ARC/RTO Workshop

Missouri Public Service Commission

May 17, 2010

DemandSMART: Energy Network Operations Center Overview

Our NOC features fully automated DR capabilities to ensure that curtailment happens quickly, efficiently and consistently for both the utility and the customer.

- The NOC automatically initiates customized demand response protocols at customer sites, so that **load reductions can occur within seconds** after an event is called.
- EnerNOC **captures and reports customer meter data** in 1-, 5-, 15-, or 60-minute intervals to utilities and grid operators, providing real-time and direct visibility into demand response performance.
- The NOC's **automated capabilities** make it easy for end-use customers to respond to market signals.
- The NOC monitors customer event performance data in real-time, and automatically identifies and targets underperforming sites to ensure maximized end-user performance.

- Upon event conclusion, the NOC notifies participating customers and **automatically restores normal operations** at customer sites.
- The NOC's sophisticated measurement and verification services ensure **high quality performance data** after an event.

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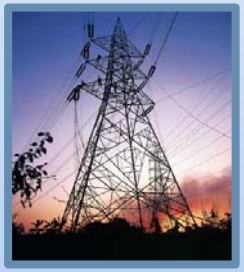
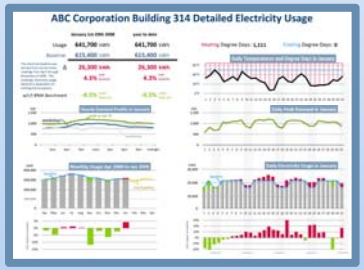
The “Energy Internet”

Like the Internet, the Smart Grid has two layers.

Infrastructure Layer: Transmission lines, meters, communications protocols, etc.



Application Layer: Functionality that *extracts value* from the underlying infrastructure



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EnerNOC Overview

Market Leader in Commercial & Industrial Demand Response

- Over 4,350 MW under management; 3,100 C&I customers
- 100+ utility and grid operator customers
- Proven, consistent reliability

Innovative Smart Grid Energy Management Applications

DemandSMART | SupplySMART | SiteSMART | CarbonSMART

Strong Financial Track Record

- Publicly traded on NASDAQ (ENOC)
- 2009 revenues of $190M; 2010 guidance of $270 - $280M
- 400+ full-time employees

(as of 3/31/10)

