Presentation to the Jordanian ERC

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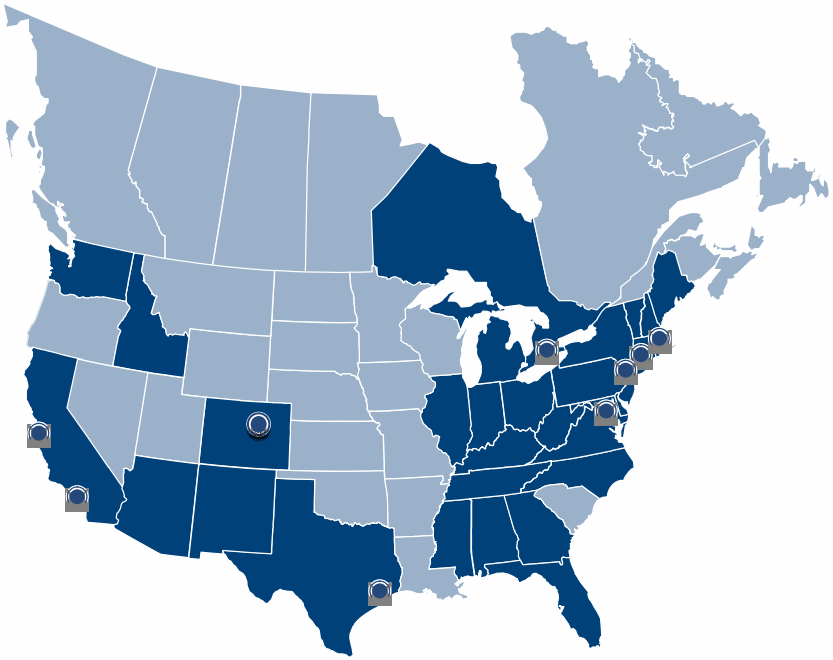
Agenda

- EnerNOC Overview
- Xcel Energy / EnerNOC Peak Savings Program
- Program Performance to Date
- Questions and Discussion

EnerNOC Overview

EnerNOC Overview

EnerNOC provides demand response resources to utilities and grid operators across North America

