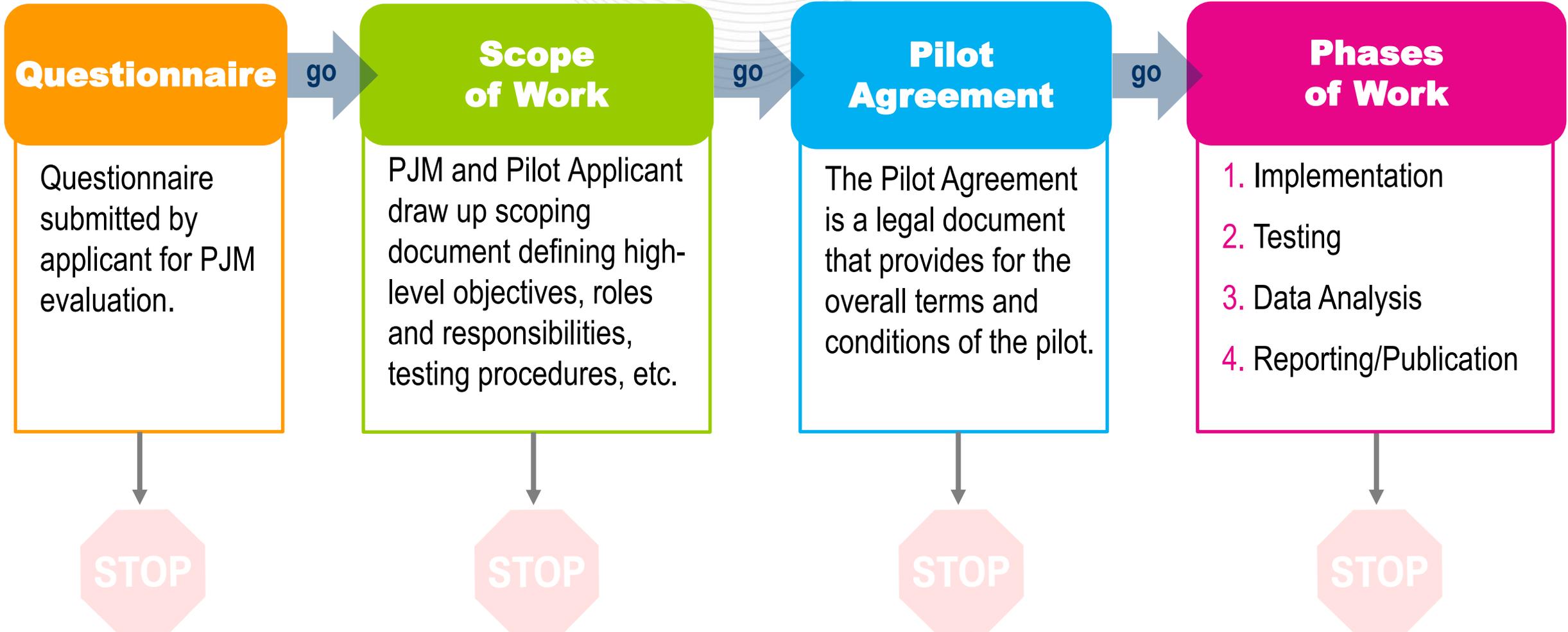




Advanced Technology Pilot Program - Update

Scott Baker
Applied Innovation

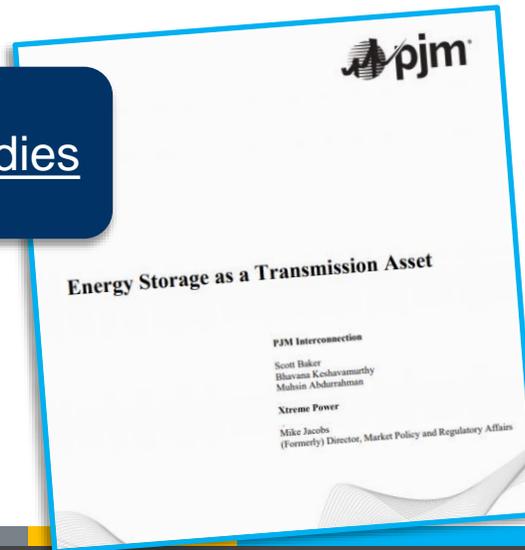
Emerging Technologies Forum
December 7, 2021



