

WHAT YOU SHOULD KNOW ABOUT DEMAND MANAGEMENT STRATEGIES



If you use electricity, capacity charges are a fact of life. Although it's not possible to avoid them altogether, participating in demand management programs can help to manage costs.

WHAT IS DEMAND?

When it comes to electricity, there are two important factors to keep in mind: **Consumption**, which is the amount of electricity that you use (measured in kWh), and **Demand**, which is the rate at which you consume electricity (measured in kW). The **Independent System Operator of New England (ISO-NE)** maintains and operates the interstate electricity grid in New England, and is responsible for ensuring current and future grid reliability. It is their job to make sure that there isn't just enough electricity to meet consumption needs, but that it is available at times when demand is the greatest.

WHAT IS DEMAND-SIDE MANAGEMENT?

ISO-NE manages its demand needs in two unique ways:

1. To maintain **current** demand, ISO-NE operates a formal "Demand Response" program in which participants are incentivized to reduce demand at times when the grid is stressed.
2. To ensure generation capacity will meet **future** demand, ISO-NE operates the **Forward Capacity Market (FCM)**, which procures capacity from generators three years ahead. The cost of this program is assessed to all electricity users. On your electric bill, it may be lumped into your total supply cost or itemized on your bill as "FCM" or "Capacity" charges. (For a deeper dive into capacity costs, check out our [CES University on FCM](#)).



HOW CAN I REDUCE MY DEMAND-SIDE COSTS?

OPTION 1 FORMAL DEMAND RESPONSE PROGRAMS

Under Demand Response programs, electricity users receive payment in exchange for promised reductions in their usage during times when the electricity grid is under the most stress. Reductions can come from load curtailment, or behind-the-meter generation.

Though offered through ISO-NE, interested participants must enroll through a **Curtailment Service Provider (CSP)**, much like buying electricity through a competitive supplier. Depending on availability in your area, you may also be able to enroll in multiple programs to maximize benefits. Some utilities also offer analogous demand response programs.

HOW CES CAN HELP CSP fees can vary widely, and additional charges, such as metering fees, can erode revenue. For our clients, CES conducts a competitive bid process among all eligible CSPs that is designed to achieve the most favorable financial and contract terms available in the market. CES also provides contract analysis and negotiation services as well as auditing to verify that payments are correct.

The rules, players, and contracts associated with these formal Demand Response programs are constantly changing. It is more important than ever to seek independent advice before making a long-term commitment to reduce load.



OPTION 2 CES SELF-HELP

Each of your individual electricity accounts is assigned a capacity tag or “cap tag,” which determines your share of total capacity costs for the region. Utilities set capacity tags based on the amount of electricity each account uses during the “annual system peak,” or the single hour during the year when demand for power is the greatest. The peak day usually occurs on the hottest day of summer, when end users require additional electricity for cooling. Reducing or shifting load during this time can significantly impact monthly capacity costs.

HOW CES CAN HELP Through our **Self-Help** program, CES monitors for peak day conditions and alerts participants to curtail electric use by turning off equipment, shutting off air conditioning, or taking other load-reducing measures during potential peaks. The program is completely voluntary, and participants get to keep 100% of the benefit. There are no CSP fees, and no audits or paperwork associated with the process. If you're a CES client with an interval metered account, all you need to do to sign up for Self-Help is talk to your energy advisor.

HOW IT WORKS

CONTINUOUS MONITORING

It is difficult to predict with certainty when the annual system peak will occur, so during the summer months, CES monitors weather forecasts and load conditions in New England. When we see a stretch of hot, humid weather in the 5-day forecast where we think loads are likely to be high, we send out an informational email to Self-Help participants so that they can be ready for possible peak conditions.

ACTION ALERTS

When loads look like they may be peaking later in the afternoon, CES sends out **Action Alerts** informing participants whether or not they should reduce loads during the predicted peak window (usually 2-4 hours).

HISTORICAL SYSTEM PEAKS

YEAR	MONTH	DATE	DAY	SYSTEM PEAK (MW)	HOURL	TEMP
2006	AUG	2	Wed	28,038	2-3pm	94°
2007	AUG	3	Fri	25,773	2-3pm	92°
2008	JUN	10	Tue	25,691	4-5pm	89°
2009	AUG	18	Tue	24,708	2-3pm	90°
2010	JUL	6	Tue	26,701	2-3pm	95°
2011	JUL	22	Fri	27,312	2-3pm	99°
2012	JUL	17	Tue	25,543	4-5pm	93°
2013	JUL	19	Fri	26,911	4-5pm	95°
2014	JUL	2	Wed	24,068	2-3pm	88°
2015	JUL	29	Wed	24,052	4-5pm	89°
2016	AUG	12	Fri	25,111	2-3pm	93°
2017	JUN	13	Tue	23,508	4-5pm	91°
2018	AUG	29	Wed	25,528	4-5pm	93°

PROVEN SUCCESS

Although our past success is no guarantee that we will always be able to predict the peak, our track record speaks for itself. **With more than 200 enrolled in the program, CES has saved our clients millions of dollars in reduced capacity charges.**

