



## **Flexible Load Management Working Group**

Monday, October 21, 2024  
11:00 am – 12:00 noon

### **Attendees**

Alek Antczak (PSD), Bill Powell (WEC), Brian Evans-Mongeon (HPE), Cyril Brunner (VEC), Casey Lamont (BED), Brian Cotterill (PSD), Dan Kopin (VELCO), David Westman (EVT), Garth Dunkel (VPPSA), Hantz Presume (VELCO), Jasmine Rivest (EVT), Jonathan Dowds (REV), Khalid Osman (VELCO), Kyle Landis-Marinello (VELCO), Lucas Looman (VELCO), Marc Allen (VELCO), Anne Margolis (PSD), Morgan Casella (Dynamic Organics), Paul Lambert (EVT), Philip Picotte (PSD), Jeremy Ravenelle (GMP), Sarah Braese (VPPSA), Shana Louiselle (VELCO), Steve Farman (VPPSA), Cam Twarog (GMP), Zakia El Omari (VELCO)

### **Review of Flex Load Inventory Spreadsheet**

Philip Picotte provided a summary of responses to the inventory of existing flexible load programs submitted by distribution utilities. There are at least 36 current programs, rates, or storage (battery/hydro) approaches that support grid flexibility. Although not every inventory element offers a precise amount of flexibility, at least 151 MW can be avoided in total, predominately through DU assets (e.g. storage devices) at 71 MW, through rates at 59 MW, and through customer-owned assets at 21 MW. Values are approximate.

The inventory also asked DUs about the purpose(s) of each program or rate. Nearly every program aims to reduce forward capacity market (FCM) charges, and most mention regional network service (RNS) charges. Energy price arbitrage and transmission and distribution (T&D) were listed but less often.

### **Gaps in Flexible Load Management**

Participants shared major gaps, as they see them, in current FLM options. Direct control options from manufacturers are expensive and difficult to scale. For example, they require work to start and maintain programs, and are often labor-intensive answering technical questions with customer service staff called upon to troubleshoot device issues.

Technical support means troubleshooting with OEMs as well, sending emails with instructions to reconnect devices, directing customers to manufacturers for technical support and warranty issues, and training call center staff for basic fixes. Currently, at GMP, the Innovation Team receives a few participant help requests every day.

Next, participants discussed whole-home time-of-use (TOU) rates relative to device-specific

rates (e.g., EV rates). One utility expressed hesitation in direct active controls for customer loads; the utility is using a price signal approach in offering EV rates. This can be expanded to other equipment such as heat pumps. While there is a considerable upfront cost for utilities establishing programs, and a pre-device fee, this approach more accurately informs customers of the value stack and allows them to optimize their schedule. There is also less back-and-forth communication by relaying day-ahead pricing than through direct load control.

Sarah Braese said that load management programs are difficult to justify on peak shaving alone. Utilities are unlikely to participate without partnerships (e.g., Energy Storage Access Program funds) or other revenue (e.g., frequency market participation). A home storage program cannot operate on RNS and FCM savings alone; customer payments make it feasible. Alek Antczak also suggested that third-party aggregators can manage loads and export technologies.

Dave Westman asked whether programs specifically address asset deferral. Casey Lamont responded that many TOU rates consider asset deferral, albeit secondary to transmission rates (which are a larger value stream). It's unclear if distribution asset deferral has been quantified. Cyril Brunner said that VEC expects to file an innovative pilot shortly focused on managing EV charging impacts on distribution transformers.

### **Future Discussion of Roles and Responsibilities**

Paul Lambert asked about Efficiency Vermont can bring the most value to DUs. Dave Westman suggested that a future discussion should address current (and recent past) roles and responsibilities before turning to the future, specifically how and where transmission or distribution asset deferral could take place. Anne Margolis said that the VSPC's non-transmission alternative (NTA) priorities will feed into this conversation, although we won't know NTA suitability until each analysis is complete. She desires a fluid conversation about the future and different potential roles these entities could play.

Hantz Presume said most of the work will come back to the VSPC study group. This FLM group and the Technical Working Group will support NTA analysis in terms of resources, data, and ideas.

### **Potential Study Update**

Philip Picotte said that the next efficiency potential study will not focus on flexible load potential. Itron, the consultant who completed the last potential study, included residential potential, but commercial potential is very different in nature and not suited for concurrent work estimating efficiency potential. Brian Cotterill is the PSD's lead for the efficiency potential study.