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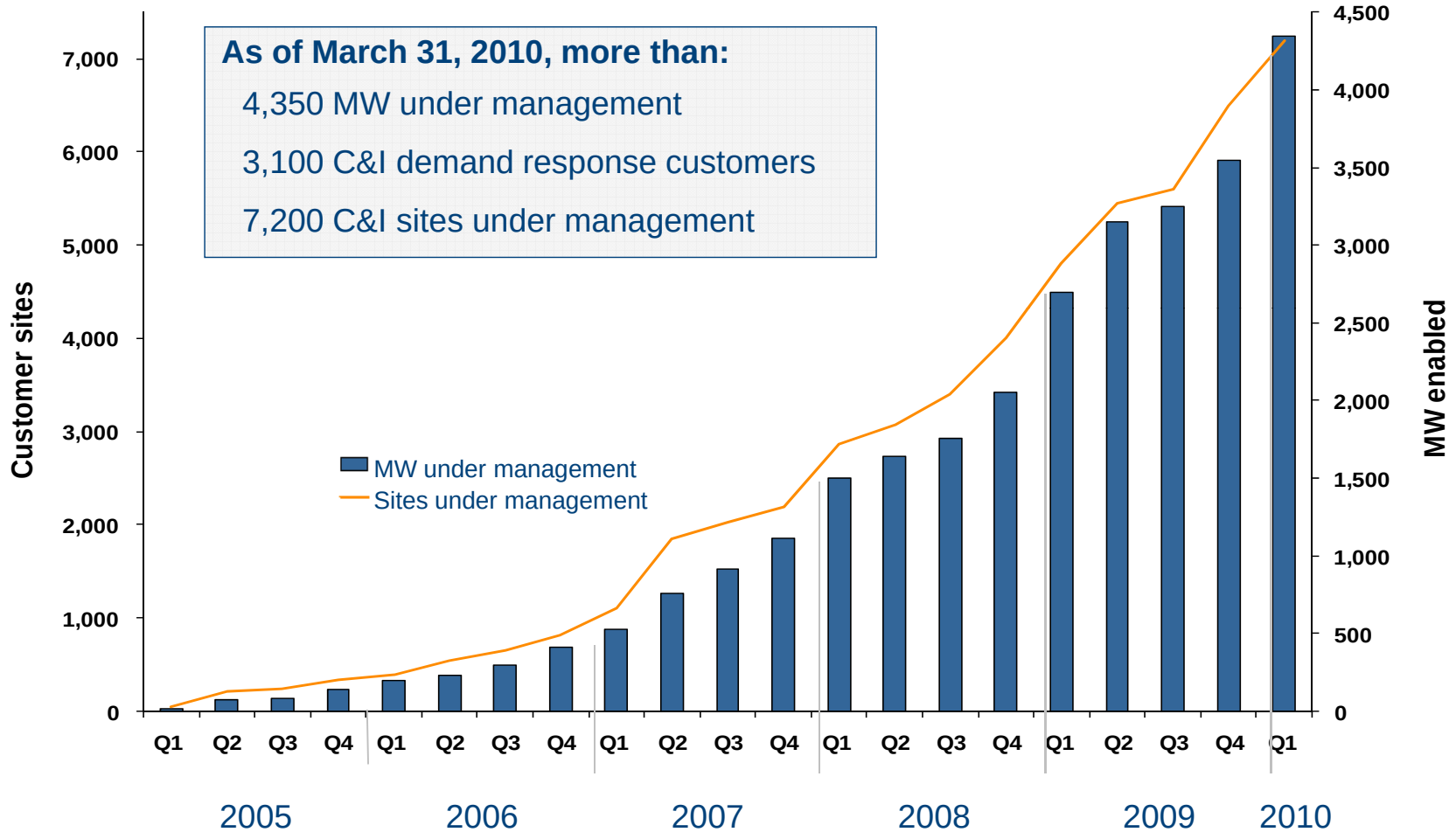
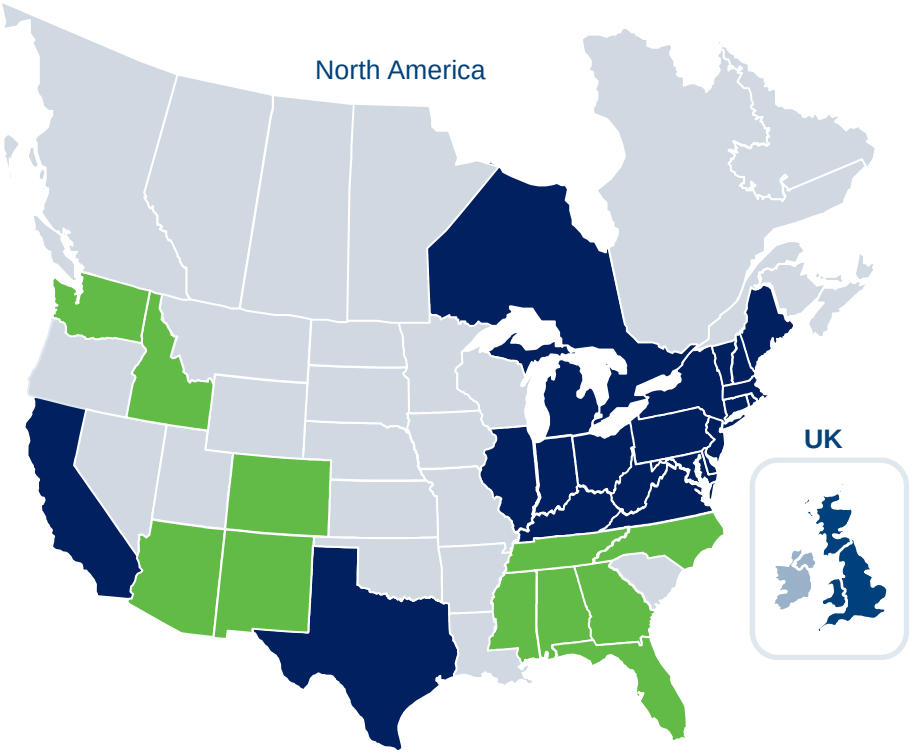
EnerNOC's Rapid Growth in "Managed Megawatts"



EnerNOC's Demand Response (DR) Footprint

EnerNOC is the largest demand response provider in the world.



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

BILATERAL UTILITY CONTRACTS	
Western North America	
Idaho Power	65 MW
Pacific Gas & Electric	40 MW
Public Service Company of New Mexico	30 MW
Puget Sound Energy	Pilot Program (~5 MW)
Salt River Project	50 MW
San Diego Gas & Electric	40 MW Curtailment 50 MW "Clean-Gen"
Southern California Edison	110 MW
Tucson Electric Power	40 MW
Xcel Energy (Colorado)	44 MW
Eastern North America	
Burlington Electric Dept (VT)	10 MW
Allegheny Power	250 MW total
Baltimore Gas & Electric	
Delmarva Power	
Pepco	
Tennessee Valley Authority	160 MW
Tampa Electric Company	35 MW

