



California ISO

Availability assessment hours

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AVAILABILITY ASSESSMENT HOURS

Availability assessment hours: Background and purpose

- Concept originally developed as part of the ISO standard capacity product (SCP)
 - Maintained as part of Reliability Service Initiative – Phase 1 (i.e. RA Availability Incentive Mechanism, or RAAIM)
- Determine the hours of greatest need to maximize the effectiveness of the availability incentive structure
 - Resources are rewarded for availability during hours of greatest need
 - Hours determined annually by ISO and published in the BPM
 - See section 40.9 of the ISO Tariff

Methodology overview of system/local availability assessment hours

- Used CEC IEPR data accounting for DST shift
 - Hourly average load
 - By hour, by month
 - Years 2026-2028
 - Top 5% of load hours within each month using an hourly load distribution
- Actual demand tags do not contain battery charging load for market battery resources.
- For 2026, the ISO proposes the following AAH for a three season approach
 - HE18-HE22 for winter: Jan – Feb, Nov – Dec
 - HE18-HE22 for spring: Mar – May
 - HE17-HE21 for summer: Jun – Oct

The ISO proposes Winter and Spring Season Alignment for AAH

2024 actual frequency of top 5% of load hours

Hour	8	15	16	17	18	19	20	21	22	23	Season
MONTH	Jan	4			9	13	7	4			Winter
	Feb				6	14	10	3			Winter
	Mar	1			2	6	15	13			Spring
	Apr	1				2	10	16	7		Spring
	May				1	4	11	13	7	1	Spring
	Jun		1	2	2	6	8	8	6	3	summer
	Jul			2	4	8	10	8	5		summer
	Aug			1	4	7	17	6	2		summer
	Sep		2	4	6	7	7	6	3	1	summer
	Oct		1	5	8	8	8	6	1		summer
	Nov				16	13	5	2			Winter
	Dec	1			2	10	10	9	4	1	Winter

2026 forecast frequency of top 5% of load hours

Hour		15	16	17	18	19	20	21	22	23	Season	Recommendation
MONTH	Jan				8	19	9	1			Winter	HE18-HE22
	Feb				1	18	14				Winter	HE18-HE22
	Mar					4	17	11	5		Spring	HE18-HE22
	Apr				2	4	8	13	7	2	Spring	HE18-HE22
	May					4	10	13	10		Spring	HE18-HE22
	Jun		2	3	5	7	8	6	4	1	summer	HE17-HE21
	Jul	1	3	4	8	8	7	4	2		summer	HE17-HE21
	Aug		2	6	9	12	6	2			summer	HE17-HE21
	Sep	2	4	5	7	7	5	4	2		summer	HE17-HE21
	Oct	1	3	4	7	9	7	4	2		summer	HE18-HE22
	Nov		2	4	14	11	4	1			Winter	HE18-HE22
	Dec				14	14	9				Winter	HE18-HE22

- Winter Months shift to HE 18-22
- Monitoring HE 8 values within top 5% of load hours

