Pacific Gas and Electric Company's Informal Comments Following the Public Workshop Discussion of NEM Successor Tariff or Contract Options

May 30, 2014

On April 23, 2014, the California Public Utilities Commission's Energy Division staff held a public workshop to facilitate a collaborative, informal discussion of the development of a successor tariff or contract to the current net energy metering (NEM) policy, pursuant to Assembly Bill (AB) 327 (Perea, 2013). On Friday, May 16, Energy Division issued a request for informal comments on the Guiding Principles and Program Elements discussed during the workshop. Below please find Pacific Gas and Electric Company's (PG&E's) response.

Principles

PG&E believes the plain language provided by the Legislature in AB 327 provides the core guiding principles for the design and evaluation of the NEM Successor tariff. Any expanded list of guiding principles should be established as part of the formal proceeding. However, the Legislative mandate must carry precedence over any other principles, and the CPUC should not include principles that contradict the statutory priorities.

If the Commission decides that additional principles should be considered, PG&E believes that not all principles should carry equal weight, and suggests the priority ratings below for the principles as listed by the Energy Division. PG&E recommends the addition of several new principles addressing, safety and reliability and general rate-making principles. Table 1 below summarizes PG&E's recommendations for Guiding Principles. Following the table, PG&E expands on some of the comments in the table.

Table 1: Guiding Principles for the NEM Successor Tariff or Contract

Priority	**Guiding Principle**	***Comments/Notes***
HIGHEST	The successor tariff or contract should be consistent with, and balance, the legislative goals identified in AB 327	*PG&E recommends that the Legislative directives be specifically spelled out.*
HIGH	The successor tariff or contract should be flexible and include processes for future review and modification	*As energy markets evolve, and as more data is collected, the tariff may need to change*
HIGH	The successor tariff should reflect general ratemaking principles	*PG&E recommends that the Commission add this new principle.*
HIGH	The successor tariff should include necessary provisions to ensure safe and reliable operation of the grid in a high-DG environment	*PG&E recommends that the Commission add this new principle.*

MEDIUM	The successor tariff or contract should encourage simple, transparent and equitable policies for all customers	*PG&E supports this draft principle in the Energy Division draft.*
DELETE	The successor tariff or contract should provide market certainty and predictability considering customer expectations and long-term benefits <u>and costs</u> of distributed generation	*PG&E recommends deleting this principle. Just as rate certainty can never be assured over the long term, market certainty should not be adopted as a priority.* *Instead, the Commission should follow the priorities set up in sections 2827.1(b)(1)(DG should continue to grow sustainably) and 2827.1(b)(4)(benefits should approximately equal costs). Benefits included should be realizable by ratepayers.* *If the Commission retains this principle, it should also include the <u>costs</u> of distributed generation.*
LOW	The successor tariff or contract should be consistent with other PUC policies and goals (including a long list of specific programs and goals)	*There is no need to specifically list other Commission programs*
DELETE	The successor tariff or contract should include customer privacy protections	*PG&E recommends deleting this principle. The utilities must follow customer privacy and data sharing directions from the CPUC, such as those adopted in D.14-05-016, but they do not need to be separately part of every tariff and rate schedule.*
DELETE	The successor tariff or contract should promote innovation and growth among different technologies, applications and financing structures	*PG&E recommends deleting this principle. PG&E supports growth and innovation, but believes there are other tools to encourage these rather than through the NEM tariff.*

PG&E stresses the overall importance of prioritizing and balancing the requirements of AB 327. The Legislative direction must take precedence as the NEM successor tariff is designed. While many of the aspirations captured in the principles have some merit, they should only be pursued where consistent with the provisions of AB 327 and after full consideration is given to expanded principles through the formal proceeding.

Flexibility

PG&E supports the inclusion of flexibility as a principle. PG&E believes that the successor tariff should be structured anticipating the potential need to respond to changing conditions. For example, if a feed-in tariff were established to replace the current NEM program, the price set in the tariff should change with changes in the market.

The Public Tool expected to be developed as part of this proceeding, and expected to be used to compare and contrast the effect of alternative proposals, will of necessity incorporate many assumptions. Currently there is imperfect information available to guide the CPUC. As more information becomes available, parties would want to revise assumptions in the Public Tool. Consequently, as better information becomes available, the CPUC should establish a process and framework for updating the successor tariff, at least on a going forward basis.

PG&E notes there is one critical unknown that could be addressed during the course of this proceeding. The grid impact -- both positive and negative -- of customer generation has been controversial for several years; and very few circuit-based evaluations have been performed. There is a current effort that could prove valuable to understanding the impact on the grid when customers install renewable generation. The Energy Division plans to study the impact of customer generation on the utility grid at a more granular level than has so far been done to date. PG&E urges the Energy Division to devote the necessary resources to completion of this study as soon as possible. It would be most beneficial if the results of the study could be incorporated in the Public Tool, but at a minimum, the Tool should be designed to incorporate the results of the study by modifying the estimates of (a) the benefits from customer generation, (b) the integration costs identified by the study, and (c) the costs of grid upgrades to accommodate customer generation that the study determines are appropriate.

