CLECA Comments on ISO DR/EE Roadmap

The California Large Energy Consumers Association (CLECA) provides these comments on the ISO DR/EE Roadmap (Roadmap). These comments focus on demand-side pricing and demand response (DR).

The Roadmap positively recognizes that demand-side pricing and programs can affect the load shape and moreover, that these changes in the load shape should be considered by the CEC and the ISO when forecasting load. Recognizing the ability to shape load will affect the ISO's net load calculations and can mitigate some of the ISO's concerns about flexibility requirements.

The Roadmap also indicates that the ISO intends to coordinate its activities with the CPUC and CEC; this is positive, however, that coordination appears to be missing in the activities and timelines set forth in the Roadmap so far. There is considerable uncertainty as to how these endeavors will play out, who will be in charge, and what the final timeline will be. Some proposals, like bidding most DR into ISO markets by 2014, appear too aggressive, given what will be required for implementation. Others, like incorporating EE and DR into load forecasting and using them for local reliability, appear not aggressive enough, given the apparent policy interest in increasing use of DR as part of the state's portfolio of electricity-sector tools. After comments are submitted, there should be more active coordination, resulting in refinement of the lead entity role and the timing of these activities. Ideally, stakeholder participation in this refinement process will be encouraged and will be sought before a revised Roadmap is issued. This subsequent consultation should lead to a more vigorous approach for increasing and reflecting the role of DR and EE in forecasting, planning, and operations.

The Roadmap does create some concern that the ISO appears to be planning to take on activities with respect to retail end-use consumers that are not in its province. Retail end-use consumer issues are more appropriately addressed by the CPUC, other local regulatory agencies (LRAs), load-serving entities (LSEs), and the CEC. Matters such as rate design and consumer responses to rate changes and automation are retail issues, not wholesale issues. It is good that the ISO supports changes in rate design to facilitate reshaping the load and recognizes the role that enabling technology can play, where it is cost-effective. However, the ISO should provide wholesale price signals and operate the grid. It should not be involved in retail pricing or in assessing consumer responses to such pricing or to enabling technology.

<u>Load Reshaping Path</u>

The ISO has encroached on retail issues with its proposed work on consumer communication and related pilots:

> "The smart grid technologies that enable DR include programmable thermostats, controls, and communication channels for grid information to quickly reach end-use customers. In the 2014-15 timeframe, the ISO will work with stakeholders to develop practical approaches for conveying signals to customers to elicit shifts in energy consumption. During 2015-16, the ISO plans to conduct pilot programs that will provide insights into the effectiveness of these approaches in reducing load during times of high wholesale prices or contingency events, and in increasing load under low cost or excess generation conditions. The goal is to have effective approaches and the required technologies in operation by 2020. When these technologies are standardized across a broad population of consumers, the ISO will be able to model the price-elasticity of this DR in its real-time market optimizations, so that the demand-side response to very high or very low prices can be predicted with a high degree of confidence."[1]

It is important to incorporate the results of changes in load shapes due to rate design changes in demand forecasts prepared by both the CEC on a multi-year basis and the ISO on a shorter-term basis, including real-time. This should happen well before 2020. However, the paragraph above indicates that the ISO believes that an automated response is required for the ISO to model price-elasticity and incorporate the results in its real-time optimizations. It also implies that the ISO believes that only automated responses can be counted on to provide verifiable and quantifiable load changes. This is wrong on both counts. At a minimum, further discussion of this matter in ISO stakeholder processes and CPUC workshops is required. There have been very successful DR programs that have produced quantifiable and verifiable load changes without automation. Furthermore, the cost-effectiveness of automation must be taken into account when deciding where it is best used.

Moreover, it is not the role of the ISO to conduct pilot programs to study how customers use and respond to PCTs or controls. The ISO is a wholesale organization and has no connection with or understanding of retail consumption. This should be left to LSEs, DR Providers, and LRAs.

The Roadmap refers to the use of locational and time-varying market signals. We entirely support the recognition in pricing of the time-varying nature of costs. If the reference to aligning grid conditions and retail signals is to retail pricing, this is clearly the responsibility of LRAs, including the CPUC, where they have jurisdiction. For ESPs and CCAs, this pricing is unregulated. Also, there are statutory restrictions on the use of default time-varying pricing for residential customers that impede the implementation of this recommendation.

Locational price signals are another matter. The CPUC has not adopted locational pricing of electricity. The last time there were geographically varied rates was

[1] Roadmap, at p. 7.

1975. It may be possible to provide DR incentives that vary by location, and DR programs can be dispatched on a locational basis, but geographically-differentiated rates raise a host of policy issues that may be insurmountable.

The ISO has clear authority in the area of wholesale prices and a strong role to play in alerting LSEs and end-use customers to potential reliability problems that would benefit from changes in demand, including Flex Alerts, Warnings, etc. However, charging retail customers based on wholesale prices would not send much in the way of price signals, since wholesale prices have been low and relatively flat. Thus the ISO's market has not historically resulted in prices that provide much information on grid conditions. (This may change with increased congestion due to the SONGS closure.) At present, real-time pricing based on wholesale market prices does not appear to hold much promise for sending price signals that will motivate any change in consumer behavior.

