

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

Order Instituting Rulemaking on the Commission's Own
Motion to Conduct a Comprehensive Examination of
Investor Owned Electric Utilities' Residential Rate
Structures, the Transition to Time Varying and Dynamic
Rates, and Other Statutory Obligations

Rulemaking 12-06-013
(Filed June 21, 2012)

**REPLY COMMENTS OF
THE SOLAR ENERGY INDUSTRIES ASSOCIATION
AND THE VOTE SOLAR INITIATIVE ON
RESIDENTIAL RATE DESIGN PROPOSALS**

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I. INTRODUCTION

The Opening Comments on residential rate design proposals, submitted on July 12, 2013 (Opening Comments), illustrate that the parties are fairly aligned on many of the elements of the preferred residential rate design. The differences, to a large extent, are focused on how those elements are specifically fashioned and what the ultimate default rate design should be – time-of-use (TOU) or inclining block (IB). As presented in their Opening Comments, the Solar Energy Industries Association (SEIA)¹ and the Vote Solar Initiative (Vote Solar) (collectively, the Joint Solar Parties) believe that the rate design proposals and supporting documentation presented on the record to date support the Commission approving a measured transition to a simple, default, volumetric TOU residential rate design with an opt-out to an IB rate. This default TOU rate design should not include fixed charges and should retain the protection of baseline rates. This end-state for residential rate design, as presented in the Joint Solar Parties' proposal, meets all

¹ The comments contained in this filing represent the position of the Solar Energy Industries Association as an organization, but not necessarily the views of any particular member with respect to any issue.

the Commission's stated objectives, while allowing Californians to take advantage of energy management programs and demand-side technologies which are coming onto the market with increasing frequency and sophistication.

The Joint Solar Parties will use these reply comments to respond to certain Opening Comments which are inaccurate or do not correctly reflect the Joint Solar Parties' proposal.

II. RESPONSE TO COMMENTS

A. Measured Transition to Default TOU Rates Can Avoid Significant Bill Impacts and Bill Volatility for Central Valley Residents.

The Utility Reform Network (TURN) provided the most extensive comments in opposition to default TOU rates. TURN's central argument appears to be that the default TOU rates proposed by parties such as the Division of Ratepayer Advocates (DRA) and the Joint Solar Parties would result in large bill impacts and more volatile summer bills for customers in hot climate zones such as the Central Valley. The essential problems with TURN's argument are that: (1) this proceeding is not a rate case; (2) the rates proposed will not be implemented immediately; (3) there are many ways to phase-in TOU rates that will moderate bill impacts over time; and (4) several parties – including the Joint Solar Parties – proposed retaining IB rates as an option for those customers for whom the impacts of TOU rates are unacceptable. More fundamentally, the purpose of TOU rates is to align rates more closely with costs.

TURN's comments focus on the bill impacts of the various proposals. While this perspective provides a useful indication of some of the potential consequences of different rate design proposals, all else equal, in the longer term it does not provide a basis for rejecting a more optimal rate structure that better serves the state's policy interests. The Commission can consider bill impacts in a typical rate case where the rates proposed would be implemented immediately after a decision is issued. However, this is not a rate case; it is a generic

investigation into long-term rate design policies. The Commission has the opportunity in this case to focus on its policy goals and objectives, to choose an optimal rate design which best satisfies these goals, and the ability to set a measured path to transition to that optimal rate design over an extended period. If anything, TURN's comments underscore the need to transition slowly to the optimal new rate structure and the desirability of retaining a version of the current IB rate as an option. Beyond that, an over-reliance on bill impacts clearly would favor those parties whose proposals are the closest to the status quo. In sum, bill analyses should not be used as the basis for rejecting an optimal rate design that more closely aligns rates with costs and that fulfills more of the Commission's policy goals.

Moreover, the bill analyses on which TURN focuses its critique of TOU rates are of summer bills in hot climate zones, in which air conditioning loads drive electric usage. The Joint Solar Parties observe that looking only at summer bills is not the entire picture – when TURN looks at annual bill impacts, the results are not as alarming. We note that there are many tools available to the Commission to moderate bill impacts in hot climate zones, while implementing more widely TOU rates which clearly signal to customers that peak period usage in the summer is the key driver of the state's need for new generating capacity and transmission lines. At the workshop, Dr. Borenstein presented data showing how, today, baseline rates result in all ratepayers paying very similar average rates, with customers in hot inland climate zones benefitting greatly from much higher summer baseline allowances than ratepayers on the coast. This equalization of average rates is one of the key benefits of baseline rates, a major benefit for Central Valley customers which the Joint Solar Parties propose to retain. The Commission also can investigate phasing-in the larger peak / off-peak rate differentials, as DRA has proposed with its "Introductory" TOU rate design. Finally, customers in the Central Valley should have the

option to remain on a simplified IB rate even after a TOU rate becomes the default.