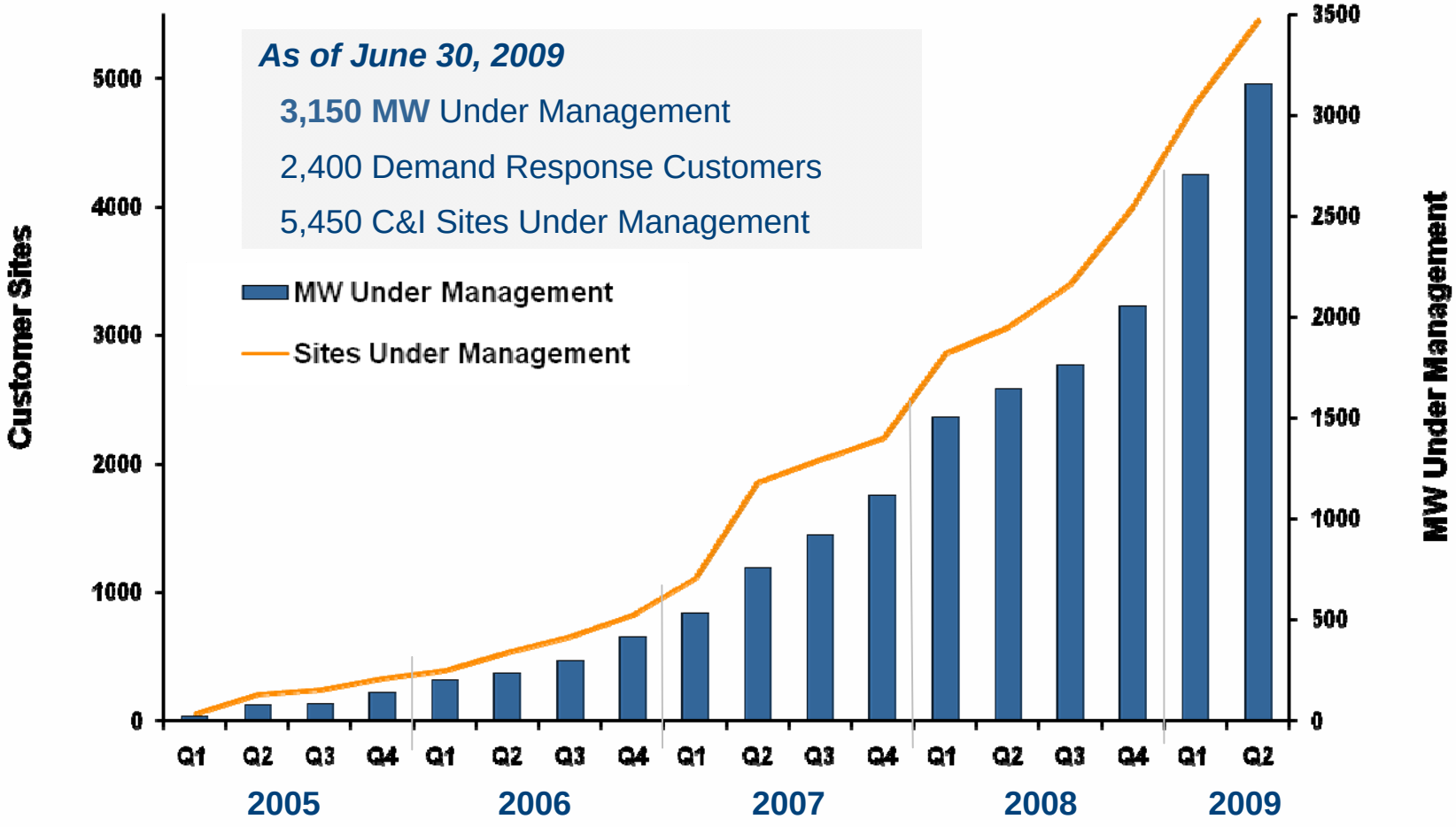


RESTRUCTURED MARKETS
ISO-New England (ISO-NE)
PJM Interconnection (PJM)
New York ISO (NYISO)
Ontario Power Authority (OPA)
Electric Reliability Council of Texas (ERCOT)

BILATERAL CONTRACTS – REGULATED UTILITIES	
Burlington Electric Department (VT)	10 MW
Idaho Power	65 MW
Maryland IOUs **Allegheny Power, Baltimore Gas & Electric, Delmarva Power, Pepco**	250 MW
Pacific Gas & Electric	40 MW
Public Service Company of New Mexico	30 MW
Salt River Project	50 MW
San Diego Gas & Electric	25 MW 25 MW expansion and additional 40 MW contract (pending regulatory approval)
Southern California Edison	40 MW 110 MW extension (pending regulatory approval)
Tampa Electric Company	35 MW
Tennessee Valley Authority **Includes 96 municipal utilities**	110 MW
Xcel Energy (Colorado)	44 MW

EnerNOC's Growth

Founded in 2001, EnerNOC is the largest demand response provider focused exclusively on the commercial and industrial sector.



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Demand Response Value Proposition

- Cost-effective alternative to building and maintaining a combustion turbine
- Resource diversity / no fuel price risk
- No siting issues
- Reduced carbon exposure
- Flexible sizing
- Enhanced customer satisfaction
- Ability to be fully outsourced

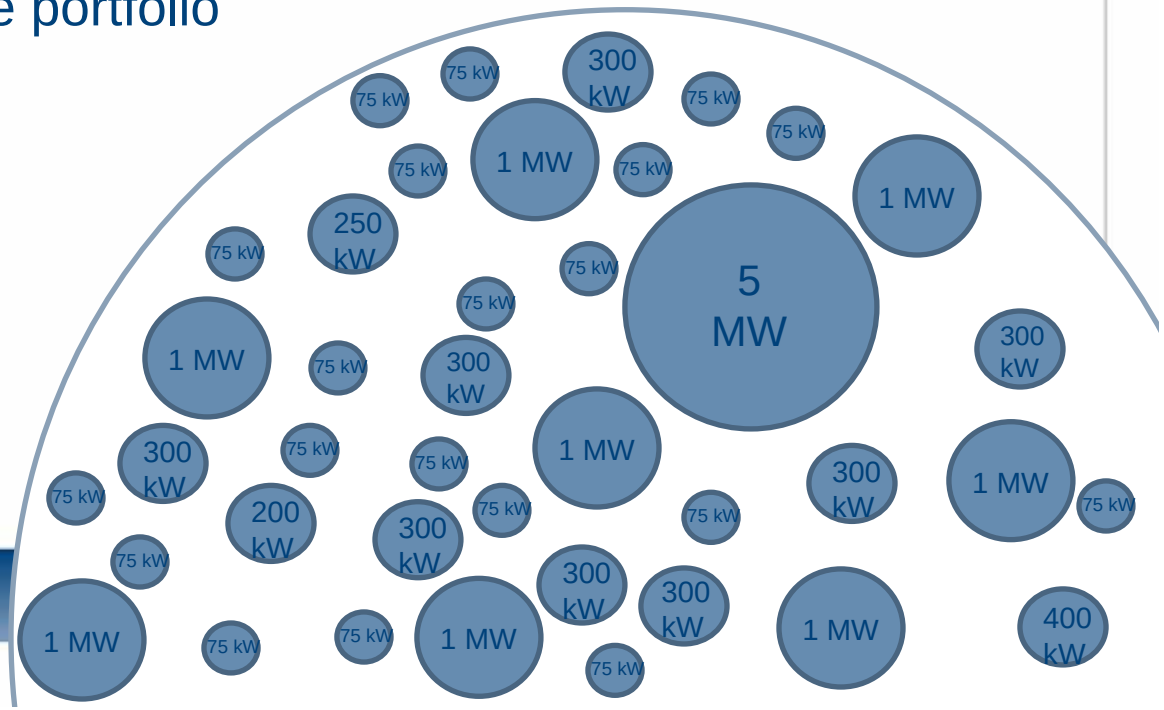
Tampa Electric Company
35 MW EnerNOC DR Customer

Why Aggregation?

