

WIRAB Monthly Meeting

April 4, 2024



Introductions



Outline



WECC Activities:

WECC Update
WECC Reliability Risk Priorities



WIRAB Activities:

WIRAB Project: IBR Risk Assessment and Gap Analysis
WIRAB Draft 2025 Strategic Initiatives



Upcoming WIRAB Meetings



WECC Update

April 4, 2024

Kris Raper
and Matt Evans

Reliability Risk Priorities Process

- 2024 update of the Reliability Risk Priorities
- Used WECC's risk analysis process to create a list of 10 preliminary reliability risk priorities
- Accepting comments on those risks until April 26
 - Access the document: [2024 Preliminary Reliability Risk Priorities](#)
- Upcoming:
 - WECC Board of Directors [Workshop](#) April 29
 - WECC [Board](#) approval of final 2024 Reliability Risk Priorities in mid-June

Preliminary Reliability Risk Priorities

1. Aridification and associated natural events: drought, heat events, wildfires
2. Changes in load from electrification
3. Cybersecurity interruption to operations
4. Inverter-based resources
5. Lack of coordinated planning for building out resources and transmission
6. Impacts of large loads
7. Modeling quality and input validation
8. Physical damage or compromise of system assets
9. Potential effects of clean energy policies in the West
10. Supply chain

WECC Happenings

- WECC Board of Directors departures
 - Gary Leidich and Shelley Longmuir will be leaving the WECC Board of Directors at the conclusion of the September Board meeting, each having reached the limit of 12 years of service.
- Year 20 studies
 - Foundational Case
 - Cold Weather Event
 - Hot Weather Event
 - Compound Load Impacts
 - Transmission Trends
 - We will release [the summaries](#) today, and the studies will follow.

WECC Happenings

▪ WestTEC – Western Transmission Expansion Coalition

- WestTEC, through the Western Power Pool, is a coalition of diverse stakeholders in the Western Interconnection that is developing an actionable interconnection-wide transmission plan.
- There is an opportunity for WECC to contribute to the analytical work required to produce the transmission plan. Peak RC donated funds back to WECC upon Peak's dissolution. WECC is exploring what a donation of Peak funds would require.
- WECC will continue to engage stakeholders as the situation develops. Questions or feedback? Email engage@wecc.org.

▪ Spring Newsletter

- Topics covered:
 - 2024 State of the Interconnection
 - WestTEC
 - Reliability Risk Priorities
 - Interregional Transfer Capability Study update
- To subscribe to the quarterly newsletter, email mevans@wecc.org



www.wecc.org



Western Interstate
Energy Board

Growing Levels of IBRs in the West:

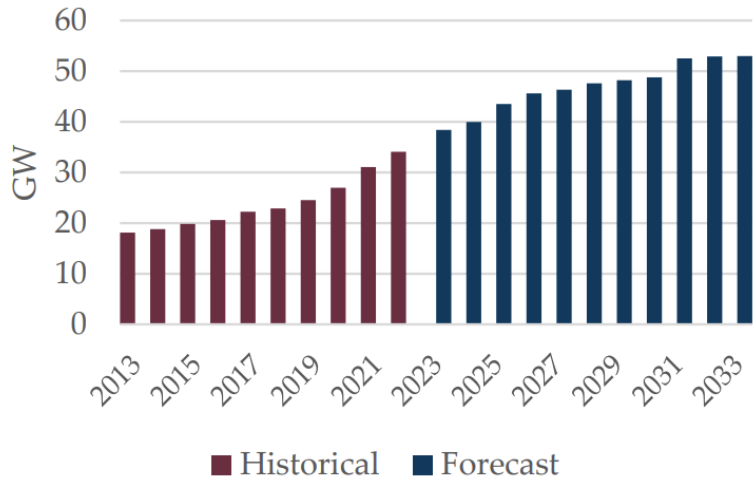
Regulatory and Policy Actions To Proactively Address Energy Transition Challenges

