

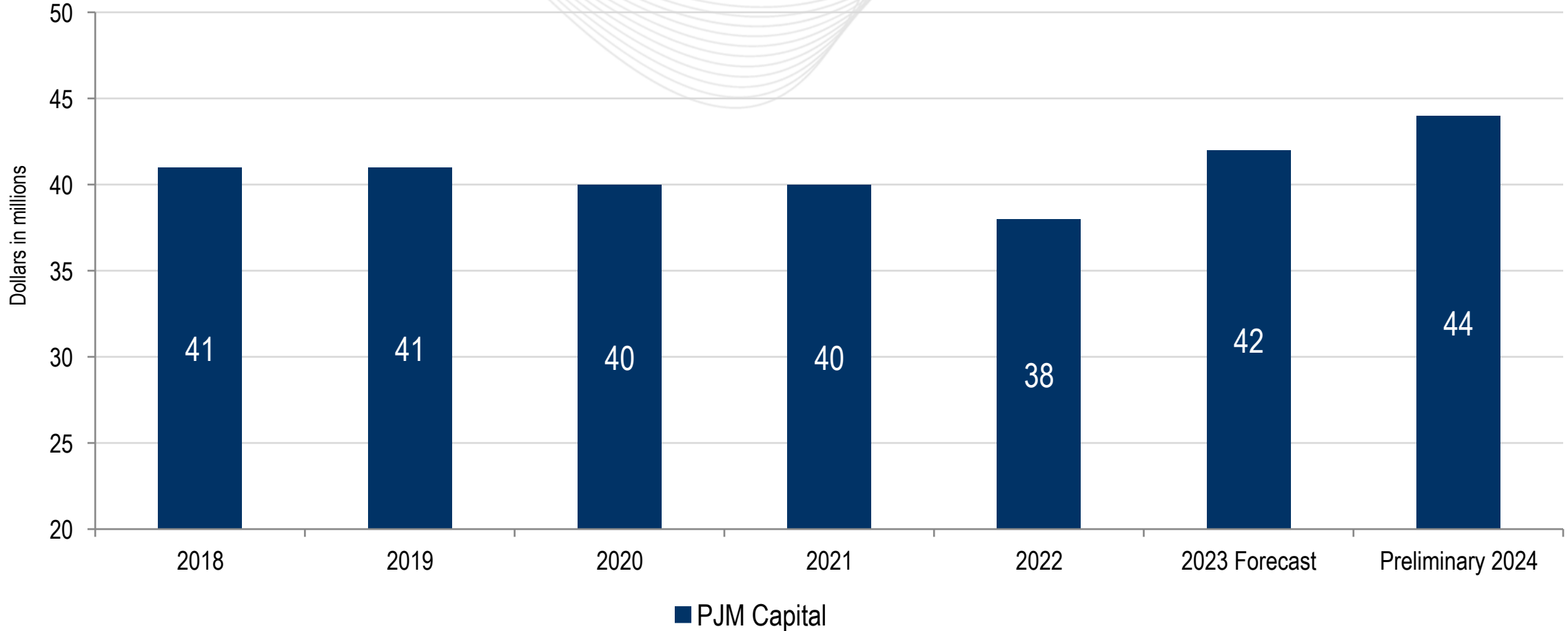


# Preliminary 2024 Capital Budget

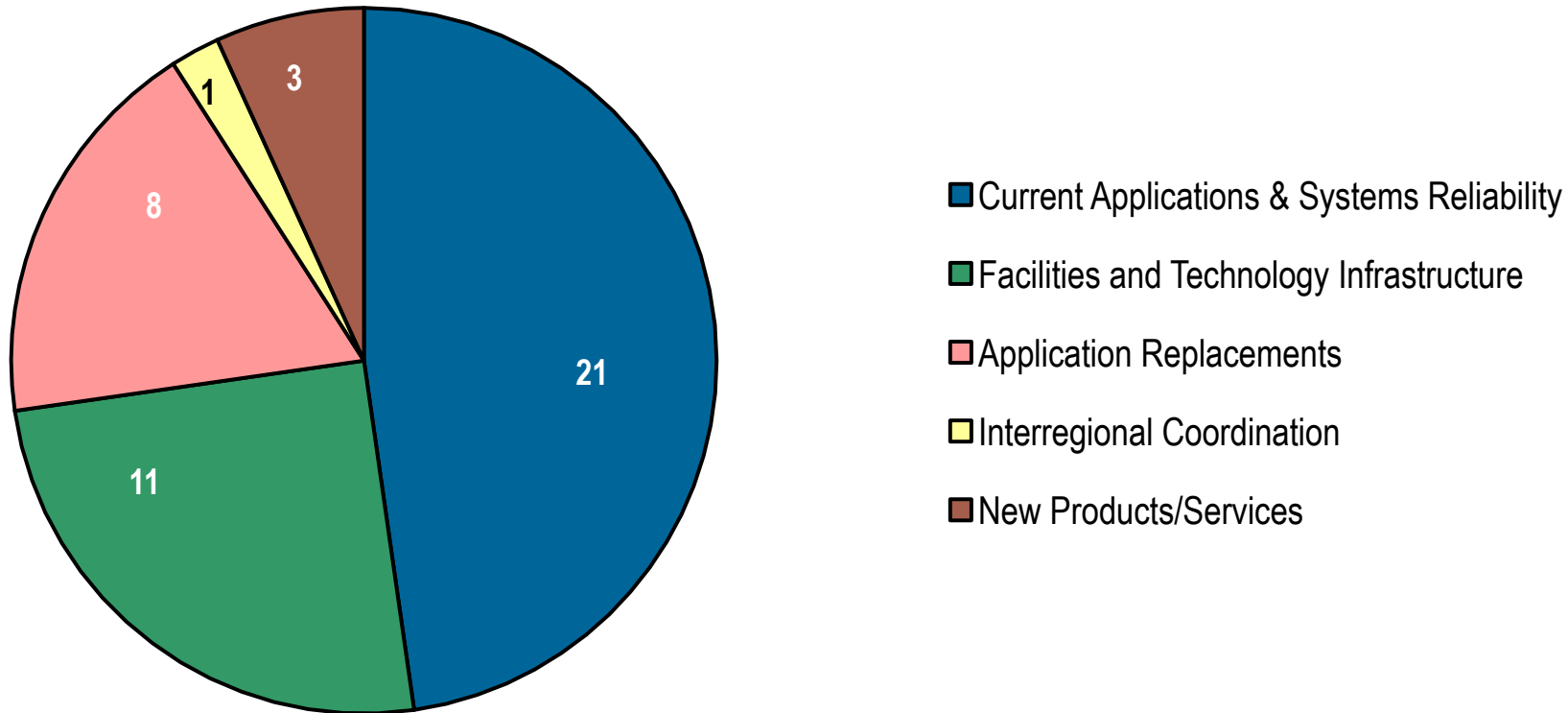
Markets Implementation Committee

August 9, 2023

Jim Snow



Total = \$44 million





# Current Applications & Systems Reliability

<i>(dollars in millions, except rates)</i>	2023	2024
Capital	22	21
Expense	7	8

**Data Analytics** – A series of projects to enhance and modernize PJM’s data and analytical capabilities, skills and tools. *Service Category: 9-5 Management Services*

**DART Refresh and Enhancements** – A series of projects to integrate the Dispatcher Application and Reporting Tool (DART) into PJM’s updated standardized software tools framework, and to provide functional enhancements to the application. *Service Category: 9-1 Control Area Services*

**Credit and Risk Enhancements** – Automation and efficiency improvements for internal credit or risk applications. *Service Category: 9-PSI PJM Settlements and 9-2 FTR Services*

**System Planning Enhancements** – A series of projects to improve and automate RTEP processes, regional transmission planning, and to support Transmission Reform. *Service Category: 9-1 Control Area Services*

**Membership Tool Enhancements** – A series of projects to enhance the customer relationship management platform, the member meeting registration application, and the system that allows our members to control access to PJM tools for their accounts. *Service Category: 9-5 Management Services*

**Cyber Security Enhancements** – A series of projects to enhance monitoring and security access of PJM’s computer systems. *Service Category: 9-5 Management Services*

**Dispatch Tools Enhancements** – A series of enhancements to improve dispatcher situational awareness and automate operational processes. *Service Category: 9-1 Control Area Services*



# Facilities and Technology Infrastructure

(dollars in millions, except rates)	2023	2024
Capital	12	11
Expense	3	2

**Technology Infrastructure Upgrades** – Projects purchasing network, server, and storage infrastructure equipment. This scope will align technology with PJM’s current architecture as older infrastructure becomes obsolete. *Service Category: 9-5 Management Services*