New Market Concepts



Collaborative Studies



Technology Deployment



Value to PJM & Membership

- Estimated value to competitive markets, operations, transmission planning, and other services provided to membership and industry

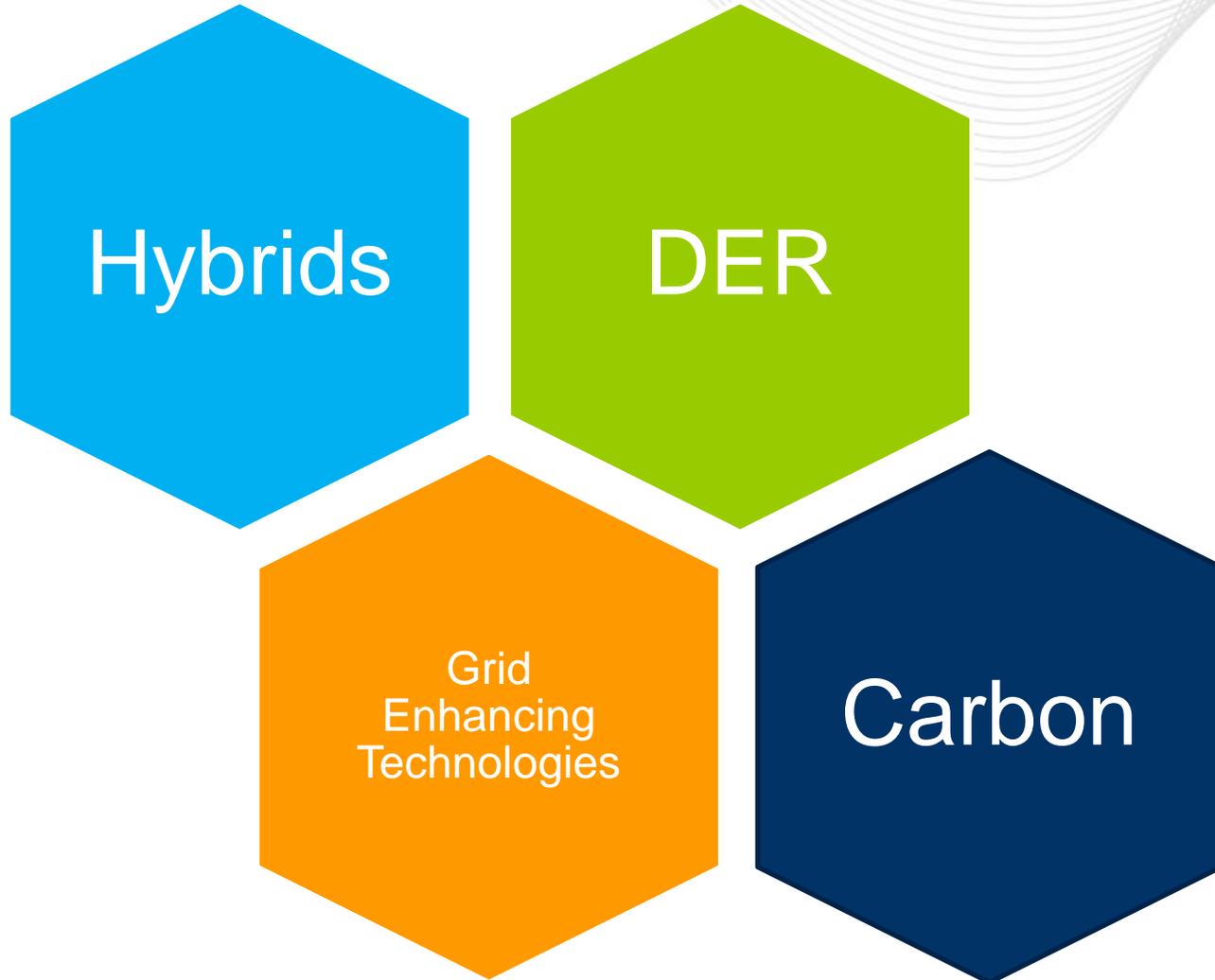
Feasibility

- Funding; Capability of Pilot partners
- Technology, legal, or regulatory risk

Stakeholder Input

- Direct member feedback through Emerging Technology Forum, other venues

Emerging Technologies Evaluation Framework



Questionnaires Received in 2021

- Low-speed wind turbine technology
- Steam turbine efficiency retrofit technology
- Advanced transmission line monitoring
- Unconventional, non-chemical long-duration storage
- Microgrids



