

10-Day Average Baseline and “Day-Of” Adjustment



10-Day Average Baseline

The methodology used to calculate baselines for Demand Response (DR) events is the “10-Day Average Baseline.” Under this baseline methodology, each hour during the past 10 similar days prior to an Event Day is averaged (by service account) to establish an hourly average baseline for those 10 days. The past 10 similar days excludes Event Days, weekends and holidays.*

Applicability

The 10-Day Average Baseline methodology is applicable to the following Demand Response (DR) programs:

- Capacity Bidding Program (CBP)
- Demand Bidding Program (DBP)
- Optional Binding Mandatory Curtailment Program (OBMC)*
- Scheduled Load Reduction Program (SLRP)

To establish the hourly 10-Day Average Baseline, calculate the average usage for the *same* hour during the last 10 similar weekdays before the Event Day.

Last 10 similar weekdays before Event Day	One Hour (kWh)
Day 1	5712
Day 2	5808
Day 3	5568
Day 4	5136
Day 5	4944
Day 6	5136
Day 7	4896
Day 8	5088
Day 9	4992
Day 10	4992
Total usage for same hour	52,272
	÷ 10
10-Day Average Baseline usage (kWh) by hour	5227

“Day-Of” Adjustment Option

The 10-Day Average Baseline calculation includes a “Day-Of” adjustment option, which may adjust your baseline up or down.

Some DR program participants may benefit from utilizing the “Day-Of” adjustment option. Those who may benefit are temperature-sensitive, can pre-cool their facilities, or have the ability to shift load from the event period to the hours prior to an event.

The Adjustment Ratio is calculated in the formula below:

Adjustment Ratio =

Average kWh usage of the first three of the four hours before the event (on the day of the event)

Average kWh usage for the same three hours from the past 10 similar days (excluding Event Days, weekends, and holidays)

Once the Adjustment Ratio is calculated, it will be multiplied by your hourly baseline for each hour during an event. The Adjustment Ratio is limited to plus or minus 20% of your baseline, or within a range of 0.80 – 1.20. An example of how to apply this calculation is on the next page.

Please contact your SCE Account Representative to ensure your facility has the necessary energy reduction strategies in place that would enable you to benefit from this option.

* Since OBMC events may be called on weekends or holidays, the adjustment (and baseline) may be calculated differently than CBP, DBP, and SLRP. If the OBMC event occurred on a business day, then the past 10 similar days will include business days only. If the OBMC event occurred on a weekend or holiday, then the past 10 similar days will include weekends or holidays only.

“Day-Of” Adjustment Selection

The table below lists when you may select the “Day-Of” adjustment option for each DR program in which you may be enrolled:

Demand Response Program	“Day-Of” Adjustment Selection	Event Hours
Demand Bidding Program (DBP)	Must be selected when placing a manual or standing bid.	12 noon – 8 p.m.
Capacity Bidding Program (CBP)	Must be selected during the monthly nomination process.	11 a.m. – 7 p.m.
Optional Binding Mandatory Curtailment Program (OBMC)	Must be selected when the annual agreement is signed.	Anytime
Scheduled Load Reduction Program (SLRP)	Must be selected when the annual agreement is signed.	4-hour options between 8 a.m. – 8 p.m.

Aggregated Groups

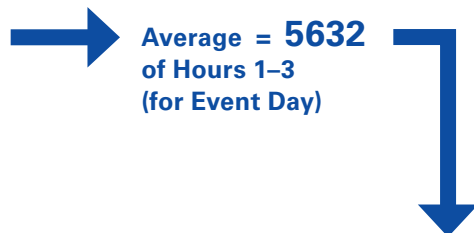
Each of your service accounts’ baselines will be individually determined, regardless of whether the “Day-Of” adjustment option is selected. Your individual baselines will then be summed up to produce the baseline for your aggregated group.

Determining the "Day-Of" Adjustment Ratio

Step 1

To determine the "Day-Of" Adjustment Ratio, begin with calculating the average kWh usage of the first three of the four hours prior to the event, for the day of the event.

Four hours prior to Event	Hour 1	Hour 2	Hour 3	Hour 4*
Event Day Usage (kWh)	5664	5760	5472	—



Average = **5632**
of Hours 1-3
(for Event Day)

Step 2

Then calculate the average kWh usage for the same three hours over the last 10 similar weekdays.

Last 10 similar weekdays before Event Day	Hour 1 (kWh)	Hour 2 (kWh)	Hour 3 (kWh)	Hour 4*
Day 1	5712	5808	5856	—
Day 2	5808	5760	5808	—
Day 3	5568	5616	5712	—
Day 4	5136	4896	4992	—
Day 5	4944	5232	5184	—
Day 6	5136	4992	4992	—
Day 7	4896	4944	5040	—
Day 8	5088	5136	4896	—
Day 9	4992	5088	5136	—
Day 10	4992	5184	4944	—
10-Day Average Baseline Usage (kWh) by hour	5227	5266	5256	—



Average = **5250**
of Hours 1-3
(for last 10 similar weekdays)

Step 3

Divide the average of Hours 1-3 for the Event Day by the average of Hours 1-3 for the last 10 days to calculate the "Day-Of" Adjustment Ratio.

$$\frac{5632}{5250} = 1.0728$$

* Hour 4 is not used in the calculation. It is considered a neutral hour used to prepare for the event.

