THE UTILITY REFORM NETWORK

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VIA EMAIL ONLY

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RE: TURN Informal Comments on the Customer and Retail Choice *En Banc* and the Staff White Paper

Pursuant to the June 1 request from President Picker, TURN provides these informal comments on the Staff White Paper published May 9, 2017 and the questions posed at the *en banc* held on May 19, 2017. The directions asked for parties to limit their responses to two-pages for each of the four sets of questions and two pages regarding the Staff White Paper. However, because many of the questions address common underlying policy issues - such as the role of the utility and the utility business model, the role of customer choice, and the proper regulatory response to technology and market changes - TURN provides responses organized by issue area, keeping the entire response well below the total page limit.

Introduction

TURN applauds the Staff White Paper, which clearly and succinctly describes current procurement and planning rules and lays out the market structure and policy challenges facing California. TURN also recommends a recent white paper from E3 as a companion paper explaining the nature of near-term policy choices facing regulators. (Attachment A.)

TURN's responses expand on the following primary points:

- The Commission should determine the future model of resource planning and new resource procurement prior to promoting any major change in market structure, such as the reopening of retail choice (aka direct access).
- Retail choice results in load uncertainty for all suppliers, and thus complicates the type of long-term contracting necessary to finance new renewable development and new flexible generation or storage needed for renewable integration and/or reliability. The primary threat of retail competition is not to the utility business model, but to state energy policies.
- Retail choice provides large industrial and commercial customers with cheap energy by potentially shifting some of the costs for reliability and renewable energy to bundled utility customers. Residential customers have not benefitted from retail choice.

- Residential customers have benefited from the choice to install self-generation in the form of rooftop solar systems. But an equitable and sustainable growth of rooftop solar will require reforming net energy metering policies.
- The growth of distributed resources such as rooftop solar, battery storage and electric vehicles, may impact the future utility business model, but the impacts of these different resources are quite different and will have different repercussions. Whether customer self-generation eventually warrants the move toward a "distribution system operator" model is an important policy issue to examine in the next few years.

<u>The State Should Not Reopen Retail Competition Until the Commission Addresses Key Issues Regarding Long-Term Procurement for Meeting State Clean Energy Goals in a Structure Where Every Load Serving Entity Faces Load Uncertainty</u>

The Commission posed several questions regarding the role of the utility, customer choice and regulation in meeting California clean energy goals. TURN fundamentally believes that these issues can be solved under the current model, which allows customer choice in self-generation and the creation of community choice aggregation (CCA), but relies on the utility for certain long-term contracting for reliability and renewable energy. However, reopening retail choice (aka direct access) creates a fundamentally different market model that is incompatible with long-term planning and procurement.

The underlying problem is that getting to ever larger levels of renewables will require the physical construction of new renewable energy and energy storage projects. However, project developers are unlikely to obtain financing for such major capital projects without a long-term contract from a creditworthy party which needs the electricity. But Load Serving Entities (LSEs) – whether investor-owned utilities (IOUs) or community choice aggregators (CCAs) or other non-utility electric service providers (ESPs) - are unlikely to sign long-term contracts if their customer base, and thus their long-term demand, is uncertain due to customers' ability to switch providers.

The current model relies on the utilities to sign long-term contracts for reliability and RPS products, and allocates some of those costs to other Load Serving Entities (LSEs) through mechanisms such as the Cost Allocation Mechanism (CAM) and the Power Charge Indifference Adjustment (PCIA). These mechanisms are already under pressure, but can be reformed to work in the current model, where customer load for each LSE is fairly stable. This stability is due to the fact that community choice aggregation is a fundamentally different model from direct access. A CCA is formed to serve the population in a defined geographic area. Even though customers can opt-out, the reality is that electric customers are very "sticky," so that the future customer base of a CCA is likely stable. The primary risk for a CCA is that if there is a large and unexpected market upheaval resulting in dramatic price increases, the long-term viability of a CCA might be jeopardized. Nevertheless, for load forecasting purposes, the existence of CCAs creates much less uncertainty than a reopening of direct access.