Ryan D. Quint, PhD, PE
Founder and CEO

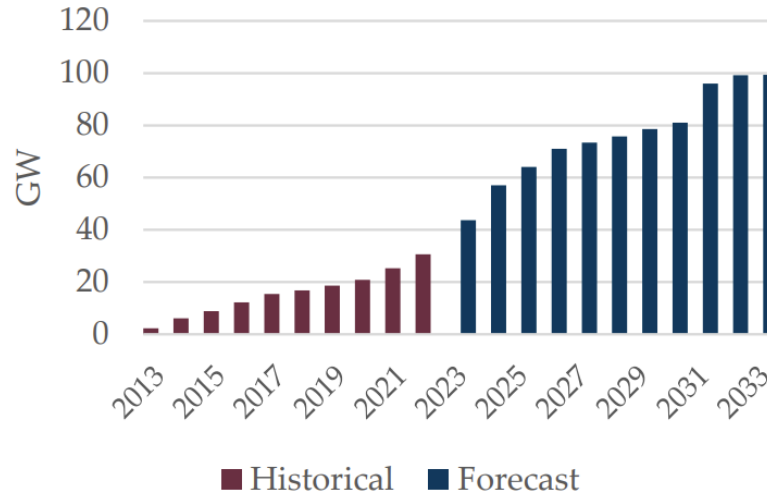
April 4, 2024

IBR Additions Continue to Rise

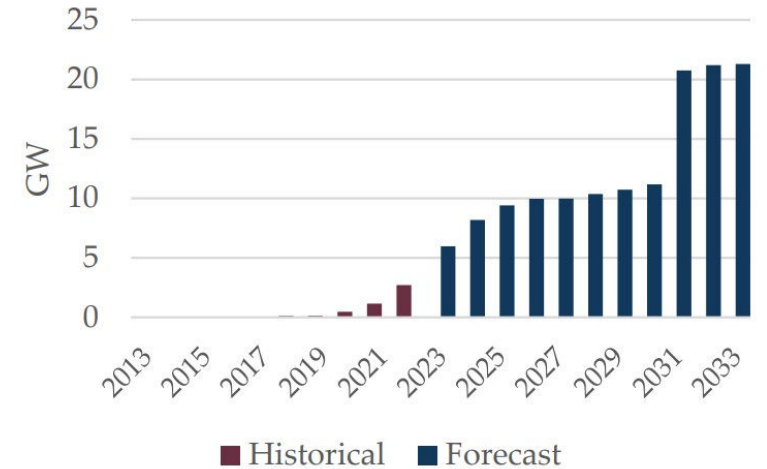
Wind



Solar and Hybrid Solar

