



# Final Availability Assessment Hours

Jessica Taheri  
Energy Meteorologist  
Short-Term Forecasting

May 15, 2020

# AVAILABILITY ASSESSMENT HOURS

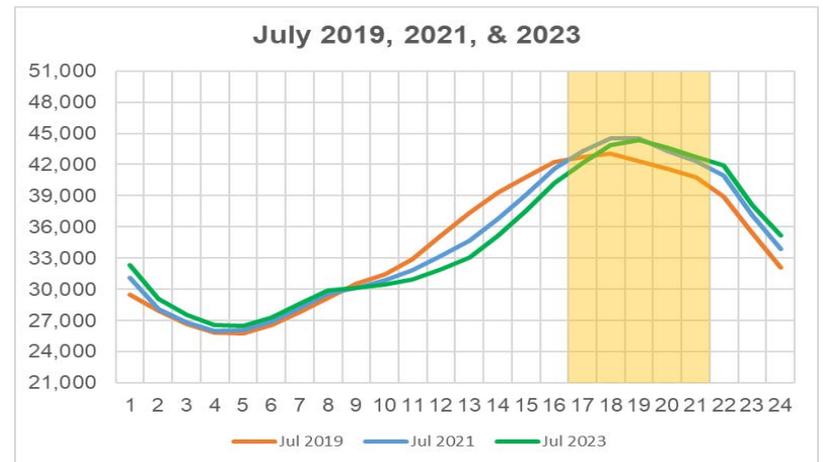
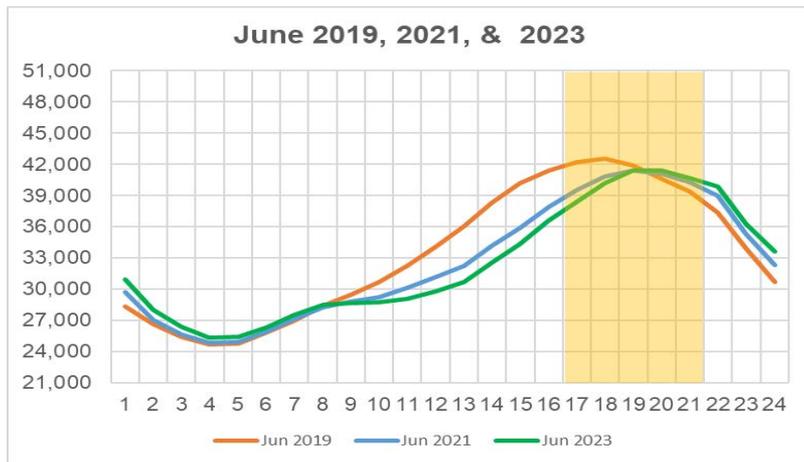
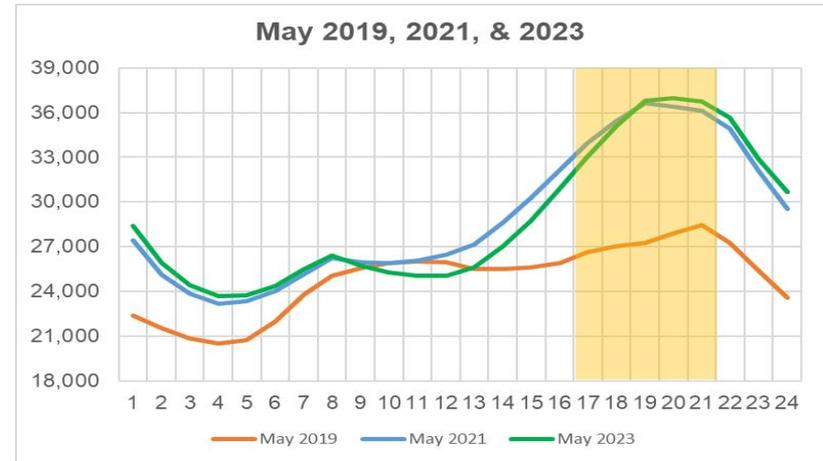
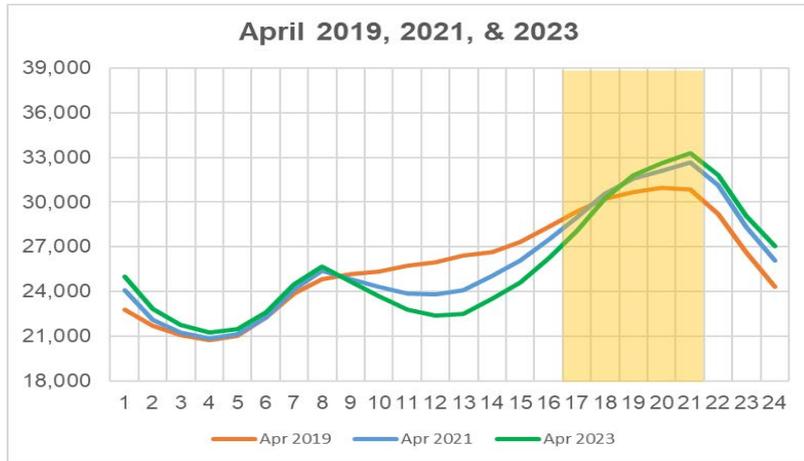
# Availability assessment hours: Background and purpose