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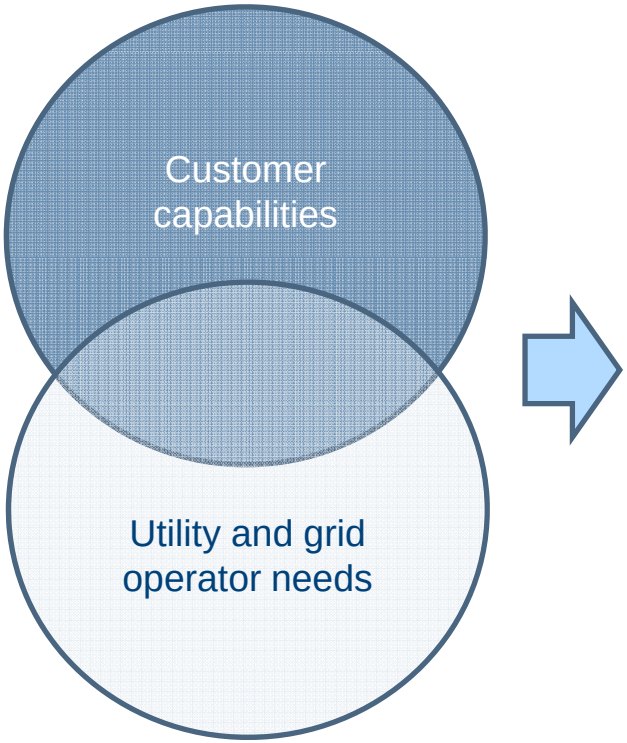
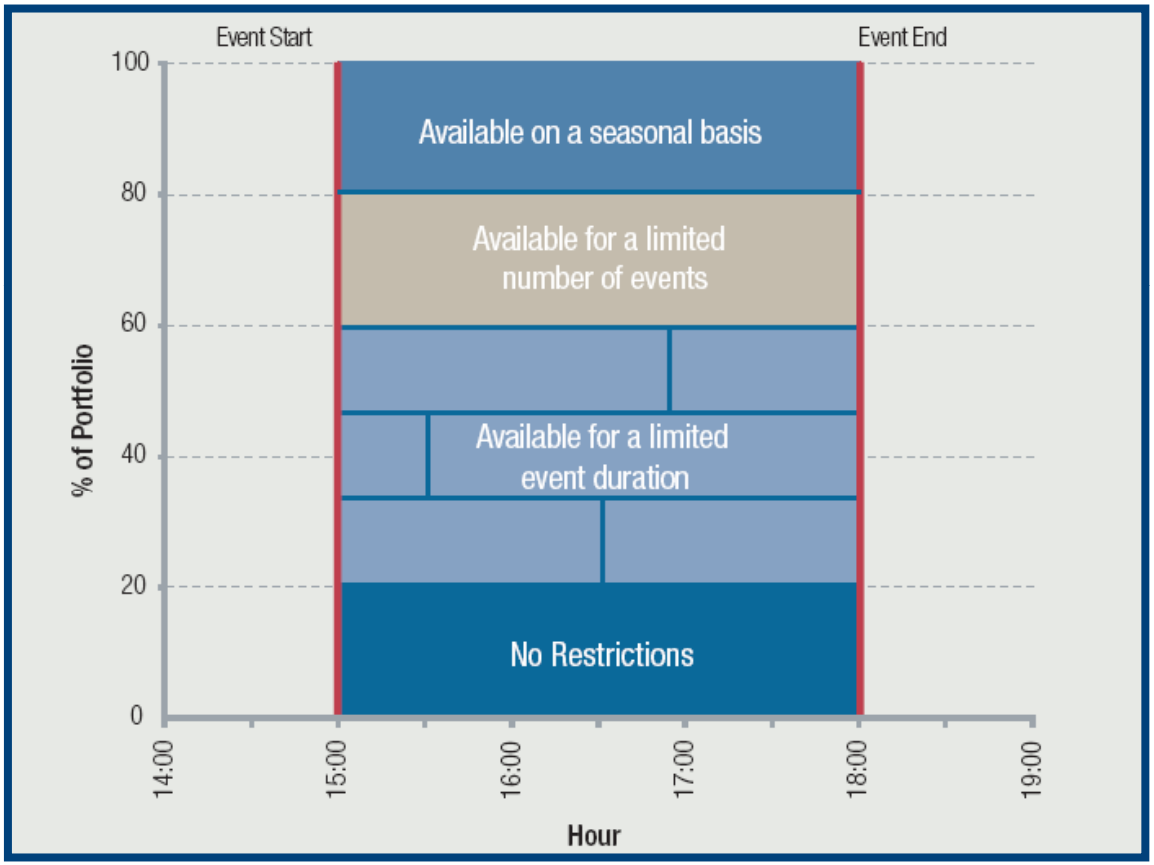
Demand as a supply resource

By assembling a portfolio of diverse customers, EnerNOC can provide a firm resource to utilities that has the characteristics of a peaking power plant.





