DOCKETED	
Docket Number:	22-RENEW-01
Project Title:	Reliability Reserve Incentive Programs
TN #:	259756
Document Title:	SPAN.io, Inc. Comments - Comments of SPAN in Docket No 22-RENEW-01
Description:	N/A
Filer:	System
Organization:	SPAN.io, Inc.
Submitter Role:	Public
Submission Date:	10/29/2024 2:19:41 PM
Docketed Date:	10/29/2024

Comment Received From: SPAN.io, Inc.
Submitted On: 10/29/2024
Docket Number: 22-RENEW-01

Comments of SPAN in Docket No 22-RENEW-01

Additional submitted attachment is included below.

SPAN

October 28, 2024

California Energy Commission
Re: Docket No. 22-RENEW-01
715 P Street
Sacramento, CA 95814
docket@energy.ca.gov

California Energy Commission Commissioners and Staff:

Span.IO, Inc. ("SPAN") appreciates the opportunity to comment on the California Energy Commission's modifications to Demand Side Grid Support Program (DSGS) Program Guidelines for the 2025 program year.

SPAN is a manufacturer of smart panels for single- and multifamily homes. SPAN's flagship product, SPAN Panel, is a 1:1 replacement of the traditional electrical panel that adds onboard intelligence, monitoring and controls to each of its available circuits. SPAN's unique PowerUp™ intelligence (a UL-916 Energy Management System) shifts loads according to homeowner preference to control energy consumption, eliminating the need for upgrades to utility service while also providing ongoing demand flexibility.

SPAN recommends that the New Incentive Option 4–Emergency Load Flexibility Virtual Power Plant Pilot (VPP) should be amended so that technology which enables whole-home aggregation is an additional Eligible Resource type.

The proposed Aggregator and Participant Eligibility requirements point to "*dispatchable smart thermostat-controlled HVAC or heat pump heating/cooling units, heat pump water heaters, and electric resistance water heaters*"[1] as the limited set of eligible resources for participation.

We recommend that the CEC consider the opportunities of whole-home aggregation for residential customers. A whole-home aggregation would leverage the entire suite of behind-the-meter distributed energy resource (DER) assets including smart thermostats and heat pump resources through a single interface. Solutions such as a smart electric panel can serve as this single platform, because the smart panel can control every load in the home at the individual circuit level. A smart panel can aggregate individual resources into a single platform that acts as the point of connection and interface with the load flexibility VPP aggregator when administering Incentive Option 4. Furthermore, as the hardware-enabled central hub, technology like a smart panel can provide certainty to the grid that the intended load drop will occur.

[1] Proposed Demand Side Grid Support (DSGS) Program Guidelines, Fourth Edition (page 31)--
https://efiling.energy.ca.gov/GetDocument.aspx?tn=259451&DocumentContentId=95544

A whole home aggregation with a single interfacing platform for the load VPP aggregator can support the Goals for 2025 and Beyond presented in the Presentation slides for DSGS Program Staff Workshop held on October 18, 2024:

- **Scale and grow participation from clean resources**: Smart panels allow for a device-agnostic approach to load flexibility aggregation.
    - A smart panel is a single interface to the home also enabling a higher MW value of flexibility to be extracted from the individual home and aggregated across homes with smart panels for load flexibility VPP aggregators to tap into for DSGS participation.
    - Smart panels can continuously support the adoption of multiple beneficial electrification technologies (e.g. heat pumps, heat pump water heaters, EVs and EV chargers, induction stoves etc.) as the critical starting point to the customer electrification journey by avoiding additional hidden costs and delays related to customer-level service line upgrades.
    - SPAN has found that in the event of an outage the smart panel extends residential battery life by 40%.[2]

- **Continue streamlining program administration**: Smart panels streamline program administration of load flexibility VPP aggregators since enrollment for DSGS is taking place at the household level – thereby encompassing all devices – versus at the individual device level.
    - The smart panel embedded software technology allows for the remote setting of event limits in accordance with DSGS.
    - Smart panels enable real-time communication of test events called by the CEC in the absence of EEA events and triggered events based on energy emergency alerts issued by a California balancing authority.
    - Smart panels enable granular measurement and verification data in real time for the load flexibility VPP aggregators to simplify any additional M&V required.

- **Refine and clarify requirements to improve user experience**: Smart panels enhance the customer experience in working with load flexibility VPP aggregators to enroll customers in DSGS since the enrollment will be done at the household level versus individual device level. Furthermore, many smart panels, such as SPAN's, come with a customer facing mobile application which will communicate event limits in accordance with participation requirements all while adhering to customer preferences. Smart panels also enable sophisticated data analytics for ongoing program assessment and refinement.

[2] https://www.span.io/panel

SPAN appreciates the opportunity to comment and give feedback on the CEC's Modifications to DSGS Program Guidelines and looks forward to supporting the participating load flexibility VPP aggregators in DSGS participation.

About SPAN

At SPAN, we designed a smart electrical panel to simplify home energy management and streamline the installation of distributed energy resources. Our smart panel serves as a one-for-one replacement of the traditional residential electrical breaker box. The smart panel can monitor and control loads in the home, enabling electrification and future demand flexibility without the need for expensive and time-consuming service upgrades.

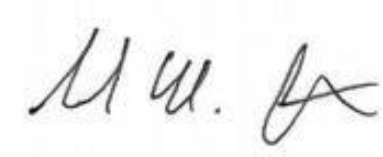
With PowerUp™, SPAN's onboard intelligence, homeowners can install new electric appliances or DERs while maintaining their home's existing electrical service. SPAN uses hardware- and software-secure solutions to prevent loads from exceeding the limit of the main breaker in line with current NEC guidelines.

To realize full electrification potential, SPAN seamlessly integrates with a variety of distributed energy resources, including the SPAN Drive EV Charger and the Mitsubishi Electric Trane US (METUS) heat pump. SPAN Drive, which is compatible with major auto OEMs, unlocks Level 2+ charging (48 amps) at home, and schedules and optimizes charging speeds 24/7 while enabling owners to leverage TOU rates where available.

Conclusion:

SPAN appreciates the consideration of our comments, and looks forward to continuing to work with the CEC and stakeholders on modifications to the DSGS Program Guidelines for the 2025 program year. Please feel free to contact us with any questions.

Sincerely,



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