

This report provides a summary of the Resource Adequacy Assessment Task Force’s (RAATF) efforts to date, including how its charter responsibilities have been addressed, and a summary of recommendations to the Joint Guidance Committee (JGC) for next steps in WECC’s resource adequacy work to support its members in the Western Interconnection.

Background

The JGC established the RAATF in May 2022 “to bring stakeholders and WECC staff together to shape the future of WECC’s resource adequacy assessment work.” The task force met six times,¹ most recently on October 4, 2022. Additionally, this report was voted on by RAATF members electronically, with votes due October 21, 2022 (two votes in favor, no objections; one noted that recent JGC work plan coordination meetings have highlighted the need for an ongoing function to handle RA work).

In its charter, the JGC established the following responsibilities for the RAATF:

1. Providing recommendations for the scope of the 2022 Western Assessment of Resource Adequacy (2022 Western Assessment);
2. Help scope the agenda topics for future resource adequacy forum webinars;
3. Providing recommendations for shaping future WECC resource adequacy work by reviewing the WECC Resource Adequacy Framework and discussing Western Interconnection resource adequacy needs;
4. Determining which committees will be needed to support various resource adequacy assessment activities and how those should fit within the WECC technical committee structure; and
5. Performing other tasks as assigned by the JGC.

Discussion Themes

Discussions within this group have highlighted the Western Interconnection’s many reports, plans, and assessments addressing “resource adequacy” in the term’s most generic sense. Within that universe of efforts are varying geographic areas, compliance program parameters (e.g., CPUC RA, WRAP) and participating entities (e.g., Balancing Authorities, load-serving entities/load-responsible entities, Independent System Operators, and state regulators), and a full range of periods covered (day-ahead

¹ May 17, May 31, June 27, July 19, August 16, and October 4, 2022.

and real-time operational time frames up to 20 years). Some use the term resource adequacy, or RA, more broadly, while others differentiate longer-term RA from terms such as “energy adequacy,” “system adequacy” and others. One member asked WECC to consider applying a different name to “Resource Adequacy” to avoid confusion for reasons:

- 1) RA holds slightly different meanings depending upon the jurisdiction (state, local, Federal, county, regional) or entity (utility, balancing area retail market participants);
- 2) Under some applications of the term, utilities can be subject to sanction by regulatory bodies; and
- 3) the meanings and definitions are evolving.

If WECC uses the same term, it will likely need to explain the differences at virtually every mention of the topic. The RAATF did not make a specific recommendation on this topic beyond the suggestion to consider it.

Regardless of the specific application, all plans and programs have one thing in common: the underlying driver is the need for improved modeling, data, and metrics to ensure that, as the West incorporates the resources needed to decarbonize, we maintain an adequate and reliable electric system.

Some effects of this fundamental shift toward decarbonization include:

- A system’s peak load in relation to resources serving that load is no longer the primary measure for planning adequate resources for that system;
- Non-emitting resources such as wind and solar can shift a system’s greatest need to a completely different time of day;
- Modeling challenges presented by battery and other storage resources are being addressed by many entities;
- Load shapes are not as predictable as in the past, as behind the meter elements such as EV charging (and potentially discharging), building electrification, and price-responsive loads all are increasing; and
- Cumulatively, common understanding of the optimal modeling, analysis and assessment methods and metrics will best ensure the reliability of the grid under this future.

Status of RAATF Responsibilities

The table below shows the status of the RAATF’s five charter assignments.