DemandSMART Comprehensive Demand Response

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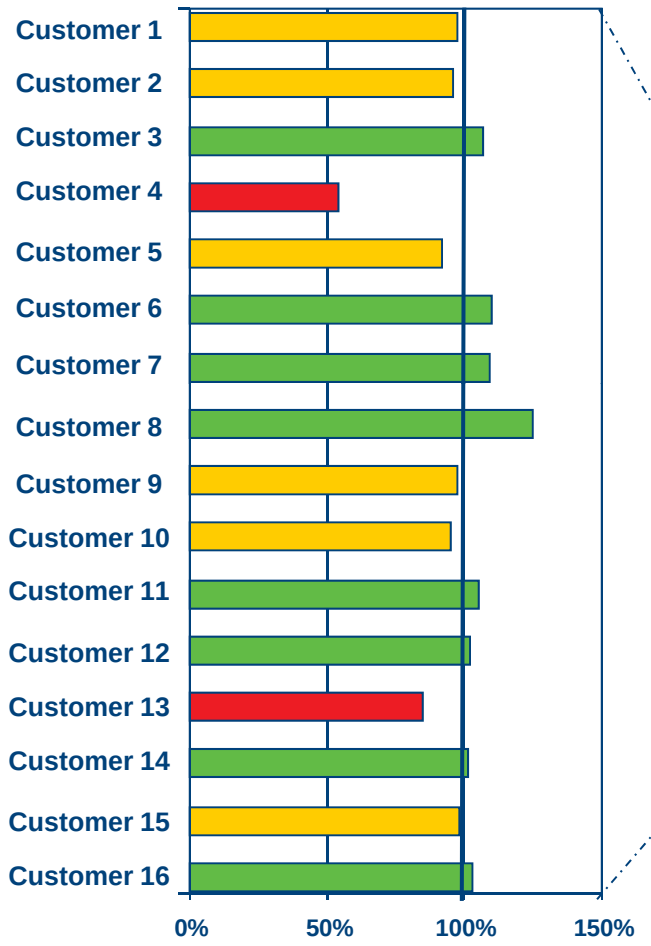
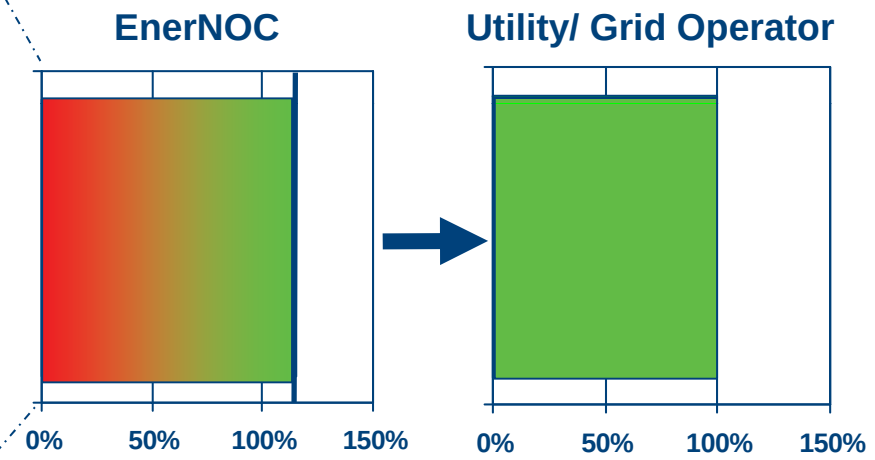
DemandSMART: Reliability Through Portfolio Management



By aggregating resources into a single portfolio, EnerNOC manages 100% of the risk associated with delivering a contracted amount of capacity. EnerNOC protects both the utility and end-use customers from non-performance.



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DemandSMART: Applying a Robust Technology Platform

EnerNOC has built a highly-scalable technology platform, which provides a foundation for consistent and reliable DR event performance, and for real-time performance measurement and verification.

EnerNOC Site Server (ESS)

At customers sites, EnerNOC installs an ESS, a gateway device that establishes communication with our network and provides near-real time visibility into end-user energy consumption.

The ESS also allows the NOC to remotely curtail loads in order to deliver demand response capacity.

Energy Network Operations Center

Our two NOCs, staffed 24x7x365, feature advanced technology and specialized staff to ensure that load reductions happen quickly, efficiently, and consistently for both the utility and end users.

DemandSMART

EnerNOC's web-based energy management platform, DemandSMART, monitors energy consumption and enables end-user load control.

DemandSMART also provides end-users with a web portal, and utilities with the ability to view load reductions during demand response events.

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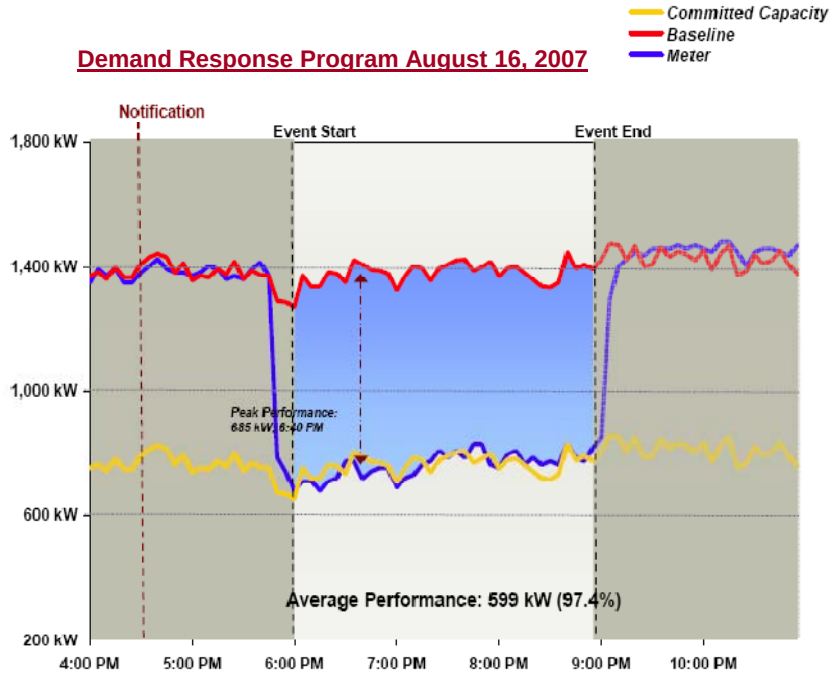
DemandSMART: Delivering Reliable Performance