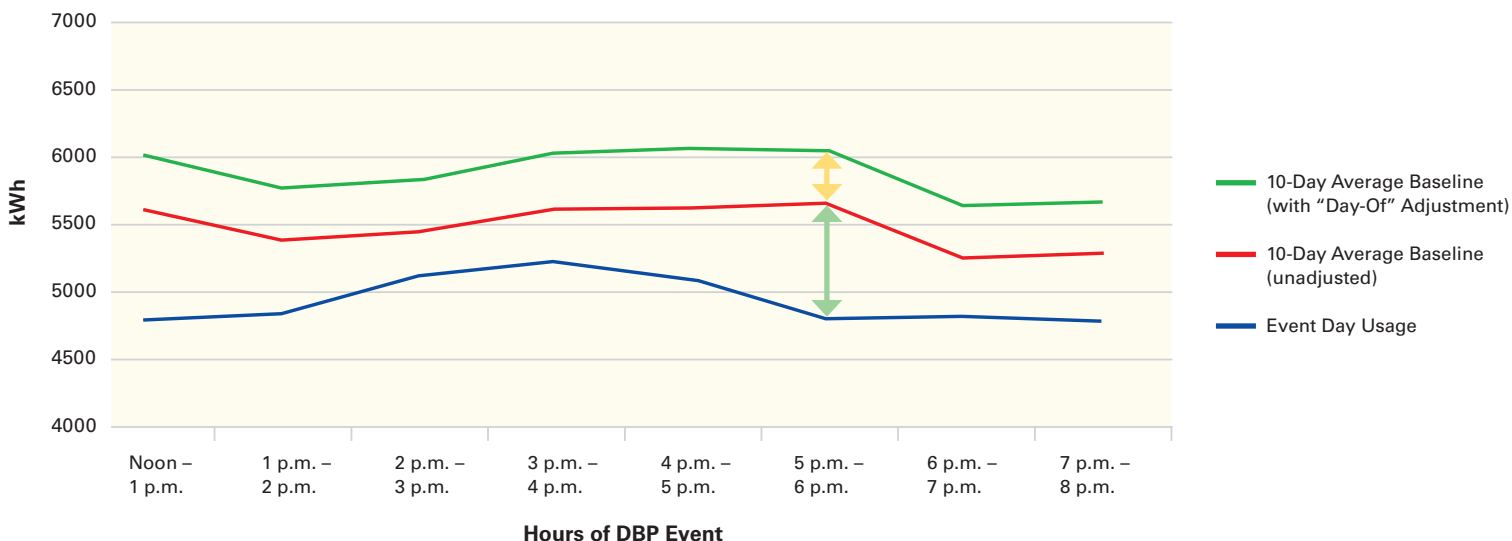
In the example on the next page, this "Day-Of" Adjustment Ratio is applied to the 10-Day Average Baseline for each hour of a DBP event.

Example: Applying a "Day-Of" Adjustment Ratio for a DBP Event Participant

This table shows the 10-Day Average Baseline for the immediate past 10 similar workdays before an event.

Date	Noon - 1 p.m.	1 p.m. - 2 p.m.	2 p.m. - 3 p.m.	3 p.m. - 4 p.m.	4 p.m. - 5 p.m.	5 p.m. - 6 p.m.	6 p.m. - 7 p.m.	7 p.m. - 8 p.m.
7/29/09	5808	5808	5760	5856	5808	5808	5808	5760
7/30/09	7344	7440	7440	7392	7488	7392	5616	5616
7/31/09	7488	4944	6000	7008	7344	7440	5472	5712
8/3/09	4992	5184	5088	5232	5184	5232	5232	5376
8/4/09	5184	5184	5136	5088	5088	5136	5184	5232
8/5/09	5232	5280	5088	4896	4992	5136	4992	4848
8/6/09	5040	5184	5136	5232	5184	5184	5232	5136
8/7/09	4848	4896	4752	5136	5136	4992	5040	5040
8/10/09	5088	5088	5040	5184	5088	5088	5040	5088
8/11/09	4944	4848	5040	5040	5088	5040	4944	4992
10-Day Average Baseline	5597	5386	5448	5606	5640	5645	5256	5280
Multiply by "Day-Of" Adjustment Ratio				1.0728				
10-Day Average Baseline with "Day-Of" Adjustment	6004	5778	5845	6015	6051	6056	5639	5665

Example: Comparison of Unadjusted and Adjusted 10-Day Average Baselines



In the above example, the DBP participant experienced a beneficial "Day-Of" Adjustment. The "Day-Of" Adjustment may be beneficial if the Adjustment Ratio is calculated to be greater than 1.00.