- 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 described in previous slides to obtain:
  - Hourly Average Load
    - By Hour
    - By Month
    - Years 2019-2023
- Calculated:
  - Top 5% of Load Hours within each month using an hourly load distribution
  - Years 2021 - 2023

# Expected load shape evolution: Summer season



# May 2019 Climatology

## County Maximum Ranks

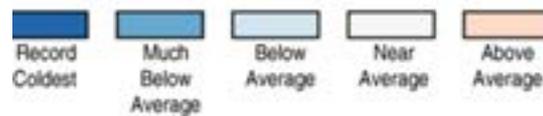
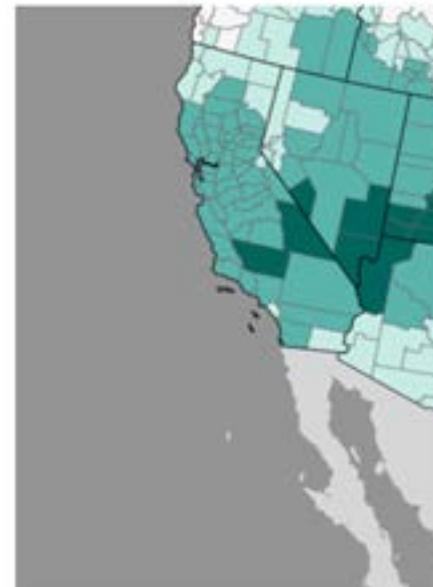
May 2019

