

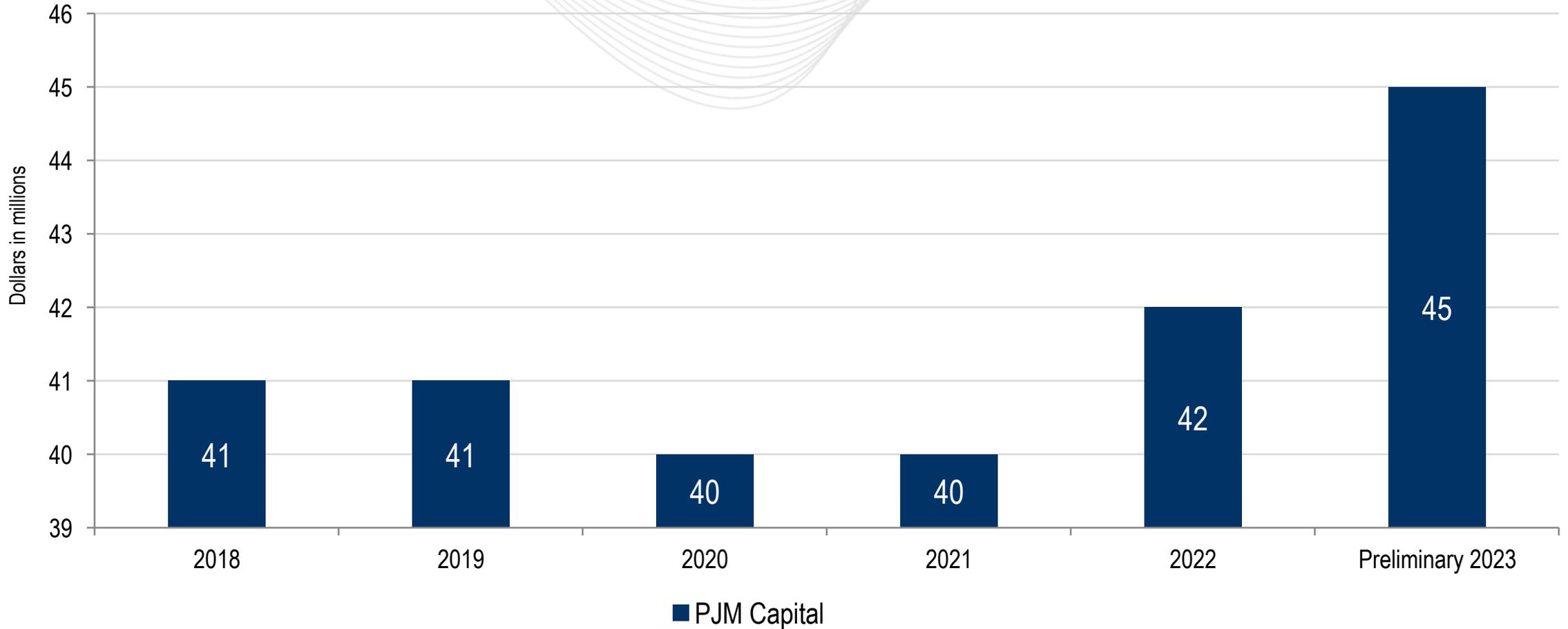


# Preliminary 2023 Capital Budget

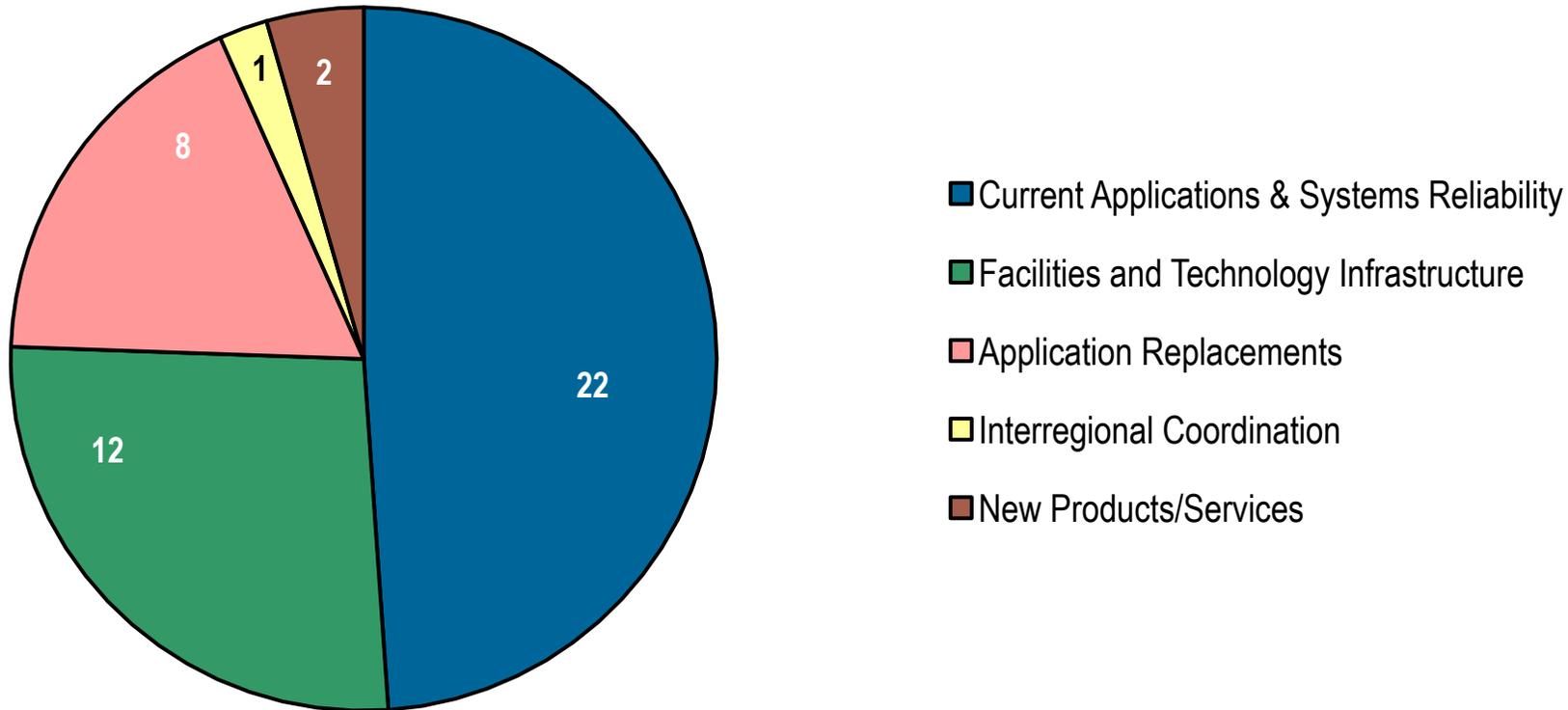
James Snow  
Director, Budgeting and Analysis  
Planning Committee  
September 6, 2022



