



Excess Supply Pilot Introduction For Electric Vehicle Charge Network

Outline

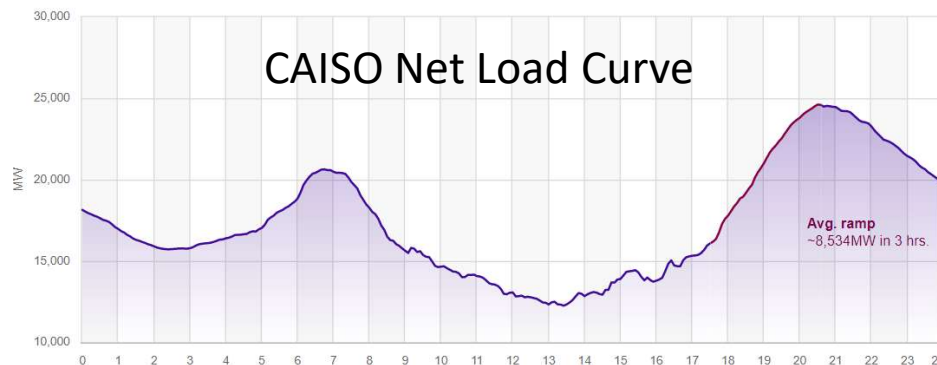
1. Pilot Specifications
2. Program Eligibility
3. Settlements



