

Regional Resource Adequacy Workshop #12: Technical Design and Compliance Updates

September 10, 2026

Agenda

- Technical Design Update
- Compliance Update
 - Data Integrity Charge
 - Program Flow Diagram

Technical Design: Approach for Initial Draft Proposal

- The RA Work Group will begin drafting the Initial Draft Proposal in October, with a publish date of Nov 12
- The Technical Design portion of the Initial Draft Proposal will largely consist of the different design elements discussed with stakeholders and put out for comment during the Spring and Summer workshops
- It's possible that small refinements that have not been brought to stakeholders may be included, but new foundational or structural concepts will not

Technical Design: Approach for Initial Draft Proposal

- The goal is for the Initial Draft Proposal to reflect conversations and the input received to date and not to surprise stakeholders with content they have not had an opportunity to provide feedback on
- The RA Work Group will attempt to identify where additional and continued discussion, modeling, input, or assumptions are needed to fully develop a proposal
- Where possible, development next steps and an anticipated workplan will be outlined

Technical Design: Initial Draft Proposal Elements

The following design elements discussed during the Spring and Summer workshops will likely be included in the Initial Draft Proposal:

- **Expanded Program scope**
 - Must-offer capacity requirement
 - “Pooled RSE” – collective RSE testing of RA Participants
- **LOLE Study**
 - Initial draft modelling parameters from August 11th Workshop

Technical Design: Initial Draft Proposal Elements

- **Load Forecast Methodology**

- Participant load forecasts based on participant's historical contribution to recent coincident system peak loads of the RA program footprint
- Calculated with monthly granularity
 - Each month, coincident peak hour of the RA footprint determines when the program takes a snapshot of each participant's load.
- A rolling five-year history of load values inform the load forecast
- Avenues to provide the program more accurate data than the programmatic forecast

Technical Design: Initial Draft Proposal Elements

Resource Accreditation Methodologies and Discussion

Resource Type	Counting Method
Thermal / Nuclear	UCAP
Wind / Solar	ELCC analysis
Storage (Batteries)	ELCC analysis
Dispatchable Hydro	TBD- Potentially proprietary, based on performance during System Critical Hours
Run-of River Hydro	Historical performance
Demand Response	Based on ability to sustain load reduction for specified # of hours
Hybrid (VER + Battery)	Combined ELCC of each, up to the interconnection limit

Technical Design: Initial Draft Proposal Elements

Areas that will require additional development:

- **Must-offer capacity requirement and pooled RSE**
 - Determine must-offer accountability mechanisms
 - Map, develop and stakeholder pooled RSE elements and mechanics

Technical Design: Initial Draft Proposal Elements

Areas that will require additional development:

- **LOLE Study:**
 - Refine zonal analysis
 - Modeling work- identify data sources and assumptions, determine calibration variable, how adjustments are applied, what set of reserves should be used
 - Open items from August 11th workshop*
 - Determine study timeline, cost, and funding mechanism

*RA Work Group may hold an additional workshop during the late fall to explore proposed technical assumptions for the LOLE Study with stakeholders

Technical Design: Initial Draft Proposal Elements

Areas that will require additional development:

- **Load Forecast:**
 - Define what supporting data or attestation would be needed for a participant to use a different value than the default load growth assumption
 - Develop process for how a participant communicates to the program significant load additions (e.g. data center load) or subtractions (e.g. industrial customer loss)

Technical Design: Initial Draft Proposal Elements

Areas that will require additional development:

- **Resource Accreditation methodologies**
 - Contracts
 - Storage (dispatchable) Hydro Accreditation
 - Demand Response (potential incorporation of limitations such as calls, duration and fatigue)

Compliance Update

- Data Integrity Charge
- Program Flow Diagrams

Proposal: Data Integrity Charge

- For stakeholders, a key part of a regional RA program's value proposition is its ability to accurately report the resource adequacy status of the region.
- The RA Work Group has coalesced around the concept of a Data Integrity Charge to enable meaningful RA reporting ahead of full operationalization of the program.

