ENERNOC

get more from energy

Demand Response: An Underutilized Capacity Resource Whose Time is Now

March 2, 2006

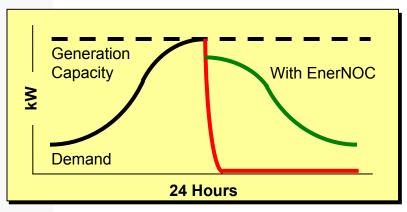
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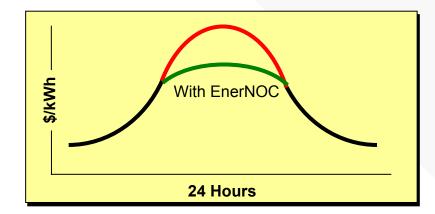
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What is Demand Response?

- Customers reducing their demand for electricity from the grid in response to:
 - High wholesale electricity prices or
 - System resource capacity needs or
 - System reliability events
- Can be achieved by curtailment or self-generation (backup generators)
- Customers receive payments for performance

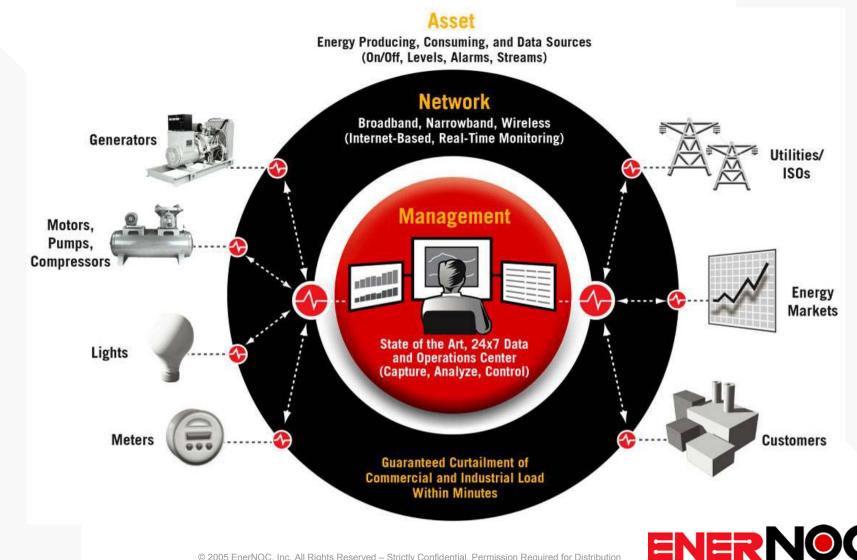






EnerNOC Overview

The "NOC" in EnerNOC stands for Network Operations Center. EnerNOC enables existing assets with inexpensive, scalable technology to accomplish significant and guaranteed reductions in demand.



EnerNOC is the leading technology-enabled, C&I-focused total energy management solutions provider

- Proven and growing track record Over 200 MW's of demand response capacity managed at more than 500 customer sites. Over 500 MW's of peak demand currently monitored by PowerTrak®
- Compelling offering Total Energy Management Solutions Provider encompassing – Demand Response, Demand Management, Data Management, Research, Education, Permitting, Financing, Metering, Aggregation, Enrollment, Installation, Payment Reconciliation, Maintenance Management, Risk Management

Significant and growing market - Currently serving:

- ISO New England (Certified IBCS and Demand Response Provider)
- NYISO (Responsible Interface Party)
- PJM (Emergency Demand Response Provider)
- California ISO markets (Certified Demand Reserves Partnership Provider)
- SCE, National Grid, NStar
- Distinguished technology Provide 24/7, real-time metering and web-based device monitoring and control through open architecture technology that leverages customers' existing assets

• Significant resources

- Strong balance sheet and impressive financial track record
- Deep management team experience in energy and technology management – 50 employees with more than 60 engineering and management degrees



