

PEAK DEMAND MANAGEMENT IN NEW ENGLAND

A DYNAMIC SOLUTION TO MANAGING PEAK DEMAND CHARGES



WHAT ARE PEAK DEMAND (CAPACITY) CHARGES?

Every month your business is charged a fee—called a capacity charge or peak charge—based on how much electricity you consumed during the period when electricity demand was at its highest.

HOW ARE THEY ASSESSED?

The New England grid operator, ISO-NE, assesses capacity costs based upon each end user's kW or MW consumed during the peak consumption hour of the entire New England system on an annual basis. The basic value of capacity, in \$/kW month, is determined by an ISO-NE auction process and these values are known 3 years in advance of any given year.

While capacity costs are determined by the ISO, the charges you see on your electricity bill are determined by your supplier. These charges therefore vary from supplier to supplier.



CAPACITY CHARGES ARE A SIGNIFICANT PART OF YOUR ENERGY BILL

Capacity charges can account for up to 30% of your organization's monthly electric bill.

Contracted	Charges			
	Contracted Charges	8,735,680.00	\$0.049789	\$434,940.
	Subtotal			\$434,940.
Pass-through	gh And Settlement Charges			
	Positive Hourly Imbalance Energy	1,037,907.66	\$0.025768	\$26,745.
	Negative Hourly Imbalance Energy	-354,586.90	\$0.057911	-\$20,534.
	A/S (Ancillary Services)	9,419,000.76	\$0.000750	\$7,064.
	ISO (Independent System Operator Fe	9,419,000.76	\$0.001240	\$11,676.
	BOR Deviation INC (Out of Market)	1,037,907.66	\$0.002979	\$3,091.
	BOR Deviation DEC (Out of Market)	-354,586.90	-\$0.003000	\$1,063.
	GEND (Generation Deactivation)	9,419,000.76	\$0.001222	\$11,506.
	RPS (Renewable Portfolio Standard)	9,419,000.76	\$0.000246	\$2,320.
	BOR Reliability	9,419,000.76	\$0.000300	\$2,825.
	CAP Charge - Tariff			\$65,920.
	NT Charge - Tariff			\$23,844.
	Subtotal			\$135,524.9

ICAP Charge - Tariff

\$65,920.40



CAPACITY CHARGES ARE ON THE RISE IN NEW ENGLAND

This has been driven by closure of older power plant and other infrastructure constraints. The forward value of capacity has doubled in 2016 in constrained zones in the Boston area and the entire New England region will experience even higher capacity charges in the 2017-2020 period. These elevated values of capacity are already known as a result of the ISO-NE forward auction mechanism.



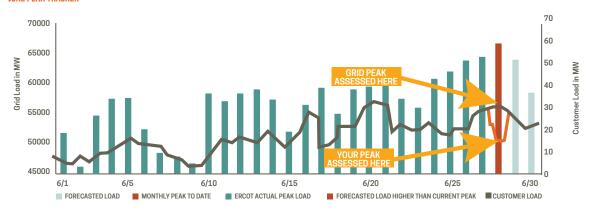


HOW CAN YOUR BUSINESS LOWER ITS CAPACITY CHARGES?

If you can curtail your energy consumption during periods of peak system load, you will lower your capacity value (cap tag) which in turn will potentially reduce your power costs. Since the peak hour can only be confirmed after the summer peak periods are over, any end user consumption reduction made during the peak hour will be recognized with reduced charges on your power bill in the following year.

CPower's Peak Demand Management service can help you make this happen.

JUNE PEAK TRACKER



WHO IS CPOWER?

CPower is an energy management company.

We create optimized energy management strategies that help businesses streamline their energy usage, offset costs and reach their sustainability goals.

At CPower, we understand that energy management is not a one-size-fits-all endeavor. That's why we take the time to learn about the intricacies of your business. Then we sharpen your energy management strategy with the optimal combination of demand response and demand management of programs.

We're passionate about helping businesses reach their energy management goals and know that there is no stronger resource to achieve those goals than the collaborative relationship we share with our customers.







CPOWER PROVIDES ENERGY SOLUTIONS. DEMAND MANAGEMENT IS WHAT WE DO BEST.

WE TAILOR EACH DEMAND MANAGEMENT PROGRAM TO SUIT THE UNIQUE AND COMPLEX NEEDS OF INDIVIDUAL ORGANIZATIONS.

We only do commercial and industrial demand management. Our mission is to help businesses streamline how they use power and see that they are rewarded for their efforts.

By working closely with your organization on a continual basis, we're able to fine tune your demand management over time, which will maximize your energy savings and ensure you receive the money you deserve for your curtailment efforts.

When it comes to improving how your company uses energy, CPower delivers the kind of demand side results that our competitors who focus on both demand and supply side energy management simply can't match.





PEAK DEMAND MANAGEMENT

CPower's Peak Demand Management solution allows you to lower your capacity charges.

By engaging in peak demand management, your organization can realize combined streams of savings and income from the same basic curtailment action as demand response.

Truly a "one-stop" shop for energy demand management, CPower manages your entire participation in peak demand management in addition to ISO-NE's emergency Demand Response program.

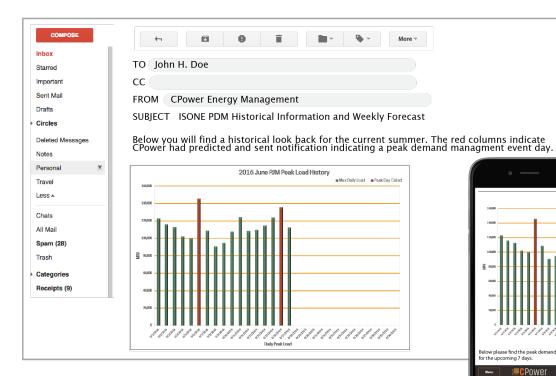






CPOWER'S PEAK DEMAND MANAGEMENT SYSTEM

CPower's peak management system identifies those key hours in advance, thereby alerting you to the year-long savings available, and preparing you to make the necessary short-term reductions in consumption to lower your capacity charges.