Excess-supply Pilot (XSP) Objective

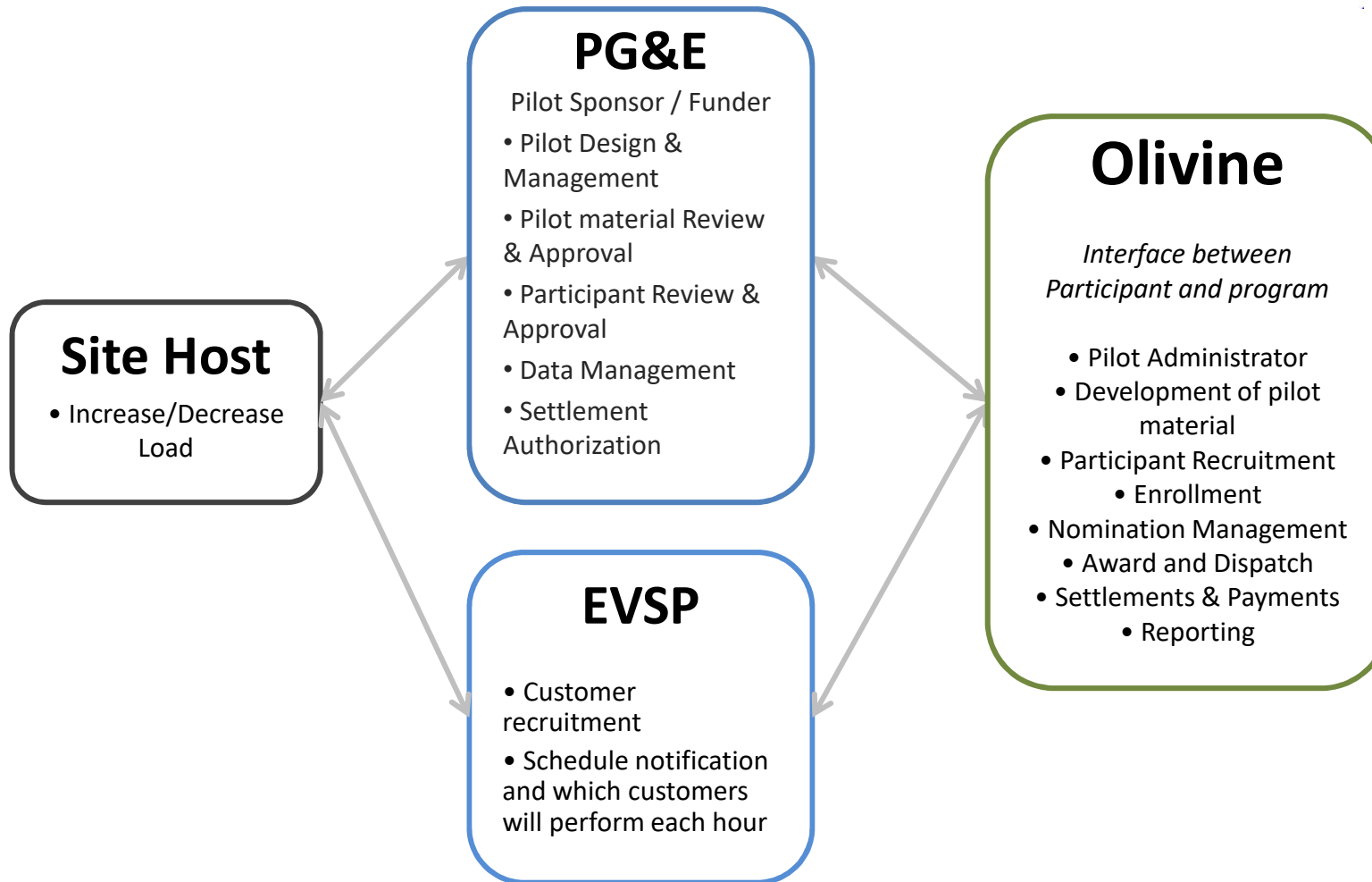


- 5 million EVs by 2030*
- EVSE as a flexible demand-side resource can provide value to the grid.
- Soak up excess solar during times of over-generation.
- Reduce demand in the evening during ramping hours.



* SB 350

Roles

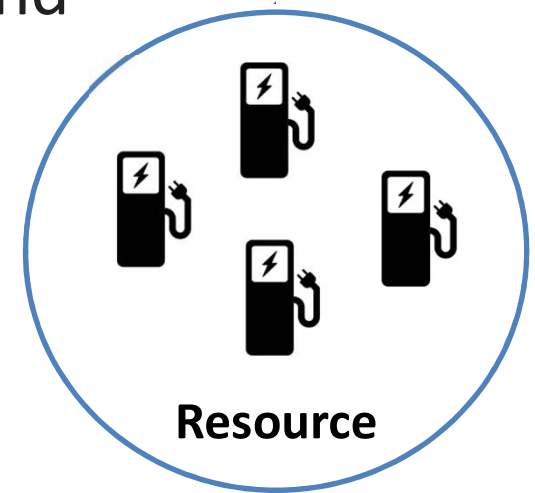


Specification > Eligibility > Settlement

Excess-supply Pilot (XSP) Design Features



- Each site is its own resource, sited behind a single dedicated PG&E meter
- Participants control EV chargers
 - increase or decrease load
- Dispatch based on administratively set price triggers and oversupply forecasts
- Up to \$10/kW-month payment based on performance



Specification > Eligibility > Settlement

Program Eligibility



- Underlying sites may **not** be on any other DR program or rate
 - Including PDP / SmartRate
 - Must first de-enroll

XSP Participation

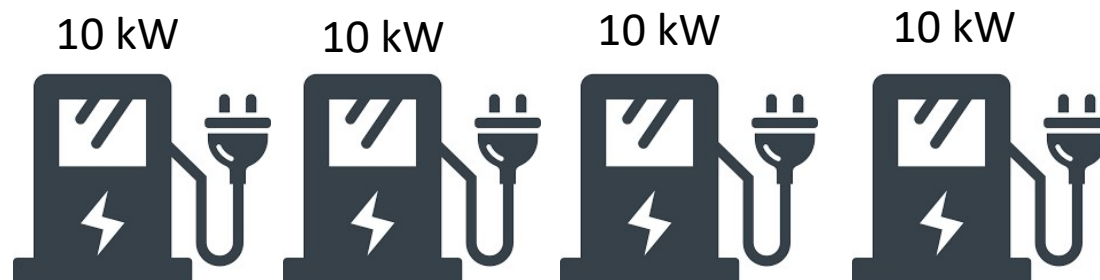


- Availability:
 - Load Increase: 8 AM – 1 PM
 - Load Decrease: 4 PM – 9 PM
 - 7 days per week
- Notification 5 PM day-ahead
- OpenADR 2.0 required

Nomination



- Nomination provided by EVCN team at enrollment
- Nomination is sum of the EVSE nameplate capacity on site.



