

# Energy Storage Resource Capacity Market Capability

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Applied Innovation  
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Market Implementation Committee

**Initial proposed PJM Energy Storage Resource (ESR) participation model**

**Live  
Dec. 3**

**Oct. 17 FERC Acceptance Order**

*EL 19-100*

**Sustained Output Duration and Capacity Capability (“10 hour rule”)**

**1. RPM requirement for all resources in tariff**

**Dec. 12  
filing**

**2. Paper hearing on capacity capability of ESR**

**Mar. 11  
brief**

# Work Plan: Market Implementation Committee

## MIC

- PJM preliminary thoughts based on stakeholder input
- Additional feedback from stakeholders

- FERC Response Due

January 30<sup>th</sup>

February 5<sup>th</sup>

February 24<sup>th</sup>

March 11<sup>th</sup>

## MIC Special Session

- Education
- Stakeholder input

## MIC Special Session

- PJM final thoughts
- Additional feedback from stakeholders

- 10 hour rule (status quo)
- 4 hour rule (1x stakeholder proposal)
- Effective Load Carrying Capability (2x stakeholder proposals)
  - “ELCC” is an established tool that evaluates reliability in each hour of a simulated year and compares a resource mix scenario with limited resources against one with unlimited resources.
  - The result shows how much reliability value a limited resource has relative to a perfect unlimited resource.

	<b>“10 hour rule” (Status Quo)</b>	<b>“4 hour rule”</b>	<b>Effective Load Carrying Capability</b>
<b>Capacity market capability calculation method</b>	The power output a resource can provide for 10 continuous hours	The power output a resource can provide for 4 continuous hours	Dependent on effective load carrying capability analysis, which tends to decrease as deployment of limited duration resources increases
<b>Example</b>	100 MW, 400 MWh battery can provide 40 MW for 10 continuous hours → 40 MW capability	100 MW, 400 MWh battery can provide 100 MW for 4 continuous hours → 100 MW	ELCC analysis shows that a 100 MW, 400 MWh energy storage resource has an 80% ELCC → 80 MW