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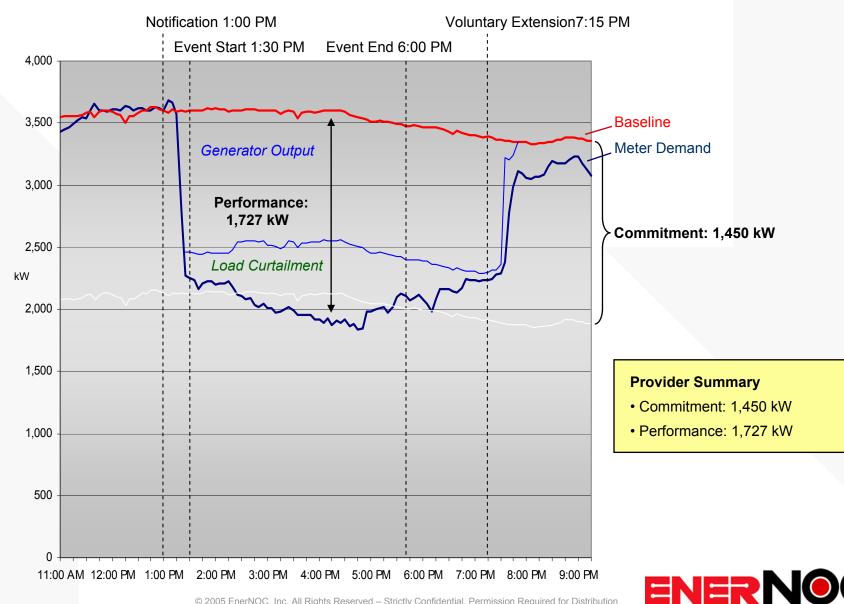
Notable Customers

EnerNOC has secured marquee customers in its Total Energy Management program territories



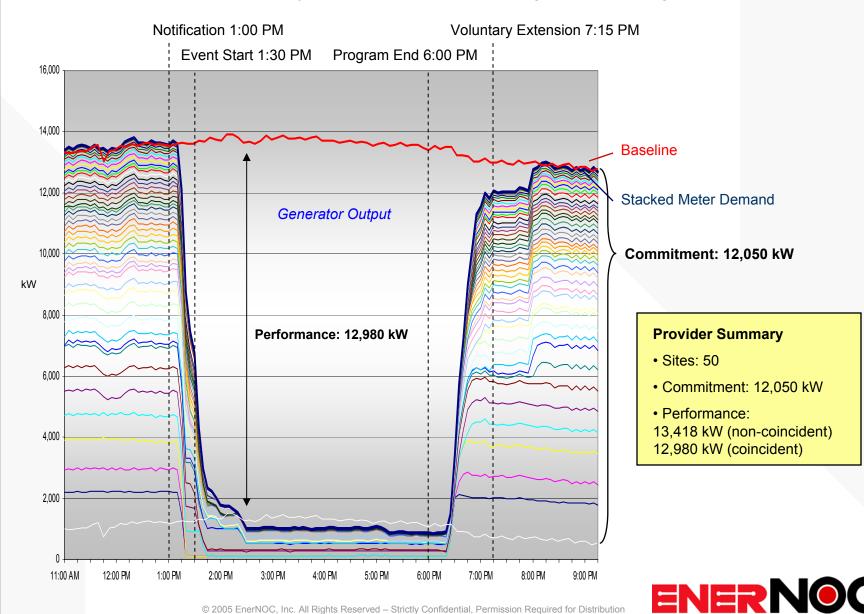
EnerNOC Overview: 7/27/05 Event Performance: Generation and Curtailment

University provider combines generation with load curtailment to reduce more than 1.7 MW from the electrical grid.



