

PLMA—November 8th, 2006

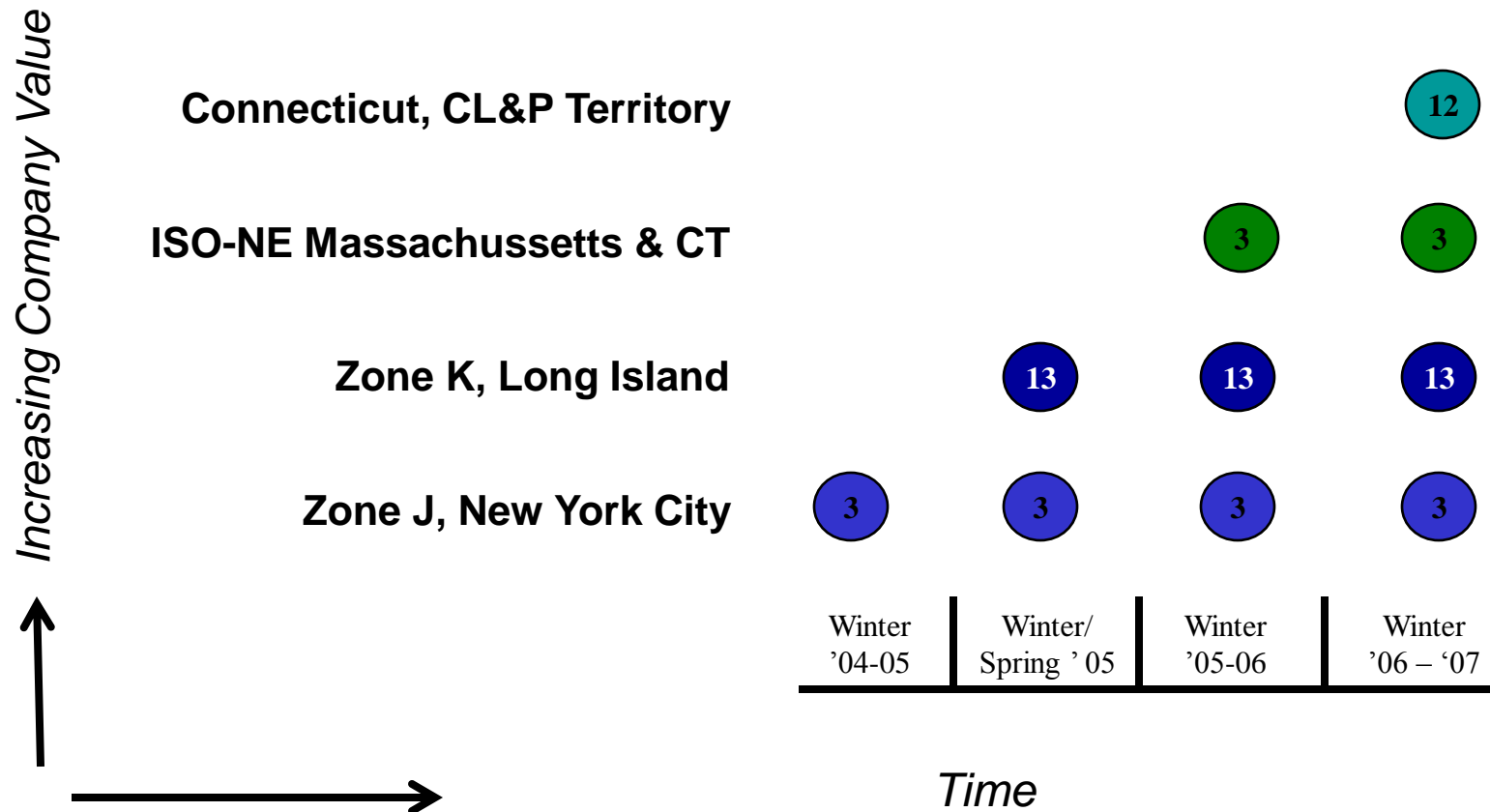
Demand Response as an Entry Point for More
Comprehensive Energy Management—A Case Study