Period: 1895–2019

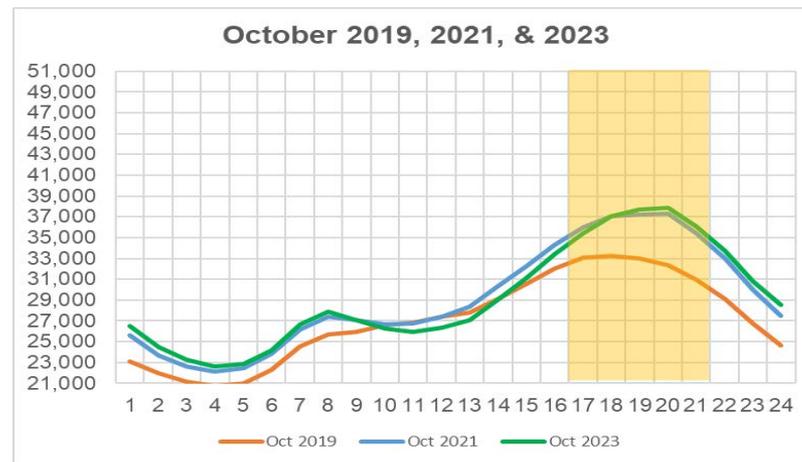
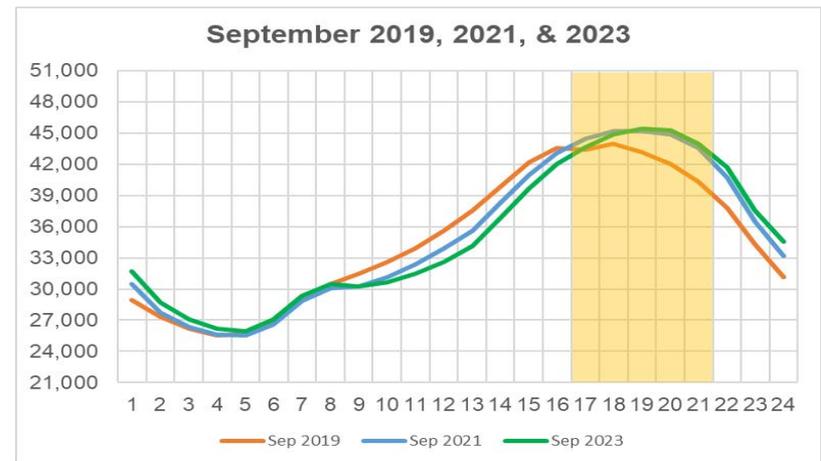
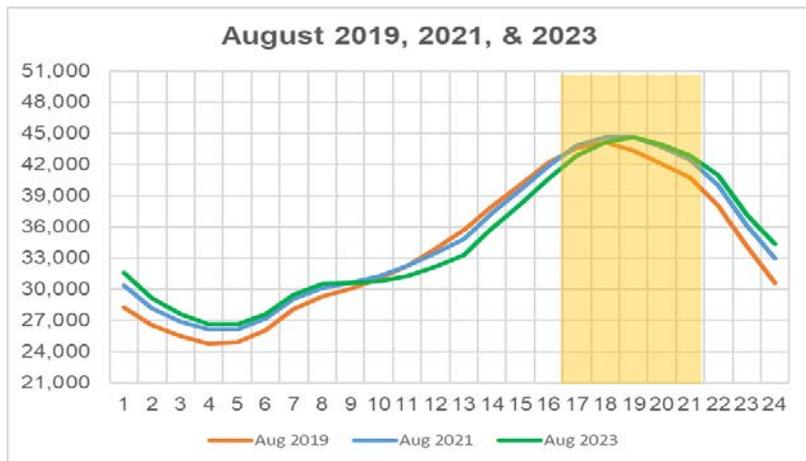
### Temperature