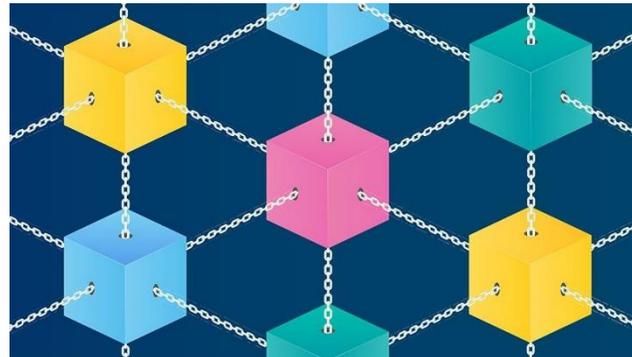
NC Electric Cooperatives
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NCEMC



Microsoft



Energy Web Foundation

[Pilots.pjm.com](https://pilot.pjm.com)

[Questionnaire](#)

[Results](#)

[Advanced Technology Pilot Program](#)

The screenshot shows the PJM website's 'markets & operations' page. The navigation bar includes 'about pjm', 'training', 'committees & groups', 'planning', 'markets & operations', and 'library'. The 'markets & operations' menu item is circled in orange. The main content area features a section titled 'Advanced Technology Pilot Program' which is also circled in orange. This section includes a sub-header 'Advanced Tech markets & operations' and a green button for 'Advanced Tech Initiatives Brochure'. Below this, there is a paragraph of text and a bulleted list of key findings. The left sidebar contains a list of navigation items, with 'Advanced Technology Pilot Program' circled in orange. The right sidebar contains 'RELATED INFORMATION' and 'CONTACT INFORMATION' sections.

Operational Data
Data Directory
Interregional Data Map
PJM Tools
Energy Market
Capacity Market (RPM)
Financial Transmission Rights
Ancillary Services
Demand Response
Billing, Settlements & Credit
System Operations
Advanced Technology Pilot Program
Reference Documents & Manuals

Home » Markets & Operations » Advanced Technology Pilot Program

Advanced Tech markets & operations

Advanced Tech Initiatives Brochure

PJM embraces innovation and encourages key players in the power industry to explore technologies that could shape the future of the industry. Through PJM's Advanced Technology Pilot program, initiatives and projects can be designed to allow resources, regardless of their capacity, to participate as non-revenue-earning market participants. Alternatively, projects that will participate and earn revenue in the market under existing rules collaborate with PJM to use information gained through the pilot to enhance the quality of its wholesale electricity markets.

The technologies explored through the pilot program have demonstrated value to both PJM and the industry as a whole. For example:

- PJM provided feedback to the Federal Energy Regulatory Commission (FERC) on the development of FERC Order 755 (performance-based regulation) as a result of its pilot of a one megawatt battery project (owned by AES Energy Services LLC) that offers regulation service in the PJM market. PJM also used knowledge gained from this pilot project to be fully prepared as the first independent system operator to implement performance-based regulation.
- PJM also provided feedback to the FERC on the development of FERC Order 745 (Demand Response compensation) based on results from a grid-interactive water heater project with the Steffes Corporation and VCharge's "SmartBricks" (ceramic brick heaters) that participate in the Regulation Market, among other demand response projects.

RELATED INFORMATION

- PDF PJM's Advanced Technology Initiative
- WEB Industry Groups
- WEB Pilot Projects

CONTACT INFORMATION

Member Community

(866) 400-8980
(610) 666-8980
[Member Relations](#)

Facilitator:
Danielle Croop,
Danielle.Croop@pjm.com

Secretary:
Yuri Smolanitsky,
Yuri.Smolanitsky@pjm.com

Presenter:
Scott Baker, Scott.Baker@pjm.com

Advanced Technology Pilot Program



Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com