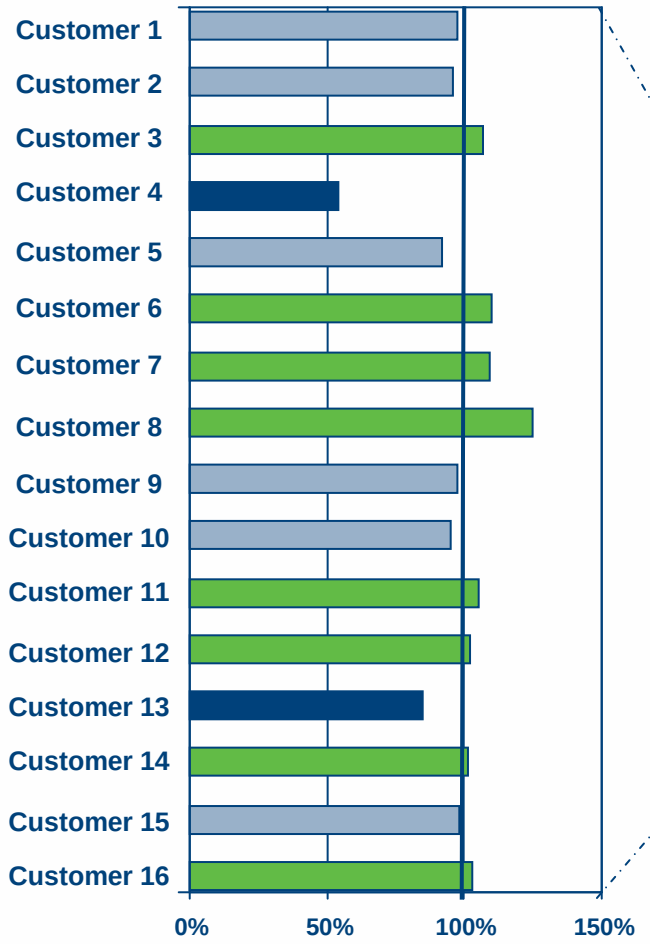
- More reliable resource performance
- Smaller customers can participate
- Idiosyncratic / variable loads can be matched with others in the portfolio
- Risk-free participation for end-use customers

50 MW

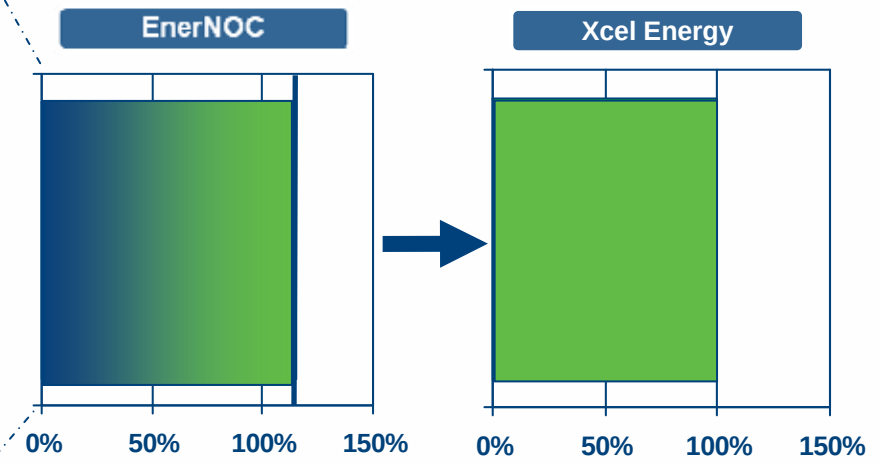
vs.



Reliable Performance through Portfolio Management



Portfolio Management allows for participation from end-users who don't have the resources to directly interface with complex and risky energy markets.



0% RISK | 100% RISK | 0% RISK

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“Turnkey” Program Delivery

Build It	Operate It
	
▪ Program Marketing & Branding ▪ Customer Recruitment ▪ Site Auditing and Analysis ▪ Customer Contracting ▪ Site Installation ▪ Integration with Utility Systems	▪ Event Dispatch ▪ Event Management ▪ Measurement, Verification, and Settlement ▪ Customer Service ▪ Performance Guarantees

Technology Platform

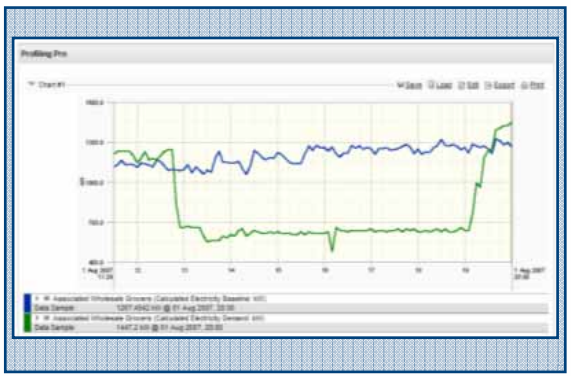
EnerNOC's technology platform provides a foundation for consistent and reliable DR event performance.