### Precipitation



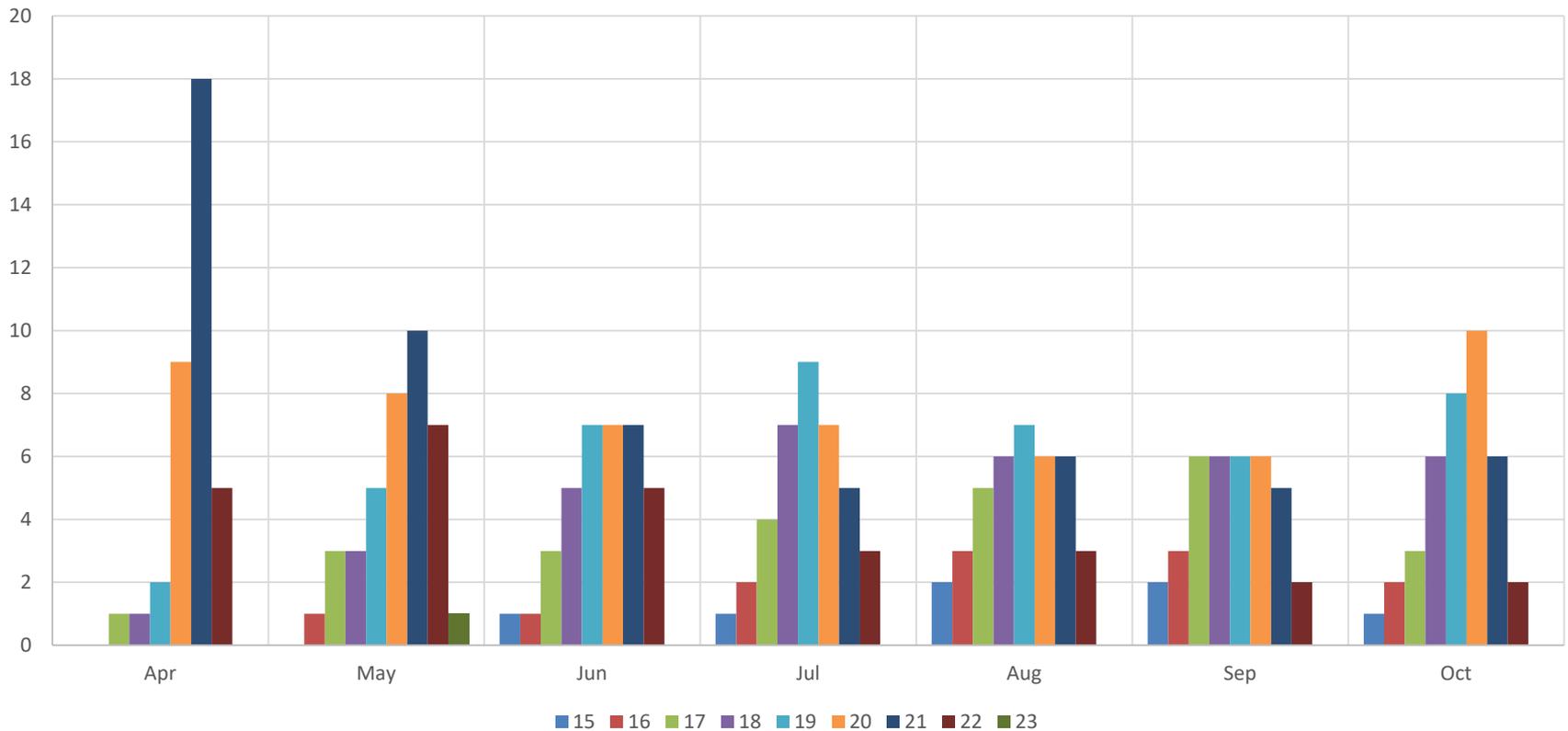
# Expected load shape evolution: Summer season



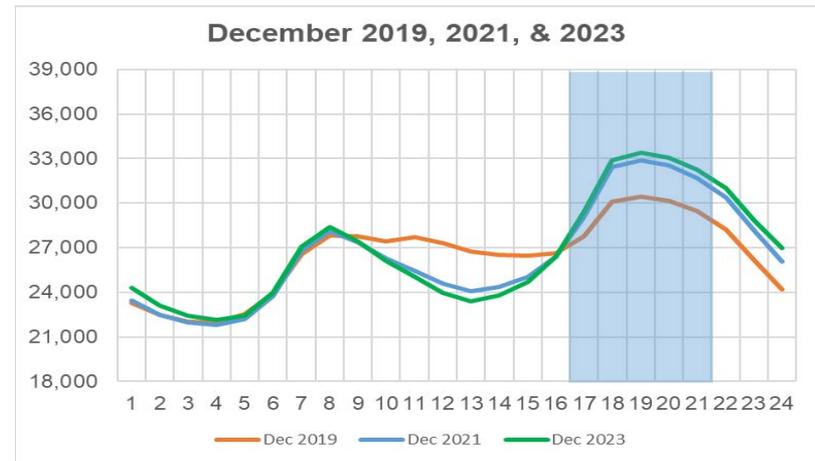
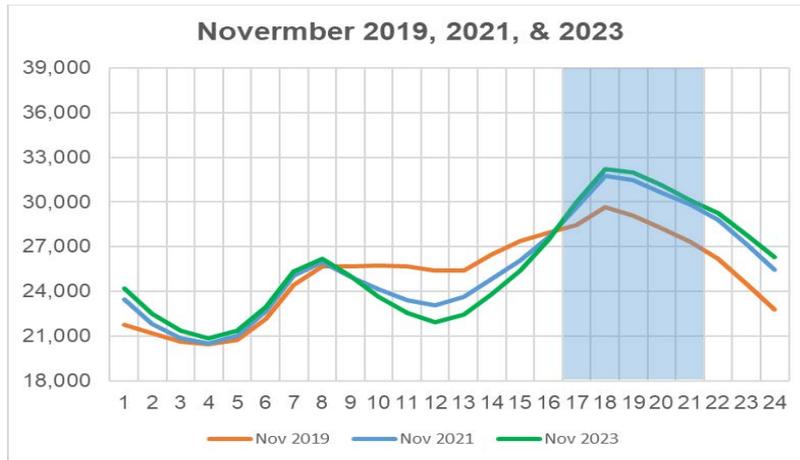
# Summer Season