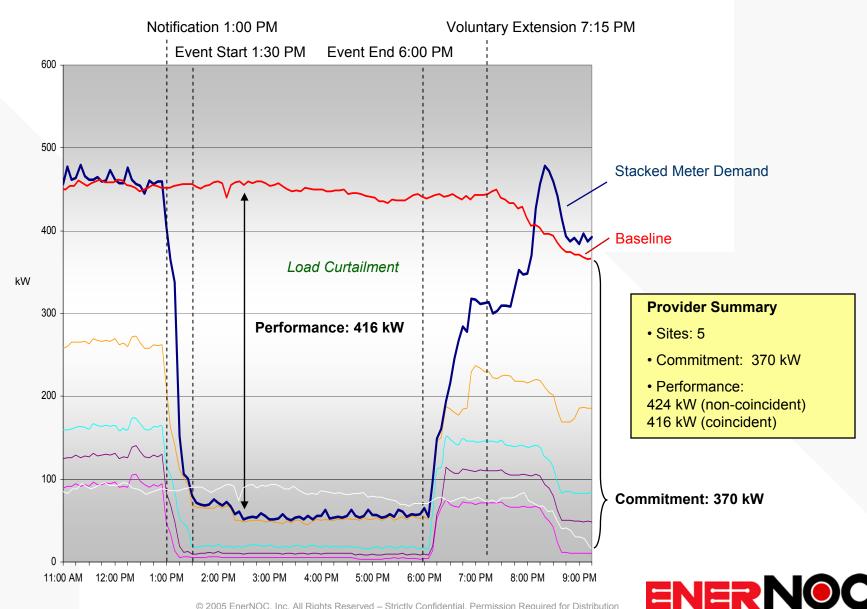
EnerNOC Overview: 7/27/05 Event Performance: Parallel Processing

Communications provider simultaneously transfers 50 facilities to backup generators, totaling over 12 MW.



EnerNOC Overview: 7/27/05 Event Performance: Curtailment

University provider curtails more than 400 kW of load at five individual sites.

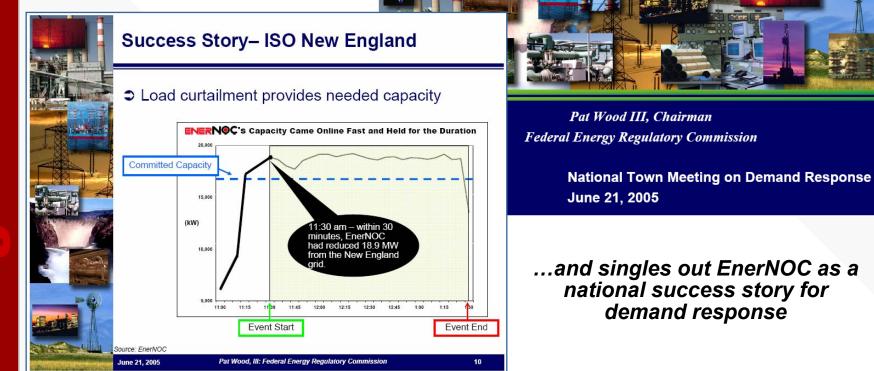


EnerNOC Overview

EnerNOC is developing a national reputation as the company that addresses needs of utilities and ISOs/RTOs by making demand response reliable and successful.

Pat Wood presents at U.S. National Town Meeting on Demand Response on June 21, 2005...