Assignment	Status
<p>1. Recommendations for the scope of 2022 Western Assessment.</p>	<p>RAATF members made multiple recommendations for the 2022 Western Assessment as well as for related RA products that could be valuable.</p> <p>RAATF members were surveyed for feedback on excerpts from a draft of the 2022 Western Assessment.</p>
<p>2. Help scope topics for RA webinars.</p>	<p>WECC hosted a series of webinars on resource adequacy over the same period as the RAATF. Suggestions for future forums were collected as part of the recommendations to the assignment above.</p>
<p>3. Recommendations for shaping future WECC resource adequacy work by reviewing the WECC Resource Adequacy Framework and discussing Western Interconnection resource adequacy assessment needs.</p>	<p>See table Attachments C and D.</p>
<p>4. Determining which committees will be needed to support various resource adequacy assessment activities and how those should fit within the WECC technical committee structure.</p>	<p>The RAATF existed in parallel with the JGC’s 2022 efforts to realign the WECC technical committee structure.</p> <p>RAATF members recommend Western Interconnection RA efforts should have a long-term, ongoing permanent home, whether in a subcommittee, a forum, or a work group. RA overlaps significantly with WECC’s existing committees and subcommittees, and with WECC departments’ work on reliability.</p>
<p>5. Performing other tasks as assigned by the JGC.</p>	<p>No additional tasks were assigned.</p>



RAATF Recommendations

While the following list is not exhaustive, and does not specify a detailed workplan, it does provide a high-level framing of the kinds of RA work that members of the RAATF have deemed necessary. The RAATF recommends the following actions:

1. Create an ongoing WECC RA entity (forum, subcommittee, or work group) within WECC's committee structure to include the following responsibilities:
 - a. Ensure an interconnection-wide perspective of RA by evolving the WECC RA framework, including the data, tools and analysis.
 - b. Support state and regional RA programs by coordinating and translating across those programs, understanding and comparing the methods, assumptions and data that drive the respective results.
 - c. Provide input to a WECC RA website page that 1) identifies characteristics and differences across the RA programs; 2) maintains a list of definitions and describes variations in terminology; and 3) explains the specific measures, metrics, and methods used by the different RA programs.
 - d. Ensure that the data collection process includes components needed to fully address RA now and in the future.
 - e. Sponsor RA educational events.
2. The RAATF also provided substantive input to future Western Assessment reports, requesting a "deep dive":
 - a. Explain in detail how specific assumptions affect the results.
 - b. Identify actions that could potentially be called upon by decision-makers to act on the findings.
 - c. Include a comparative analysis of the Western Assessment results to other RA study results.
 - d. Provide additional clarity and transparency for the data WECC collects and manages for RA analysis while appropriately protecting individual entity data; consider providing more detailed data for out-years.
 - e. Consider alternatives to the existing annual cycle, e.g., collect and report data and initial results in year one and conduct detailed analysis in year two.
3. Specify WECC's RA framework, including the methods, metrics, and tools, and seek Board acknowledgment.
4. Finally, the RAATF members recommend the task force be disbanded, with the understanding Recommendation 1 will be adopted, and entity to be established in Recommendation 1 will be responsible, with staff participation, for developing the action plan to implement these recommendations.

JGC Resolution

Resolved, that the JGC approves this RAATF closing report and its recommendations.

Attachments:

Attachment A RAATF Charter

Attachment B RA Needs Assessment

Attachment C RA Draft Programs and Processes Inventory



Establishment and Authority

The Resource Adequacy Assessment Task Force (RAATF) was established by the Joint Guidance Committee (JGC). The RAATF will disband upon completion of the responsibilities described below.

Purpose and Responsibilities

The purpose of the RAATF is to bring stakeholders and WECC staff together to shape the future of WECC's resource adequacy assessment work.

The RAATF is responsible for:

1. Providing recommendations for the scope of the 2022 Western Assessment of Resource Adequacy
2. Help scope the agenda topics for future resource adequacy forum webinars.
3. Providing recommendations for shaping future WECC resource adequacy work by reviewing the WECC Resource Adequacy Framework and discussing Western Interconnection resource adequacy assessment needs.
4. Determining which committees will be needed to support various resource adequacy assessment activities and how those should fit within the WECC technical committee structure.
5. Performing other tasks as assigned by JGC.