Proposal: Data Integrity Charge

- The RA Work Group anticipates clear data requirements will be developed, giving participants confidence in their ability to comply.
- The RA Work Group also anticipates program participants will have the ability to correct submissions before any charges are assessed.
- This correction could be either through a cure-period, real-time feedback in a data submission portal, or through some other process.

Data Integrity Charge

- The Data Integrity Charge is intended to incentivize participants to provide timely and complete data to the program.
- Regional reporting loses its value if the underlying dataset is incomplete.
- Data submission involves relatively few uncontrollable variables, whereas development of power generation and transmission infrastructure are significantly more susceptible to delays and other challenges that can impede compliance.

Magnitude

- The Data Integrity Charge is intended to incentivize participants to provide timely and complete data to the program.
- It is *not* intended to pose a financial risk that discourages participation.
- The RA Work Group posits the magnitude of the charge should exceed the cost to comply with data requirements. (Complying should cost less than not complying).

Magnitude

- An indicative range for the magnitude of a Data Integrity Charge could be \$15,000 - \$30,000 per data submission.
- Anticipated to apply to the following:
 - One Annual submission required for forward PRM / QC modelling
 - One Annual Compliance Submittal
 - Twelve Monthly Compliance Submittals

Magnitude

- The Data Integrity Charge is intended to represent a dollar value that exceeds an estimated cost to comply with administrative compliance requirements of the program, including compiling and submitting data.
- The Data Integrity Charge is not intended to reflect the cost to comply with any generator testing, or operational requirements.
- Stakeholders are encouraged to provide input on an appropriate magnitude, if this is an acceptable mechanism.

Allocation of Funds

- If a Data Integrity Charge is collected, the funds could be used in several ways:
 - Offset program administrative costs for all
 - Offset program costs only for participants who fully complied with data requirements
 - Disburse to participants who fully complied with data requirements
 - Other

Escalation

- Failure to meet program data requirements by a participant decreases the quality of program data and its reporting. Thus, escalating charges could apply. For example, charges could double as for the 2nd incomplete submission in a 12-month period.
- Repeated or persistent failure could carry more severe programmatic consequences, such as expulsion for a minimum duration.
- Stakeholders are encouraged to provide input on an appropriate escalation path, or other ramifications if data requirements are not met.

Proposal: Data Integrity Charge

At Workshop #8 on July 16th, four implementation phases were presented

Phased Implementation Approach

Phase 1
Initial Proposal
Development

Phase 2
Additional Development

Phase 3
Reporting & Ops
Development

Phase 4
Market-Integrated Binding
Operations

Proposal: Data Integrity Charge

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Phased Implementation Approach

Phase 1
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Reporting & Ops
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Phase 4
Market-Integrated Binding
Operations

The proposed
Data Integrity
Charge would
take effect in
Phase 3

Phase 3 Now Contains Binding Requirements

- With the Data Integrity Charge incorporated into Phase 3, this phase of development is no longer envisioned to be strictly “non-binding”.
- Failure to provide timely and complete data in Phase 3 would carry financial risk, and possible risk of program exit if data issues are left unresolved.
- The RA Work Group expects a clear set of data requirements would need to be established to enable enforcement.

