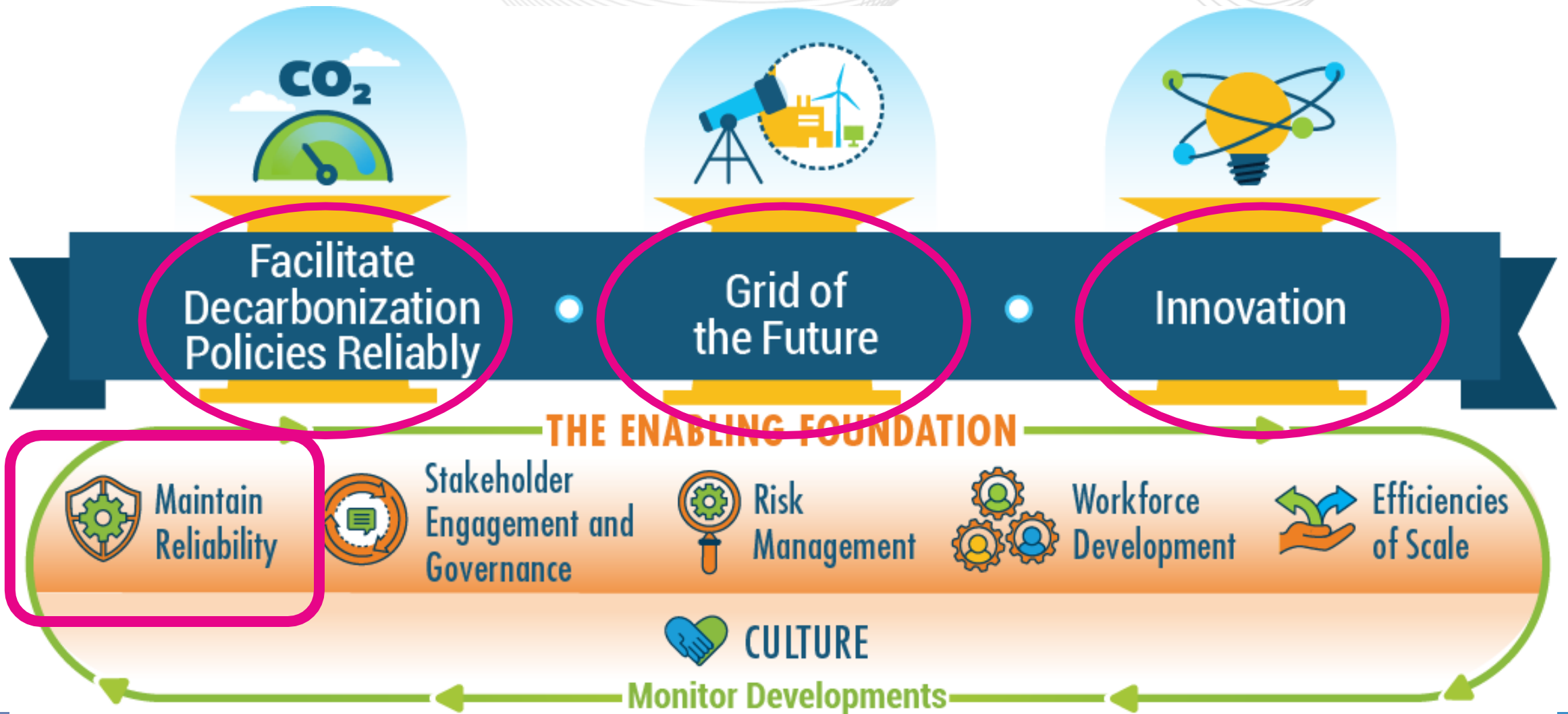




# Operations Roadmap

Operating Committee  
August 8, 2024

Chris Piong  
Sr. Director, Operations Planning



INITIATIVE		2024	2025	2026	2027	2028
Technology	Forecasting Enhancements (Load, Solar, Wind)	Active	Active	Active	Active	
	Control Room 2030	Active	Active	Active	Active	Active
	Energy Management (EMS) Upgrade Roadmap	Active	Active	Active	Active	
Operational Processes	Transitioning to Risk-Based Operations	Active	Active	Active		
	Gas-Electric Coordination	Active	Active	Active	Active	Active
	Operations Analysis for Renewables	Active	Active	Active	Active	
	Reserve Certainty	Active	Active	Active	Active	

## Technology Initiatives

### Forecasting Enhancements

Multi-year project to enhance load, solar and wind forecasting tools, process, and training. This will include peer reviews and vendor evaluations/implementation

### Control Room 2030

Prepare for real-time operations in a transitioned grid (renewables, DER, co-located load, data centers, etc.) which may include new control room tools, system operator roles, visualization, AI applications, human performance improvements, etc.

### EMS Upgrade

Multi-year project to upgrade the Energy Management System (EMS) tools and technology (Model Management, AGC/SCADA, Network Applications) to add additional functionality, enhance cyber security, and maintain reliable operations of the grid.

## Operational Processes Initiatives

Risk-Based Operations	Gas-Electric Coordination	Operations Analysis for Renewables	Reserve Certainty
<p>Further incorporating and formalizing risk based approaches to analysis, forecasting and system dispatch.</p>	<p>Gas-electric coordination challenges continue to be a major contributor to reliability issues during extreme cold weather periods. Continue to work with stakeholders and industry/FERC<sup>1</sup> to improve coordination.</p>	<p>Multi-year effort to augment our existing analyses for transmission outages, generation outages, and system restoration to maintain reliability with a transitioned grid (renewables, DER, co-located load, data centers, etc.)</p>	<p>Coordinate with Markets and the RCSTF to address concerns in both the Immediate and Upcoming time horizons in the following areas – Reserve Certainty, Fuel procurement and compensation; Energy Assurance; and Load Following/Dispatchability</p>

<sup>1</sup>Joint ISO gas-electric coordination paper: <https://pjm.com/-/media/library/reports-notice/special-reports/2024/20240221-strategies-for-enhanced-gas-electric-coordination-paper.ashx>