The central problem with the transition to TOU rates is not overall rate impacts, but moderating summer bill volatility in hot climate zones – a problem that exists today under IB rates, as shown by the oft-cited “rate revolt” in Bakersfield during a hotter-than-normal summer. The Joint Solar Parties urge the Commission to look closely at Figures 4 and 5 in TURN’s comments, which present bill volatility analyses for PG&E and SCE. What is impressive about these figures is, first, that summer bills increase significantly under all rate designs, even a flat rate, and, second, that there is not much difference between the various rate design options in terms of mitigating high summer bills. No rate design can completely change the climatic fact that summer electric bills will be much higher in California’s hot climate zones, just as winter heating bills are high in those areas of the U.S. that have a real winter.

As Dr. Borenstein suggested at the workshop, there are other approaches to this problem if the goal is to address bill volatility, including level payment plans or “snap credit” programs that spread the economic burden of high summer bills across the year, rather than seeking a solution to this problem through a rate design that is forced to depart substantially from costs. The success of Arizona Public Service at achieving very high penetrations of TOU rates in Phoenix shows that a very hot summer climate does not have to be an obstacle to the successful implementation of a default TOU rate. In fact, because summer peak usage drives a large share of utility costs, TOU rates are an important policy tool to ensure that energy will remain affordable in the future, and that customers who live in the hottest parts of the state have accurate information on which to base decisions about long-term investments in technologies that allow them to control their peak period energy costs.

B. TOU Rates More Closely Align Rates With Marginal Costs.

TURN also suggests that “[t]he argument that TOU rates more correctly reflect marginal costs than tiered rates is not entirely self-evident.”² In support of this proposition, TURN argues that CAISO day-ahead energy prices are not very peaky, as a result of resource adequacy requirements that have mandated an over-supply of generation in the California market. TURN’s comment ignores the fact that peak period usage drives far more than energy costs – coincident system peak demand also drives the need for generation and transmission capacity, and even the need for capacity on the higher-voltage portion of the distribution system such as major distribution substations that serve large, diverse areas. Recognizing this fact, existing residential TOU rate designs allocate generation capacity costs entirely to summer on- and mid-peak rates. It is this allocation, and not the allocation of energy costs, which accounts for much of the “shape” in TOU rate designs. If anything, today’s TOU rate designs may understate peak period costs, because most current TOU rate designs allocate transmission and distribution (T&D) costs equally across all TOU periods, as “flat” volumetric charges, when in fact a significant share of such costs are driven by coincident system peak demands during the summer.³

Nonetheless, it is self-evident from the hourly profile of load on the CAISO system that power is much more costly to provide on summer weekday afternoons than at night or in the mornings. TOU rate designs more closely align rates to underlying costs than an IB rate design in which the marginal rate which a customer pays does not depend at all on when the customer

² TURN Opening Comments, at 50.

³ The allocation of a portion of distribution costs in PG&E’s residential TOU tariffs (E-6 and E-7) are the only exception. PG&E allocates primary distribution costs more heavily to on-peak rates. However, PG&E allocates its transmission costs on a “flat” basis, equally to all TOU periods. SCE and SDG&E allocate all residential T&D costs on a flat basis.

uses power and bears little relation to the utility's costs to provide it.

C. Simplicity of Rate Design Must be Balanced with Competing Objectives.

1. Simplicity Does Not Necessitate Elimination of the Baseline Tier in TOU Rates.

PG&E asserts that overlaying a time-of-use structure on top of multiple tiers only adds more complexity and that “*any* combination of [TOU rates and tiered rates] immediately crosses over the line from simplicity to excessively complex.”⁴ While the Joint Solar Parties’ agree that simplicity is a key goal of any end state rate design, the Commission is charged with melding what at times may appear to be conflicting objectives into an effective residential rate design. While the Joint Solar Parties agree that the baseline tier adds an element of complexity, PG&E’s assertion that it is “excessively complex” is over-stated and ignores the affordability and universal access objectives that the Joint Solar Parties’ Proposal is attempting to address.