Looking further into top 10% of the hours to monitor HE 8, HE 17, and HE 22

2024 actual frequency of top 10% of load hours

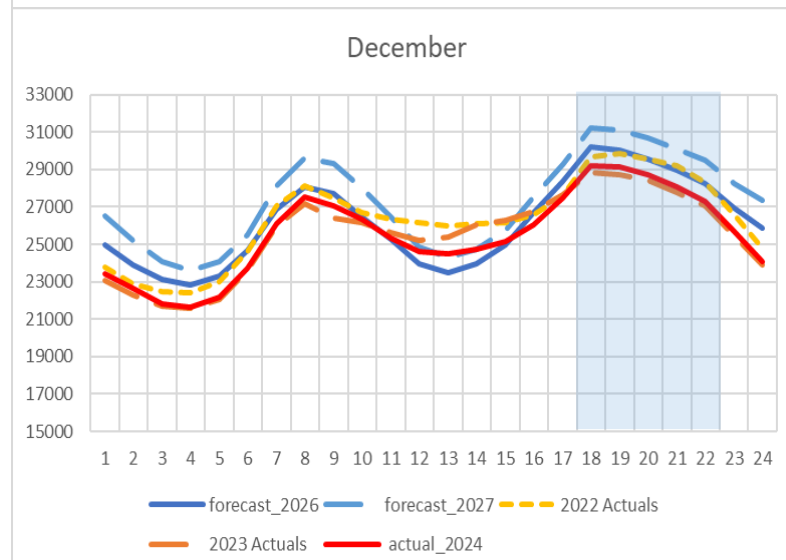
