

Frequently Asked Questions:

Get Paid to Reduce Energy in PJM with Enel X

Enel X helps thousands of organizations throughout PJM earn money, save on energy costs, and mitigate carbon emissions with demand response (DR). Our deep market expertise and proprietary energy intelligence software provide the guidance and tools today’s businesses need to maximize their DR earnings potential. With Enel X, participating in demand response has never been easier.

What is demand response?

Demand response provides a no-risk, no-cost opportunity for commercial, institutional, and industrial businesses throughout PJM to earn money and drive energy savings while helping to maintain reliable electricity throughout the region. When PJM Interconnection determines there is not enough supply to meet demand and there is a risk of a blackout, a dispatch is transmitted to Enel X’s DR network and participating businesses reduce their energy usage for a short period of time. Participants earn recurring capacity payments for agreeing to curtail electricity consumption in response to abnormally high demand and additional energy payments based on their performance during dispatches.

How does my business benefit?

- > Maximize payments to your bottom line: Enel X manages your participation from start to finish, ensuring you earn the highest possible financial reward. Since 2003, our customers have earned more than \$1B in payments.
- > Protect your operations: DR is one of the last lines of defense when brownouts or blackouts are imminent. The advanced notice you receive from DR provides a window to prepare and prevent costly damage to your processes and equipment.
- > Reduce energy costs today: Offset some or all costly peak demand spikes, monitor energy usage trends over

About PJM’s Emergency Load Response Program (ELRP)

	Base Capacity (BC)	Capacity Performance (CP)
Months	June – September	June – May
Availability	DY 2018/19 & 2019/20 only	DY 2018/19 onward
Hours	10 a.m. – 10 p.m. EPT	June – October and following May, 10 a.m. – 10 p.m. & November – April, 6 a.m. – 9 p.m. EPT
Dispatch Duration	10 hours maximum (3 – 4 hours on average)	Unlimited
Dispatch Notification	30 minutes (PJM may allow for 60- or 120-minute exemptions in special circumstances)	
Payments	Capacity (for being on stand-by) & Energy (for event performance)	

time, and spot opportunities to better manage energy costs with our real-time energy intelligence software.

- > Support your community: Your participation helps maintain reliable electricity throughout PJM and provides a clean, cost-effective alternative to building new power plants in the community.

What is the DR opportunity in PJM?

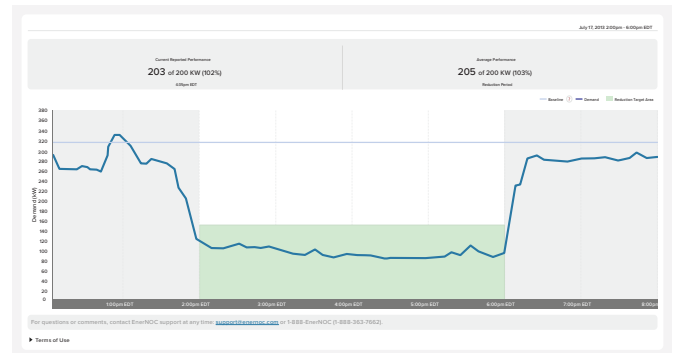
As those who were impacted by 2014's extreme weather event known as the Polar Vortex experienced firsthand, grid-related emergencies are not isolated to summer months. PJM has since implemented measures to ensure greater reliability of generation resources during winter months, but also recognizes the need to have a more dynamic resource in their energy supply stack throughout the year. DR offers clean, reliable, and direct relief to the grid that would otherwise require the use of high investment resources (e.g., peaking power plants). Participation in DR not only prevents rolling blackouts, but keeps consumers informed of important grid conditions and reduces energy costs for ratepayers.

As of June 2020, Capacity Performance (CP) will be the one year-round product offered in the Emergency Load Response Program (ELRP). However, until then, Enel X is also offering the summer-only Base Capacity (BC) product to help participating businesses adapt to PJM's longer season.