**Control Center Generator Replacements** – Replace generators critical to supporting control center during power loss. *Service Category: 9-1 Control Area Services*

**Uninterruptible Power Supply (UPS) Replacements** – Replace UPS systems at the backup control center to ensure continuous operations during power failure. *Service Category: 9-1 Control Area Services*

**Markets Production Controlled Environment** – Create pre-production Day Ahead and Real Time Markets environment mirroring production to improve the quality of testing and minimize risk to the production environment. *Service Category: 9-3 Market Support Services*

**Market Settlements Database Server Upgrades** – Replace aging servers and align with current technology. *Service Category: 9-PSI PJM Settlements Inc.*



# Application Replacements/Retrofit

<i>(dollars in millions, except rates)</i>	2023	2024
Capital	8	8
Expense	3	3

**Next Generation Markets Systems (nGEM)** – This project is a collaborative project with vendor and ISOs/RTOs to transform the market systems architecture, technology and products. *Service Category: 9-3 Market Support Services*

**Market Settlements Operational Application Replacement** – This project will replace an out-of-support application critical to the creation specific line items on the weekly and monthly bills. *Service Category: 9-PSI PJM Settlements Inc.*

**Energy Management Network Application and Training Systems** – This project will implement updated architecture for PJM’s Transmission Network Application (TNA) and the Operator/Dispatch Training (OTS/DTS) systems. *Service Category: 9-1 Control Area Services*

**Energy Management Model Manager** – This project will implement updated architecture for PJM’s Model Manager (IMM) system. *Service Category: 9-1 Control Area Services*

**Generator Data Analytics** – This project will implement a new database and reporting tool for generator information. *Service Category: 9-1 Control Area Services*

<i>(dollars in millions, except rates)</i>	2023	2024
Capital	2	3
Expense	--	1
<p><b>Stakeholder-Driven Efforts</b> – A series of projects to address market system and market settlement enhancements for areas identified in various task force committees. <i>Service Category: 9-3 Market Support Services, 9-4 Capacity Reserve Services, and 9-PSI PJM Settlements Inc.</i></p> <p><b>Credit Assessment Effort</b> – This project will expand PJM’s capability to monitor credit by improving the screening process for market participants in the Day-Ahead virtual market model. <i>Service Category: 9-PSI PJM Settlements Inc.</i></p> <p><b>Dispatcher Application and Reporting Tool Enhancements</b> – This project will create a tool to identify transformers with load tap changers and submission of tap changes providing transmission owners visibility of neighboring non-telemetered tap information. <i>Service Category: 9-1 Control Area Services</i></p>		

<i>(dollars in millions, except rates)</i>	2023	2024
Capital	1	1
Expense	---	---
<p><b>Market-to-Market Enhancements</b> – Projects will address work required for flowgate calculations changes and create efficiencies within the market-to market application by consolidating and automating processes. <i>Service Category: 9-3 Market Support Services</i></p>		



- **Credit Surveillance Expansion** \$0.4M – Expansion and streamline internal workflows for credit and risk surveillance of market participants
- **Dispatch Management Tool /Ancillary Services Optimizer Enhancements** \$0.3M – Enhancements within dispatch management tool to improve review and approval of ancillary services optimizer cases.
- **CERA Integration** \$0.3M – Extend document management system for Microsoft Teams and extend document signature application into CERA
- **Microphone System for Offsite Training** \$0.2M – Purchase updated microphone system for offsite operator training events
- **SAP ERP Refresh** \$0.1M – Upgrade PJM's ERP system

Date	Group	Topics
July 27	Finance Committee	Preliminary 2024 Budget and Projects & Multi-year projections
August 8	Planning Committee	Preliminary 2024 Projects
August 9	Market Implementation Committee	Preliminary 2024 Projects
August 10	Operating Committee	Preliminary 2024 Projects
August 31	Finance Committee	Proposed 2024 Budget and Projects
September 19	Finance Committee Member Representatives	Recommendation Letter to PJM Board of Managers
October 3	Board of Managers	Consideration of Proposed 2024 Budget

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## Preliminary 2024 Capital Budget



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POWER GRID  
THINK BEFORE  
YOU CLICK!**



Be alert to  
malicious  
phishing emails.

**Report suspicious email activity to PJM.**  
(610) 666-2244 / [it\\_ops\\_ctr\\_shift@pjm.com](mailto:it_ops_ctr_shift@pjm.com)