EnerNOC works closely with each customer to establish a load reduction plan compatible with operations, at no out-of-pocket expense to the customer.



Example: Wholesale Grocery Distributor

- Storage, including 253,000 sq. ft. refrigerated
- 900 kW peak demand
- Ice cream frozen food, fresh meat, dairy, produce, including bananas
- Some items can only withstand a 3 degree variance
- 600 kW of load curtailment
- Curtailment plan: raise temperature set points in cold storage; reduce lighting

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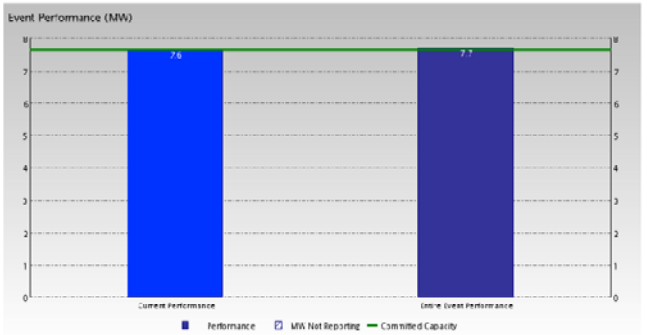
EnerNOC Event Management Tools

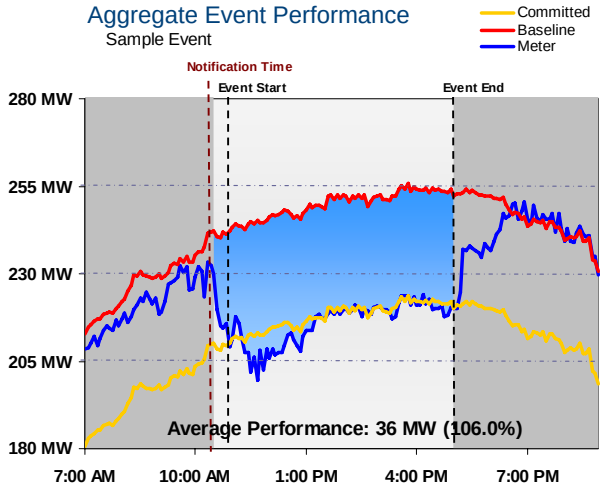
(1) EnerNOC tracks customer notifications, monitors event performance, and records all customers interactions (inc. “green card” success and “red card” challenge stories) through the **Action Call Center**

(3) In near-real-time, utility can monitor aggregate portfolio performance using EnerNOC’s **Demand Response Dashboard**



(4) Within 48 hours, utility receives a customized **Post-Event Performance Report**, which provides aggregate event performance, tabulated individual customer performance

- **(2) Customers** and **utility** can view energy reduction efforts in near real time through web-based **PowerTrak** software



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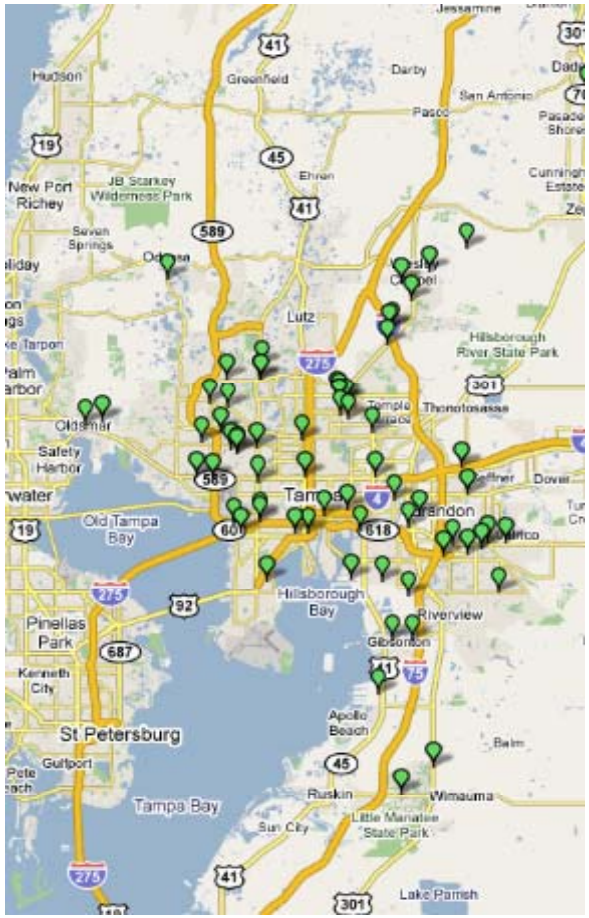
Ongoing portfolio maintenance, customer service