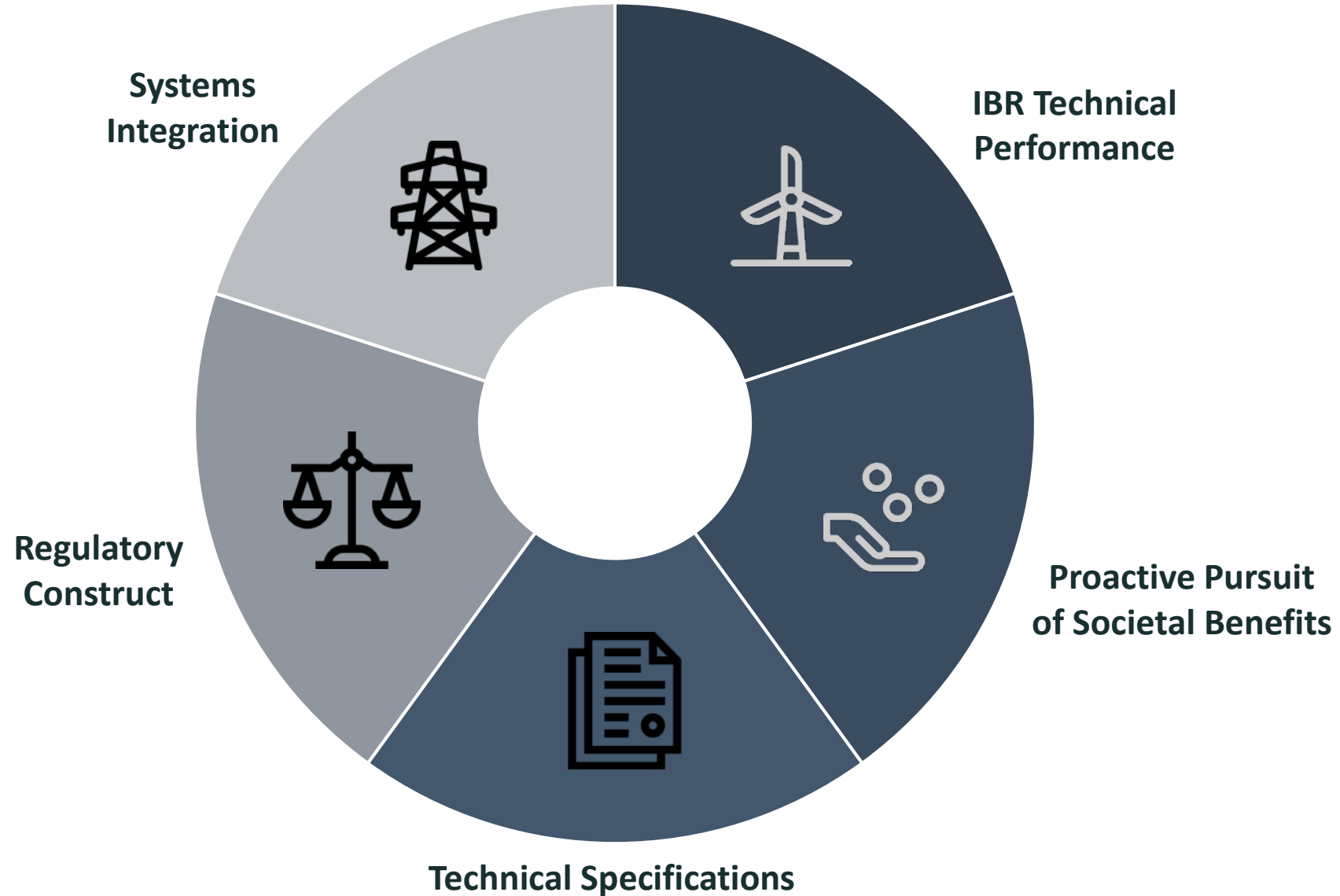


Energy Storage

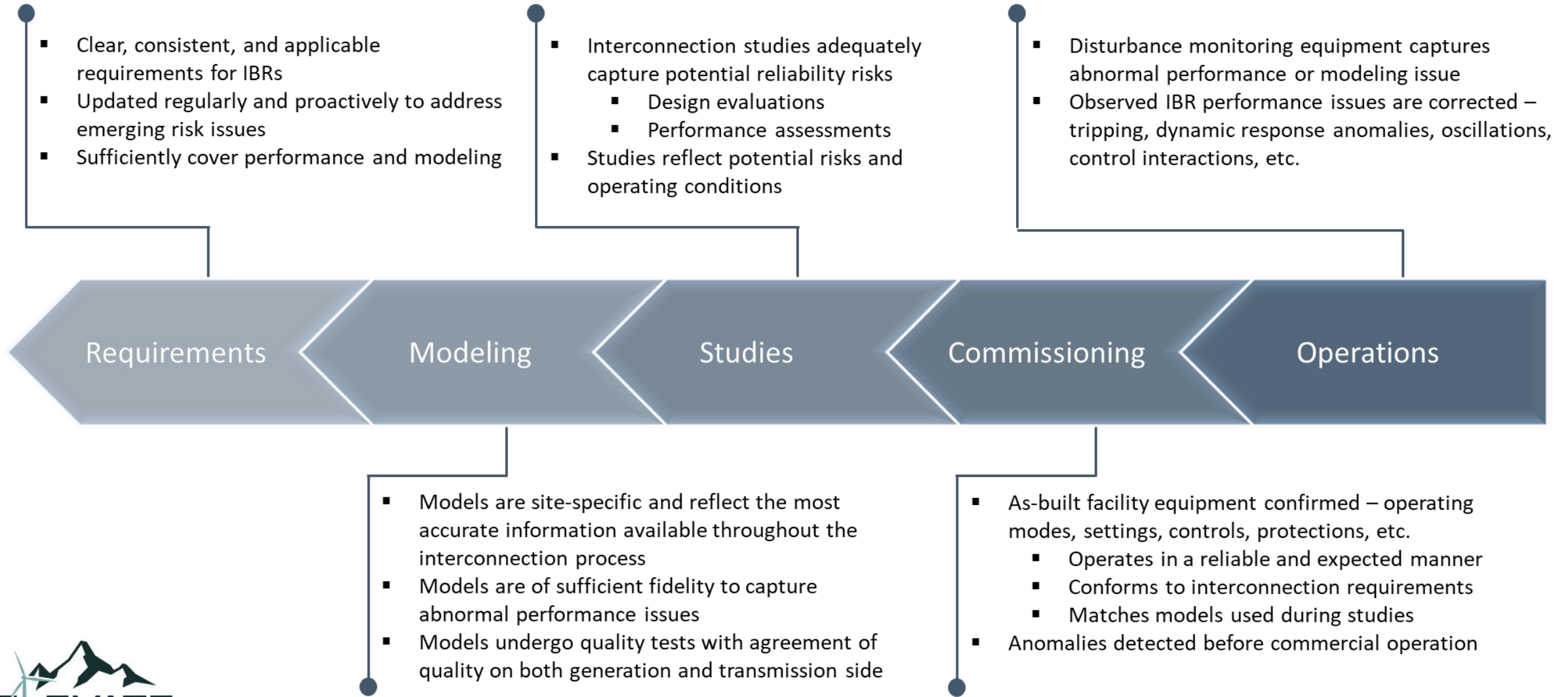


*95 GW of resource addition in next 10 years
80% are solar, energy storage, and wind*