Finally, however, PG&E notes that by adopting a successor tariff that is flexible, the CPUC can accommodate the results of the grid impact study whether or not the study is finished in time for the information to be incorporated in the first version of the NEM successor tariff.

Transparency and Equity

To the extent possible, while still adhering to the provisions in AB 327, the NEM successor tariff should be transparent and equitable for all customers. Customers who install renewable generation under this tariff should be able to understand the services that they receive from the utility and the charges that they pay for those services. Customers should see the value of their generation, any benefits they provide to the grid, and any costs incurred because of that generation. Finally, should the NEM successor tariff continue to provide any subsidies to participating customers, those subsidies should be clear to all (and as discussed below, should either not be provided, or decrease over time). The transparency also provides the groundwork for equitable treatment for all customers.

Sustainable Growth

The context for the NEM reform provisions in AB 327, as described in legislative history/analysis, is that the growth in DG is not sustainable due to the significant and growing cost shift from DG customers to non-participants.[1] The meaning of AB327's phrase – "ensure…distributed generation continues to grow sustainably"[2] – must be interpreted within the context of this legislative intent. The legislative directive to ensure that DG "grow sustainably" compels the Commission to manage the level of DG subsidy/cost-shift such that growth is "sustainable" from a cost-shift perspective, but does not compel the Commission to ensure growth for growth's sake. In order for DG to "grow sustainably", the cost-shift must be addressed. PG&E believes the intention of this provision in AB 327 is to balance the reduction in subsidy/cost-shift with structuring a tariff that will allow DG adoption to continue. It is not aimed at establishing a particular target for the rate of DG growth.

PG&E proposes that the term "grow sustainably" and any adopted subsidy be linked to the policy objective of market transition, rather than a particular growth rate. The objective of the sustainable growth provision should be to drive customer renewable technologies to a new market in which they can compete and flourish independent of cross-subsidization.

There could be a two stage process to achieve the goal of sustainable growth. First, as the NEM successor tariff or contract is developed, any remaining subsidy must be clearly isolated and identified. For example, if the CPUC were to develop a feed-in-tariff for customers, any costs to nonparticipating customers that exceed the value of the avoided costs of the renewable generation should be clearly recognizable in the tariff.

Second, if it is found that additional subsidies are required as part of the NEM Successor tariff, notwithstanding the legislative directive to the contrary, this subsidy must be reduced over time in conjunction with clear measures of the technology maturity, similar to the structure adopted for the California Solar Initiative (CSI) incentives. This will provide clear and consistent price signals to the market and build in the gradual reduction in subsidies necessary to achieve a sustainable market.

The growth of roof-top solar in California has approached exponential levels for over 10 years. In fact, over the last 3 years from 2010 - 2013, NEM customer adoption has increased at a compound annual growth rate (CAGR) of approximately 30%.[3] The ever increasing adoption by customers has been driven by many factors in addition to the NEM tariff under reform here. The other factors have included: customers' commitment to the environment; dramatic reductions in the cost of roof-top solar; distorted residential rates resulting from the energy crisis; Federal,

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[1] California Net Energy Metering Ratepayer Impacts Evaluation; http://www.cpuc.ca.gov/NR/rdonlyres/75573B69-D5C8-45D3-BE22-3074EAB16D87/0/NEMReport.pdf.

[2] PUC Section 2827.1(b)(1).

[3] The number of new NEM customers added was 10,479 in 2010, 13,478 in 2011, 17,452 in 2012, and 28,711 in 2013.

State and local tax incentives and rebates; and the highly successful Emerging Renewables Program (ERP), Self-Generation Incentive Program (SGIP) and CSI program.

Establishing a particular target growth rate for DG in the NEM successor tariff would be problematic because the NEM tariff itself is not the only determinant of growth in customer renewable generation. As explained above, many other factors contribute to the growth of roof-top solar in California. Other growth drivers can be expected to continue or newly emerge (e.g., continued drop in the cost of roof-top solar, new policy drivers such as Zero Net Energy efforts). Some drivers have already ended (e.g., the CSI program now fully subscribed in PG&E's service territory) or could end or drop in a few years (e.g., Federal Investment Tax Credit). Further, uncontrollable macroeconomic factors (e.g., recessions) will have an impact on DG adoption. Finally, it is mathematically impossible for the NEM successor tariff to support a continuation of the current exponential growth rate indefinitely. Simple math shows that were the recent CAGR (30%) to continue at current levels, DG adoption in PG&E's territory would reach 100% of all customers within less than 14 years.[4] Clearly, this is not sustainable, both because there would be no customers left to buy new solar panels, and because there would be no customers left to pay the subsidies.