In contrast, it is TURN's understanding that most Electric Service Providers (direct access electric providers) do not require long-term commitments from their customers, who are thus free to switch providers after their one- or two-year contracts terminate. The result under expanded retail competition is that no single Load Serving Entity could be confident of their future load forecasts or would be willing to sign the long-term contracts necessary to build new renewable capacity, or build products using new technologies such as grid storage.

Similarly, while customer-sited distributed energy resources do pose challenges, customer adoption of many technologies follows a pattern that can be roughly modeled, and except for mobile electric vehicles, once a customer installs a technology such as EE or DG, its impacts tend to last for some predictable amount of time. In other words, DERs can be incorporated in long term demand forecasts and planning, albeit there are periods of major technological change that considerably increase forecast uncertainty.

It is entirely unclear how the CAM and PCIA accounting mechanisms could work if all customers were free to switch back-and-forth between different LSEs – IOUs, CCAs and/or ESPs – on short time scales. The Commission should determine: 1) which entity would be responsible for long-term procurement, and 2) how costs could be equitably allocated among different LSEs, **before** the state enacts any regulatory changes that would expand direct access. Other states have developed different models, including state responsibility for long-term contracting (NYSERDA). The Commission may wish to hold a workshop to better understand how states with retail competition have succeeded, or failed, in long-term resource planning. As noted in the E3 report, New York has failed to meet its renewable procurement targets and is exploring new requirements for utility procurement.

Reopening Retail Competition Would Be Bad for Residential Customers

Expanding retail choice would have negative impacts on residential customers, irrespective of whether it was reopened for all customers or just for non-residential customers. In the former case, there are unlikely to be any price benefits. In the latter case, there are likely to be cost shifts to bundled residential customers, not to mention the bigger problems in achieving state policies discussed above.

The motivation for reopening direct access is likely due to the excess generation capacity on the system, just as there was excess generation capacity in the late 1980's. (Hawiger *en banc* Presentation, p. 4-7.) Excess generation capacity is a natural outgrowth of 1) lumpy generation capacity investments, and 2) build-out of renewables to meet aggressive RPS goals. Excess generation capacity results directly in lower wholesale prices in the CAISO energy markets, since 1) renewables are bid in at low variable costs, and not necessarily at the actual PPA energy price; and 2) natural-gas fired generation is also bidding at low variable costs due to low gas prices. In other words, the "capacity" costs usually including in tolling agreements for new gas-fired generation are not reflected in bids or short term energy prices. Some of these excess costs are theoretically allocated to ESP and CCA customers through the CAM and PCIA mechanisms.

Naturally, large industrial and commercial customers want to get access to low wholesale prices without paying for the capacity costs or legacy renewable costs embedded in utility generation rates. Reopening retail competition is likely to result in a surge of industrial and commercial load to non-utility suppliers, since those industrial and commercial customers with large loads are much more lucrative to serve. LSEs are unlikely to target residential customers, due to high customer acquisition costs and low margins. Last time around, about 30%-40% of industrial load and about 15% of large commercial load signed up for direct access, as compared to less than 3% of residential load. (Hawiger *en banc* Presentation, p. 8.)

Moreover, even if they sign up for direct access, residential customers are unlikely to reap significant benefits from retail competition. Residential customers lack the sophistication of large industrial customers and generally do not obtain significant price reductions with LSEs. The Connecticut Office of Consumer Counsel estimated that in 2016 about 57% of retail choice customers paid more than utility customers, and spent about $58.75 million more than bundled customers. (Attachment B, p. 3-4.)[1] The Illinois Attorney General's office found that customers of alternative suppliers paid about $100 million more per year in 2014-2016. (Attachment C, p. 4.) A University of Pennsylvania study[2] found that competitive rates for industrial and commercial customers were lower than utility rates, but competitive rates for residential customers were higher than utility default rates.