## 2021 top 5% of load hours (in HE)

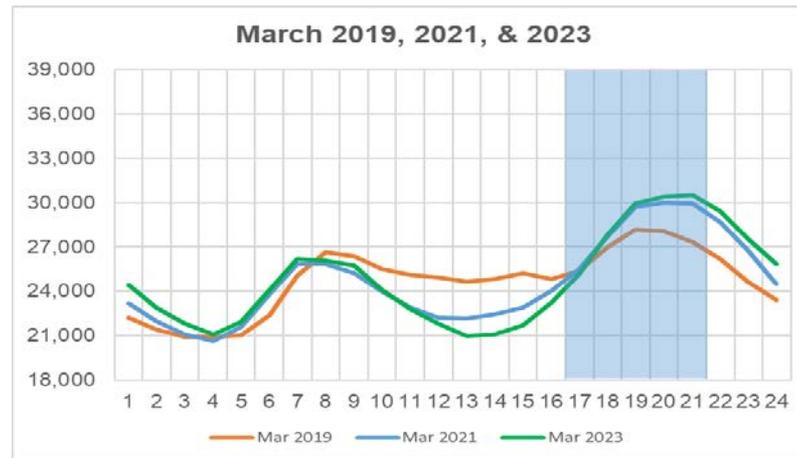
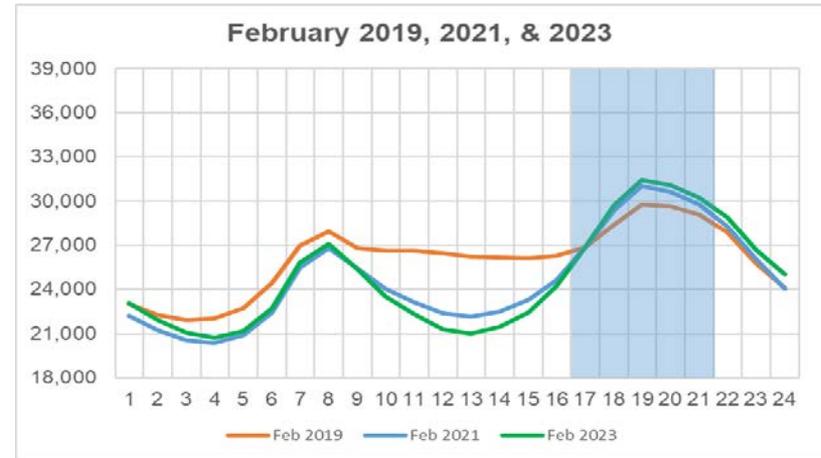
Summer Season: Frequency of Top 5% of Load Hours by Month (in Hour Ending)