Overcoming Barriers to Reliable IBR Adoption

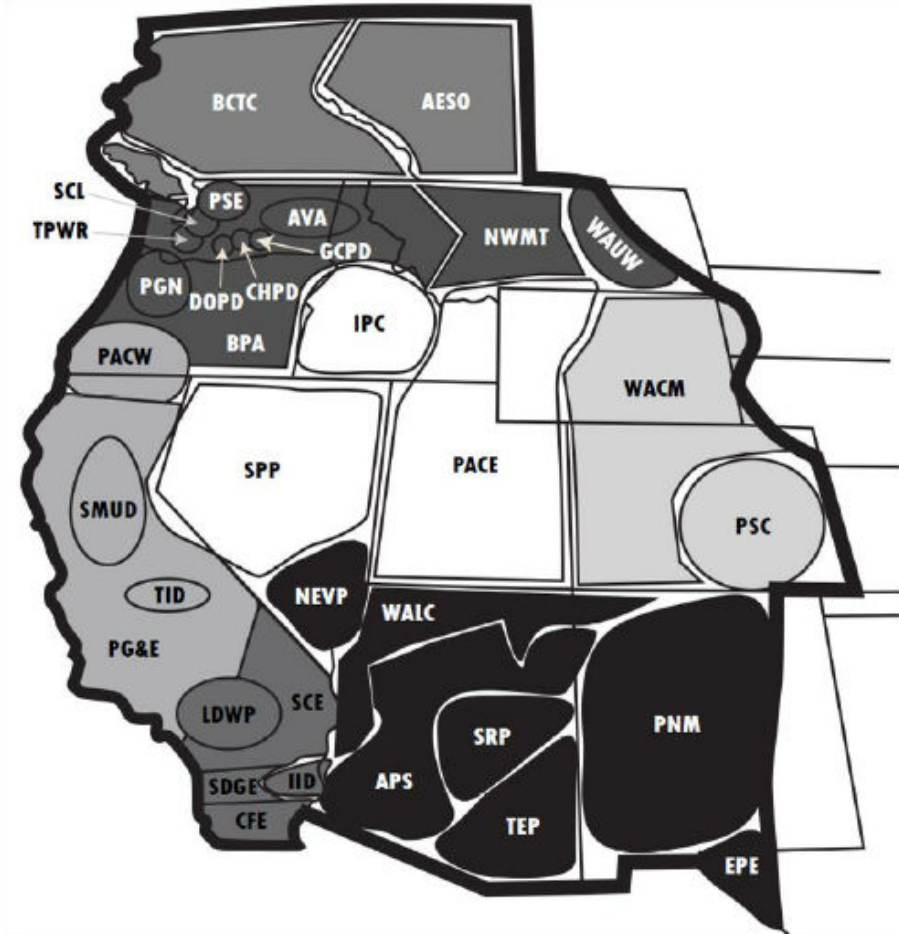


Root Cause Analysis



Challenging Questions to Ask

- Why did large-scale IBR-related events start to occur in the first place?
- Why did they continue to grow in magnitude and frequency over the past nearly 10 years?
- What is being done to address those issues?
- Are those activities sufficiently mitigating the risks posed today and into the future?
- How do we balance flexibility with uniformity / consistency?
- How do we effectively keep pace with the changing grid characteristics?
- Are we adequately studying the right things?
- How do we move from admiring the problem to effectively addressing it?
- What actions can we collectively take to shore up current or future issues?



Old WECC BA Map – Illustrative Purposes Only

Key Activities



Deliverables and Outcomes

IBR Risk Assessment

- Assessment of IBR-related risks in the Western Interconnection
- High-level gap analysis of addressing risks in the near- and mid-term.

August 2024

Executive-Level Report and Brief