Phase 3
Reporting & Ops
Development

Further Considerations

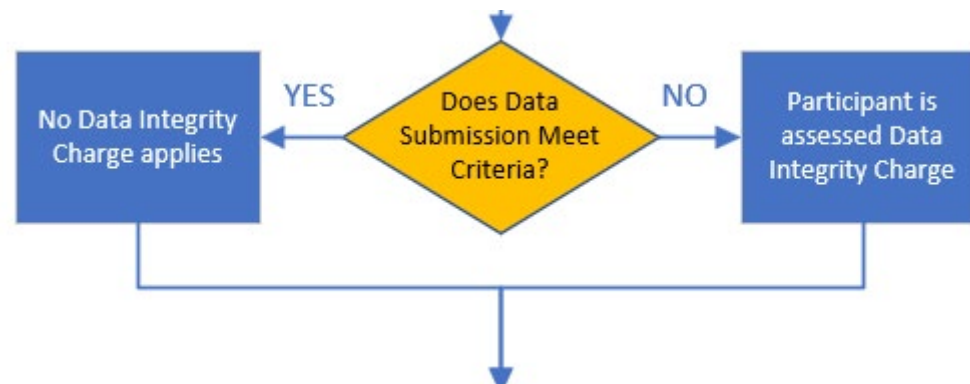
- Do data submission requirements apply only to resources required to meet an annual or monthly capacity requirement? Or, does the requirement apply to *all* resources in a participant's QC portfolio?
- Could a participant be exposed to Data Integrity Charges due to action (or inaction) by a joint-owner?
- Should the Data Integrity Charge continue into Phase 4 of the program (fully-binding program operations)

Compliance Update: Program Flow Diagram

- The program flow diagrams from previous stakeholder workshops have been updated with a compliance layer.
- An initial list of compliance actions has been determined for various steps in the flow diagrams.

Data Integrity Charge

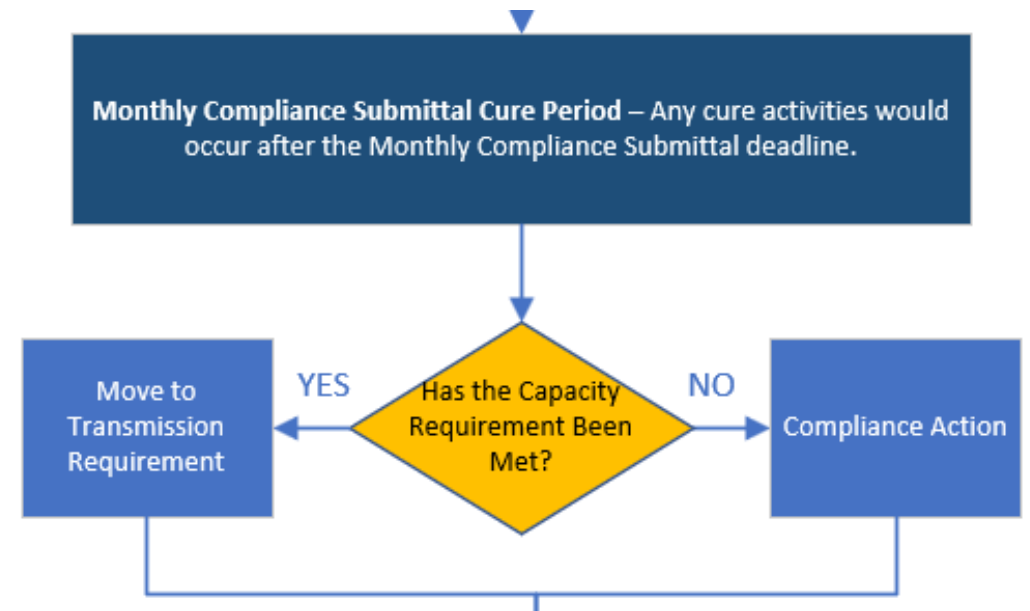
- In Phase 3 of program development, when sufficient policy exists to allow Participant LSEs to submit Annual and Monthly Compliance Submittals, the RA Workgroup has proposed the Data Integrity Charge.
- The magnitude of the Data Integrity Charge will not be contemplated here and has been included in flowcharts for both Phase 3 and Phase 4 of program development.
- Further input may warrant different applicability of the Data Integrity Charge in Phase 4 of program development.