- Nomination = $4 \times 10 \text{ kW} = 40 \text{ kW}$

Specification > Eligibility > Settlement

How is performance measured?



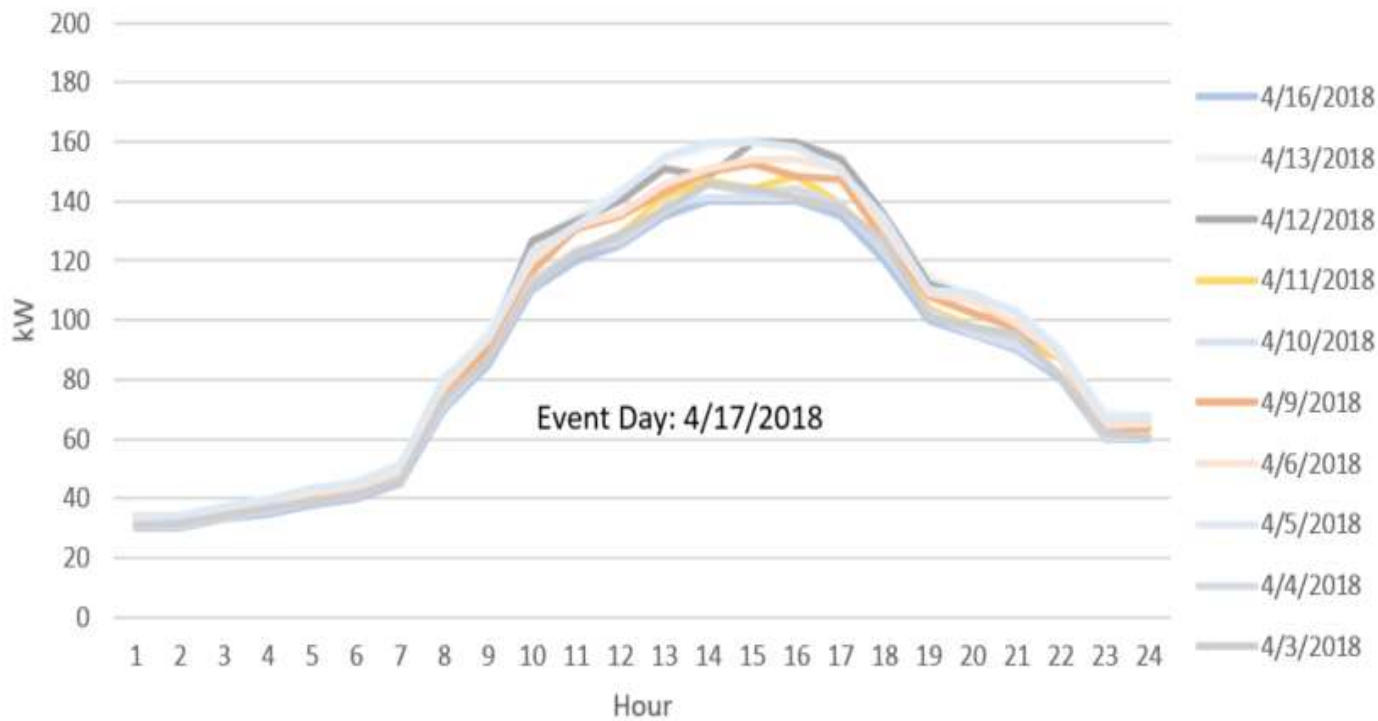
- Utilizes “10-in-10” Baseline with no adjustment
- Uses EVCN meter data (dedicated to charging station load)
- Delivery
 - Increase: Load minus baseline
 - Decrease: Baseline minus load
- Hourly Performance
 - Ratio of hourly delivery to the nomination
 - Hourly performance has no “zero” floor