EnerNOC Site Server (ESS)

The ESS sends near real-time 5-minute data directly from participating facilities to our Boston- and San Francisco-based NOCs.

Network Operations Center (NOC)

Our NOC is analogous to a utility's control room, and is tasked with delivering quick, efficient, and consistent load reductions for both utility and end-use customers.



PowerTrak®

EnerNOC's web-based energy software presents data to EnerNOC, end-use customers, and our utility clients in near real time.

Revenue Share Arrangement

Xcel Energy®

EnerNOC

ENERNOC

Xcel-EnerNOC Peak Savings Program

Why Peak Savings?

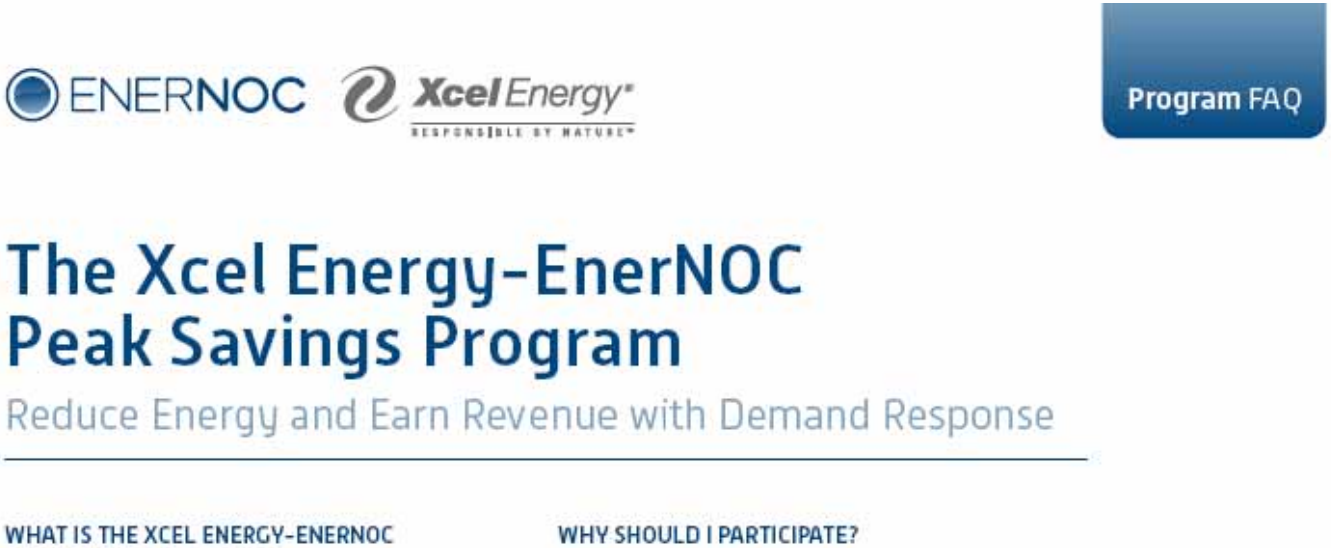
- Support demand response as an alternative peaking capacity resource
- Test the cost-effectiveness and reliability of a third-party program
- Use demand response to reduce carbon dioxide emissions during peak periods, compared to a peaking plant
- Deploy a program that specifically appeals to smaller customers

Program Overview

The Peak Savings program is designed to offer Xcel Energy a demand-side resource that is comparable in size to a peaking power plant.

Peak Savings Program Parameters	
Term	**7 years** (2009 – 2016)
Total Capacity	June 1 – September 30, 2009: **20 - 22 MW** October 1, 2009 – May 31, 2010: **20 - 40 MW** June 1,' 2010 through end of term: **40 - 44 MW**
Customers	**C&I customers** not on the ISOC tariff Curtailment or permitted back-up generation
Capacity Availability	Firm Program Hours: **9 AM – 8 PM, business days** During other hours, customers may be asked to respond on a best efforts basis
Event Limitations	Maximum of **88 hours per year**, **20 events per year** Up to **2 events/day**; total of **1-8 event hours** may be called each day
Event Timing	**60 minute notification** to customers
Event Trigger	**Economic** and **emergency** dispatch

Co-branded Customer Recruitment



ENERNOC Xcel Energy

Program FAQ

The Xcel Energy-EnerNOC Peak Savings Program

Reduce Energy and Earn Revenue with Demand Response

WHAT IS THE XCEL ENERGY-ENERNOC PEAK SAVINGS PROGRAM?

The Xcel Energy-EnerNOC Peak Savings program is a new opportunity for Xcel Energy's commercial and industrial customers in Colorado that will help Xcel Energy balance its electricity supply and demand to ensure reliable and affordable electricity throughout its Colorado service territory. Xcel Energy is working with EnerNOC to implement this demand response program.

WHAT IS DEMAND RESPONSE?