Below please find the peak demand outlook for the upcoming 7 days.

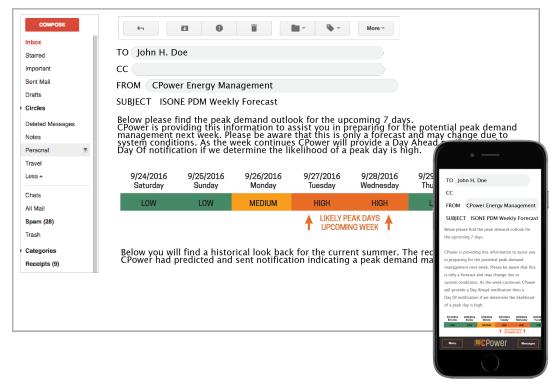
CPOWER'S PEAK DEMAND MANAGEMENT SYSTEM

- Predicts the key hours based on grid-wide electric demands, weather data, historical grid information, and other variables.
- Provides a seven day forecast, identifying likely critical peak days.
- Presents regional, real-time grid load information.
- Provides the information necessary to make an informed decision about when to take actions to reduce electric demand during these advantageous hours.



PREDICTIVE TOOL

CPower's Peak Demand Management gives you predictive insight into potential peak days and hours, allowing you to plan your curtailment so you can lower your capacity charges for the following year.



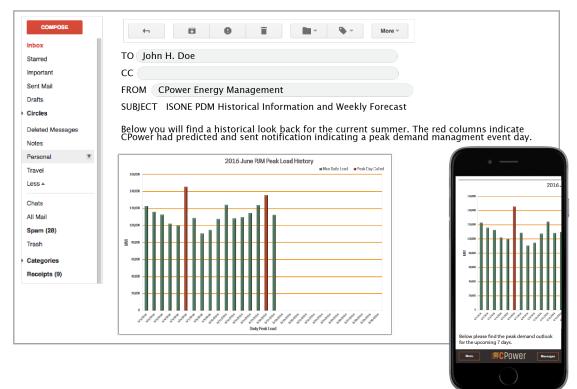
CPower will send you an email the day before a peak day is likely. This will give you 24+ hours to prepare for curtailment.

CPower will send you day-of emails to inform if a peak is taking place or if conditions have changed and the event has been cancelled.



HISTORICAL TOOL

CPower's Peak Demand Management also gives you historical data, alerting you to when a peak day was called and a peak demand notification was sent and.



AUTOMATE. OPTIMIZE.

When it comes to keeping your business running smoothly, you've got a lot on your plate.

When it comes to seamlessly executing your peak demand management with CPower, you've got nothing to worry about.

That's because when you automate your peak demand management, you don't have to do any of the work to curtail your energy consumption.

CPower's Peak Demand Management System makes it easy to earn top dollar for your curtailment efforts.



ISO-NE ICAP QUICK REVIEW

PROGRAM SUMMARY			
Number of Peak Days	1 day (1Hour per day)		
Season Duration	Peaks typically occur in summer		
Season Timing	June 1 - May 31		
Value/MW reduction for 2017-2018	\$84,000 - \$180,000		

CURTAILMENT ESTIMATE SUMMARY				
Avg. # High Calls Per Season	6			
Typical Reduction Window	3 - 4 Hours			

PEAK SHIFT

*Our analysis has shown that with so many consumers now trying to avoid critical peaks, there could be times that the mass curtailment is enough to shift the grid peak to another hour or another day.

CPower accounts for peak shift by issuing a larger curtailment window and additional peak-shift alerts where we see there is a high-risk day.

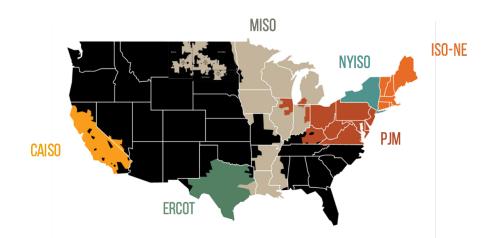


MODEL RESULTS: ISO-NE

Year	Peak Day	Peak Hour	# Calls Summer	# Calls Winter
2003-2004	8/22/2003	15	7	0
2004-2005	8/30/2004	15	6	0
2005-2006	7/27/2005	15	7	0
2006-2007	8/2/2006	15	7	0
2007-2008	8/3/2007	15	5	0
2008-2009	6/10/2008	17	2	0
2009-2010	8/18/2009	15	5	0
2010-2011	7/6/2010	15	7	0
2011-2012	7/22/2011	15	5	0
2012-2013	7/17/2012	17	5	0
2013-2014	7/19/2013	17	6	0
2014-2015	7/2/2014	15	2	0
2015-2016	7/29/2015	17	2	0

CP REGION QUICK COMPARISON

	PJM PLC	ERCOT 4CP	NY ICAP	NE ICAP
# CP Days	5 Days	4 Days (1 per summer month)	1 Day	1 Day
Season Duration	Summer	Summer	Summer, Winter	Year Round
Season Timing	June 1 - Sept 30	June 1 - Sept 30	May 1-Oct31, Nov1-April 30	June1-May31







At CPower, we never stop moving in our pursuit to help your organization master its energy spend.



To get started lowering your capacity charges with CPower's Peak Management System:

Call 800-254-1513 to speak with a CPower team member or visit us online at CPowerEnergyManagement.com/nepeakdemand/