Phase 4 – Capacity Requirement

After any cure period, if a capacity deficiency exists, compliance options include:

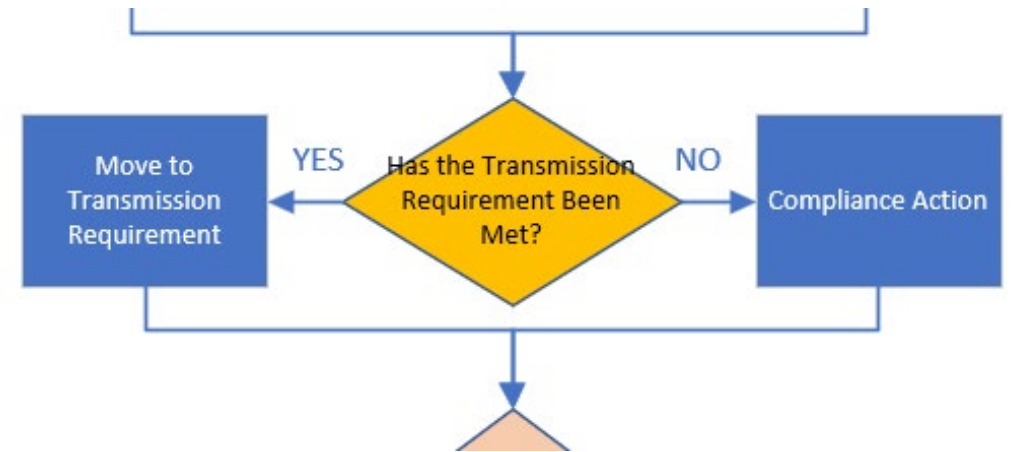
- Programmatic financial penalty
 - Potential escalation for repeat deficiency
- Backstop procurement, with associated costs acting as the penalty
- Trigger program exit process for repeated deficiency
- Other action



Phase 4 – Transmission Requirement

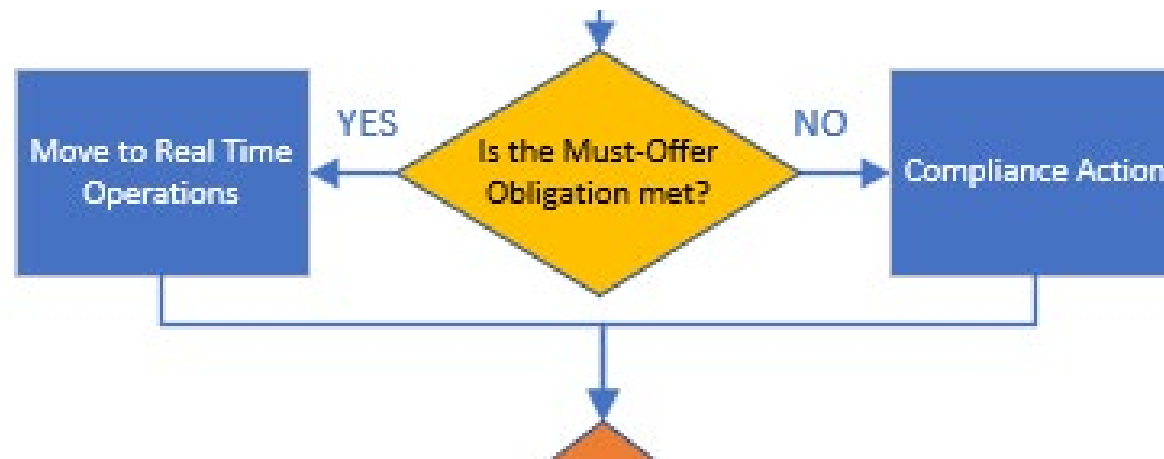
After any cure period, and assuming any exception provisions in the Transmission Requirement do not apply, if a transmission deficiency exists, compliance options include:

- Programmatic financial penalty
- Backstop solicitation and procurement of qualifying point-to-point transmission rights. Possible cost escalation applies
- Other action



Phase 4 – Fully Binding Operational Phase

- In Phase 4, forward RA requirements are operationalized in the form of a must-offer obligation.
- Given the needed development and stakeholder input on this construct, the RA Work Group is not proposing any compliance action around the must-offer obligation, at this time.



