



# PJM Framework for Evaluation and Prioritization of Emerging Technologies

Natalie Tacka

Sr Engineer, Applied Innovation

Emerging Technologies Forum

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1. Highlight framework PJM has developed to evaluate and prioritize emerging technologies
2. Update on Emerging Technologies Dashboard for [pjm.com](https://www.pjm.com)

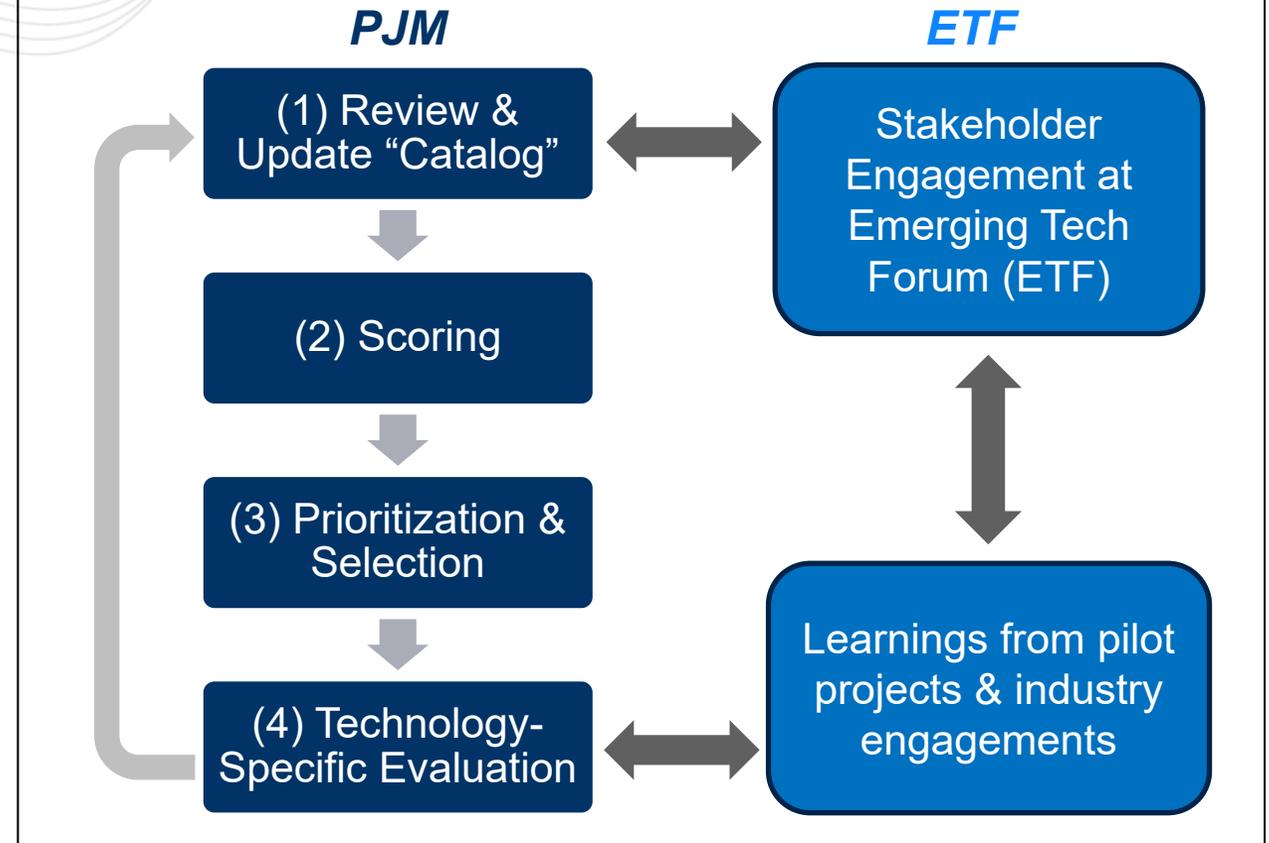
## What

A holistic and coordinated set of processes to track and prioritize the evaluation and integration of emerging technologies at PJM.

