

Southern California Edison's (SCE's) Informal Comments on Workshop – Advanced DER & Demand Flexibility Management held on May 25, 2021

Introduction

On May 25, 2021, the California Public Utilities Commission's (CPUC's) Energy Division (ED) hosted a virtual workshop to discuss ideas for advanced distributed energy resources (DER) and flexible load management, leveraging new system-wide retail rate reforms, and load modifying demand response proposals. During the workshop, ED made two presentations. The first, titled "Recent Developments," reviewed recent CPUC efforts on Dynamic Rates and Load Management. The second, titled "Proposed Roadmap for DER & Flexible Management," described the opportunity for load management through dynamic real-time pricing and proposed a vision and roadmap. Other agencies made presentations as well, including the California Energy Commission (CEC) on "Load Management Standards," the California Independent System Operator (CAISO) on "Renewable Integration and Grid Needs," the Citizens Utility Board (CUB) of Illinois on "The Illinois Experience with Hourly Pricing," and Recurve on "Expanding DERs."

SCE appreciates the opportunity to provide comments on the workshop and focuses its comments on the CPUC's presentations.¹ In summary, SCE looks forward to working with the CPUC and other stakeholders to investigate and consider how real-time pricing structures can be deployed to benefit both the grid and customers.

SCE Supports Further Investigation into the Role Dynamic Rates Can Play to Support our Clean Energy Future

¹ The topics covered in the CEC's presentation are similar to the topics covered in the CEC's Draft Staff Analysis of Potential Amendments to the Load Management Standards, issued in the CEC's Load Management Rulemaking docket (<https://efiling.energy.ca.gov/Lists/DocketLog.aspx?doctetnumber=19-OIR-01>). SCE filed comments on the Draft Staff Analysis on April 27, 2021, and, as such, does not repeat its comments on the those topics here.

SCE uses the Bonbright Principles when designing retail rates. This suite of principles has been acknowledged by the CPUC and broadly tailored for use in various rate design proceedings. Traditionally, retail rates are designed to convey a long-run equilibrium price that uses the appropriate blend of both long-run and short-run marginal costs. This balanced approach provides for a stable price function that allows consumers to make economically efficient choices on consumption behavior, and guides personalized investments in technology and energy resources. Additionally, because power as a commodity has a socio-economic nature, retail rates have also traditionally acted as a vehicle to effectuate the State's goals on social and/or public purpose programs, like wildfire resiliency and affordability.

Several of the Bonbright Principles support the concept of a dynamic pricing rate. A dynamic pricing rate likely would be based on marginal cost and encourage conservation and reduction in peak demand. However, if the dynamic pricing rate is changing every hour and every day, it is less likely to support the principles of stability and understandability. Additionally, expected customer participation and resulting costs to launch, maintain, and educate customers should be factored into program design. Therefore, it is important to strike a balance between all of these principles in order to provide customers with an optimal rate structure.

With the high penetration of renewable resources in our supply mix, and the broader deployment of distributed energy resources on the Grid, SCE supports the CPUC's examination of the role dynamic load management should play in our renewable energy future. SCE further appreciates this opportunity to participate and engage on the numerous discussions that will help vet the appropriate blend of design elements and/or cost components used in the architecture of such dynamic price curves.

The CPUC Should Carefully Consider Customer Eligibility for and Participation in Real-Time Pricing Structures

SCE recommends that policies surrounding customer eligibility and dual participation be evaluated as part of this process. There are customer populations who should be determined to be ineligible for a real-time pricing rate for a variety of reasons. For example, a customer who participates on a medical baseline rate and relies on life sustaining medical equipment would likely not be an ideal candidate for a price fluctuating rate. Additionally, a utility would likely not want to assume the risks of negative outcome from customer participation.

Further, dispatchable Demand Response will remain a vital asset for California's ability to meet customers' energy needs. System emergencies have demonstrated the ongoing need and value that Demand Response plays in ensuring reliability and resiliency. SCE envisions a future where a mix of solutions is necessary as we advance towards electrification. Therefore, dual participation needs to be evaluated to ensure fair and equitable payment while ensuring technical capabilities of multiple in-home devices responding to programming and dispatch signals.

Customer Education is Critical to the Success of Using Real-Time Pricing for Load Management

As mentioned above, the Bonbright Principles note the importance of customer education and outreach when customers transition to new rates, as well as consideration of transparent incentives and bill impacts. If the overall objective of Advanced DERs & Demand Flexibility is to achieve "highly scalable, widespread adoption,"² the customer experience needs to be at the forefront of consideration. **This solution is energy industry driven and not consumer driven.** As such, an extensive understanding of consumer sentiments needs to be incorporated into the planning and implementation process, and customers should have an understanding of how their bill might change as a result; most importantly, they must have a clear understanding of the risks and rewards.

² "Proposed Roadmap for DER & Flexible Management" p. 12 available at <https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442469346>

Demand flexibility represents a fundamental shift in how customers are expected to think about and manage their energy usage. To create this shift, broad awareness campaigns should be explored with ongoing consumer support and education. To be successful, every effort needs to be made to build and maintain trust with customers.

SCE recognizes the need to innovate and implement solutions to safely and reliably manage the electric grid of the future. However, the customer will be at the center of these changes. As stated in SCE's Reimagining the Grid white paper:

We expect major changes in how customers will use electricity, which will place unprecedented demands on the grid. Beyond an expected increase of 60% in electricity demand and 40% in peak load by 2045, electrification of mobility and mass adoption of distributed energy resources (DERs) like solar and batteries will make electricity demand more variable — yet increase customers' expectations for reliability and resilience.³

Rate design and participation options should be consistent and simple to maximize customer participation. Minimizing customer risk and exposure to high bills during a time when California's clean energy goals will naturally increase customer consumption and energy costs through increased electrification should be a top priority.

Conclusion

SCE appreciates the review of these comments and looks forward to working with the CPUC and other stakeholders on load management and real-time pricing issues.

³ "Reimagining the Grid" December 2020, Available at: https://download.newsroom.edison.com/create_memory_file/?f_id=5fcfb5f62cfac23b06eb7d39&content_verified=True