

Behind the Generator Load: Issues

MIC

3/9/2022

IMM



Monitoring Analytics

Changes to market

- **Increased emissions**
 - **Low emissions generation dedicated to new load that would not be served in PJM by emitting generation**
- **Impact on state regulatory authority over load in states?**
- **Costs not paid by proposed load:**
 - **Distribution charges to local EDC**
 - **Transmission charges**
 - **Ancillary services charges**
 - **Capacity market charges**

Definition of capacity

- **Current:**
 - **1,000 MW nuclear plant**
 - **1,000 MW of ICAP**
 - **MWh of very low cost energy = $8,760 * 1,000 * (1-EFORd)$**
- **Proposed:**
 - **1,000 MW nuclear plant**
 - **1,000 MW of load (this is an example)**
 - **1,000 MW of ICAP**
 - **MWh of very low cost energy = 0**

Definition of capacity

- **Current:**
 - **1,000 MW nuclear plant**
 - **1,000 MW of ICAP**
 - **MWh of very low cost energy = $8,760 * 1,000 * (1-EFORd)$**
- **Proposed:**
 - **1,000 MW nuclear plant**
 - **500 MW of load (this is an example)**
 - **1,000 MW of ICAP**
 - **MWh of very low cost energy = $8,760 * 500 * (1 - EFORd)$**

Definition of capacity

- **Is capacity only about 1 or 5 hours per year?**
- **Is a nuclear plant that provides energy for only 5 hours per year equivalent to a nuclear plant that provides energy for 8,760 hours per year?**
- **What is the ELCC of a nuclear plant that provides energy for only 5 hours per year?**
- **What is the impact on the ELCCs of renewable resources and thermal resources if a nuclear plant converts from 8,760 energy to 5 hour energy?**
- **Can the behind the generator load be served if the nuclear plant is not producing?**

Alternate design

- **Current:**
 - **1,000 MW nuclear plant**
 - **1,000 MW of ICAP**
 - **MWh of very low cost energy = $8,760 * 1,000 * (1 - \text{EFORd})$**
- **Proposed:**
 - **1,000 MW nuclear plant**
 - **500 MW of load**
 - **500 MW of ICAP**
 - **MWh of very low cost energy = $8,760 * 500 * (1 - \text{EFORd})$**

Monitoring Analytics, LLC

2621 Van Buren Avenue

Suite 160

Eagleville, PA

19403

(610) 271-8050

MA@monitoringanalytics.com

www.MonitoringAnalytics.com