## Why

- Enhance PJM's engagement on emerging technologies with stakeholders and industry experts
- Critical for PJM's role in industry leadership and innovation

## Key Framework Steps



- Centralized repository for information and status of technologies and research initiatives that PJM is tracking
- Updated periodically by reviewing:
  - Industry research & development initiatives, including but not limited to FERC Office of Energy Policy and Innovation (OEPI) initiatives, [ARPA-E projects](#), EPRI projects, National Lab projects, [IEEE Trending Technologies](#); [CIGRE Preferential Subjects](#)
  - Advanced Technology Pilot Program engagement;
  - Stakeholder engagement through the Emerging Technologies Forum and touchpoints with standing committees on emerging technology feedback; and
  - Emerging technology surveys



# Step 2: Technology Scoring Parameters

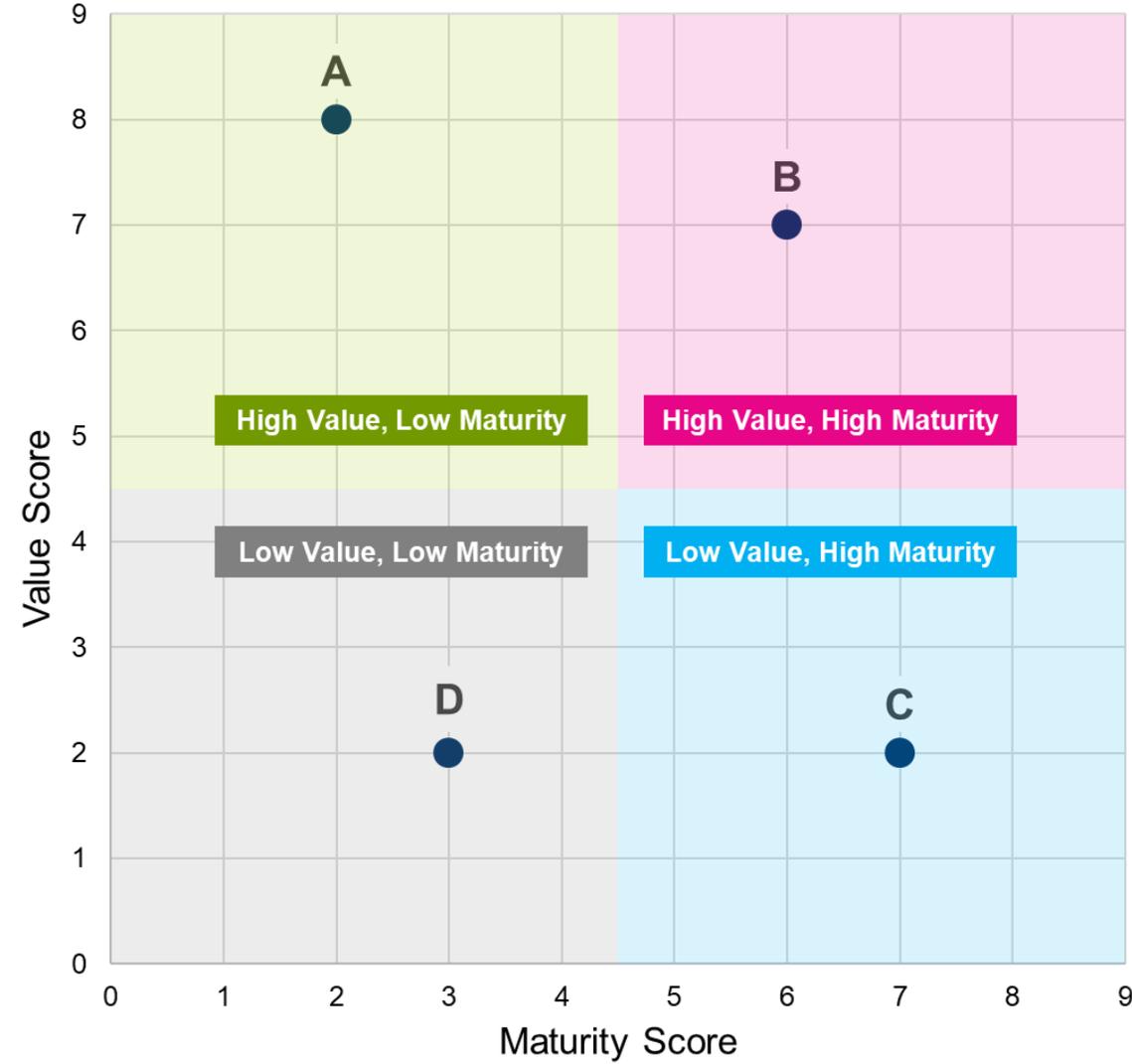
## Scoring Objective

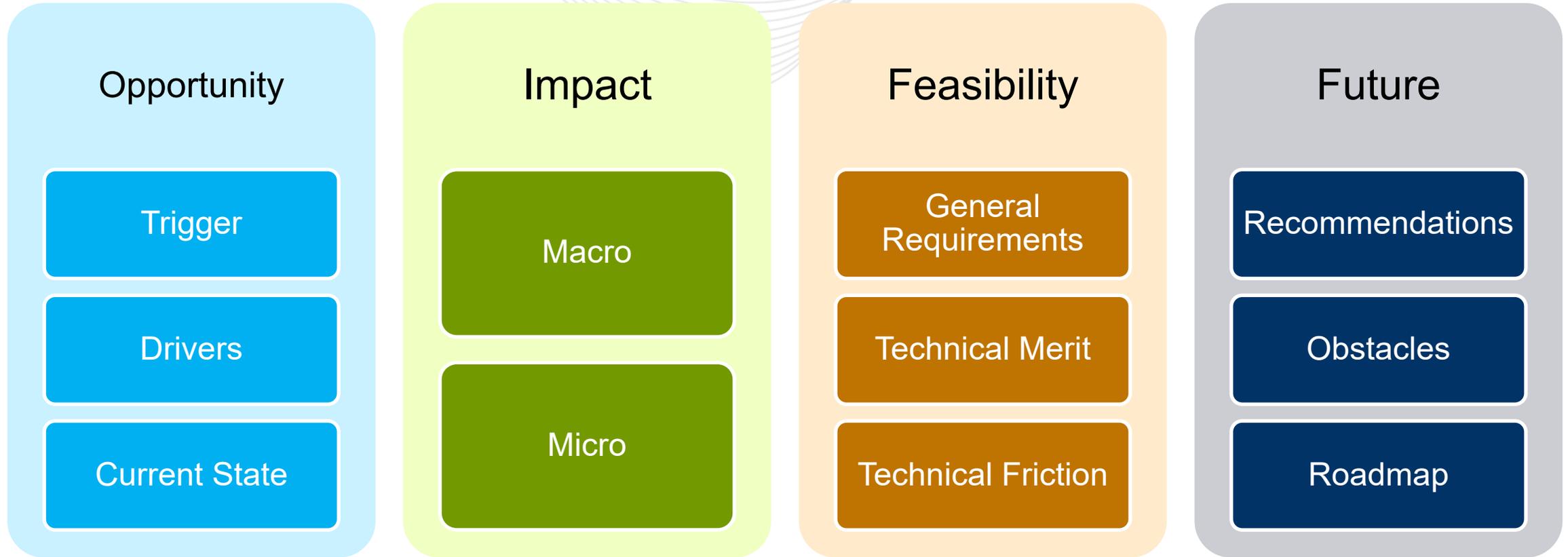
Aid for determining which technologies will be prioritized for more detailed evaluation.