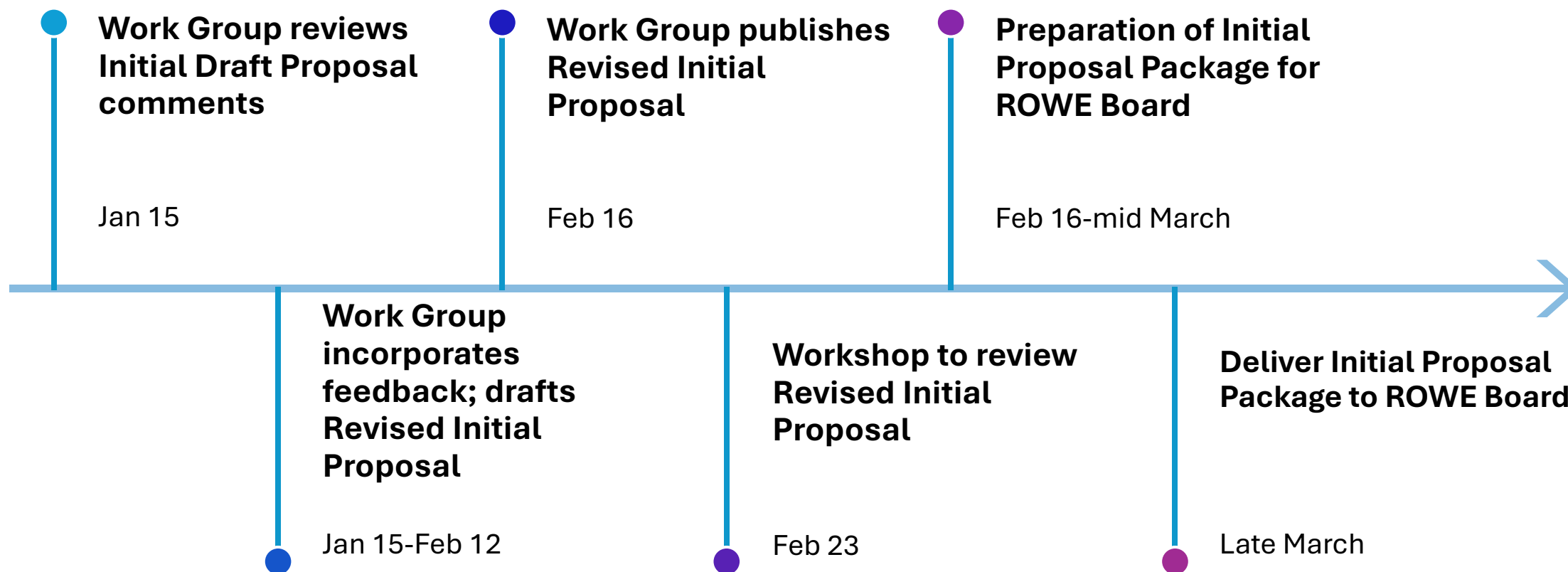
Timeline: 2026

To allow for more collaboration with the goal of developing an Initial Proposal with broad support, the following schedule is proposed:



Timeline: 2027

Dates are approximate; feedback from Initial ROWE Board may result in changes to timeline



Summer/Fall Workshops

September

- Workshop #13, September 17: Updates on Governance, Technical Design, Transmission, Compliance, and Data

***Comments on September workshops due 10/1**

The issue of how to address data will be included in workshops but the Work Group is still determining timing and where to best incorporate these discussions

Where to find materials



All workshop dates, **zoom links**, and materials are located at:

<https://rowesternenergy.org/regional-resource-adequacy/>



Reach out with questions or comments by emailing:

resourceadequacy@rowesternenergy.org

The ROWE is not a sponsor of the initiative or the initial stakeholder process, but is lending the use of its website for hosting materials.

Open Forum for Discussion



- Please raise your hand to be unmuted
- Announce your affiliation/entity you represent