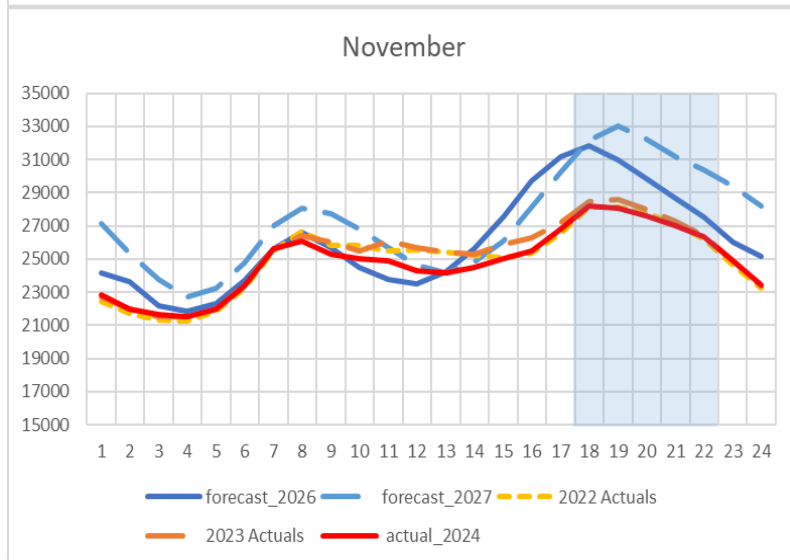
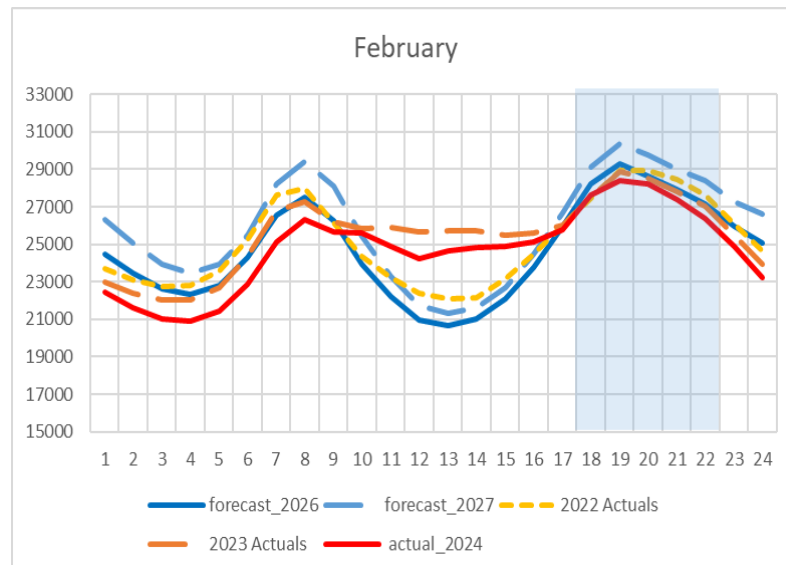
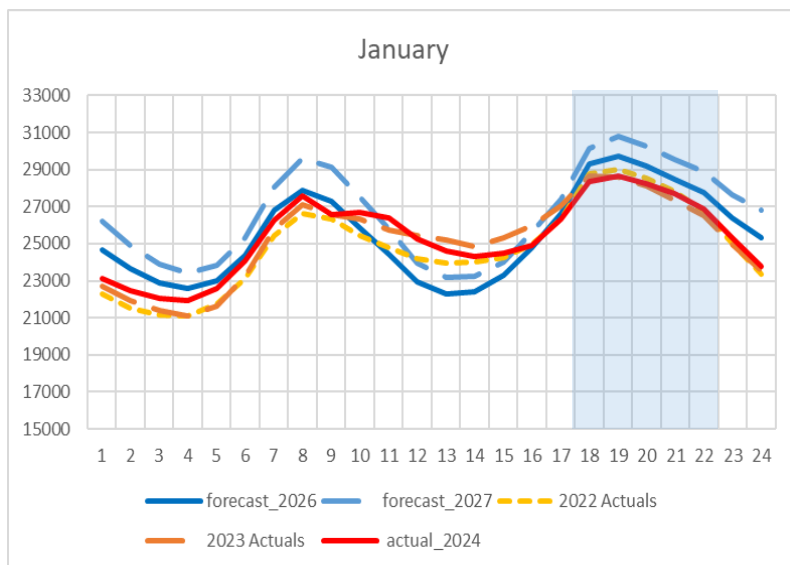
2026 forecast frequency of top 10% of load hours

Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Jan																								
Feb							3	1	1								2	9	19	17	12	3		
Mar							5	1										4	9	24	22	9		
Apr							2	2	1										7	21	22	17		
May																		2	10	19	23	16	4	
Jun														1	2	2	6	11	13	14	12	10	1	
Jul															2	6	8	15	15	13	10	5		
Aug																4	6	18	21	19	4	2		
Sep	2	1	1	3	2	1	1	6	5	1	1	1	4	7	6	10	9	9	9	8	7	7	6	1
Oct	1	2	2		4	3	1	3	2	3	2	1	3	7	10	12	11	11	10	9	7	5	2	
Nov	8	1			1	7	1	3	2		3	1	2	1	2	1	8	18	19	16	8	2	1	3
Dec	3	1			2	4	9	4	3	1	2	3	2	2	3	5	17	16	12	9	5	4	4	

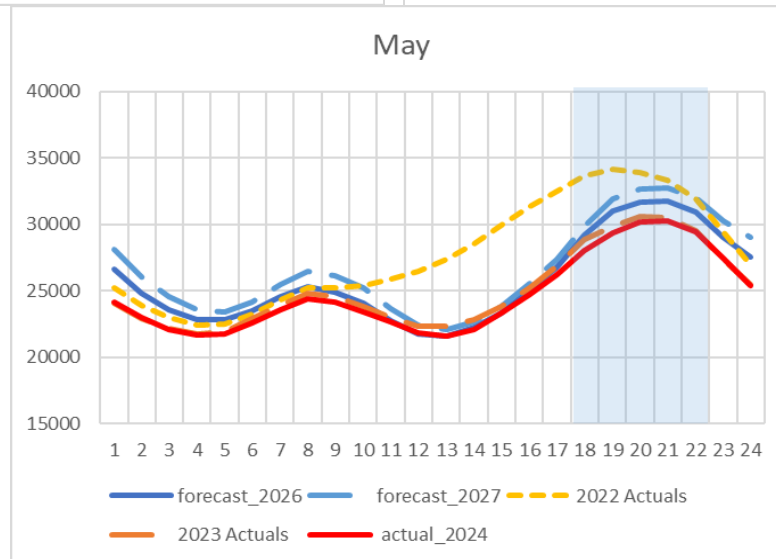
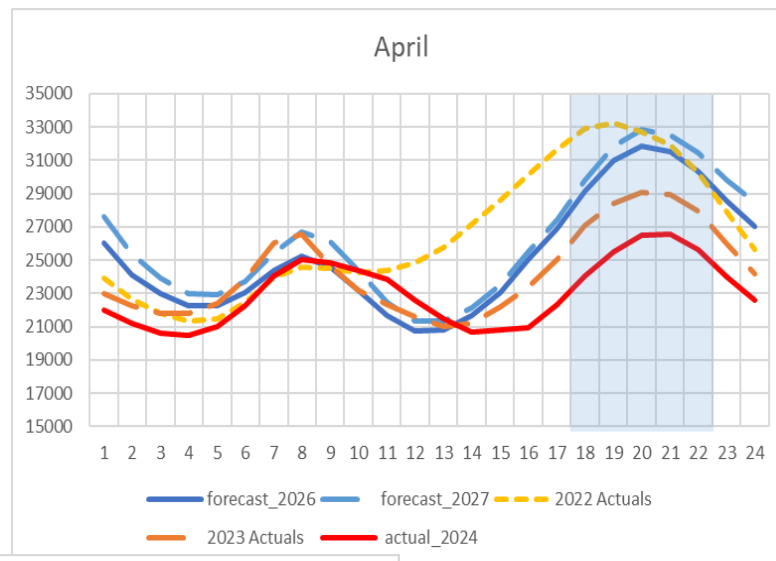
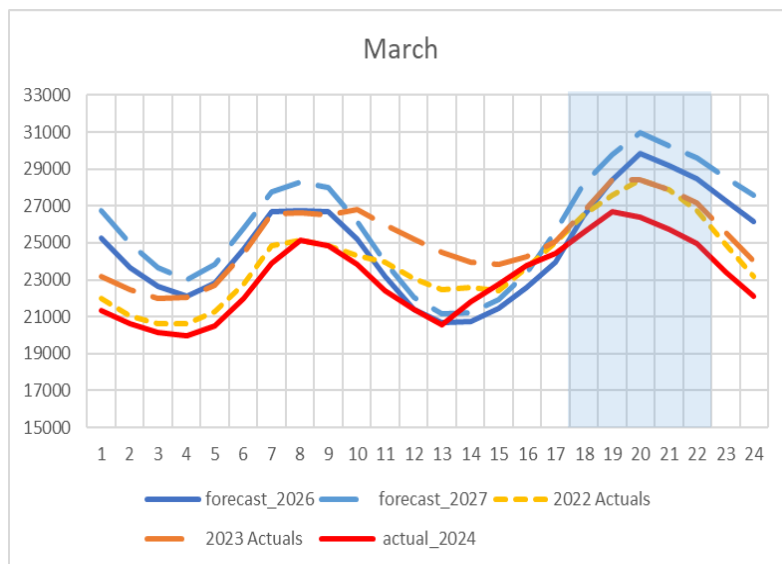
Hour	1	2	3	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Jan					3											19	22	19	10	1			
Feb					3											9	20	19	16				
Mar																	12	22	20	16	4		
Apr																1	2	5	18	22	18	5	1
May																	3	10	17	20	20	4	
Jun														2	3	5	8	11	13	13	11	5	1
Jul												1	2	5	8	12	14	13	11	7	1		
Aug														1	6	11	16	16	14	8	2		
Sep	5	1	1	2	4	4	4	2	1	1		3	5	9	11	13	13	11	8	5	2	3	
Oct	4	4	2		12	1		4		1	1	2	4	5	7	13	15	15	9	6	4	2	
Nov	2	1		16			1	5		1				3	4	8	21	20	17	4		3	2
Dec	9			8	1				7				6		4	21	21	16	12	3	2	1	