Demand Response: Making it Work for Customers





DR as a Capacity Alternative

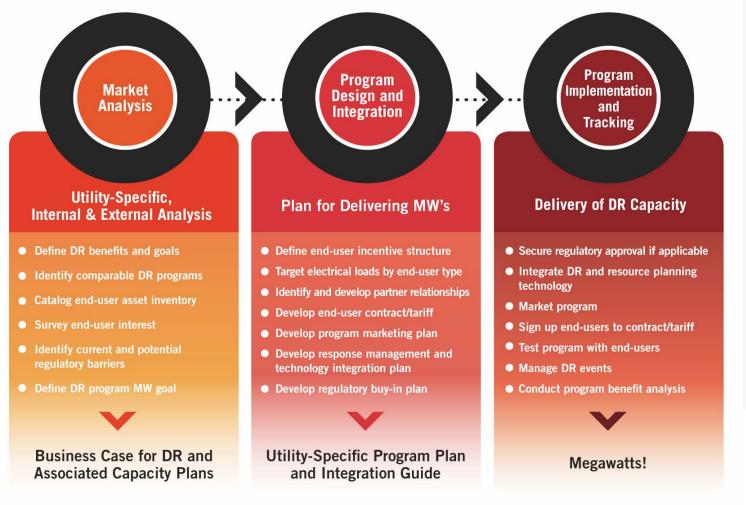
Demand response with EnerNOC delivers numerous benefits.

- Strengthens a PUC's and a utility's leadership role in addressing the peak electricity capacity shortfalls and in reducing emissions
- Demonstrates the economic and operational viability of demand response as a reliable, verifiable, and economic resource for meeting peak load needs
- Compliments existing energy efficiency programs, and serves as a catalyst for further energy management and efficiency measures
- Enables effective engagement of C&I customers in real-time market participation and taps into a sizeable capacity resource
- Strengthens a PUC's and a utility's brand and identity as innovators



DR Capacity Alternative: Capacity on Demand

EnerNOC offers a completely outsourced solution. The complexities of administering and participating in a demand response program are entirely simplified for utilities and end-use customers. Our approach has three key characteristics:





DR Capacity Alternative: Capacity on Demand

The following table summarizes key aspects of a program concept and is offered as a starting point for discussion.

ASPECT	VALUE	COMMENTS
Size	100 MW	Large enough to retire a large peaker
Price	\$10 per kW per month	Will enable customer adoption, and provide a guaranteed product at a cost equivalent to or less than a new peaking plant
Term	4 to 6 years	Long enough to attract end-user participation
In Service Date	Within 3 months of contract signature	Firm ramp-up schedules, with goal of bringing as much capacity online in year one and all capacity online by 18-24 months
End User Assets	EnerNOC directly controls customers' HVAC systems, lighting systems, process equipment, pumps, other energy consuming devices, and backup generators when permitted and appropriate	EnerNOC's technology optimizes asset performance and gives customers immediate access to their energy consumption patterns. EnerNOC's customers typically initiate further energy efficiency initiatives once they recognize the benefits of demand response
Event Window	12:00 pm to 6:00 pm on non-holiday weekdays, to be defined by utility, system operator, and EnerNOC	Window parallels system peak
Event Trigger	Reliability events and/or peak demand hours, TBD by the utility, system operator, and EnerNOC	DR resources will provide capacity during reliability events and allow retirement of dirty, out of favor peak plants or obviate need for new peak plant build outs