- **EnerNOC establishes a local presence**, with project managers, site technicians, business development staff, working with Boston-based NOC to execute the DR program
- Even when not involved in a DR event, **EnerNOC continuously monitors all customer loads**, verifying connectivity, data quality, etc.
- Customer support (for, e.g., PowerTrak) is available on a **24/7/365 basis** by calling 888-EnerNOC. Average wait is only eight rings, and the phone is always answered by a live, NOC operator.
- **Local site technicians available to respond** to connectivity, metering, event performance issues as required
- **EnerNOC tracks customer success ("green card") and challenge ("red card") stories** to share with utility officials on a monthly basis



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You've Probably Heard All This Before…

"The average commercial building uses 26% more energy than needed."

- DOE / Energy Star

"Closing our 'national electric productivity gap' could curtail up to 30% of our power consumption."

- Rocky Mountain Institute

"Less than 5% of commercial buildings in the US are actually commissioned after construction."

- BCS Partners

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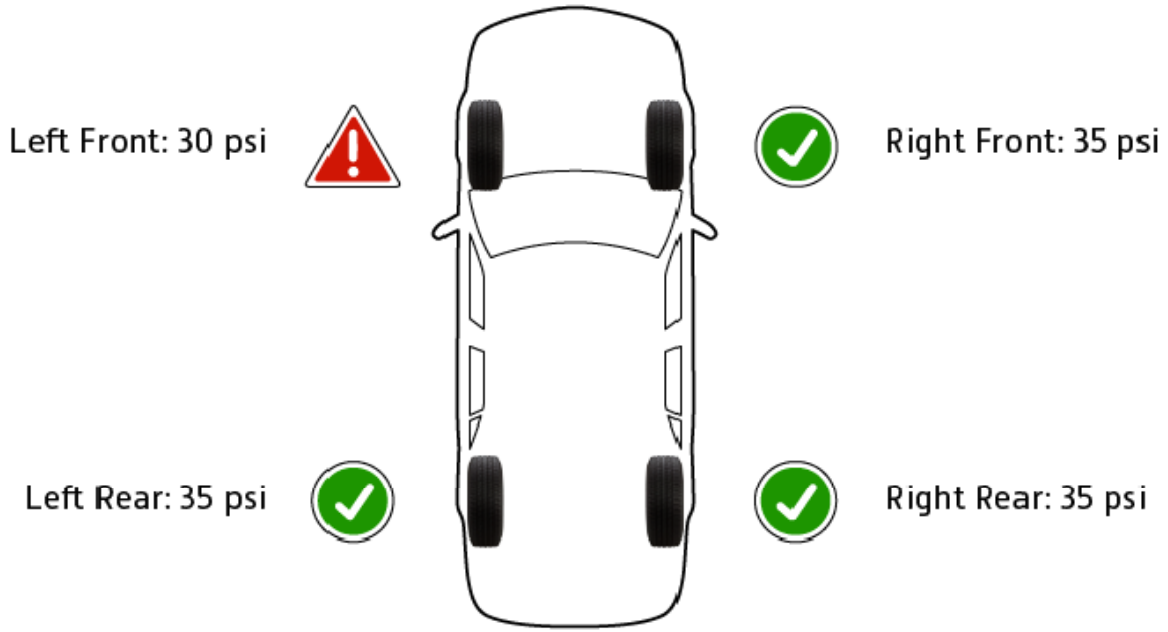
Constant Diagnostics

Tire Pressure Monitoring: Low

- One or more tires may require inflation to optimize performance and fuel economy



