

Next Generation Markets Update

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Market Implementation Committee
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Next Generation Markets (nGEM)

Multi-year partnership between PJM, MISO, ISO-NE and GE started in April 2017

Goals

- Create a quantum leap in capability and performance
- Enable ISOs to share in costs and system functionality
- Reduce maintenance costs and time-to-market
- Improve system security and quality
- Develop the next generation markets support team at GE and PJM











Product Development



Software products

- Data Transfer Enhancements
- Redesigned Network Applications
- Redesigned Market Clearing Engines
- Redesigned Markets Gateway
- Bidding Service

PJM Product Implementation



Customize and implement

- Data Transfer Enhancements
- Redesigned Network Applications

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Phase 2 - Scope

Product Development



Software products

- Market Clearing Engine User Interface for Market Operators
- Combined Cycle Model
- Time-Coupled Security Constrained Unit Commitment (SCUC) and Security Constrained Economic Dispatch (SCED) with Simultaneous Feasibility Test (SFT)
- Clearing Choreographer
- Case Builder



Details

The Day-Ahead Market Clearing Engine is in the Implementation phase. As GE works through development, PJM is creating test scenarios and acceptance criteria for the first delivery scheduled for early Q4 2021.

GE development continues for the real-time clearing engine products with an expected release now scheduled for end of Q4 2021.

PJM began internal software testing for the Phase 1 data transfer enhancements and network applications software in Q3 2020 with an expected production implementation in Q3/Q4 2021. The network applications software for the Day-Ahead Market is currently running in parallel operations in production.

Phase 2 nGEM agreement finalized and signed in December 2020. Phase 2 Key Objectives include: Market Clearing Engine User Interface, Combined Cycle Model, Time-Coupled SCUC/SCED with SFT, Clearing Choreographer, and Case Builder.

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Schedule



Product implementation for Data Transfers and Network Applications

Product implementation for Day-Ahead Market Clearing Engine

Phase 2

Product development

Product implementation for Other Market Clearing Engines



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