



# Next Generation Markets Update

Ray Fernandez  
Market Services Division  
Market Implementation Committee  
April 7, 2021

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 Improvements
- Redesigned Network Applications
- Redesigned Market Clearing Engines
- Redesigned Markets Gateway
- Bidding Service

## PJM Product Implementation

### Customize and implement

- Data Transfer Improvements
- Redesigned Network Applications

## Product Development

A large, solid orange arrow pointing downwards, indicating a flow from the "Product Development" box to the "Software products" box.

### Software products

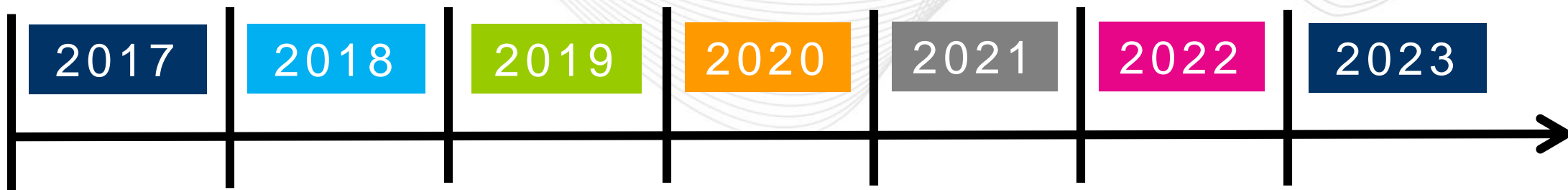
- Market Clearing Engine User Interface for Market Operators
- Combined Cycle Model
- Time-Coupled Security Constrained Unit Commitment (SCUC) and Security Constrained Economic Dispatch (SCED) with Simultaneous Feasibility Test (SFT)

Day-ahead Small Bus Model completed to assist GE in development and testing of the day-ahead market clearing engine (DA MCE). Reserve Pricing Formation requirements have been integrated into the DA MCE gap analysis. Test scenarios and acceptance criteria under development.

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

In July, GE released the data transfer enhancements and network applications software to PJM. PJM began internal software testing in Q3 2020 with an expected production implementation in Q2 2021.

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



### Phase 1

Product development

Product implementation for Data Transfers and Network Applications

Product implementation for Day-Ahead Market Clearing Engine

### Phase 2

Product development

Facilitator:

Lisa Morelli, [Lisa.Morelli@pjm.com](mailto:Lisa.Morelli@pjm.com)

Secretary:

Nicholas Disciullo, [Nicholas.Disciullo@pjm.com](mailto:Nicholas.Disciullo@pjm.com)

SME/Presenter:

Ray Fernandez, [Raymond.Fernandez@pjm.com](mailto:Raymond.Fernandez@pjm.com)

**Next Generation Markets Update**



**Member Hotline**

(610) 666 – 8980

(866) 400 – 8980

[custsvc@pjm.com](mailto:custsvc@pjm.com)