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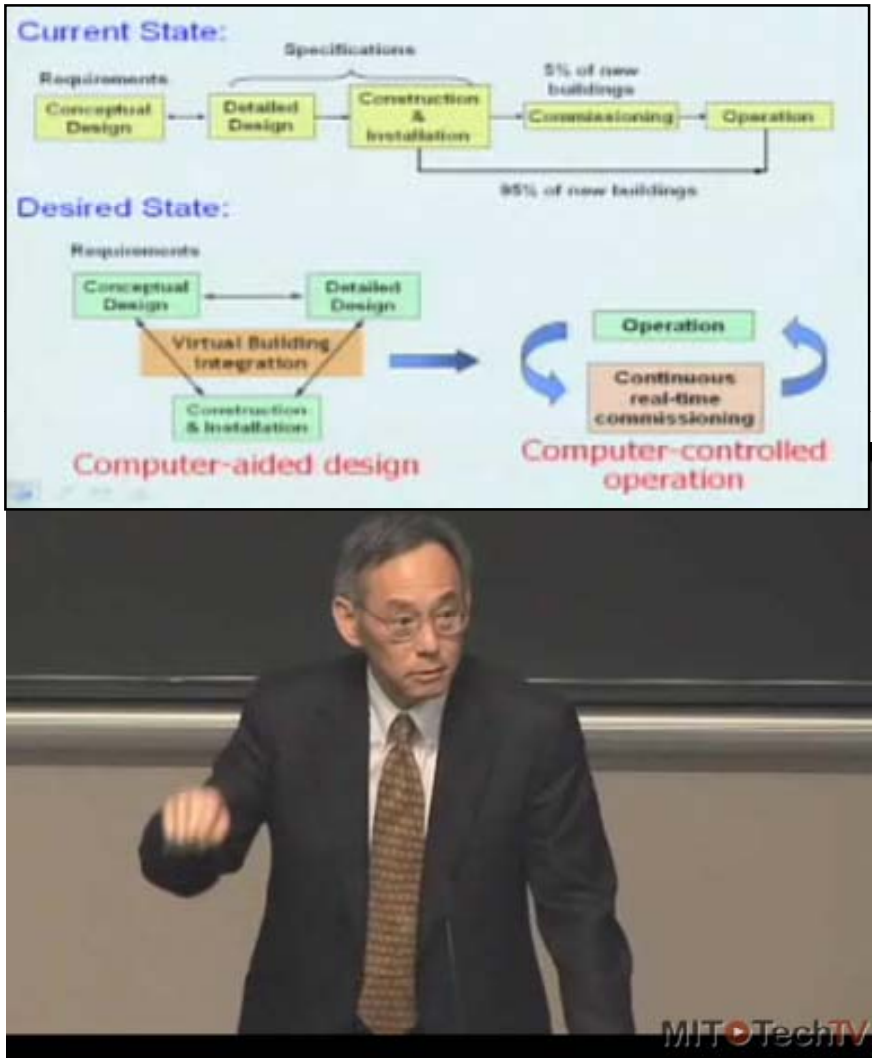
Commissioning getting national policy attention

"You can imagine real time commissioning in the same sense that a microprocessor is constantly tuning a modern engine. It notices what the temperature of the engine is, the temperature of the air, and its constantly tuning up…"

"Just like your garage mechanic can't tune your car anymore.. its ok, you take it in, the computers talk to each other and everybody's happy"

-**Steven Chu**
Compton Lecture at MIT, May 13, 2009



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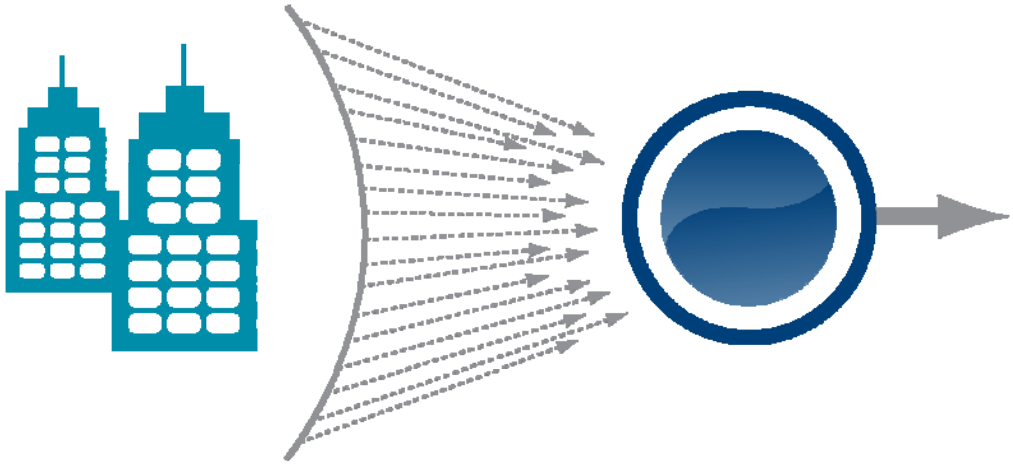
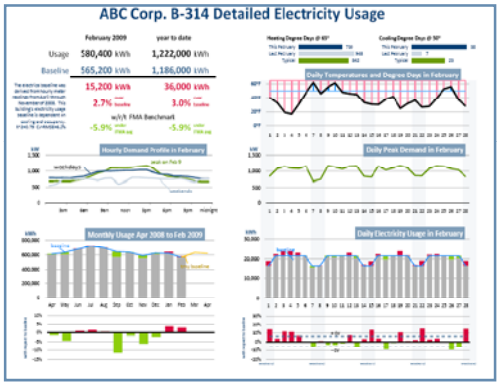
SiteSMART: Leveraging Technology to Deliver Savings

Data is captured at the building and/or sub-building level and EnerNOC's software continuously looks for equipment-level savings opportunities.