How do I participate?

Enel X makes participation easy. We take care of the complex details so you can stay focused on running your business.

1. Our local experts work with you to identify your energy reduction potential and create a strategy that delivers maximum value with minimum impact on your operations. We outline these measures in a detailed dispatch participation plan.
2. We may install necessary metering devices at your facility to establish communication with our Network Operations Center (NOC), so we can monitor your energy consumption levels in real-time.
3. Your site is then enrolled and ready to respond if and when a dispatch begins. At any time during a dispatch, you can log in to view your performance in real-time. Throughout the process, we fully manage enrollment, measurement, verification, and payments on your behalf.



Enel X provides on-demand access to your real-time energy data—giving you the information you need to perform your best during demand response events and to better manage overall energy costs.

What can I expect during a dispatch?

- > **Notification:** When PJM anticipates the need for support, it dispatches the Enel X network into action. Enel X notifies you via email and SMS informing you when the dispatch will begin.
- > **Response:** At the start of the dispatch, your facility reduces its electricity usage according to your pre-determined dispatch participation plan—either manually, or automatically through the NOC.
- > **Support:** Before, during, and after a dispatch, the NOC remains in communication with your facility. Our team is available to answer questions and help ensure that you achieve the highest possible levels of performance and payments.

What types of reductions can I make?

Enel X has extensive experience creating reduction strategies that work within the operational limitations of a wide variety of unique facilities, including cold storage, manufacturers, food processors, universities, malls, office buildings and more. Common reduction examples include:

- > Reduce non-essential lighting
- > Modify manufacturing processes
- > Adjust HVAC equipment
- > Dial back pumps
- > Change settings in industrial freezers

Our customers find that many energy-intensive processes can simply be shifted by a few hours to facilitate dispatch

participation. And if you have a generator set, we can help ensure its compliance for use in DR. Ask us about our experience working with customers like you.

What triggers an emergency dispatch?

Emergency dispatches occur when demand for electricity threatens to outstrip supply, creating a reliability issue. This situation often occurs on extremely hot days in the summer when increased HVAC usage causes demand to reach unusually high levels, typically resulting in transmission congestion. In other cases, DR dispatches can be caused by a reduction in available supply from, for example, a generator or power plant tripping offline or running out of fuel. In either case, very specific reliability conditions have to be met in order for PJM to dispatch its DR network. When dispatched, you are responding to a very real grid emergency. Your participation is critical for ensuring that the lights stay on in your community.

How often will I be dispatched?

Your PJM zone, seasonal weather, grid congestion and other local factors will influence how often you are dispatched. Historically, PJM has called 1–2 dispatches per year in any given zone. If an emergency dispatch is not called, PJM requires us to dispatch participants simultaneously for a one-hour audit to demonstrate performance capabilities.

When were recent emergencies declared?

Since 2007, PJM has called a total of 14 emergency dispatches on summer afternoons during times of unseasonably warm weather and 7 in the winter, all during the 2014 Polar Vortex. There have been no emergency dispatches since 2015, which is largely attributable to PJM's healthy reserve margin and stricter non-performance penalties for traditional generators.

How are capacity and energy baselines calculated?

PJM uses different methodologies to calculate capacity and energy baselines for participants. Enel X's software includes individual performance targets based on the PJM-defined baselines.

- > **Summer baseline for capacity payments:** equal to the Peak Load Contribution (PLC). The PLC value is determined based on the participant's average demand during the 5 highest peak hours of the 5 highest peak days on the entire PJM grid during the previous summer.
- > **Winter baseline for capacity payments:** equal to the Winter Peak Load (WVPL). The WVPL value is similar to the PLC, however it is based on an individual participant's peak demand between the hours of 6am and 9pm EST on the 5 highest peak days from the previous winter.
- > **Baseline for energy payments (all seasons):** based on a participant's average demand during the dispatch hours on the preceding days. Participants are compensated for any real-time reductions below the energy baseline.