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Baseline Step #1



- Identify 10 similar, non-event days

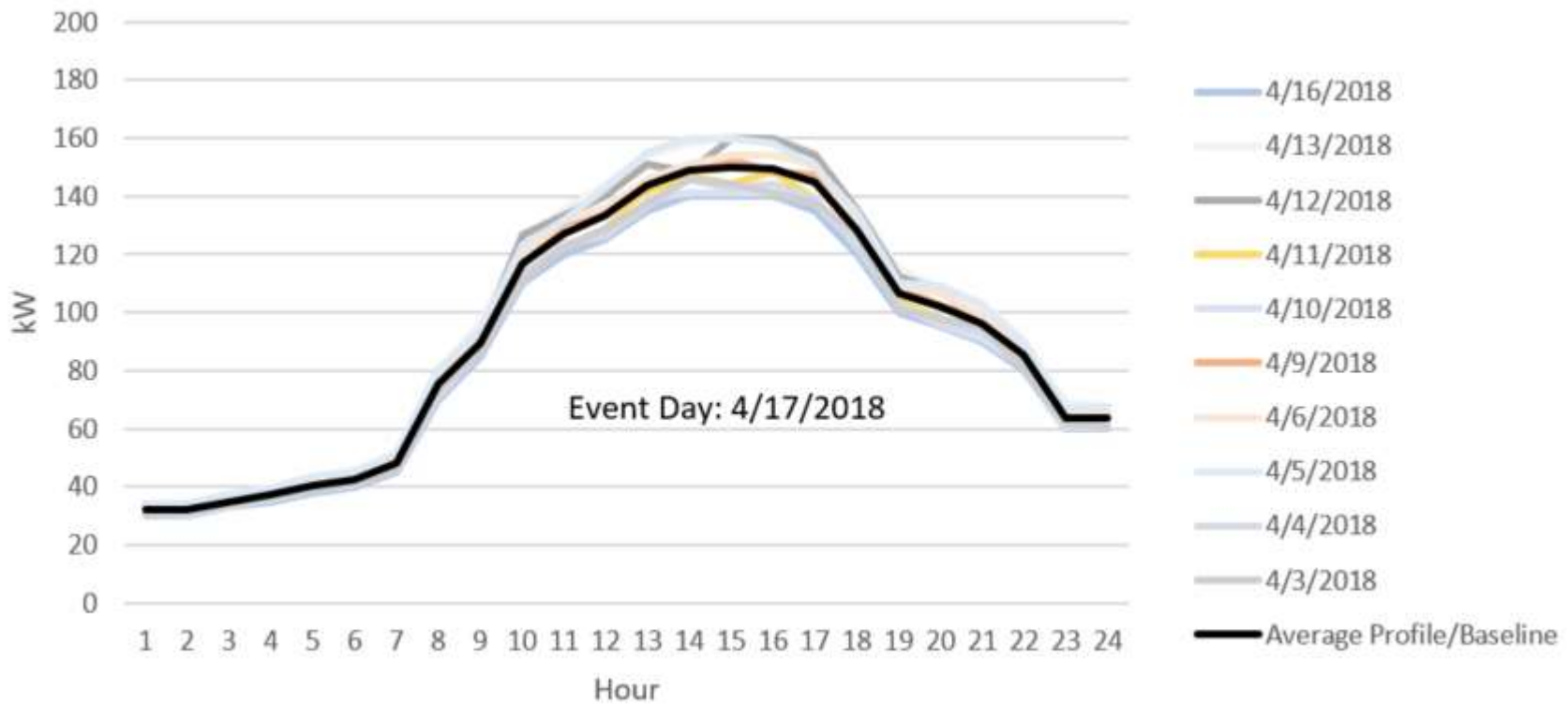


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Baseline Step #2



- Create average profile from selected days

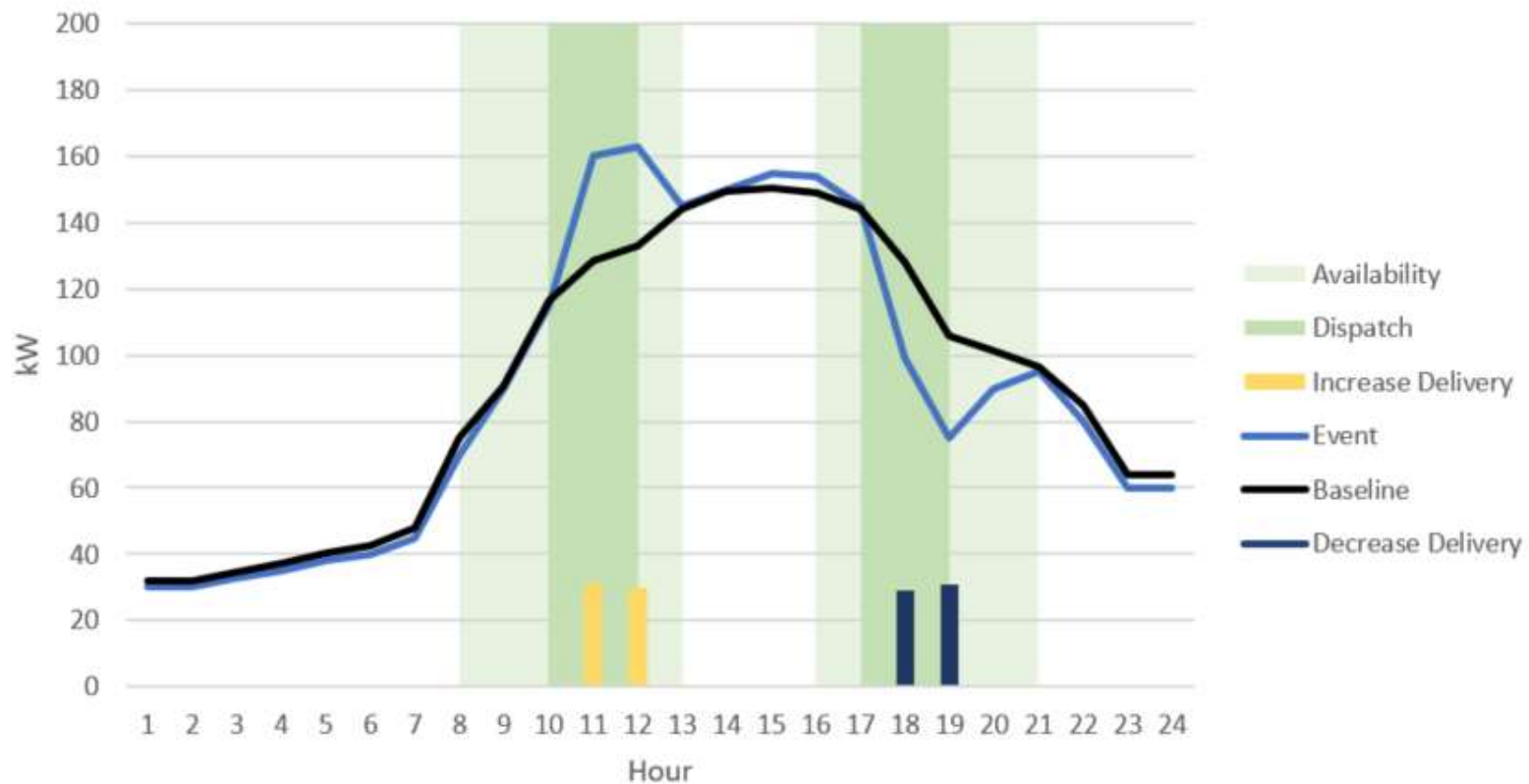


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Baseline Step #3



- Average profile is baseline



Specification > Eligibility > Settlement

Capacity Payments



Capacity Bill Credit =

[Capacity Price] x [Nomination] x [Monthly Performance]

- **Capacity Price: \$5/kW-month**
 - Increase & Decrease credit calculated separately
 - Up to \$10/kW with full performance
- **Nomination:** kW number based on EVSE nameplate capacity
- **Raw performance:** Simple average of each hourly measurement of performance
- **Monthly performance:** (see next slide)

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Monthly performance



Raw Performance	Monthly Performance
$1.00 < x$	1.00
$0.20 < x \leq 1.00$	x
$x \leq 0.20$	0

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Conclusion: *Participant Next Steps*



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