Low-Income Successor Tariff

AB 327 included direction to the CPUC when creating the successor tariff to include specific alternatives designed for growth among residential customers in disadvantaged communities. This is expected to replace the SASH and MASH programs implemented through the CSI program. PG&E suggests the Energy Division hold a workshop to address such questions as: 1) defining "disadvantaged communities"; (2) identification of customers in disadvantaged communities; 3) specific differences in the successor tariff that could be provided for these customers (such as waiver of interconnection fees); 4) whether it would be appropriate for utilities to test different ideas through pilot studies; and 5) how "growth" could be measured. This workshop could be held in 2014.

PG&E submits that over the long-term, virtual net energy metering (VNEM) is not an appropriate means to incent growth among disadvantaged communities. VNEM effectively combines two opaque subsidies – NEM and free-wheeling of power.

Locational Aspects of Successor Tariff

At the workshop, many parties called for locational discrimination in any successor tariff or contract. PG&E recognizes the need for accurate information about the grid impacts of high penetrations of customer DG, both positive and negative. Moreover, even if DG can defer distribution upgrades for a time in some locations, the Commission needs to understand how long that deferral value will last. Before incorporating any locational features in a successor

[4] PG&E currently has over 120,000 NEM customers.

tariff, PG&E stresses this need and urges the Energy Division to expeditiously complete its planned grid impacts study.

Consistent with AB 327, the successor tariff should account for the benefits and costs of distributed resources, including "utility spending necessary to integrate cost-effective distributed resources." (See Section 769(b)(4).) This will include generation, transmission, distribution, and customer service costs necessary to integrate distributed resources.

Procedural Comments-Need to Plan for Hearings.

The request for comments included a tentative 2014 timeline for the proceeding to develop a NEM successor tariff. However, that timeline did not address the process in 2015. It is essential that the Commission plan for the need for hearings to address factual disputes between the parties. For many years, solar advocates have argued that there are no cost shifts associated with NEM, and also argued that any change in rules or rates would cause the solar market to collapse. A careful examination of the data and assumptions underlying those claims often revealed that these claims were based on assumptions entirely at odds with reality, or at odds with the assumptions and methodology of how the Commission has conducted cost-benefit analysis. While settlement discussions, workshops, and the Public Tool under development by Energy Division may avoid the need for hearings on some issues, there is a strong likelihood that there will be factual disputes between the parties not resolved by those efforts. It is essential that the Commission have the opportunity to base its decision on real facts, not just claims, and that factual claims be tested by discovery, rebuttal testimony, and cross-examination. The Commission recently addressed similar issues in the Residential Rate OIR, R.12-06-013, and concluded:

> Based on the many reasons cited in the PHC Statements, evidentiary hearings will be necessary. Although most issues can be addressed through written testimony and briefs, there are a number of issues that may require cross-examination. In particular, the evidentiary record will need to include evidence addressing the disputed factual issues….
>
> At a [Prehearing Conference]…, parties will have the opportunity to further identify areas of factual dispute and categories of data and types of studies that could be used to resolve these disputes.

Third Amended Scoping Order in Residential Rate OIR, R.12-06-013, April 15, 2014, pp. 8-10. The procedural plan here should similarly plan for workshops, settlement efforts, and if necessary, discovery, testimony, and hearings.

Consumer Protection

PG&E believes that on a going-forward basis, the CPUC should incorporate consumer protection into its solar and DG programs. While the majority of vendors selling renewable generation to our customers operate professionally, we are aware of a growing number of complaints from customers about some marketing practices. In addition, we believe that more accurate information could help our customers, especially residential customers, make better choices about how to meet their energy needs. This belief is supported by findings in a recently released CPUC report on the impacts of the Third-Party Ownership (TPO) model.[5] In addition to recommendations for improving customer awareness of the financial terms and risks associated with the TPO model, the report provided recommendations for addressing specific consumer protections in the event of home sale, re-roofing, financier default, and contract termination.[6] It goes on to call for CPUC mandates for TPO contract provisions to protect customers if the financier goes out of business or the asset is sold.[7]

We believe a good first step would be, as part of this proceeding, for the Energy Division to convene a workshop to explore the areas of greatest need, and how the CPUC tariffs could address these needs. This workshop could be held in 2014.

Respectfully submitted,

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[5] California Solar Initiative Third-Party Ownership Market Impact Study, Navigant Consulting Inc., April 2014: http://www.cpuc.ca.gov/NR/rdonlyres/55A4BF20-875A-4B40-AD7C-3C768104211E/0/CSIThirdPartyOwnershipImpactReportFINAL.pdf.
[6] Ibid p. 8-6.
[7] Ibid p. 8-7.