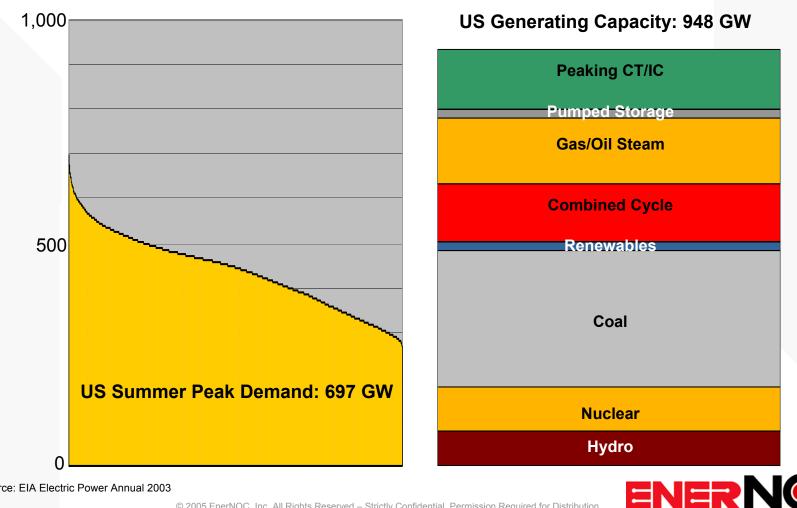
Appendix





Demand Response Impact Potential

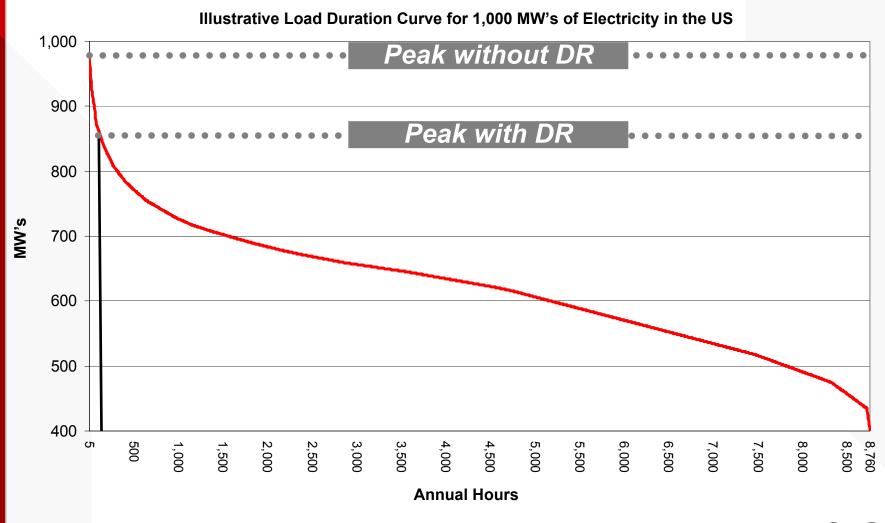
Demand Response provides a better solution to meeting peak demand than the traditional solution of over-building generation.



Source: EIA Electric Power Annual 2003

Demand Response Impact Potential

EnerNOC reduces peak demand associated with ~1% of annual electricity consumption. Nationwide, DR could provide 95 GW with a replacement value of ~\$28 billion.

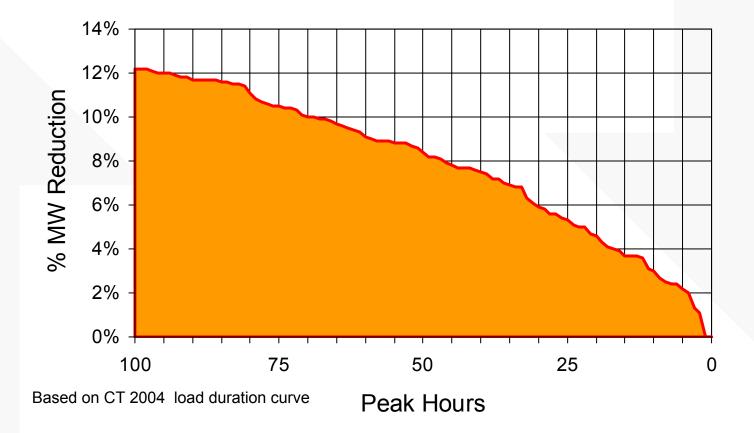




Demand Response Impact Potential

A few hours of demand response provide substantial peak load reduction.