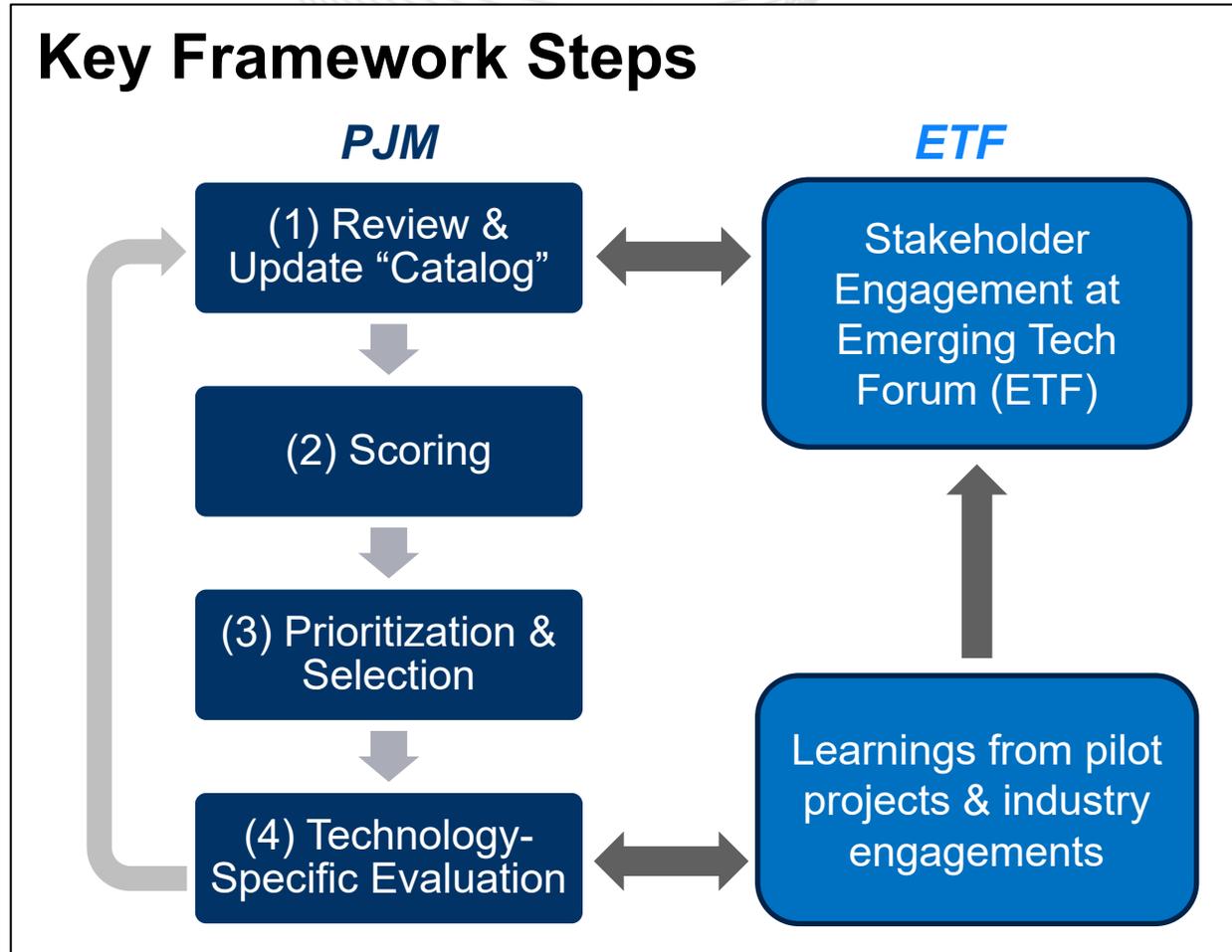
**Maturity** parameters measure the level of technology exploration and demonstration in industry as a whole and at PJM.

**Value** parameters measure alignment with PJM’s mission of enhancing reliability and efficiency, and internal & external drivers for PJM to evaluate the technology.

