



# Updated 2022 Annual Work Plan

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# Objectives and Highlights



- This report reflects updates to the *2022 Annual Work Plan* (2022 AWP) since its release in September 2021
  - In Q3, the ISO begins full cycle again with 2023 AWP
- The update summarizes: completed work; work on track or with refined scope/schedule; and emerging work initiated by/requested from the ISO, FERC, and stakeholders
- Plans and timeframes for both the anchor projects and the notable initiatives remain largely unchanged due to effective, coordinated planning and prioritization efforts by the ISO and stakeholders
  - The update underscores the ISO's and the region's continued focus on advancing a reliable clean-energy transition through innovation and collaboration
  - Some emergent initiatives may not be achievable for 2022 and need to be considered for 2023
  - Reminder that the AWP focuses on larger initiatives and also does not represent the ISO's extensive day-to-day operations related to running the grid, the markets, and its organization



# Accomplished Projects

*Work completed since 2022 AWP publication*



- **Anchor Project**

- **Extended-Term Transmission Planning Phase 1:**  
Tariff changes filed with FERC in December 2021;  
FERC issued Order accepting the rules in February 2022

- **Notable Initiatives**

- **FERC Order No. 2222 Compliance:** Proposal filed with FERC in February
- **Competitive Capacity Markets without a Minimum Offer Price Rule (MOPR):** Filed proposal with FERC in March
- **Transmission Planning for the Clean-Energy Transition:** Final Pilot Study Report posted in January; in Q2, the ISO will update the Planning Advisory Committee on any further analyses slated for the first half of year
- **Models and Simulators to Support Future Grid Studies**
  - Developed recommendations for the deployment of Electromagnetic Transient Simulation framework
  - Completed core day-ahead commitment engine of Integrated Market Simulator



# Projects on Track

*Scopes and schedules unchanged since 2022 AWP publication*



- **Operations and Planning Anchor Projects**

- **Modeling/Assessing Operational Impacts of Extreme Weather Events:** Stakeholder discussions began in February

- This is in addition to ongoing energy adequacy and winter preparedness discussions

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- **2050 Transmission Study:** Stakeholder discussions began in 2021 and initial study results presented in March 2022

- **Extended-Term Transmission Planning Phase 2:** Stakeholder discussions to begin in Q3 with a potential FERC filing in Q4 2022/Q1 2023

- **Notable Initiatives**

- **Pathways to the Future Grid Study:** Final report to be published in April

- **Solar DNE:** Discussions to begin by Q3; FERC filing expected by end of year with implementation in Q2 2023

- **Models and Simulators to Support Future Grid Studies:** Continued work on both the *Inverter-Based Resource Integration and Modeling Assessment* and the *Integrated Market Simulator* are on track

- **nGEM Day-Ahead Market Clearing Engine Implementation:** Q1 2023 in-service date remains unchanged

- **Enhance Cyber-Security Tools:** Projects on track for 2022 implementation

# Updated Market Anchor Projects

*Scopes and schedules refined since 2022 AWP publication*



- **Resource Capacity Accreditation (RCA)**
  - Project to proceed as one initiative for FCA 19 rather than in two phases (for FCA 18 and 19) as originally presented in 2022 AWP
  - The ISO expects to begin discussions in late-Q2/early-Q3, with a detailed design presented by end of year
  - The ISO plans to file the design with FERC by Q4 2023 for FCA 19
    - Revised from 2022 AWP target for filing at end of 2022 for first phase
- **Day-Ahead Ancillary Services**
  - The ISO expects to outline major project components and timing with stakeholders in early Q2
    - 2022 AWP depicted stakeholder discussions could be as early as Q1
  - Design proposal discussions to begin in Q4 and extend through 2023, allowing a robust, year-long stakeholder process before filing with FERC by Q4 2023
  - As previously indicated, the ISO plans to decouple the implementation timing from FCA 19 (Capacity Commitment Period 2028-2029)

# Updated Notable Initiatives

*Scopes and schedules refined since 2022 AWP publication*



- **Storage as a Transmission-Only Asset**

Stakeholder discussions of the proposal to begin in Q2

- Stakeholder discussions originally planned to begin in Q1
- Name changed from “Storage as Transmission Solution”