Thousands of data points from throughout your facility…

…. are collected and analyzed by EnerNOC…

… and delivered in a detailed energy Scorecard with savings recommendations.

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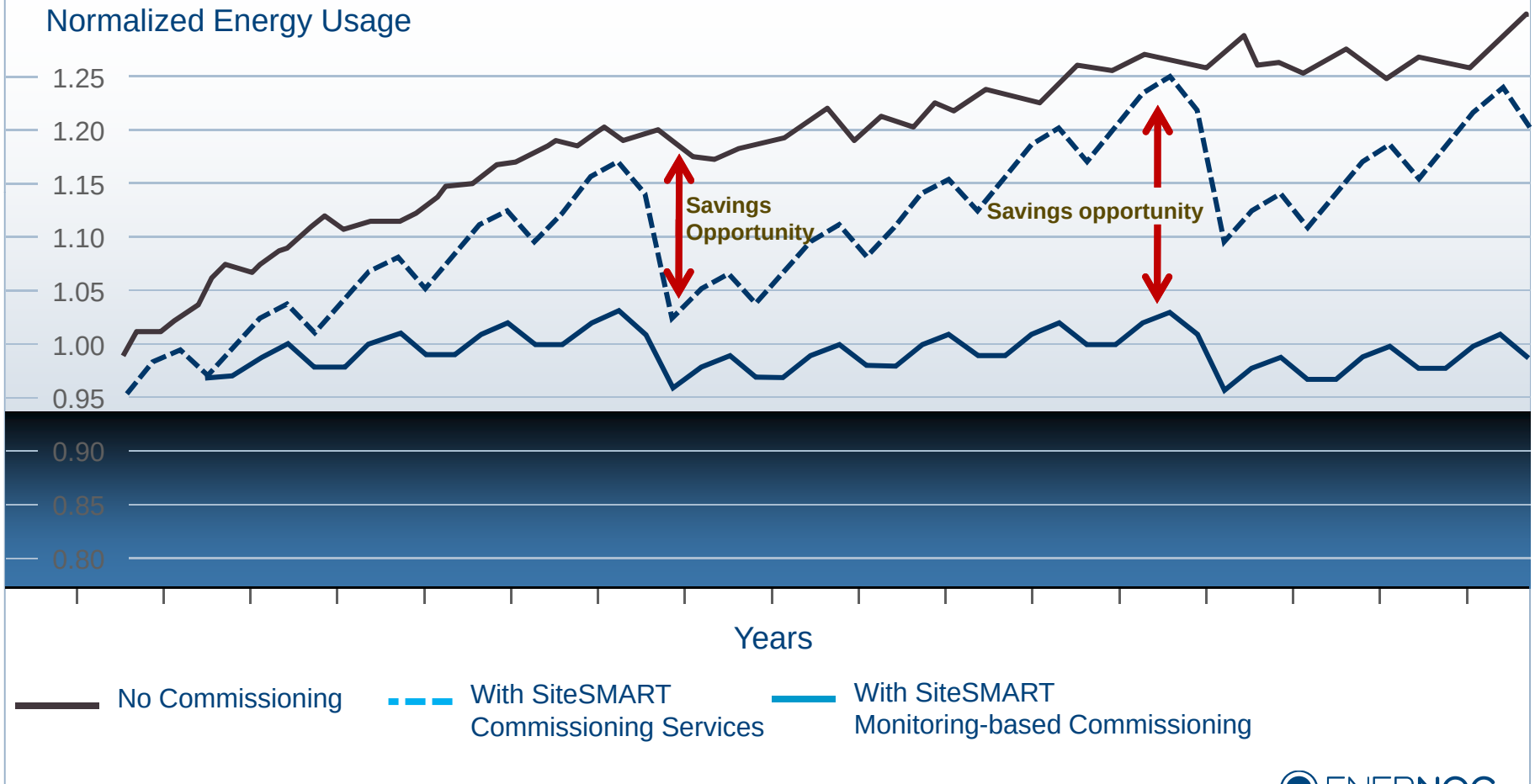
SiteSMART: Data-Driven Energy Efficiency

A building's performance naturally degrades over time. SiteSMART uses building data and powerful algorithms to identify savings opportunities on an ongoing basis.



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Case Study: Morgan Stanley HQ, 1585 Broadway

Even for a finely tuned building like 1585 Broadway, SiteSMART is already uncovering substantial savings

Building Information

- Year of Construction: 1990
- Size: Approximately 1,460,000 ft^2 on 42 floors

Space Allocation

- Office space is split between two tenants with Morgan Stanley occupying roughly 58% of the building
- Heavy Data Center and Trading floor load

SiteSMART Engagement

- EnerNOC collects and analyzes 5-minute interval data from **8,000 discrete points** in the building (of 40,000 total in Siemens BMS)
- SiteSMART ensures that previous retro-commissioning investments are sustained
- Despite a commissioning immediately prior, SiteSMART has identified over **$100,000 of new energy saving opportunities** from operational energy efficiencies

SiteSMART
Data-Driven Energy Efficiency

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