Those residential customers that did switch providers in California generally did so in order to obtain "clean energy," reflecting the fact that many residential customers want to support clean and renewable energy.[3] (Hawiger *en banc* Presentation, p. 9.) This same motivation is apparent in today's growth of the CCA market. However, whether marketing claims of "clean energy" are accurate is extremely difficult to ensure, and it is impossible for a residential consumer to evaluate clean energy claims. Indeed, the California agencies in charge of the energy sector have difficulty in evaluating the carbon content of energy imports, and thus cannot validate claims regarding carbon content.[4]

TURN suggests that an important short term regulatory and legislative goal should be to improve the tracking and measurement of the GHG content of imported electricity, so as to improve GHG labeling and disclosure and thus help customers evaluate clean energy claims.

Without long-term contracting, ESPs rely on short term contracting with existing in-state renewable facilities that do not need financing and would sell their output anyway, buying unbundled RECs, or buying existing out-of-state renewable output that simply causes resource shuffling and creates no net new renewable power. Reopening retail access would do nothing to promote rooftop solar, either in the residential or commercial sectors. TURN is not aware of any ESPs that bundle rooftop solar with electricity sales. The rooftop solar industry has and will

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[1] TURN notes that comparisons between pre-restructuring and post-restructuring dates, or comparison between states, are usually unreliable as such differences are mostly driven by fuel price changes over time and fuel composition differences between states.
[2] See the Executive Summary at: http://kleinmanenergy.upenn.edu/paper/electricity-competition
[3] Similarly, the Pennsylvania study found that "By far, renewable energy plans have been the most widely offered innovative product available to residential customers."
[4] For example, the CAISO recently indicated that it cannot at this time accurately track the GHG emissions impacts of the EIM. See, http://www.caiso.com/Documents/GreenhouseGasEmissionsTrackingReport-FrequentlyAskedQuestions.pdf. Assembly Member Levine has introduced AB 79 to develop better methods to track the GHG content of unspecified energy imports.

continue to develop based on the economics of solar compared to utility rates and based on the level of subsidy in any future NEM.

<u>The Current Procurement Model Creates More Risks to Bundled Ratepayers than to Utilities</u>

The Staff White Paper correctly explains that in the current model "the electric utility serves as the central agent" for investing in reliability, storage and renewable energy procurement. While there are several existing pressures and problems, these issues can be addressed going forward. Again, the reason the existing system can work is that the two fundamental elements of customer choice – adoption of behind-the-meter distributed resources and/or community choice aggregation (CCA) – are stable enough to be modeled in forecasts of future demand, which are necessary for any resource planning that requires long-term forecasting.

TURN does differ from the perspective in the Staff White Paper in one area. The White Paper states that current developments with respect to customer choice "fundamentally challenge the incumbent regulated utility business model." TURN notes that the California regulatory structure includes: 1) decoupling, and 2) deregulation of the generation sector. These two key elements have important repercussions regarding utility business model and the impact of choice on utilities. Decoupling ensures that utilities recover their revenue requirements. The deregulation of generation means that: 1) fuel and purchased power costs are a pass-through, and 2) utilities do not make money off building generation, but rather off distribution and transmission investments. In theory, if there were no long-term procurement commitments, a utility would be completely indifferent as to whether the customer obtains electricity (the generation component) from the utility or a third party, as long as that choice impacts only generation revenues, and not distribution revenues. Having a customer choose a different generation provider – whether an LSE or a CCA – should not in theory impact utility earnings if accounting mechanisms such as the CAM and PCIA adequately socialize reliability costs and protect utilities from stranded power procurement costs. Wall Street analyst reports to date have made little of the threat of CCAs to utility profits, since there is no loss in utility profits as long as those customers pay distribution rates. The primary impact of competitive procurement of energy is the potential of stranded long-term contract costs. Unfortunately, California's history of regulation indicates that this risk is likely to fall on bundled ratepayers, not utilities.

The risk of DERs is somewhat different, but also depends on the DER. For example, energy efficiency has long been a staple resource in California. It lowers utility sales and revenues, but does so in a somewhat predictable and measured pace.[5] It does not threaten the utility, though it could contribute to rate increases. The growth of electric vehicles would have the opposite effect of increasing sales, thus potentially increasing revenues and lowering rates. However, massive utility investments in charging infrastructure (a distribution rate based profit center) could increase distribution rates much more than the reduction due to increased sales, thus effectively subsidizing the transportation sector.

