

# What is Capacity?

Electricity is unique because it must be generated and delivered the moment it is needed. Unlike other commodities, it cannot be stored in large amounts for later use. To ensure reliability, especially during extreme conditions like heat waves or cold snaps, grid operators must secure generation capacity to meet forecasted demand.

For the *Pennsylvania-Jersey-Maryland Interconnection (PJM)*, our regional grid operator, this is done through an annual competitive auction called the *Base Residual Auction (BRA)* where power plants bid to supply capacity for a future period—in this case, the 2025/2026 school year.

# Why Are Capacity Costs Increasing?

The latest PJM auction showed a dramatic increase in capacity prices due to several factors:

- 1. **Higher Demand for Reliable Power** More electric vehicles, data centers, and advanced technologies are increasing electricity demand.
- 2. **Retirement of Older Power Plants** Many coal and older natural gas plants are shutting down due to regulations and economic pressures, reducing supply and driving up prices.
- 3. Slow Growth of New Generation While renewable energy is expanding, it is intermittent. PJM must secure backup resources like natural gas and battery storage, which are costly to maintain and operate.
- 4. **Increased Reserve Requirements** PJM has raised required reserve margins to improve reliability, meaning more power must be secured in advance.
- 5. Effective Load Carrying Capability (ELCC) and Technology Derating PJM now assigns lower capacity values to power plants based on their technology. For example, a natural gas combined cycle plant that previously offered 100 MW could now only bid 79 MW, reducing supply.
- 6. Supply & Demand Shift Higher demand forecasts and 20% less available capacity led to record-high auction prices, with <u>capacity costs rising from \$29.50 to \$270.35/MW-Day—an over 800% increase.</u>

### **How Will This Impact EPC Schools?**

This increase impacts all 65 million PJM customers from New Jersey to Chicago. <u>EPC schools should prepare</u> for higher electricity expenses starting in June 2025.

Change in Cost Snapshot - All EPC Accounts					
Fiscal Year	Capacity Obligation (kW)	Annual Capacity Cost	Annual Energy Cost	Total (Capacity + Energy)	Effective \$/kWh Rate
23-24	40,486	\$606,128	\$8,055,031	\$8,661,159	\$0.0362
24-25	46,867	\$614,202	\$10,216,265	\$10,830,467	\$0.0453
25-26	43,493	\$4,097,353	\$13,458,116	\$17,555,469	\$0.0734

Capacity costs are unique to each district, and IGS has performed a breakdown of the financial impact for you. **Please contact Maha to review your district's analysis:** <u>maha.kashani@igs.com</u> or 937-972-0379. *Southwest Ohio EPC General Membership Meeting – March 2025* 



# **How Is Your Capacity Obligation Set?**

Your **capacity obligation is determined between June 1 and September 30**, based on your energy use during PJM's five highest peak hours each year, typically on the hottest days. AES Ohio calculates your *Peak Load Contribution (PLC)* by averaging your usage during these hours. Starting June 1, your new annual obligation is then multiplied by the capacity price and the number of days in your billing cycle.

#### What Can Schools Do?

While districts cannot control the market prices for Capacity, there are steps that can be taken to reduce your capacity obligations and costs.

- 1. **Peak Day Notifications** IGS alerts customers when electricity demand is expected to peak, typically on the hottest summer days. Reducing usage during these hours helps lower your PLC and future capacity costs. Please contact Maha to be added to this email distribution.
- 2. Energy Efficiency Measures Now is a great time to review options to upgrade to LED lighting, optimize HVAC systems, and implement energy management systems to cut demand during peak periods.
- 3. **Demand Response Programs** Schools can earn compensation by reducing electricity use during peak times when the grid is strained.
- 4. **Distributed Generation** On-site solutions like solar panels and battery storage can offset peak demand, reducing reliance on the grid. These are typically long term savings plays.
- 5. **Plan for Budget Adjustments** Given the unavoidable increase in capacity costs, schools should proactively adjust energy budgets and five-year forecasts to accommodate these changes.

While this change in cost opens the door for districts to implement new measures to reduce their obligation and capacity costs, it is important that EPC districts be thoughtful in the evaluation of any solutions, measures or programs that are presented to help lower costs.

### **Complimentary Expert Analysis**

To help EPC districts make informed, confident decisions, EPC and IGS are offering objective reviews of proposals claiming to reduce electricity costs. While many vendors are reputable, we know some districts have received misleading savings or ROI projections. Our goal is to help ensure all proposals are thoroughly vetted and economically sound.

If you'd like us to evaluate a proposal or solution for your district, please contact Ken Swink directly:

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