Demand response (DR) is a way for customers to sign up to voluntarily reduce electricity consumption during periods of peak electricity demand or high wholesale electricity prices. Program participants earn revenue for agreeing to curtail electricity consumption when Xcel Energy calls for a demand reduction (also known as a demand response

WHY SHOULD I PARTICIPATE?

DR provides you with a supplemental revenue stream, helps you reduce your energy costs, and increases overall efficiency. The Xcel Energy-EnerNOC Peak Savings program also supports Colorado's energy efficiency and sustainability goals by helping to reduce the need to build new power plants in Colorado.

HOW DO I PARTICIPATE?

Xcel Energy and EnerNOC are working together to offer this program. EnerNOC manages program implementation and execution:

- EnerNOC works with you to identify electricity load that you could curtail for a limited number of hours per year, and determines an appropriate curtailment strategy that meets your specific business needs.

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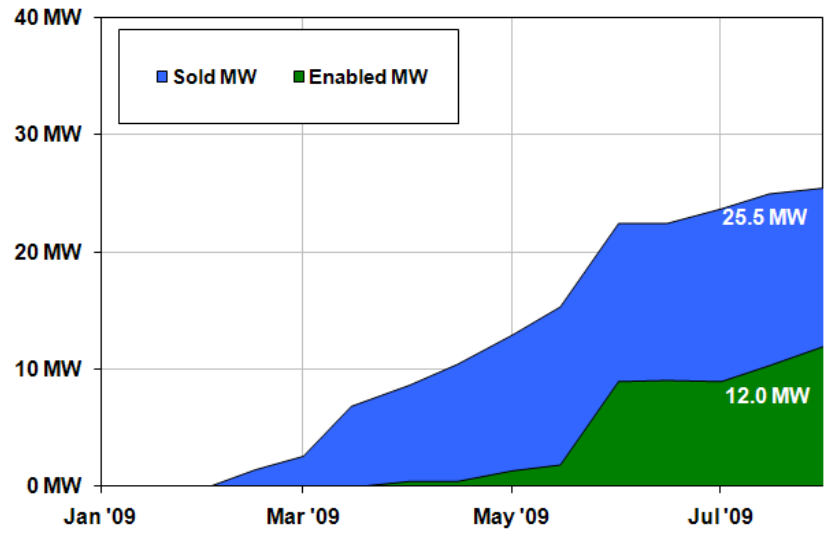
Peak Savings Program Results

Summary of Program Implementation To Date

Program Implementation by the Numbers



- EnerNOC has placed 7,750 calls, generating 450 meetings and 185 proposals for participation, leading to 52 signed customer accounts (80 facilities).
- **Agreement executed on 1/23; first customer signed 2/2; first customer nominated 3/11; first program event 7/24**

Successes and Challenges

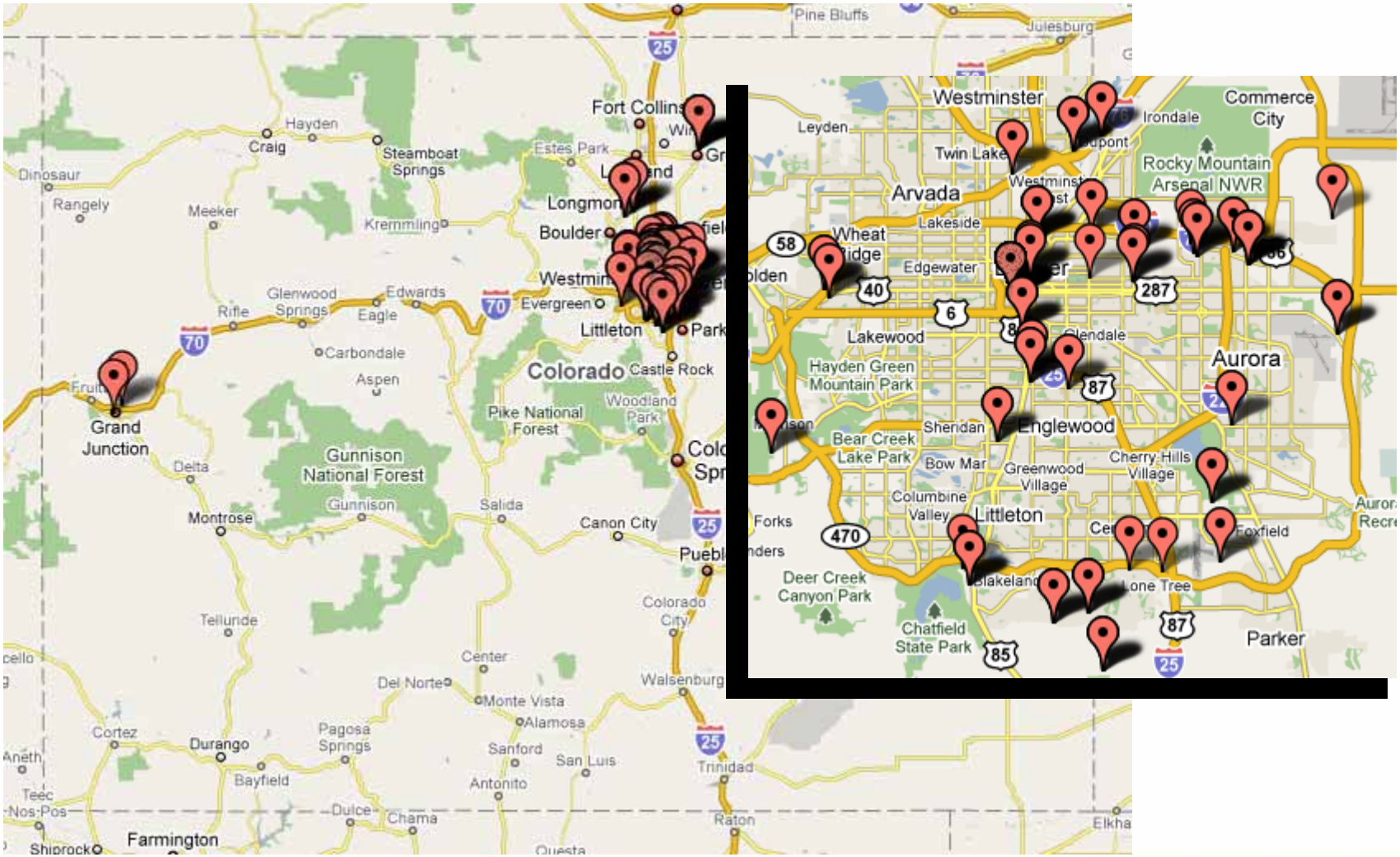
As with all new programs, EnerNOC has experienced some **challenges** that have delayed the Peak Savings program build-out, including:

