



## Energy Storage Resources in RPM

## Possible Solution Components

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# Possible Solution Components

- Capacity Value: How to determine UCAP
- Applicability: what types of resources rules apply to
- Scheduling method
- Cost Determination
- Emergency Procedures Obligations
- Performance Assessment
- Settlements/Penalties
- Immature resources/transition mechanisms

The next few slides have some notes on few of the above. Examples are just that, examples. They are not meant to be exclusive, and we are not advocating for any of them. In fact, some of them are pretty bad ideas.



# Capacity Value

**For a given ICAP and energy capacity, what is the UCAP?**

## **Example options:**

- Discount ICAP based on outage rates, e.g., most gen
- UCAP is fraction of ICAP, e.g., intermittent resources
- Administratively determined, e.g., Energy Efficiency
- Inferior product with limited clearing and price separation, e.g., sub-Annual DR.



# Applicability

**What resource types can/must use these rules?**

**Example options:**

- Available to all
- All energy-limited resources
- All storage
- Storage scheduled through normal market operations



# Scheduling

**How does PJM call upon the capacity commitment during routine operations?**

**Example options:**

- Administrative/model based (e.g., pumped hydro)
- Day ahead must offer (e.g., most gen)
- Emergency only (e.g., DR)



# Thank You

Feedback welcomed

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