- **Future Grid Reliability Study (FGRS) Phase 1**

- Study extended to consider new scenarios and sensitivities; the ISO plans to present the draft executive report in June
- 2022 AWP targeted March for report



# New England Future Grid Initiative

*Next steps for discussion*



- **FGRS Phase 2 of Framework Document**

- Use of a consultant to assess revenue sufficiency
- The 2050 Transmission Study effectively addresses the thermal steady-state transmission security analysis
- Voltage and transient stability transmission security analyses require granular distribution system modeling and detailed assumptions that do not align with uncertainties inherent in studies of far-future years

- **Pathways to the Future Grid**

- After final report, solicit feedback on a preferred pathway to determine if consensus exists ahead of confirming next steps
- State input will be essential



# Additional ISO-Initiated Projects

*Work that improves processes and relates to other projects*



- **DER Interconnection Jurisdiction Changes:** Modify relevant sections of the Interconnection Procedures in Schedules 22 and 23 of the Open Access Transmission Tariff (OATT) to identify that new distribution-connected generation should proceed through the state interconnection process
  - Stakeholder discussions began in March with implementation expected in Q3
- **Annual Economic Study Process Changes:** Modify Attachment K of the OATT to provide a cohesive, repeatable study to stakeholders based on ISO-defined reference scenarios and stakeholder-requested sensitivities
  - Should yield consistent analysis and facilitate comparison; would balance Economic Studies with the RSP cycle
  - Stakeholder discussions to begin in Q2, with implementation expected in Q1 2023
- **FCM Parameter (CONE and Net CONE) Reset Deferral:** Defer next full recalculation in light of other planned market changes that will impact the calculations; reset to no later than FCA 21
  - Stakeholder discussions to begin in Q2





# New FERC Initiative

*FERC actions are always accommodated but can impact AWP*



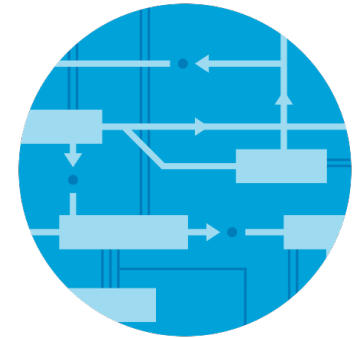
- **Order 881: Final Rule re Managing Transmission Line Ratings**

- Order is intended to improve accuracy and transparency of transmission line ratings used by transmission providers
- Stakeholder discussions began in February
- The ISO to file by the July 12 compliance deadline



# New Stakeholder Requests

*Requests for evaluation and consideration; how to plan ahead for 2023?*



- 1. Retirement Reforms - Return to Service:\***  
Enable retired resources to return to service under broader conditions and enhance retirement de-list bid price flexibility
- 2. Performance of Capacity Resources:\*** Consider the implications of the performance of various capacity resources under current system conditions
- 3. Non-Commercial Financial Assurance Revisions:** Modify financial assurance for delayed, non-commercial new capacity resources
- 4. Publish Public Information from Overlapping Impact Studies:**  
Enable publication of resource-specific study information

\*The ISO is incorporating this initiative into 2022 AWP, see next slide.

Q2 2022

Q3 2022

Q4 2022

Pathways Study

• Consideration of Preferred Path

• FCM Parameter Reset Deferral

• Solar DNE Design

• Resource Capacity Accreditation

DA AS

• DA Ancillary Services

• Perform. of Capacity Resources

• Retirement Reforms

• Operational Impacts of Extreme Weather

• 2050 Transmission Study

• Extended-Term Transmission Planning

• Storage as Transmission-Only Asset

• Annual Economic Study Process Changes

• FGRS Phase 1

• FGRS Phase 2

• Transmission Planning for the Clean Energy Transition

• Order 881 Compliance

• DER Jurisdiction

• Models and Simulators to Support Future Grid Studies

• nGEM Day-Ahead Market Clearing Engine Implementation

• Cyber-Security Projects

• IT Infrastructure, Application, and Database Enhancements



Markets Related



Operations/Planning



Capital Project Priorities