



Next Generation Markets Update

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Market Services Division

Market Implementation Committee

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

Goals

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

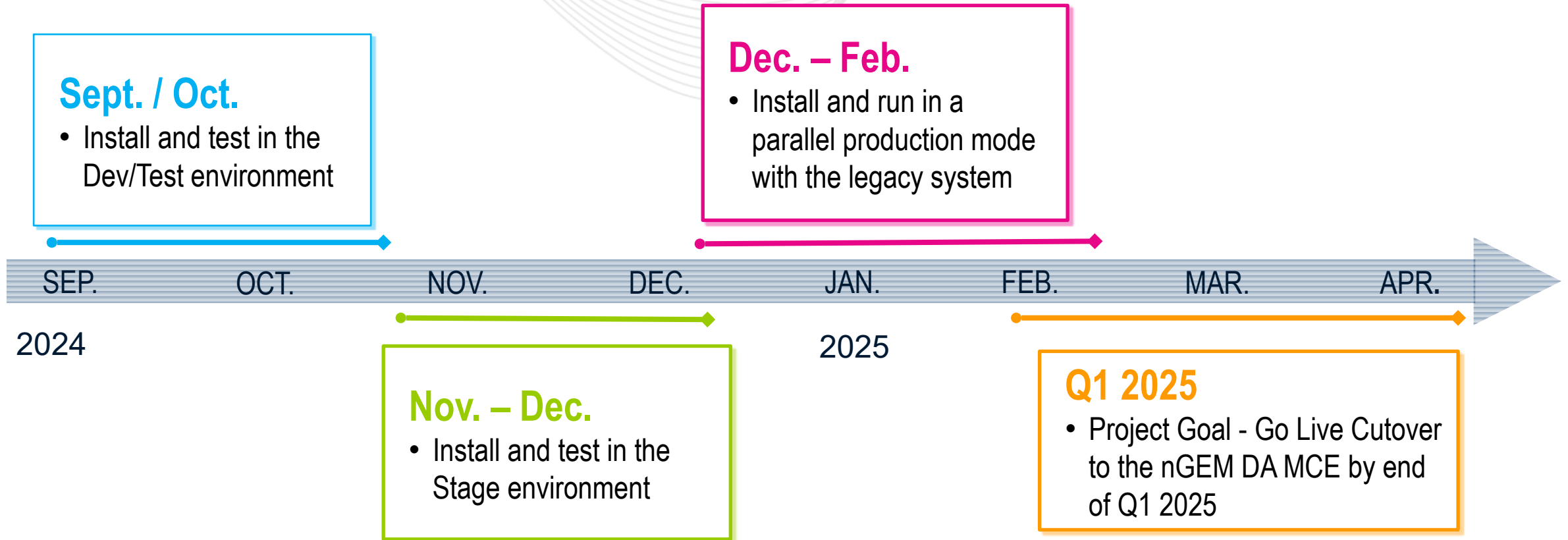


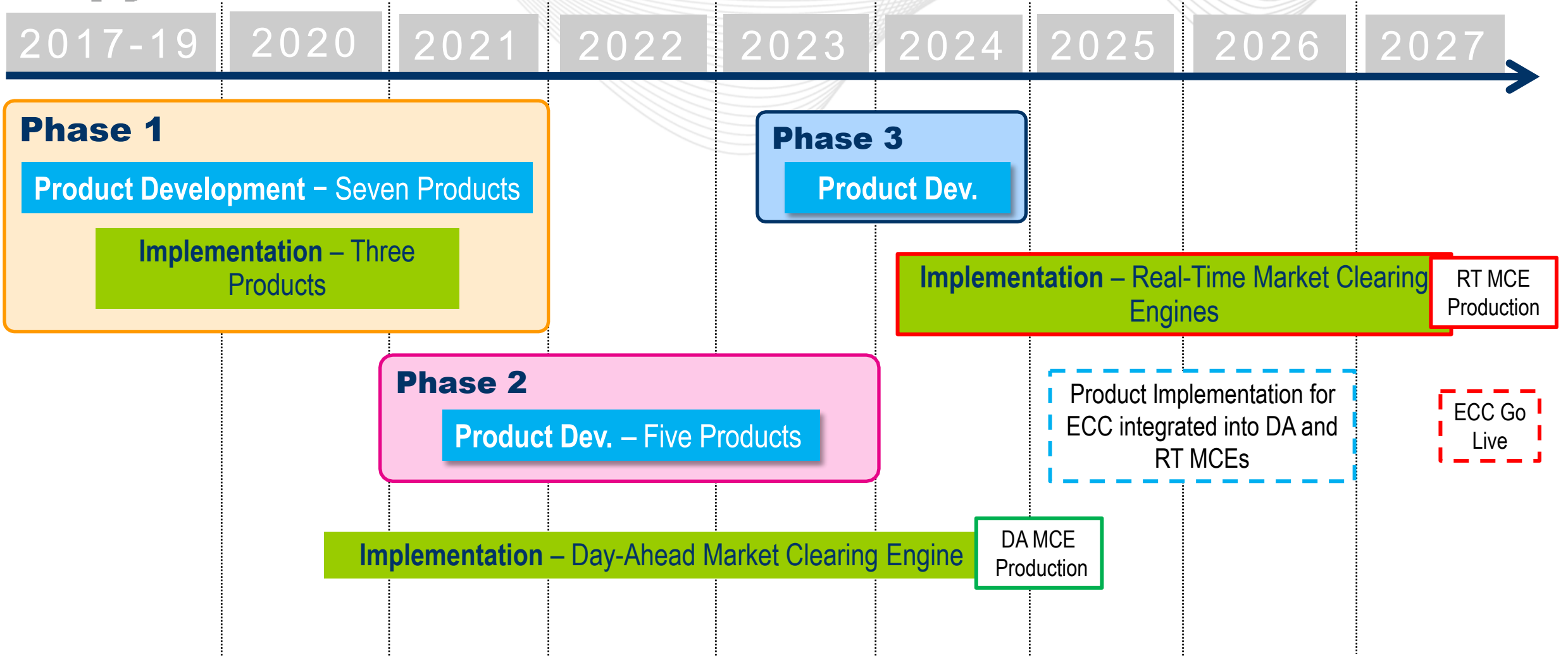
Day-Ahead Market Clearing Engine (DA MCE) Implementation

Project Increment #6, formal FAT, started in late February and completed in mid- April. Project Increment #7, Post-FAT Bug Fix ran from April through the end of August. Currently in Project Increment #8, Site Acceptance Testing phase. The current target for Production Go Live is the end of Q1 2025 and is dependent on the successful completion of Parallel Production Operations.

Real-Time Market Clearing Engine (RT MCE) Implementation

PJM signed the RT MCE Implementation Statement of Work in March 2024. GE began development of Project Increment #1, which is focused on IT SCED and scheduled to be completed at the of November 2024. Multiple Project Increments are required in order to complete development and testing of the four RT Study Modes: IT SCED, RT SCED, ASO, and LPC. Regulation Market Redesign requirements are being integrated into the nGEM RT MCE.





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Appendix

- nGEM products go through 2 development phases:
 - Product Development – Core product that is common across PJM, MISO, and ISO NE
 - Product Implementation – Customization of the core product to comply with PJM market rules

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

Product Development



Software products

- Market Clearing Engine User Interface for Market Operators
- Enhanced 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

Product Development

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Software product

- Advanced Storage Model

Whitepapers

- Aggregated Distributed Energy Resource
- Generator Start-Up/Shutdown Whitepapers

Proof of Concept

- Training and Test Simulator Environment