The Joint Solar Parties agree that the Commission must expect that there will be a steep learning curve for consumers to understand their rates in a manner which allows them to moderate or shift their energy usage accordingly. There is a legitimate concern that if the adopted TOU rate structure has a large number of tiers and TOU periods, such as that proposed by Sierra Club, or unbundles rates into component parts that consumers are unaware of or do not understand, such as DECA and SDG&E propose, the learning curve may become too steep and customer acceptance may be negatively and unnecessarily impacted. In such situations, customer acceptance of TOU rates may be compromised. In contrast, the Joint Solar Parties’ proposal is carefully designed to balance all of these concerns and produce a new residential rate design that

⁴ PG&E Comments, p. 21. This comment is surprising coming from PG&E, as that utility for many years has maintained by far the most complex residential TOU rates – its E-6 rate features five TOU periods and four usage tiers, for a total of 20 possible rates that a customer can pay. PG&E has maintained this byzantine structure notwithstanding that SCE and SDG&E have simplified their residential TOU rates and that there have been no legislative constraints preventing PG&E from doing so as well.

customers can understand and use to modify their usage patterns and behavior in order to better control and/or reduce their bills.

2. Simplicity Does Not Merit Exempting Consumers with Less Than 7kW of Demand from TOU Rates.

NRDC's proposed large/small customer split - maintaining customers with 7 kW or less of demand on a tiered rate structure, with the remaining large customers moving to a TOU rate structure -- is not consistent with state's long terms goals. This delineation should not be accepted by the Commission.

NRDC asserts that its "proposal is grounded in an understanding of the end-uses that are most susceptible to scheduling,"⁵ arguing that customers with 7 kW or less of consumption do not have the type of load which can be scheduled, thus TOU rates are not warranted for such customers. While the Joint Solar Parties do not disagree that the smaller the electric use, the smaller the susceptibility to scheduling, NRDC is missing the bigger picture. The intense educational campaign that will be needed over the next few years regarding TOU rates should be aimed at all consumers. All consumers need to be made aware of the impact of using electricity at various times of the day and of the steps that they can take to reduce their electric bills. The Joint Solar Parties note that, while a small residential user does not have a major water heating or air conditioning load that can be scheduled, the small user can schedule his or her use of lighting and major appliances such as laundry and dishwashers, which constitute a significant share of such customer's usage. In addition, while an apartment resident may not have a major load that can be scheduled today, this same resident could in the future move into a house with air conditioning. The education and practices instilled today will carry forward into the future. Purposely omitting a significant segment of the population from the efforts to change the electric

⁵ NRDC Comments, p. 14.

usage patterns of residential customers is short sighted and will hamper the state in achieving its long term energy goals.

D. The Joint Solar Parties are Not Advocating that Retail Solar Customers Be Exempted from Rate Design Reforms Applicable to other Residential Customers.

The Joint Solar Parties are not advocating that retail solar customers be uniquely exempted from the rate design reforms that would apply to other residential customers. PG&E's statements to the contrary are erroneous.

PG&E asserts that the Joint Solar Parties have taken the position that "rate design reforms should exempt or grandfather existing solar customers, because rate design reforms must 'respect' the long-term investments that solar customers have made in renewable distributed generation facilities."⁶ PG&E has misstated the Joint Solar Parties' proposal. The Joint Solar Parties do recommend that rate design reforms must take into account the long term investment which solar customers have made in their DG facilities and that solar customers should not be subject to an *immediate* and substantial reduction in the cost-effectiveness of their investment as a result of rate design changes. At the same time, the Joint Solar Parties believe that such concerns can be addressed through a measured transition period, with an option for solar customers (like any other customer) to remain under an IB rate structure if they so choose. This is what the Joint Solar Parties have advocated. At no time have the Joint Solar Parties advocated that solar customers be exempt from rate design reforms.

III. CONCLUSION

Through the submission of proposals, opening comments, reply comments, and the workshop presentations, the Commission has been provided significant information and analyses regarding the residential rate design which will be the most appropriate to guide California

⁶ PG&E Comments , p. 24.

consumers into the future. The record compiled by the Commission supports a measured transition to a default TOU rate (with an opt-out to a cost-based IB rate structure). Provided that such transition is accompanied by an intensive customer outreach and education program over a sufficient period of time to secure customer acceptance and understanding, a default TOU rate structure will result in more accurate price signals and incentives for demand-side investments in increased conservation, energy efficiency, and the use of renewable distributed generation, which will reduce both coincident and non-coincident peak demands and upward pressures on electricity costs in California.

Respectfully submitted this 26th day of July 2013, at San Francisco, California

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