RESOURCE ADEQUACY (RA) PROGRAM TRACK 3 PROPOSALS (R.17-09-020)

MARCH 13, 2019

Together, Building a Better California

Agenda

- Seasonal Local RA Requirements
- Hydroelectric Resource Qualifying Capacity (QC) Methodology

Seasonal Local RA Requirements

Summary of Proposal:

Proposal

- Calculate separate summer (May to September) and non-summer (e.g. “winter”) local RA requirements instead of an annual local RA requirement using a ratio of local RA requirement to forecasted peak seasonal demand.

Rationale

- More cost effective and efficient (example later)
  - Reduces potential for over-procurement
  - Maximizes the value of wind and solar resources
  - Allows for optimization of maintenance
- Consistent with previous decisions capping local RA at system RA requirements
- Responsive to CAISO concerns about backstop procurement

Seasonal Local RA Requirements

Formula:

- **Load Ratio** = CAISO LCR / August Forecast Peak Demand for TAC OR 4,461 / 19,531
- **Non-Summer LRAR** = Max(Forecast Peak Demand $_{\text{Non-Summer}}$) * Load Ratio OR 15,508 * 23% for Bay Area and 28% for Other PG&E Area

Example for PG&E TAC:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020 Forecast (MW)	14,549	14,214	13,306	14,319	16,489	19,262	20,254	19,531	18,589	15,508	13,841	14,944
2020 Requirements (MW)	16,731	16,346	15,302	16,467	18,962	22,151	23,292	22,461	21,377	17,834	15,917	17,186
Bay Area Requirements (MW)	4,461	4,461	4,461	4,461	4,461	4,461	4,461	4,461	4,461	4,461	4,461	4,461
Other PG&E Area Requirements (MW)	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387
Bay Area Requirements (Ratio)	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%	23%
Other PG&E Area Requirements (Ratio)	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%	28%
Bay Area Requirements (MW)	3,542	3,542	3,542	3,542	4,461	4,461	4,461	4,461	4,461	3,542	3,542	3,542
Other PG&E Area Requirements (MW)	4,277	4,277	4,277	4,277	5,387	5,387	5,387	5,387	5,387	4,277	4,277	4,277

Rationale for Seasonal Local RAR

A seasonal local RA requirement is more cost effective and efficient in that it reduces potential over-procurement, maximizes the value of renewable resources, and allows for the optimization of maintenance scheduling.

Example of CAISO Showing

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Other PG&E Area Requirements (MW)	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387
Other PG&E Area Portfolio (MW)	5,387	5,435	5,595	6,051	5,997	6,283	6,221	6,207	6,055	5,975	5,469	5,387
Solar Resources	0	48	208	664	610	896	834	820	668	588	82	0
Other Resources	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387	5,387
Other PG&E Area Requirements (MW)	4,277	4,277	4,277	4,277	5,387	5,387	5,387	5,387	5,387	4,277	4,277	4,277
Other PG&E Area Portfolio (MW)	4,777	4,825	4,985	5,441	5,387	5,673	5,611	5,597	5,445	5,365	4,859	4,777
Solar Resources	0	48	208	664	610	896	834	820	668	588	82	0
Other Resources	4,777	4,777	4,777	4,777	4,777	4,777	4,777	4,777	4,777	4,777	4,777	4,777

Seasonal local RA requirements could reduce the procurement "needed" and accommodate variable resources

Hydroelectric Resource QC Proposal

Summary of Proposal:

Proposal

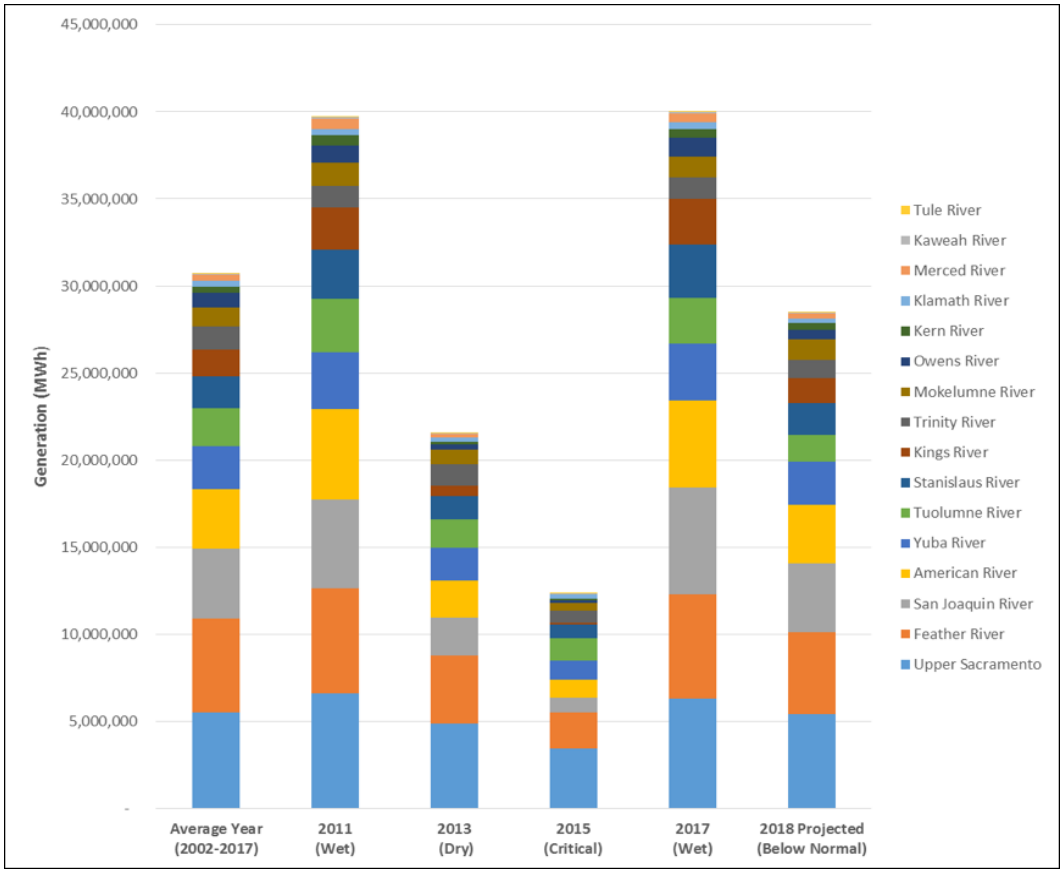
- The Commission should adopt QC counting rules for hydro resources that reflect resource's availability to the market. An exceedance methodology, or similar, may better capture the contribution of hydro resources to system and local reliability.

Rationale

- The existing methodology for dispatchable and non-dispatchable hydro resources likely overstates hydro availability because it does not reflect variability driven by hydrological conditions, weather patterns, FERC licensing, upstream powerhouses, and storage levels.

Statewide Hydro Generation by Watershed

The current QC methodologies for dispatchable and non-dispatchable hydro resources do not reflect significant annual variation in output from hydro resources.



Source: https://www.energy.ca.gov/hydroelectric/

Exceedance Methodology: Questions

Exceedance for Hydro Resources

Considerations

1. Should all hydro be treated the same (e.g., run of river versus dispatchable hydro, hydro in various watersheds)?
2. How to ensure excess capacity is not “stranded” if a wet year follows a dry year?
3. How should or should outages be accounted for in the methodology?
4. How are exceedance valuations reasonably set or determined for hydro resources?

An exceedance methodology has been previously adopted by the Commission for variable energy resources, but would need to be tailored to hydroelectric resources.