantification of costs and benefits is essential.

A helpful BCA will be clear about its data sources, its chosen inputs, and the values it identifies. The TIAX "Attachment A" report does not consistently or completely say what it will use to fill out its cost-benefit charts, although the workshop provided more complete information in some areas. PG&E expects the draft report will fully identify this information; thus making it easier to delineate any differences from CPUC methodologies. Further, transparency in this report will enable future refinement as better data become available.

3. A study that is thorough and innovative, yet cannot be compared to the extensive body of work that has gone on before it, is of limited value.

The CPUC has already done a tremendous amount of work on benefit cost analysis, including both methods of analysis and various specific forecasts. The CEC has chosen, in many instances, to use other sources and methods. PG&E suggests that the final version of the report carefully map out the differences in its analysis compared to CPUC's prior work, including the two dominant methodologies that have gone before it:

- The Standard Practice Manual (used as the framework for energy efficiency BCAs, but easily transferable to SGIP); and
- The March 16, 2004 Proposed Decision in the CPUC's Distributed Generation Order Institution Rulemaking 04-03-017.

AB 2778 directed the CEC to coordinate this report with the CPUC and the ARB,[3] and thus PG&E recommends that it should detail any differences from the benefits, costs, inputs and assumptions of those found in the 2005 Itron Report, as well as the CPUC's Decision 03-02-068 regarding the necessary requirements for distributed generation to allow utilities to avoid transmission and distribution costs. This will be helpful in understanding the results.

4. **PG&E offers some additional comments on the developing methodology.**

<u>Evaluating traditional avoided pollutants</u>. With regard to pollutant comparisons, PG&E appreciates the fact that TIAX recognizes that not all DG facilities produce electricity with lower emissions than those of a new, efficient, natural gas fired power plant. DG that is more polluting than the central station alternative it avoids should have a cost, rather than a benefit in the emissions component of the analysis.

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[3] PUC Section 379.6(f) states " ... in consultation with the commission [CPUC] and the State Air Resources Board, shall evaluate the costs and benefits ..."

National security and energy independence benefits: These are examples of areas where the calculated benefits or costs are subjective as well as hard-to-quantify. They are subjective, not in a pejorative sense, but in the sense that different analysts would be likely to develop different values over a broader range than some of the other BCA components, such as installation costs. If included, the methodology used and values chosen should be clearly delineated, so that the outcome can be compared to the DG OIR proposed decision methodology which rejected the inclusion of these particular benefits. In addition, that proposed decision found that there is no "...evidence in this proceeding that DG installations would create more jobs than those displaced as a result of the reduced demand for central stations or energy efficiency. We therefore do not include in the cost-benefit model a variable for increased employment."[4] Similarly, should the TIAX study take a different approach and also include economic and employment effects associated with SGIP, the underlying analysis should be made readily transparent for all of the reasons discussed above.[5] Finally, PG&E suggests that the subjective components of the overall analysis be clearly delineated, so that the results can be understood with and without these elements.

Deferred T&D benefits: In the DGOIR, the CPUC determined that the benefits to the grid resulting from deferred transmission and distribution investments (resulting from the installation of on-site generation) would only occur in certain, limited situations.[6] PG&E appreciates the recognition in the TIAX report, consistent with D.03-02-068, that "...the T&D benefits are likely minute except in cases where the SG installations are targeted by location."[7] Unless the four criteria in D.03-02-068 are met, utility T&D planners responsible for the reliability of the grid cannot confidently defer otherwise-needed T&D investments.

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[4] Proposed Decision of ALJ Malcolm, Rulemaking 04-03-017, March 16 2004. http://docs.cpuc.ca.gov/word_pdf/COMMENT_DECISION/49277.PDF

[5] The evaluation must consider also consider the degree to which such economic/employment benefits postulated to result from SGIP would also have been present without the program (and only the net change counted as a benefit). For example, the TIAX study proposes to use an input-output model to evaluate the beneficial effects of SGIP on the California economy, and California employment in particular. But since central station generation units have similar economic/employment benefits, a fair analysis must evaluate the reduction in those benefits as SGIP generation displaces central station generation.

[6] Specifically, D.03-02-068 adopted a set of four criteria proposed by SDG&E as necessary requirements in order for a utility to be able to defer T&D capacity additions and avoid future cost: (1) The distributed generation must be located where the utility's planning studies identify substations and feeder circuits where capacity needs will not be met by existing facilities, given the forecasted load growth; (2) The unit must be installed and operational in time for the utility to avoid or delay expansion or modification; (3) Distributed generation must provide sufficient capacity to accommodate [the utility's] planning needs; and,; and (4) [D]istributed generation must provide appropriate physical assurance to ensure a real load reduction on the facilities where expansion is deferred. (D.03-02-068, p. 18.)

[7] TIAX LLC – Supporting Material for SGIP Workshop (Attachment A), p.6.

Avoided Costs Under the Coming Market Structure: With regard to congestion, marginal losses, and other items being addressed as California develops its MRTU, PG&E appreciates the CEC's attempt to "generate realistic and spatially detailed forecasts and avoided costs estimates" under the coming nodal MRTU world. PG&E is supportive of working with the Commission on this effort, although we caution that such an analysis at such an early juncture may not produce a useful result with wide consensus and support behind it.

Installation and Administration Costs: The CEC should be cautious as it gathers installation cost data. Some of these costs are self-reported and can contain errors. The total installation costs should also include any system upgrade costs paid for by the utility. The total administration costs should be not only those of direct SGIP program administration, but also the costs of interconnection support and billing.

PG&E appreciates the chance to offer these comments, and looks forward to working with the CEC and its consultants as they prepare the draft and final report.