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[5] Indeed, some have posited that the growth of LEDs has contributed to recent reduced utility sales.

Customer Choice of Behind-the-Meter Technologies

Current policies promote various distributed resources through subsidy mechanisms that support customer behind-the-meter solar generation (NEM), low-income solar behind-the-meter solar projects (SASH and MASH), behind-the-meter commercial fuel cell and battery projects (SGIP), small wholesale generation projects (ReMAT), and small wholesale biomass and biogas projects (BioMAT).

Many parties appear to assume that that 1) the proliferation of behind-the-meter distributed energy resources will necessitate a fundamental change in utility business models, and 2) the growth of behind-the-meter DER is necessary to integrate high levels of renewable energy. Neither assumption is necessarily true.

With respect to the utility business model, the biggest risk to utility revenues and profits is due to distributed solar, and especially distributed solar and storage. The huge growth in rooftop solar in the past three years has been driven by lower panel costs, continued high tiered rates in California, and the redefinition of "peak load" by D.12-05-036 so as to allow more rooftop solar capacity to qualify under NEM 1.0. It has also been driven by a public perception that most renewables come in the form of rooftop solar, even though in reality there is at least three times as much utility-scale wind and solar capacity in California as behind-the-meter solar capacity, and probably five to six times as much utility-scale energy generation due to better capacity factors.

The threat to the utility business model assumes that customer adoption of DERs will reduce utility sales and earnings so much as to necessitate fundamental changes, such as: 1) changing retail rate design (i.e. using high fixed charges); 2) providing utilities performance incentives related to DERs or distribution services; and/or 3) allowing the utility to charge for a variety of different services other than the provision of electricity.

As mentioned above, the growth of energy efficiency or electric vehicles is unlikely to impair the utility business model. Rather, the primary threat is due to the loss of distribution revenues by the crediting of full retail rates for self-generation exports under the NEM mechanism. The current utility business model could not withstand huge levels of self-generation eligible for NEM treatment. The fundamental policy question that will need to be addressed is whether the utility business model will need to be reformed by changing the way utilities price services, or whether the NEM payment structure will need to be modified so that rooftop solar output exported to the grid is compensated at fair value rather than at full retail rate.[6]

Residential customers have benefitted from rooftop solar in California. TURN was an early supporter of the CSI program, and TURN supported NEM when solar capacity was below 5% of actual coincident peak. However, at this time, the solar industry is doing well in California, and

[6] The Staff White Paper (at p. 10) notes that NEM 2.0 mandated TOU rates "that more closely align what a customer pays for T&D infrastructure with the costs IOUs actually incur to serve them." This statement is incorrect. It is generation costs that are time-varying. T&D costs are not time-variant, and TOU rates do nothing to more ensure recovery of utility T&D investments.

TURN sees little need for subsidy programs that benefit rooftop solar owners at the expense of other customers. Fundamentally, California state policies should focus on charting a path towards very large renewable and clean energy levels that is practical and sustainable. TURN hopes and anticipates that the SB 350 planning process undertaken in R.16-02-007 will help determine an optimal portfolio that includes utility-scale as well as distributed resources. If rooftop solar continues to be an essential element for renewable integration, it should be fostered. But the State should not unthinkingly promote rooftop solar subsidies without evaluating the impacts on achieving needed levels of renewable generation.

Of course, one could imagine a future where sales growth declines so much due to a combination of solar DG, battery storage and energy efficiency that utility collection of revenue requirements is severely impaired under the current framework. TURN suggests that this outcome is worthy of consideration and continued discussion; however, TURN also believes that absent the artificial stimulation due to existing NEM tariffs and large SGIP subsidies, such an outcome would not be likely in the near term.

Yours truly,

______/s/______________

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Enc: Separate Document of Attachments A-C

Cc: Distribution list from June 1, 2017 email