- Economic downturn has impacted customer loads
- Time-consuming generator permitting process
- Slower customer decisions due to multiple DR program options

At the same time, the program has represented a **success** on multiple dimensions:

- "Marquee" accounts, such as Denver Museum of Nature and Science, Colorado State University, signed up for program
- Customers not normally exposed to DR (e.g., non-managed accounts) signed into program
- 119% performance in 1st program event

Peak Savings Participants Across Colorado



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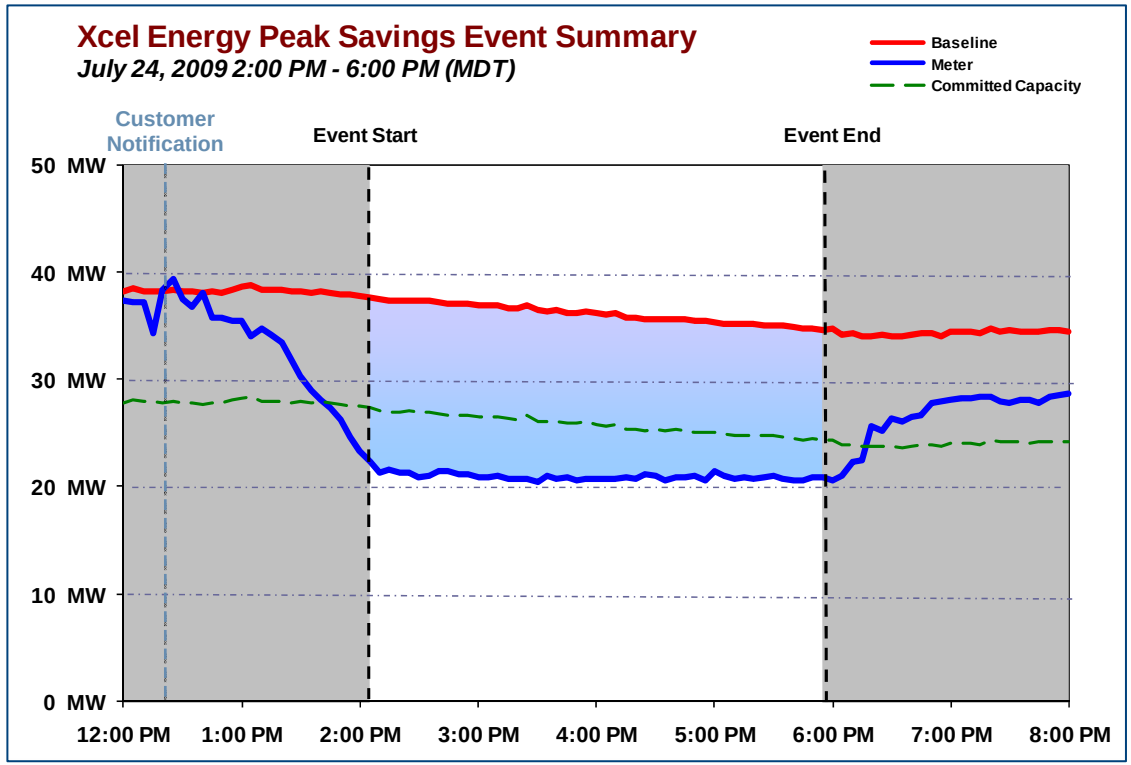
July 24th Peak Savings Event: Overview

The capacity-driven Peak Savings event called on July 24th was a "classic" EnerNOC DR event: by aggregating customers, some of whom over- or under-perform, the program delivered consistent and reliable load reductions.