# Annual Capital Expenditures



Total = \$45 million





# Current Applications & Systems Reliability

<i>(dollars in millions, except rates)</i>	2022	2023
Capital	18	22
Expense	6	7
<p><b>Credit and Risk Enhancements</b> – Automation and efficiency improvements for internal credit or risk applications. <i>Service Category: 9-PSI PJM Settlements and 9-2 FTR Services</i></p> <p><b>Data Analytics</b> – A series of projects to enhance and modernize PJM’s data and analytical capabilities, skills and tools. <i>Service Category: 9-5 Management Services</i></p> <p><b>Cyber Security Enhancements</b> – A series of projects to enhance monitoring and security access of PJM’s computer systems. <i>Service Category: 9-5 Management Services</i></p> <p><b>Dispatch Tools Enhancements</b> – A series of enhancements to improve dispatcher situational awareness and automate operational processes. <i>Service Category: 9-1 Control Area Services</i></p> <p><b>System Planning Enhancements</b> – A series of projects to support Transmission Reform and Interconnection Process Reform Task Force recommendations to improve and automate Interconnection and RTEP processes. <i>Service Category: 9-1 Control Area Services</i></p> <p><b>DART Refresh and Enhancements</b> – 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. <i>Service Category: 9-1 Control Area Services</i></p> <p><b>Membership Tool Enhancements</b> – 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. <i>Service Category: 9-5 Management Services</i></p> <p><b>Master Data Management Enhancements</b> – A single source of data for persistent objects in PJM’s systems, such as generators, transmission lines, and member data used by the PJM organization in various tools and applications. <i>Service Category: 9-1 Control Area Services</i></p>		



# Facilities and Technology Infrastructure

<i>(dollars in millions, except rates)</i>	2022	2023
Capital	11	12
Expense	2	3

**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*

**Facility Security Improvements** – A series of projects to improve campus security systems. *Service Category: 9-5 Management Services*



# Application Replacements/Retrofit

<i>(dollars in millions, except rates)</i>	2022	2023
Capital	10	8
Expense	4	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*

**Energy Management System/Spectrum 7 Upgrade** – This project will implement upgraded architecture allowing for future expansion of PJM’s Supervisory Control and Data Acquisition (SCADA) and Automated Generation Control (AGC) model. *Service Category: 9-1 Control Area 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.*

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

**Energy Management Network Application Evolution** – This project will implement updated architecture allowing for future expansion of PJM’s Transmission Network Application (TNA) system. *Service Category: 9-1 Control Area Services*



# New Products and Services

<i>(dollars in millions, except rates)</i>	2022	2023
Capital	2	2
Expense	1	--

**Stakeholder-Driven Efforts** – A series of projects to address market system and market settlement enhancements for areas identified in various task force committees. *Service Category: 9-1 Control Area Services , 9-2 FTR Services, 9-3 Market Support Services, 9-4 Capacity Reserve Services, and 9-PSI PJM Settlements Inc.*

**Credit Surveillance Effort** – This project will expand of the capabilities and synchronize the workflows of the member credit tools. *Service Category: 9-PSI PJM Settlements Inc.*



# Interregional Coordination

<i>(dollars in millions, except rates)</i>	2022	2023
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> <p><b>Automated Checkout</b> – This project will automate the Net Schedule Interchange (NSI) checkout process between PJM and its neighboring balancing authorities. <i>Service Category: 9-1 Control Area Services</i></p>		

- **Facilities/Campus Improvements** \$1.5M – Upgrade of workspace for Dispatch Training, IT Operation Center, and Reliability Engineering Area
- **CERA Teams Integration** \$0.5M – Extend document management system for Microsoft Teams
- **Confidential Data Loss Prevention Tool** \$0.4M – Tool increasing protection for confidential information
- **Markets Cost Agent Tool Enhancements** \$0.3M – Enhancements to improve user experience

Date	Group	Topics
August 24	Finance Committee	Preliminary 2023 Budget and Projects
September 6	Planning Committee	Preliminary 2023 Projects
September 7	Market Implementation Committee	Preliminary 2023 Projects
September 8	Operating Committee	Preliminary 2023 Projects
September 22	Finance Committee	Proposed 2023 Budget and Projects
September 28	Finance Committee Member Representatives	Recommendation Letter to PJM Board of Managers
October 4	Board of Managers	Consideration of Proposed 2023 Budget

Presenter:  
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**PROTECT THE  
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)