	Parameter	Scoring Criteria	Weight
<b>Maturity (0-9)</b>	Technology Demonstration in Industry	0 - Developed and evaluated by academia, national labs. 1 - Demonstrated through an industry pilot project. 2 - Commercially deployed in other areas of the world. 3 - Commercially deployed in other area of the United States.	1.5
	Technology Evaluation at PJM to Date	0 - PJM staff has not yet evaluated the technology. 1 - PJM staff has conceptually evaluated the technology. 2 - Cross-divisional PJM staff have evaluated the technology and developed preliminary design and/or implementation requirements. 3 - PJM has engaged in a pilot project involving the technology.	1.5
<b>Value (0-9)</b>	Value Added to PJM as a Company	<i>Add up for all that apply:</i> 0 - Little to no value to PJM as a company. 1 - Ability to significantly enhance reliability. 1 - Enhances efficiency (reduces congestion, streamlines processes). 1 - Adds flexibility (opportunities for members / new technology provider)	0.50
	PJM's Role in Enabling Technology Deployment	1 - Member-driven, PJM action not required to enable 2 - Member-driven, PJM action may required to enable 2 - PJM-driven, may enable member-driven innovation	0.50
	External Drivers: Level of Interest from Emerging Technologies Forum Stakeholder Survey	0 - Low 1 - Medium 2 - High	1.00
	Aligns with Corporate Strategy	0 - No 1 - Yes, Indirect but logical alignment with corporate strategy 2 - Yes, Direct alignment with corporate strategy	0.33
	Percent of "actively considering the impact of technology in next 5 years" on Internal Emerging Technology Survey	0 - Less than 25% 1 - 25% to 49% 2 - 50% to 74% 3 - Greater than 75%	0.33
	Priority on Internal Emerging Technology Survey	0 - Low 1 - Medium 2 - High	0.33







- **Current Status**

- [Excel sheet](#) with display of current:

- ETF Emerging Technologies Catalog
- PJM Advanced Technology Pilot Program Projects

- **Future Plans for 2022**

- Create page similar to “Issue Tracking” including information in spreadsheet

- Make catalog interactive by including

- Links to educational materials
- Living survey where stakeholders can submit information about emerging technologies of interest

- Meeting Center
- Critical Issue Fast Path - Minimum Offer Price Rule
- Pandemic Coordination
- Committees ▾
- User Groups ▾
- Forums ▲**
- eDART Forum
- Tech Change Forum
- Emerging Technologies Forum**
- Nuclear Generation Owner Forum
- Stakeholder Process Forum
- Subcommittees ▾
- Task Forces ▾
- Closed Groups
- Issue Tracking

Home ▶ Committees & Groups ▶ Forums ▶ Emerging Technologies Forum



## Emerging Technologies Forum

The Emerging Technologies Forum (ETF) is a group established to support PJM's Advanced Technology Pilot Program (ATPP) which provides a testing ground to study the viability of integrating emerging technologies that enhance system reliability, operational and market efficiency, and resilience. The ETF will provide a centralized, open forum for education on emerging grid technologies; identification of issues that should be explored concerning operations, planning and markets; and recommendations for addressing those impacts. This forum will provide enhanced transparency with regard to PJM's ATPP, will be an information-sharing conduit for technology vendors and proponents to share the characteristics and benefits of their technology, and for stakeholders to share questions and considerations for implementing such technologies.

The ETF shall provide informational reporting to the Markets and Reliability Committee, and the Planning, Operating and Market Implementation committees, as appropriate. The Planning, Operating and Market Implementation committees will have the ability to direct matters to this forum.

**Chair/Facilitator:** [Danielle Croop](#)

**Secretary:** [Yuri Smolanitsky](#)

During the meeting, if you are experiencing issues with connectivity or teleconference, please contact [Meeting Support](#). For registration issues, [contact PJM](#).

	Date
<a href="#">Charter</a>	6.25.2020



### CONTACT INFORMATION



(866) 400-8980

(610) 666-8980

[Member Relations](#)

### RELATED INFORMATION

[Facilitator Feedback Form](#)

[Opportunity Cost Calculator](#)

[M34](#)

[Committee Structure Diagram](#)

**Emerging Technologies Dashboard Link**

- **Any additional information that would be helpful for:**
  - a. Understanding or enhancing PJM Emerging Technologies Framework?
  - b. Inclusion on the Emerging Technologies Dashboard?

Facilitator:  
Danielle Croop, [Danielle.Croop@pjm.com](mailto:Danielle.Croop@pjm.com)

Secretary:  
Yuri Smolanitsky, [Yuri.Smolanitsky@pjm.com](mailto:Yuri.Smolanitsky@pjm.com)

Presenter:  
Natalie Tacka, [Natalie.Tacka@pjm.com](mailto:Natalie.Tacka@pjm.com)



### Member Hotline

(610) 666 – 8980

(866) 400 – 8980

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