Peak Load Drop Potential





Demand Response Myths

- Demand response is slow and insignificant it will never provide enough capacity to address grid issues
- Demand response is not reliable
- Demand response is not functionally equivalent to generation
- Demand response payments have to be uniform within ISO territories
- Demand response will fully mitigate energy market price spikes
- Demand response is not an environmentally friendly solution



Demand Response Market Realities

Demand response is ready for primetime because it is:

- Fast and significant EnerNOC enabled 40 sites in less than six weeks and is on track to enable well over 100 MW in Southwest Connecticut alone; these sites can be dispatched within minutes
- Precise Demand response capacity can be brought online exactly where it is needed when it is needed
- Verifiable and accountable EnerNOC captures 5-minute interval data, providing direct visibility into asset performance; EnerNOC accepts penalties for non-performance; system operators can rely on us
- Economical Demand response capacity is very cost effective compared to alternatives, and customers commit when the price is right, but Demand Response is not a panacea for all market challenges.
- Environmentally friendly Many customers curtail electricity usage during events; others use backup generators (BUGs), and U.S. EPA studies show that demand response can reduce air emissions, even when diesel-fueled BUGs are used



EnerNOC Examples and Experience: Solution Overview

EnerNOC's offering is a complete solution.

Analysis	Enable and Enro	Oll Program Management	Event Management
Conduct facility walk- through Identify curtailable loads Identify backup generator potential Identify existing metering systems to integrate and save money Interview facility engineering and operations staff to identify customer sensitivities Develop technical solution options Summarize load analysis, present options for load control and program involvement, and present economic potential	 Design technical solution Procure required technology (e.g., metering, relays, controls) Install (or integrate with existing) metering, controls, and communication Test and troubleshoot technical solution Initiate monitoring and begin metering loads Apply for, administer, and secure eligible cost reimbursements Register as customer's Assets Aggregate customer loads as applicable Enroll assets into each DR program 	 Begin collecting data Research, file, and renew all required city and state permits for program participation Maintain all required records Enroll load in daily/monthly markets to maximize potential benefit while minimizing risk Present real-time meter data to system operator for verification and to customer for reporting Monitor loads continuously and adjust enrollments accordingly Reconcile data and collect and disburse program payments Manage any program disputes and changes for customer 	 Notify customers in advance of potential events Notify customers during day of event of event "window" and requirements Curtail load/initiate backup generator operation as required Monitor, meter, and adj performance according enrolled load Notify customers of even completion and restore normal operations Provide event and load reports accordingly Continually ensure operational integrity of technical solution

EnerNOC Examples and Experience: Demand Response Audit

EnerNOC's four-part evaluation of a facility's energy use and operating flexibility identifies opportunities for how demand response can be implemented, energy usage can be reduced or rescheduled, and peak demand limited.