Committee Composition and Governance

1. Membership

- a. The RAATF will be composed of members from WECC Member organizations who are leaders in resource adequacy, integrated resource planning and/or policy development who understand resource adequacy and current challenges from both a strategic and a tactical perspective.
- b. Members will be selected by the JGC.
- c. Members will serve until the RAATF disbands or until a successor has been selected.
- d. The RAATF membership will also include two WECC staff members, appointed by WECC management.

2. Leadership

- a. The chair of the JGC will appoint one of the RAATF members to serve as the co-chair. WECC management will select the other co-chair.
 - i. The co-chairs will manage the committee and its meetings.
- b. The co-chairs will each hold office until the RAATF disbands, or until a successor has been duly appointed.
- c. WECC staff will partner with the co-chairs to manage the committee and its meetings, plan the agenda, and coordinate efforts with the other technical committees to ensure alignment with WECC staff work plans and priorities.
- d. WECC staff will prepare minutes of RAATF meetings for the committee's approval.

3. Meetings

- a. The RAATF will meet as often as required to carry out its responsibilities.
 - i. Meetings will be held according to the WECC Meeting Policy.
 - ii. RAATF meetings may be in-person, virtual, a combination of the two (hybrid), or by conference call, as determined by the co-chairs.
 - iii. Meetings will be open to the public except as otherwise approved according to Board policy.
- b. A quorum for meetings will be a majority of committee members.
- c. The RAATF will strive to make all decisions by consensus. If consensus is not possible, action taken by the RAATF will require a majority vote of the members present.
 - i. Voting may be by any means the co-chairs determines appropriate.
 - ii. Voting must take place in a noticed meeting.
 - iii. RAATF members may not vote by proxy or absentee ballot.
 - iv. Each Member on the RAATF may only have one vote.
 - v. Members who vote in the minority regarding an approval item should provide an explanation for their vote. This explanation or a summary will be included in the minutes.
- d. WECC will give notice to each member of the RAATF of the time and place of all meetings and will post notice of all meetings on the WECC website. Notice will be given no less than:
 - 30 calendar days before in-person and hybrid meetings.
 - Three calendar days before virtual meetings and conference calls.



- e. An agenda and the items for which action may be taken, will be posted no less than:
 - 10 calendar days before in-person and hybrid meetings.
 - Three calendar days before virtual meetings and conference calls.
- f. Any person who wants notice of RAATF meetings may notify the WECC liaison. WECC will then email the notice of future meetings to that person when the committee members receive the notice.

Reporting

The RAATF will report to the JGC on its activities and any recommendations.

Review and Changes to the Charter

The RAATF will review this charter as needed and make a recommendation to the JGC for approval.

	Committee	Date
Approved	JGC	February 18, 2022
Reviewed	RAATF	



Resource Adequacy Analysis Assessment Needs

As WECC entities proceed through the major transformation of the grid, WECC could add value through the following activities:

- Serve as interpreter/translator across resource adequacy (RA) programs in the Western Interconnection:
 - Help identify differences and gaps;
 - Clarify specific measures/metrics and methods being used;
 - Explain what WECC means by “resource adequacy” vs. NERC vs. other entities; and
 - Maintain a “living” set of definitions used throughout the Western Interconnection.
 - Example products:
 - Five-page paper on metrics employed in different processes, benefits, and drawbacks of each (e.g., one-day-in-ten-years).
 - In-depth comparison of modeling/analytical methods.
 - Studies on costs of incremental increases to PRMs, risk mitigating strategies for shoulder hours, probability scenarios.
- Provide a “deep dive” into WECC’s assessment results:
 - How do the assumptions affect the results?
 - What available mechanisms could be called upon for decision-makers to act on the findings?
 - How and why do WECC’s results differ from other regional studies of RA? Provide a comparative analysis of methods and results.
- Formalize WECC’s RA framework, including methods, metrics, detail of results, etc. for Board approval.
- Provide clarity and transparency for the data WECC collects and manages for RA analysis while appropriately protecting detailed data; ensure we are collecting data needed to address RA now and in the future.

Other possible activities:

- Host a recurring RA forum/symposium; and
- Act as a clearing house for technical information on RA methods.