Resource Sufficiency Path

The Roadmap discusses classification of Demand Side Management as either load-modifying (to be included in the load forecast) or supply-side (to be included in ISO dispatch) and to determine the operational attributes of DR programs. For existing DR, this information should be available today from the IOUs and the DR aggregators under contract. There is no need for the ISO to develop a catalog de novo.

The ISO should, however, consider whether and what type of DR or EE could be used as an alternative to transmission upgrades or additional generation, which we assume means using them for local reliability. The ISO could also work with stakeholders in a dialog to determine which operational attributes would be most helpful in providing local reliability. New DR or EE programs could then be developed. However, the ISO should not proceed with the assumption that DR and EE have to meet operating criteria based on a generator model. The meaning of the ISO's proposal that the CPUC perform an assessment in 2014 of avoided cost benefits from DR and EE related to local reliability is unclear. If this means to assess their cost-effectiveness to provide local reliability, CLECA would support this.

The current ISO reliability standards exceed NERC and WECC requirements and impost additional costs on consumers as a result. The ISO and CPUC should enter into a dialog about the current ISO reliability standards and whether they should be modified. This dialog should include input from stakeholders and interested parties. If the hours of risk are low, demand-side load adjustments may be more cost-effective than transmission or generation additions in addressing contingencies. There has been no discussion of the current standards from a cost-effectiveness perspective.

The ISO proposes distinguishing between load-modifying and supply-side DR in a CPUC DR or RA proceeding.[2] Under load modifiers, the ISO includes dynamic rates, behind the meter DG, and EE. Since DR is not mentioned, the ISO appears to have concluded that all DR must be supply-side. It also wants all supply-side DR to be bid into its markets. There has not been, and should not be, a decision that all DR must be bid into the ISO's markets. The cost of doing so has not been assessed and it is not clear that this would be cost-effective.

The Operations Path

This section of the Roadmap fails to address the WECC restrictions on the use of DR for regulation and spinning reserve. These are the two ancillary services that have prices that might make participation by DR in these markets worthwhile. At the CEC's June 17 workshop, MISO said its operators find DR provides superior regulation and spinning reserve to generation. Furthermore, MISO and ERCOT pointed out that they do not require telemetry for DR to provide any ancillary service except regulation, whereas WECC requires it for all ancillary services. The ISO should take the lead, with the support of the CPUC and CEC, to work with the WECC to enable DR to provide these services and to eliminate the significant additional cost of telemetry if viable alternatives exist.

The Roadmap also includes pilots to test DR's ability to meet flexible capacity and local operational needs. If DR can provide regulation and spinning reserve in other ISO/RTOs, pilots are unnecessary to show that it can meet requirements for local reliability and flexibility. Regulation is inherently flexible and responds to four-second signals. Spinning reserve is available very quickly as well. Pilots would only lead to delays.

The Roadmap mentions the ISO's Participating Load (PL), Proxy Demand Resource (PDR), Reliability Demand Response Resource (RDRR), and Dispatchable DR (DDR) models. All of these models force DR into the current ISO market limitations of 5-minute dispatch, fixed inputs to the Master File, etc. The PL model has very limited applications. DR can provide system benefits without a requirement to be re-dispatched every 5 minutes. It can provide a steady ramp that the ISO market cannot account for at present. The DDR model, which has never been finalized, does not work for DR because of the requirement to fix Pmin and Pmax. This issue was brought up in March 2012 and the ISO has never responded.

Another problem is that PL and DDR only allow LSEs to bid the DR into the ISO's markets, since it must be combined with load bids. This limits the ability for aggregators or other third parties to participate in the ISO's markets. Only PDR allows load to be bid separately from the DR. However, PDR only allows for

[2] We also understand that the ISO's characterization of how DR is counted for RA may be incorrect and suggest that the ISO meet with the CPUC staff to clarify the counting procedure.

reductions in load, not increases and reductions that would be required for ramping or regulation. The current ISO product specifications thus restrict the ability of DR to participate actively in its markets. The ISO should consider ways to incorporate DR into its markets without the restrictions that are a function of its current market design and related software. This may require changes to its markets. If so, these may be an appropriate consideration in facilitating supply-side DR. The ISO should be amenable to the possibility of taking this broader look into how the system can benefit from the top loading order resources of DR and EE, even if market changes are needed.

Conclusion

CLECA appreciates the ISO's increased interest in the role that demand-side options, like EE, DR, and dynamic pricing, can play in shaping load and providing reliable, cost-effective electric service in the future. With cooperation among the ISO, CPUC, CEC, and stakeholders, these options should be able to be effectively incorporated into future forecasting, planning, and operations in a timely manner. CLECA intends to provide input as an interested stakeholder.

Barbara Barkovich
Barkovich & Yap
707.937.6203
barbara@barkovichandyap.com

Consultant to the California Large
Energy Consumers Association