Event Highlights

- On a *preliminary* basis, 63 facilities delivered 12.3 MW against a nomination of 10.3 MW (119%)
- Commitment was achieved by 2 PM MT event start, and sustained throughout the duration of the event
- Some customers underperformed; for example, due to production demands
- Some overperformed due to, e.g., lack of operational constraints
- Performance variance against nomination expected for a "small" portfolio in first program events; nomination to increase in August

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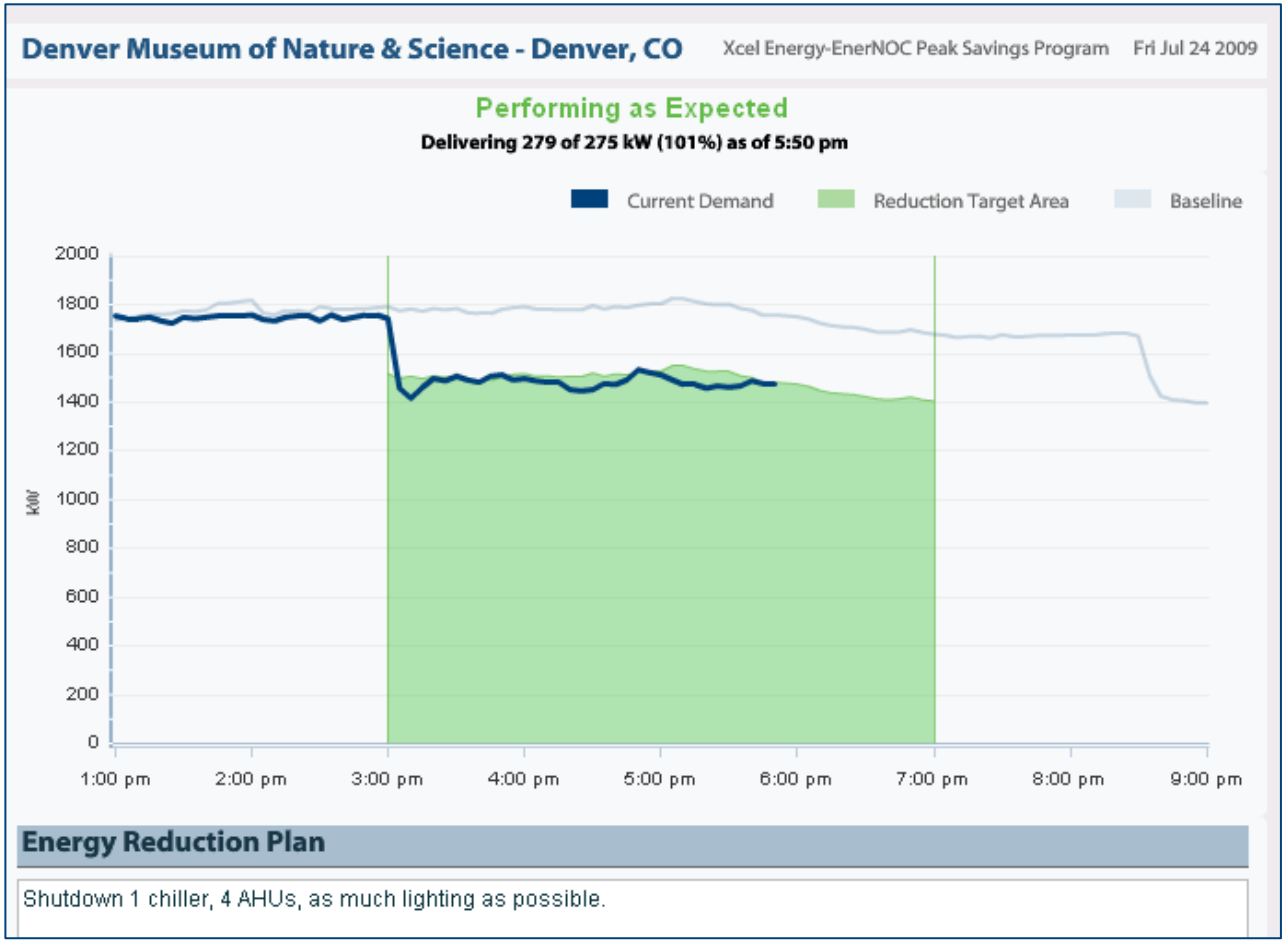
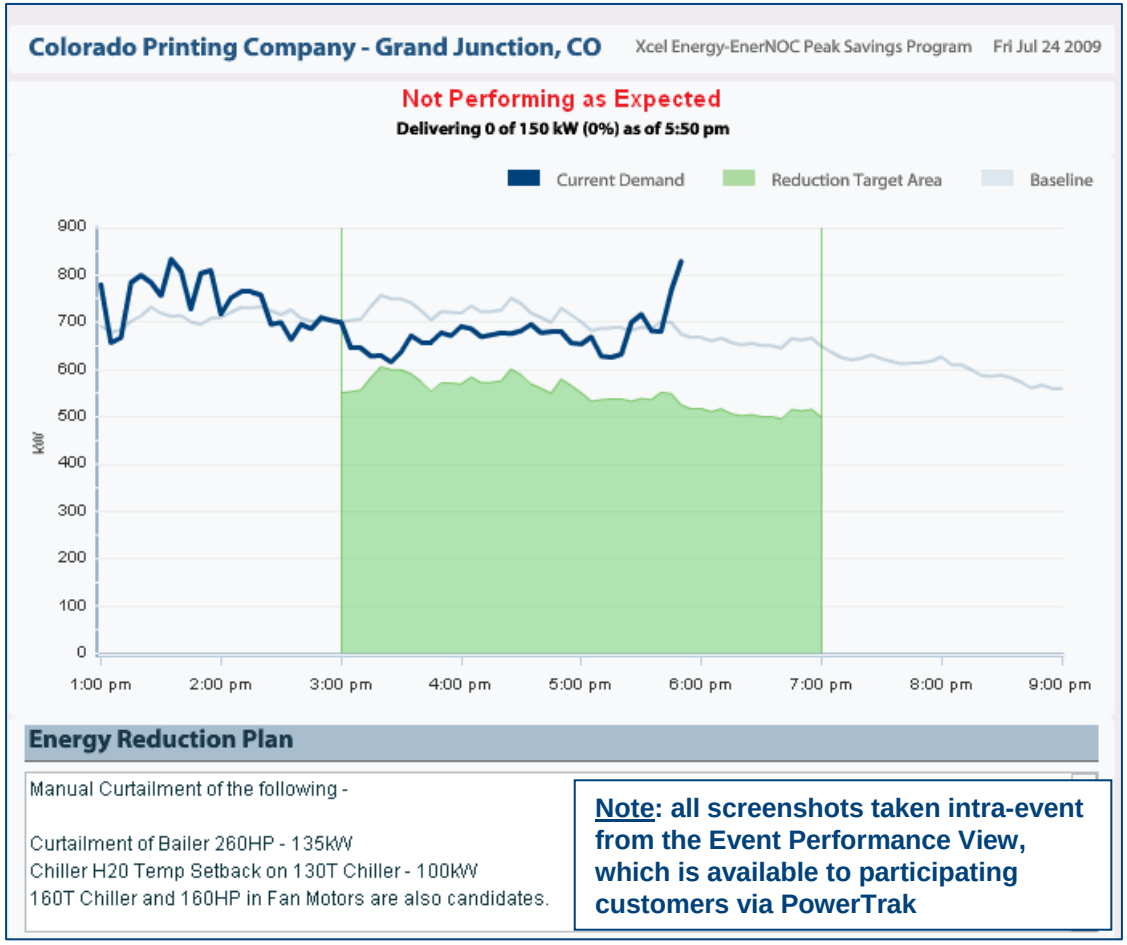
Success Story: Denver Museum of Nature & Science

