New Paradigm, Same Players: the Relationship between Reliability and Price-Responsive Demand Response Program Participants in California

Mike Ting, Amy Buege, and Mike Rufo
Itron, Inc. Consulting and Analysis Services Group, Oakland, CA

Abstract

This paper presents the results of an in-depth analysis of the Demand Bidding Program (DBP) participant population in California with a focus on interruptible service customers enrolled in DBP and how their participation influences the outlook for growth in price-responsive demand response (DR) from DBP going forward. Based on results from participation tracking, bidding, load reduction impact, and process analyses, we found that while interruptible customers account for a rather small share of customers enrolled in DBP, they account for significant share of enrolled non-coincident peak load and an even larger share of the load reductions bid by DBP participants during DBP events. In the end, interruptible customers accounted for the majority of total load reductions realized through California’s statewide DBP programs in 2005. These findings indicate two important but conflicting participation trends. First, a significant portion of reliability customers have adapted their curtailment planning and actions from the infrequent, compliance-driven framework of reliability programs to the more frequent, voluntary framework of price-responsive programs. However, the fact that a significant portion of participation in price-responsive programs is coming from existing reliability customers also indicates that the level and growth of participation in price-responsive programs from customers who had not previously participated in any DR program is significantly less that it would otherwise appear.