- Technical report on assessment, key findings, and recommendations
- Executive-level policy brief

October 2024

Outreach

- Informational webinar for WIRAB members and WECC entities
- Presentation at Joint CREPC-WIRAB Meeting

November 2024



Ryan D. Quint, PhD, PE

Founder and CEO

ryan.quint@elevate.energy

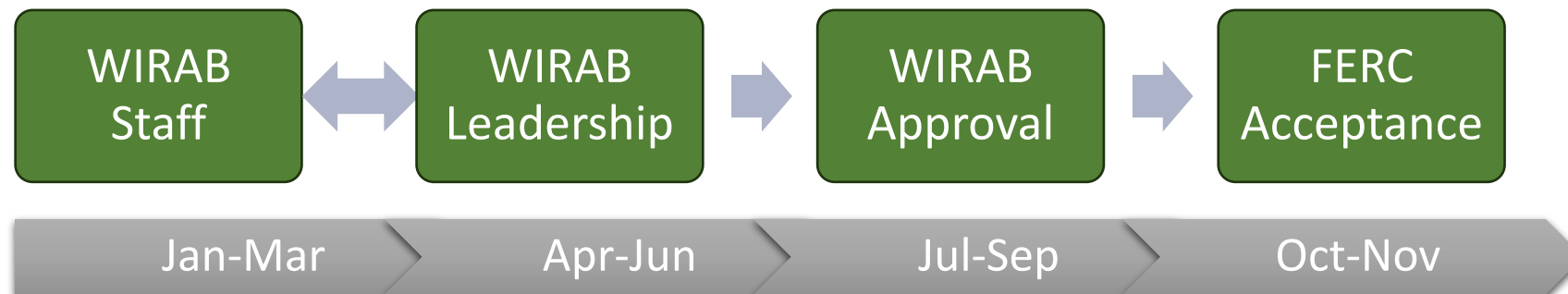
WIRAB Business Plan and Budget: Purpose of Strategic Initiatives



Why does WIRAB have Strategic Initiatives in BP&B?

- BP&B to serve as a policy document
- Regional Entity delegated responsibilities vs WIRAB Strategic Initiatives
- FERC highlights WIRAB initiatives in its Order accepting all ERO BP&B

How do the Strategic Initiatives get created?



Draft Strategic Initiatives Options: Supportive Initiatives



WECC Organizational Review

- Advise WECC during its Organizational Review established by Section 4.9 of the WECC Bylaws to ensure that WECC is structured in a way that allows the organization to respond quickly and effectively to ever changing reliability risks in the Western Interconnection.

