

ADOPTION OF THE 2020 RIVERSIDE RESOURCE ADEQUACY PROGRAM

Riverside Public Utilities Resource Operations and Strategic Analytics

Board of Public Utilities
July 27, 2020

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BACKGROUND

1. Resource Adequacy (RA) refers to a utility's procurement of sufficient power supply capacity to fully serve its projected electric requirements (i.e., coincident adjusted monthly peak load forecasts), plus an additional amount to be held in reserve in case of unforeseen circumstances of transmission or generation outages.
2. California Independent System Operator's (CAISO) defers to RPU's Local Regulatory Authority (City Council) to set guidelines for meeting CAISO RA Obligations.

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BACKGROUND

3. The City's RA Program outlines how RPU will meet the CAISO RA compliance obligations.
 - a) The preparation and submittal of RA Plans including appropriate reserve margins:
 - i. Monthly RA Plans are due 45 days prior to the start of the Month.
 - ii. Annual RA Plans are due by October 31st for the upcoming year.
 - b) Development of demand forecasts.
 - c) Criteria for defining the type and quantity of resources that will qualify for meeting the Resource Adequacy reserve margin requirements.
 - d) The availability of resources to the CAISO through bidding and scheduling, and
 - e) Resource Adequacy compliance monitoring.

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BACKGROUND

4. May 23, 2006 - City of Riverside first established its Resource Adequacy ("RA") Program through Resolution No. 21170.
5. June 5, 2012 - City Council adopted the Revised Resource Adequacy Program through Resolution No. 22389.
Updated the program to accommodate amended CAISO Tariff requirements regarding Resource Adequacy as well as changing market conditions.

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BACKGROUND

6. RPU recommends revising the City's RA Program to accommodate additional CAISO Tariff amendments as well as recent market conditions that have caused scarcity issues and significant RA price increases.
 - a) Natural Gas Generators are retiring in California due to the State's renewable energy mandates.
 - b) Energy Storage resources are expected to replace Natural Gas Generation; still in transition stage.
 - c) New Community Choice Aggregations (CCA's) with RA needs increase RA competition.
 - d) CAISO has made numerous revisions to its RA Paradigm.

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DISCUSSION

1. Revise the RA Program to include CAISO requirements for System RA, Local RA, and Flexible RA products.
 - a) System RA is already included in the City's Existing RA Program.
 - b) CAISO has since added Requirements for Local and Flexible RA Products:
 - a) **Local RA Requirement** – Satisfied with resources located within specific geographical parameters
 - i. At least 100% of the Local RA Requirements for each month of the coming compliance year will be identified in the Annual RA Plan.
 - b) **Flexible RA Requirement** – Satisfied with fast ramping resources
 - i. At least 90% of the Flexible RA Requirements for each month of the coming compliance year will be identified in the Annual RA Plan and remaining 10% will be identified in the Monthly RA Plan.

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DISCUSSION

2. Revise the Annual System RA Plan Procurement Obligation

- a) Maintain the Planning Reserve Margin at 15% above City's peak load forecasts.
- b) Existing RA Program specifies that staff must specify enough resources to meet 115% of the forecasted peak loads for summer months (July, August and September). For all other months the Annual Plan must specify enough resources to meet 100% of the forecasted monthly peak loads. The Monthly RA Plan must specify enough resources to meet 115% of the forecasted monthly peak loads.
- c) Staff recommend revising the System RA Requirement submitted in the Annual Plan to 103.5% of forecasted peak loads for each month of the forthcoming compliance year (consistent with CPUC rules for IOUs/CCAs).
- d) No changes to the Monthly RA Procurement Obligation

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DISCUSSION

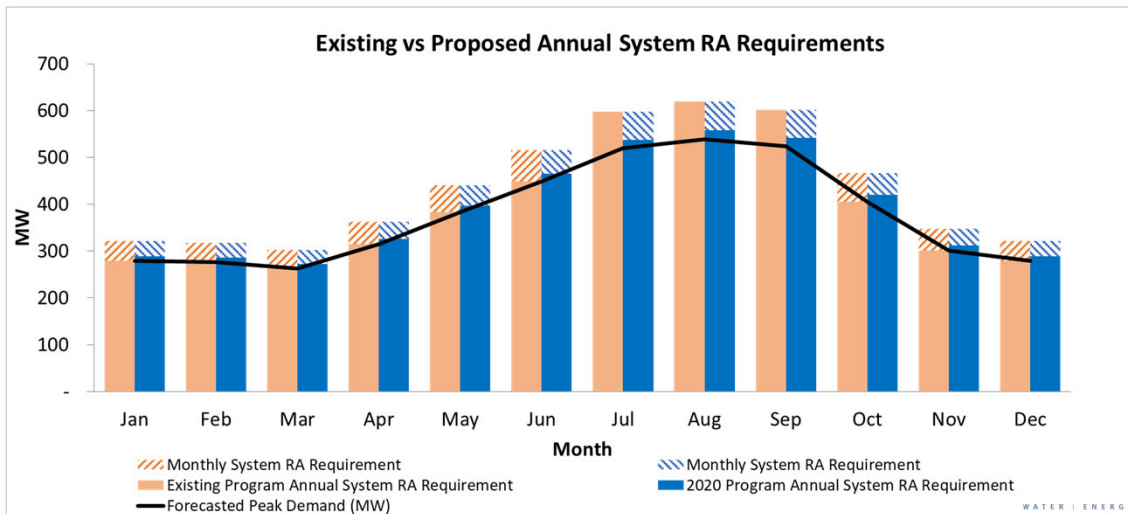
- e) The proposed revision provides the same amount of capacity provided to CAISO; but now procured in different timeframes:
Remaining RA needs are submitted in Monthly RA Plan (45 days prior to start of month).
- f) Allows staff to exercise different procurement options to reduce costs:
 - i. RPU learns each year in September if its 86 MW portfolio of Geothermal Resources located in IID Balancing Authority Area qualifies as RA for the upcoming year. - This RA is valued at approximately \$7,000,000.
 - ii. Inability to count this resource creates significant pressure on RPU in September/October to meet Annual RA Plan obligations for System RA (October 31st).
 - iii. RA Prices in September/October tend to be most volatile.

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DISCUSSION



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DISCUSSION

3. Revise the criteria for qualifying capacity to defer to the default RA counting methodologies used by the CAISO.
CAISO is currently going through rule changes impacting new counting methodologies.
4. Revise certain sections of the Program document (regarding resource bidding and arrangements of provision of emergency power to the CAISO) to conform to the most recently adopted CAISO Tariff and protocols.
5. Make additional, miscellaneous changes to the language and organizational structure of the Program document to better clarify current RA policies and regulations.

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SUMMARY

1. Revise the City's RA Program to include Local and Flexible RA Requirements.
2. Revise the System RA Requirements in the Annual RA Plan:
 - a) Revisions can lead to cost savings and procurement flexibility.
 - b) Does not impact Riverside's or CAISO's system reliability.
 - c) Simply changes the timeline for identifying resources to meet requirements.
3. Proposed changes inline with CPUC jurisdictional LSEs (IOUS, CCAs).

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RECOMMENDATION

That the Board of Public Utilities recommend that the City Council adopt by resolution the 2020 Riverside Resource Adequacy Program.

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