The Museum delivered a near-perfect demand reduction during the July 24th Peak Savings program event.



Challenge Story: Colorado Printing

Colorado Printing lost power during the morning of July 24th, and could not curtail due to a backlog of customer orders.



Note: all screenshots taken intra-event from the Event Performance View, which is available to participating customers via PowerTrak

Success Story: Doubletree Hotel

In response to underperformance seen via real-time data, an EnerNOC generator expert placed a coaching call to the Doubletree, leading to improved performance.

Questions?

Program Implementation: the “Building” Phase

Working closely with Xcel, EnerNOC recruits customers and ensures that capacity can be reliably delivered when dispatched.

- Develop branding strategy
- Coordinate with other DSM programs
- Decide on account management processes
- Finalize marketing plan

Implementation Plan in Place

- Qualify potential participants
- Conduct detailed audit of facility and processes
- Prepare customer proposal
- Execute contract

Customers Signed Into Program

- Install metering and control technology
- Initiate monitoring
- Run notification & curtailment tests
- Provide customer access to data, as appropriate

Facilities Ready to Respond

- Coordinate communication link between curtailment service provider & utility operations center
- Coordinate dispatch procedures and protocols
- “Nominate” capacity to utility

Utility Ready to Dispatch

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Program Implementation: the “Operating” Phase

Operating a demand response program is a full-time commitment, requiring ongoing investment and management to ensure consistently reliable performance.

- Receive dispatch notification
- Notify customers and initiate load reduction strategies
- “Coach” customers, as needed
- Restore loads after event

Reliable Capacity Delivered to Grid

- Calculate baselines for each facility
- Measure actual load reductions during events
- Provide event reports to utility
- Administer settlement processes

Payments Reflect “True” Value to Utility System

- Issue customer incentive payments
- Provide support to optimize performance
- Enroll new customers as necessary to maintain portfolio

Ensure Customer Satisfaction

Consistently Deliver Committed Capacity Over Contract Term

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