Transmission Planning (WestTEC)

- Advise WECC to work collaboratively with the Western Power Pool and Western stakeholders in the effort to develop investment grade transmission plan that effectively improves reliability in the Western Interconnection.

Draft Strategic Initiatives Options: Aligning Initiatives



Follow up on IBR work with Elevate

- Advise WECC to work collaboratively with Western regulators and stakeholders to address and proactively mitigate risks associated with the uncoordinated interconnection of inverter-based resources in the Western Interconnection.

Inter-regional Transfer Capability

- Advise WECC to develop a process to reassess inter-regional transfer capabilities going forward in the Western Interconnection to ensure that power can reliably flow where it is needed when the system is stressed in the Western Interconnection.

Extreme Weather

- Advise WECC to conduct a systematic review of recent extreme weather events that tested the system to analyze the intricacies of maintaining grid reliability amidst increased demand, unexpected outages, system stress, and near-miss events in the Western Interconnection.

Compliance (Proactive engagement and Risk Based Compliance)

- Advise WECC to conduct an assessment of its proactive engagement and risk-based compliance approach to reliability and security oversight to determine if improved compliance programs at Western entities lowers the overall system risk in the Western Interconnection.

Draft Strategic Initiatives Options: Leading Initiatives



Energy Storage Code/Standards

- Advise WECC to review how energy storage resources like batteries provide reliability services to the grid and determine if current reliability standards and guidance are adequate for ensuring reliability operation of energy storage resources in the West.

Grid Enhancing Technologies for Reliability

- Advise WECC to assess the reliability implications of innovative grid solutions such as Dynamic Line Ratings, Advanced Conductors, or HVDC systems, to determine how entities modernize the transmission system in the Western Interconnection.

Energy Policy Risk Implications

- Advise WECC to develop the capability to annually assess the aggregate impact of new and existing energy policy on the Western Interconnection and to share the assessment with regulators, policymakers, and other stakeholders in the West.

Draft Strategic Initiatives Options: Next Steps For WIRAB



Select 3-5 Initiatives Total:

- 0-2 Supporting WECC Efforts;
- 1-3 Aligning with WECC Work;
- 1-2 Leading Edge Initiatives that Push WECC;



Provide Feedback on Initiative Statements by April 12, 2024

WIRAB Staff will develop written description for final initiatives



Review Strategic Initiatives starting May 1, 2024

First Draft of the WIRAB 2025 Business Plan and Budget available for WIRAB Review

WIRAB Business Plan and Budget: 2025 Draft Timeline



Date	WIRAB BP&B Timeline
4/4/24	WIRAB Monthly Meeting: Discuss Potential Strategic Initiatives
5/1/24	Circulate BP&B to WIRAB (Draft 1)
5/15/24	WIRAB BP&B Comments Due by WIRAB Members (Draft 1)
5/19/24	First BP&B due to NERC (Draft 1)
TBD	Draft 1 of ERO BP&B posted for comment and FAC webinar package posted
6/6/24	WIRAB Monthly Meeting with Presentation of Final Version for Approval
6/10/24	Conference Call & WIRAB Staff Presentation of BP&B to NERC FAC
TBD	Conference Call & WIRAB Staff Presentation of BP&B to FERC
6/13/24	Hold Additional Webinar, If necessary
6/20/24	WIRAB Approval (Final Vote Due)
7/1/24	Submit Approved BP&B to NERC
8/15/24	NERC Open FAC, MRC, and Board meetings
8/31/24	Regulatory filings for NERC, RE, & WIRAB BP&Bs submitted to FERC

Upcoming Meetings



WIRAB Monthly Meeting

First Thursday of the Month

Next Meeting: May 2, 2024 at 11:00 AM MT

Spring 2024 Joint CREPC-WIRAB Meeting

April 24-26 in Denver, CO

WIRAB Members Lunch with WECC on April 24th at 11:30 AM MT

www.westernenergyboard.org

Thank You!

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