- During Fall and Early winter you observe more scattered top 10% of load.
- AAH currently is a 5 hour continuous time period; will need to monitor changes to this area due to dual peaking starting to be highlighted in results.

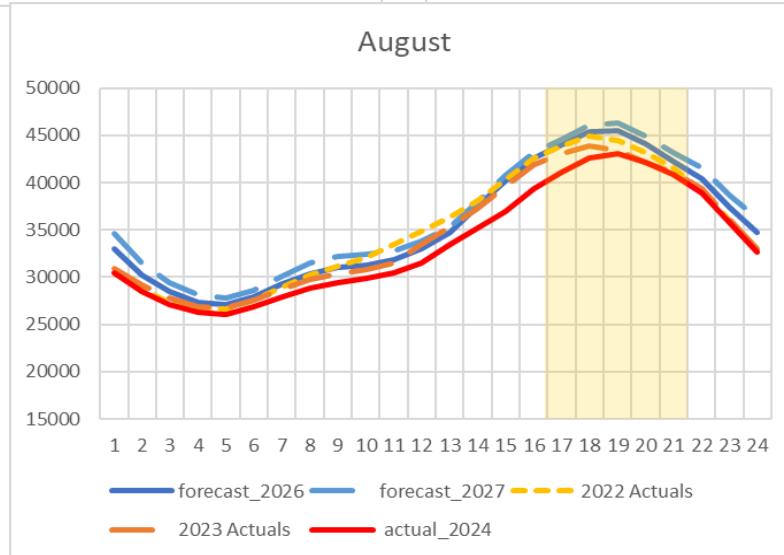
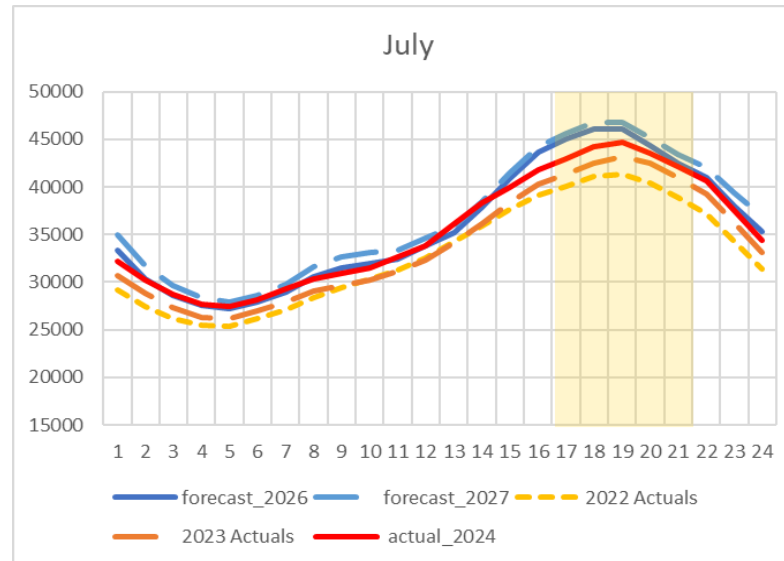
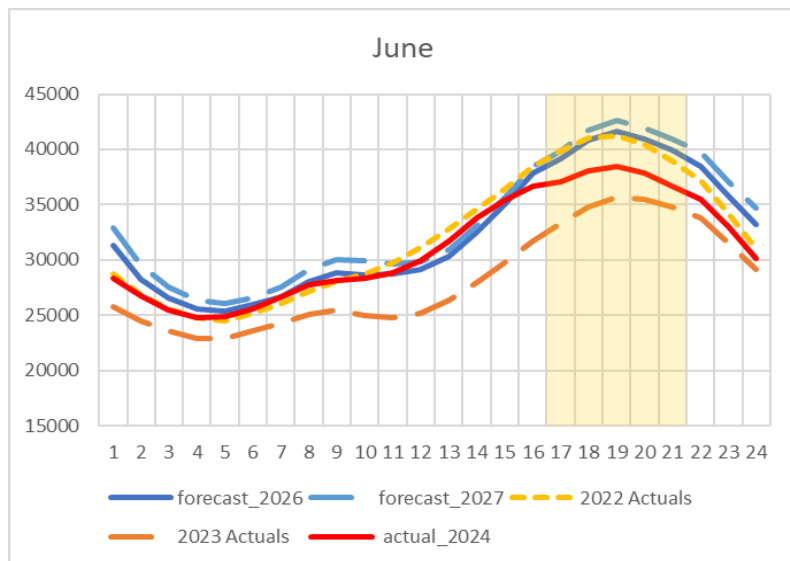
CEC IEPR forecast vs. actual in winter months