# Expected load shape evolution: Winter season



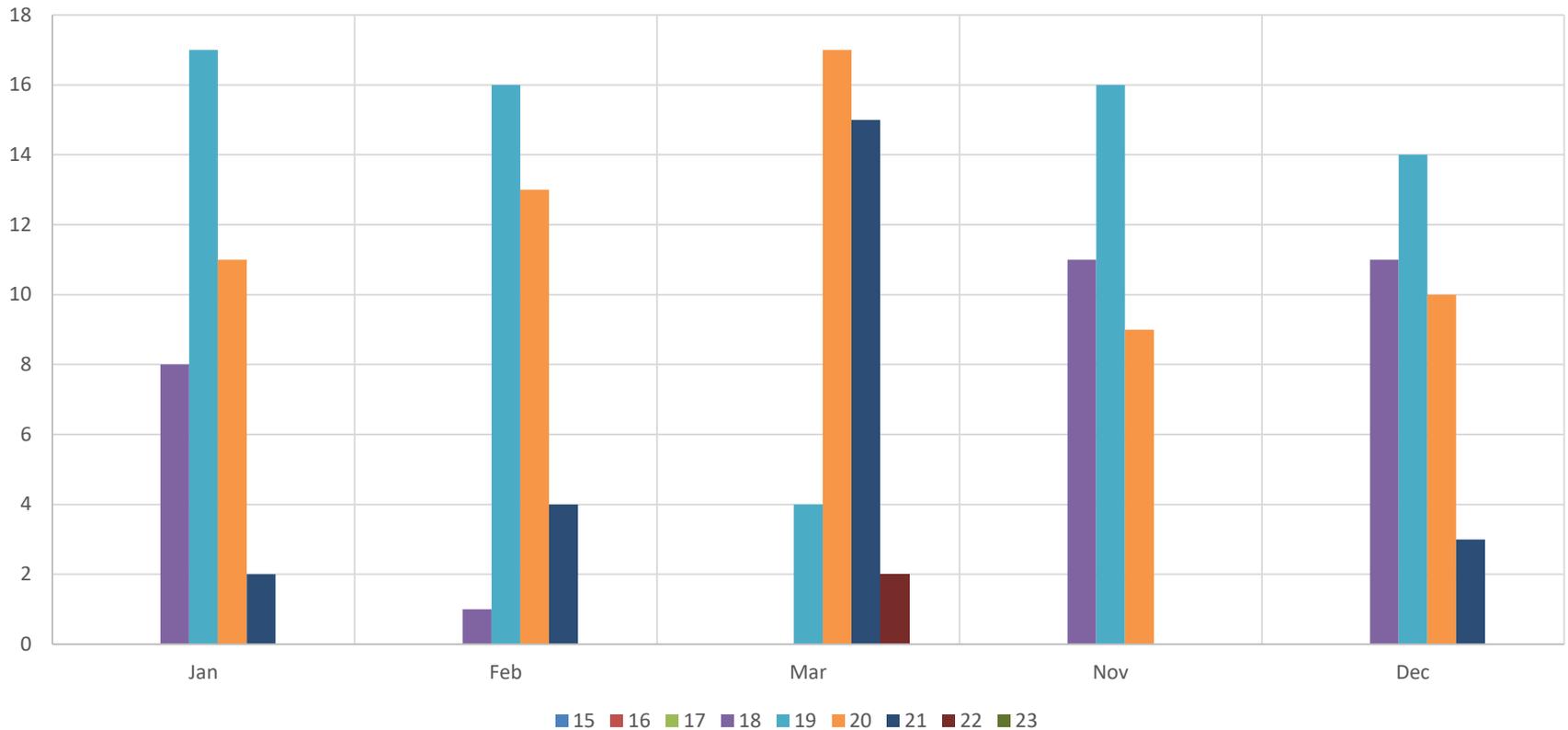
# Expected load shape evolution: Winter season



# Winter Season

## 2021 top 5% of load hours (HE)

Winter Season: Frequency of Top 5% of Loud Hours by Month (in Hour Ending)



# Availability assessment hours draft recommendation

## Winter Season Draft Recommendation

Year	Start	End
2020 (Final)	HE 17	HE 21
2021 (Final)	HE 17	HE 21
2022 (Estimate)	HE 17	HE 21
2023 (Estimate)	HE 17	HE 21

## Summer Season Draft Recommendation

Year	Start	End
2020 (Final)	HE 17	HE 21
2021 (Final)	HE 17	HE 21
2022 (Estimate)	HE 17	HE 21
2023 (Estimate)	HE 17	HE 21

# Reliability Requirements; Section 7 –BPM Updates Needed

## 2021 System and Local Resource Adequacy Availability Assessment Hours

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

Summer: April 1 - October 31

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

Winter: November 1 - March 31

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

### 2021 Flexible Resource Adequacy Availability Assessment Hours and must offer obligation hours

Flexible RA Capacity Type	Category Designation	Required Bidding Hours	Required Bidding Days
January – February			
November – December			
Base Ramping	Category 1	05:00am 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*
March – August			
Base Ramping	Category 1	05:00am 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*
September – October			
Base Ramping	Category 1	05:00am 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*