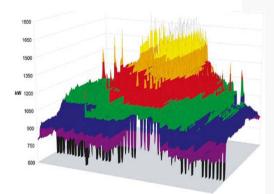


Interview





Technical and Financial Analysis





Site Survey

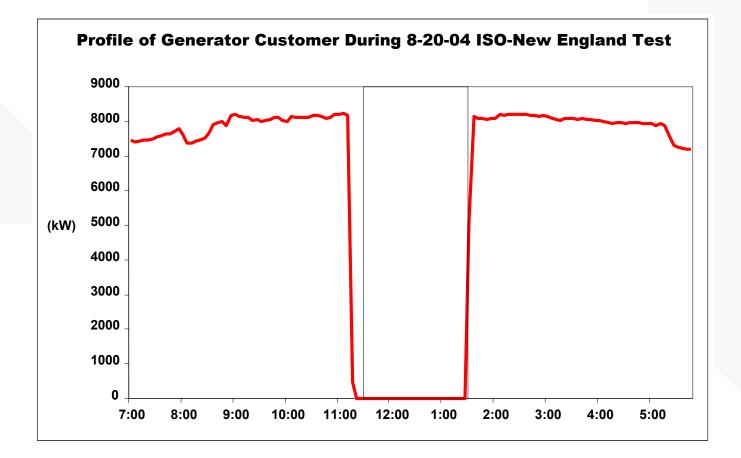




Report and Presentation

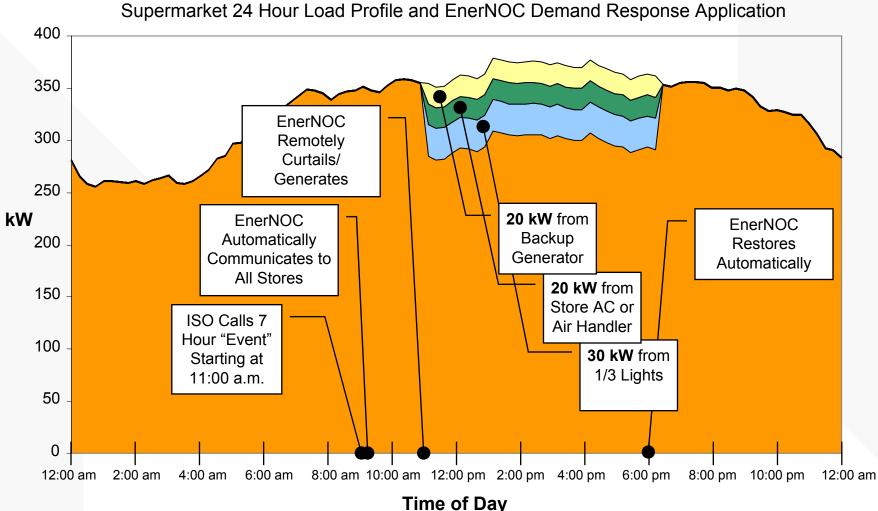
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Backup Generators Provide Significant "Negawatts"



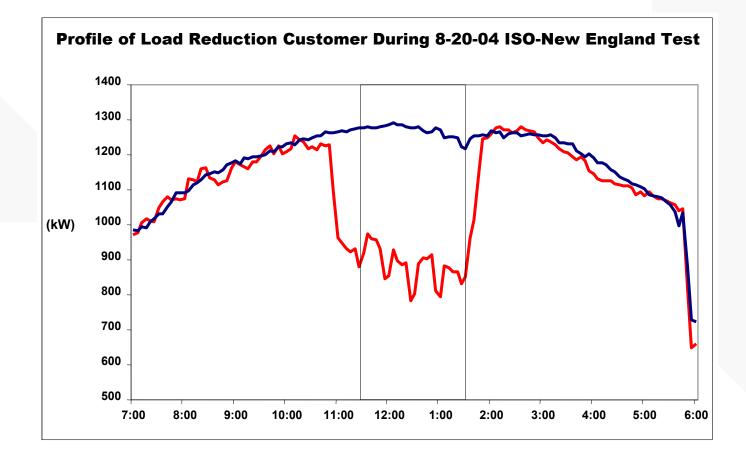


EnerNOC's deploys industry-specific solutions that maximize the customer's contribution and return without risk to business continuity.



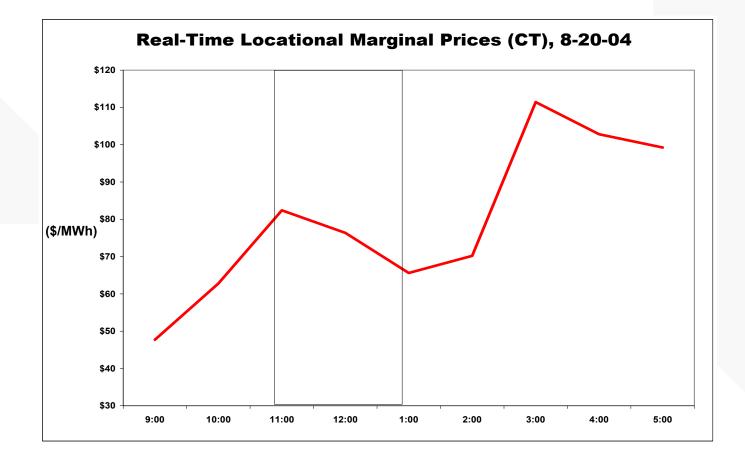


Who Says Load Reduction Isn't For Real?





Demand Response Can Make a Difference







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