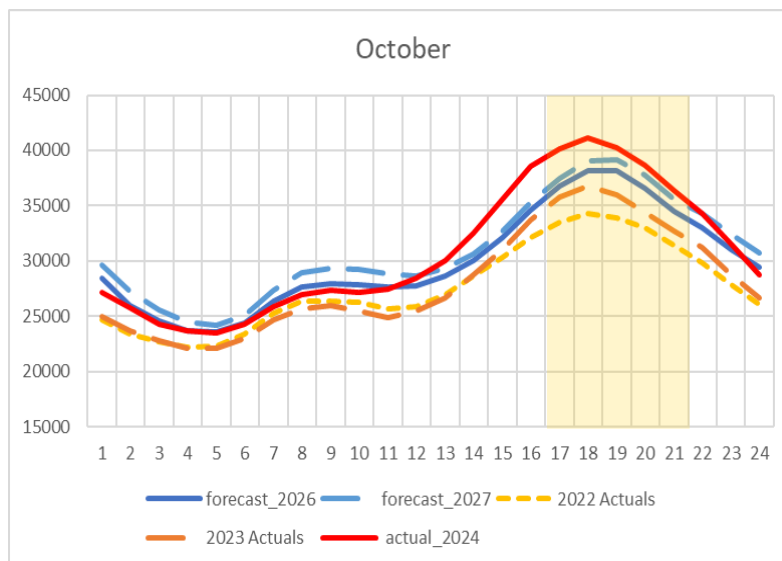
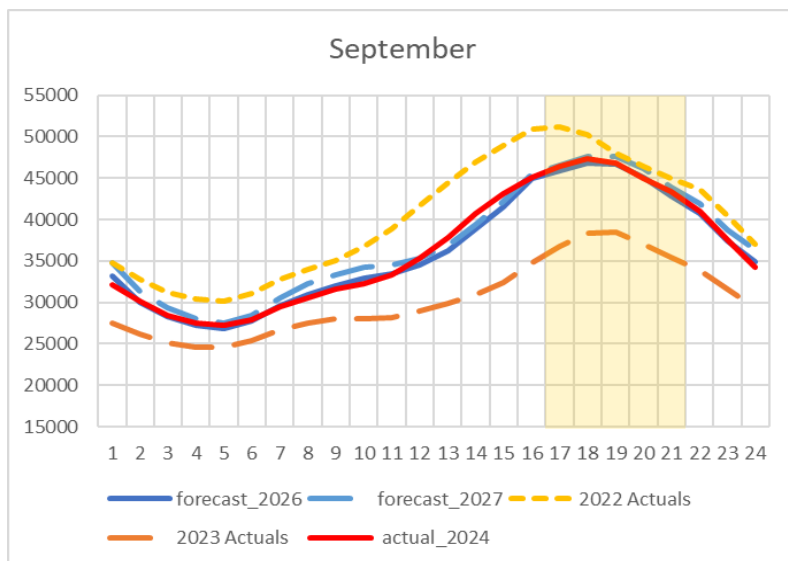
CEC IEPR forecast vs. actual in spring months



CEC IEPR forecast vs. actual in summer months



CEC IEPR forecast vs. actual in summer months



Availability assessment hours draft recommendation

Summer Season Final Recommendation

June - October

Year	Start	End
2026 (Final)	HE 17	HE 21

Winter and Spring Season Final Recommendation

January – February, November – December, & March – May

Year	Start	End
2026 (Final)	HE 18	HE 22

- Winter Months shift to HE 18-22

Availability assessment hours advisory recommendation

Summer Season Final Recommendation

- June - October

Year	Start	End
2027 (Estimate)	HE 17	HE 21
2028 (Estimate)	HE 17	HE 21

Spring and Winter Season Final Recommendation

- January – May, November December

Year	Start	End
2027 (Estimate)	HE 18	HE 22
2028 (Estimate)	HE 18	HE 22

- Estimates for 2027, 2028 include a shift of January, February, and December to HE18-22
- Continued monitoring on morning peak hours (HE8) during non summer months

Reliability Requirements; Section 7 – BPM Updates Needed

2026 System and Local Resource Adequacy Availability Assessment Hours

Analysis employed: Top 5% of load hours using average hourly load

Spring: March 1 – May 31

Availability Assessment Hours: 5pm – 10pm (HE18 – HE22)

Summer: June 1 - October 31

Availability Assessment Hours: 4pm – 9pm (HE17 – HE21)

Winter: January 1 – February 28, November 1 – December 31

Availability Assessment Hours: 5pm – 10pm (HE18– HE22)

2025 Flexible Resource Adequacy Availability Assessment Hours and must offer obligation hours

Flexible RA Capacity Type	Category Designation	Required Bidding Hours	Required Bidding Days
October – February			
Base Ramping	Category 1	5:00am to 10:00pm (HE6-HE22)	All days
Peak Ramping	Category 2	2:00pm to 7:00pm (HE15-HE19)	All days
Super-Peak Ramping	Category 3	2:00pm to 7:00pm (HE15-HE19)	Non-Holiday Weekdays*
May – August			
Base Ramping	Category 1	5:00am to 10:00pm (HE6-HE22)	All days
Peak Ramping	Category 2	4:00pm to 9:00pm (HE17-HE21)	All days
Super-Peak Ramping	Category 3	4:00pm to 9:00pm (HE17-HE21)	Non-Holiday Weekdays*
March, April, September			
Base Ramping	Category 1	5:00am to 10:00pm (HE6-HE22)	All days
Peak Ramping	Category 2	3:00pm to 8:00pm (HE16-HE20)	All days
Super-Peak Ramping	Category 3	3:00pm to 8:00pm (HE16-HE20)	Non-Holiday Weekdays*