MCE Energy Management

- Demand Side Management
- Supply Side Management
- Reporting
- Alternative Energy Supply

Demand Bidding—Portfolio Expansion Over Time

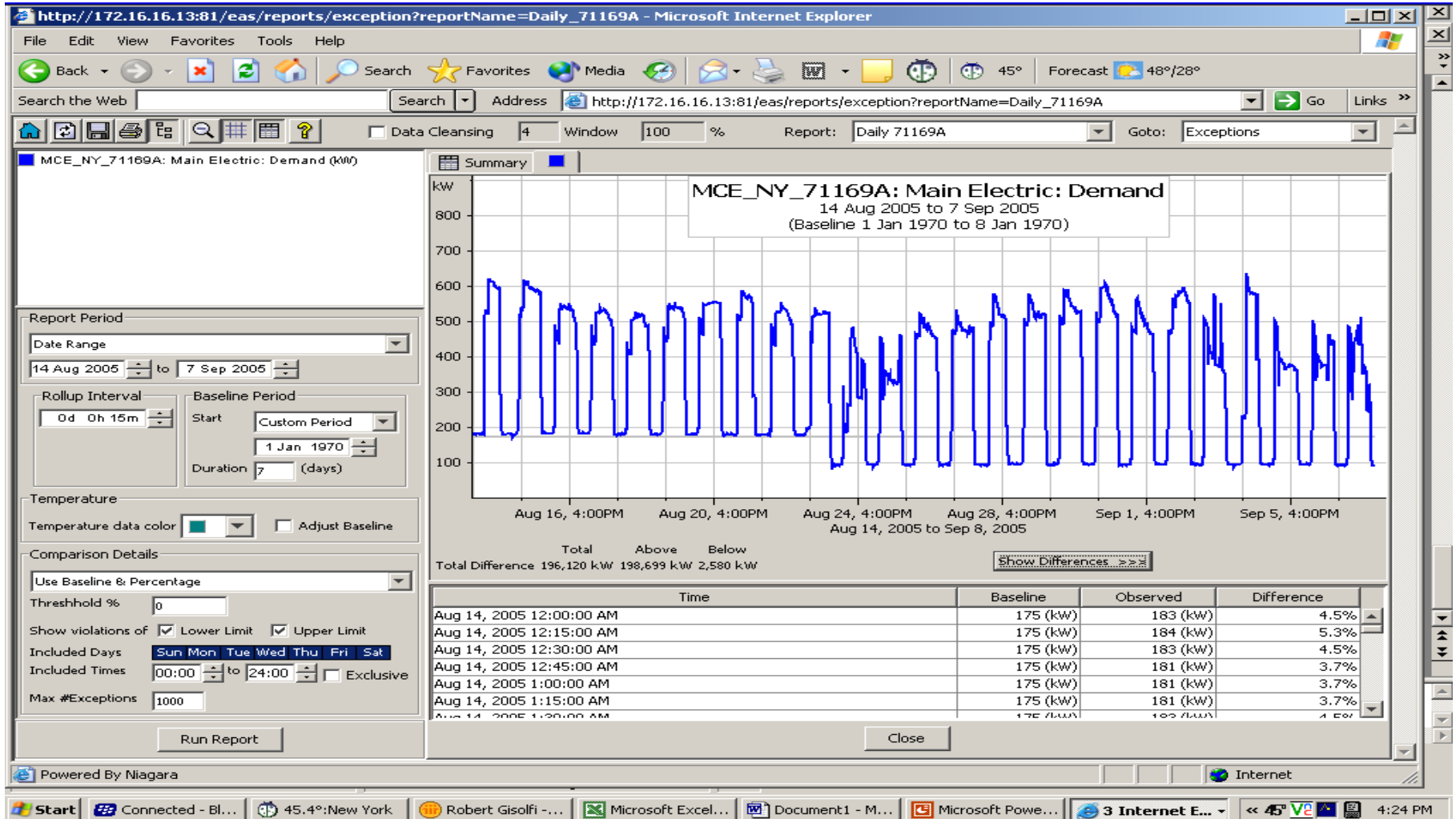
Today 30+ Macys properties are in different stages of maturation and are yielding progressively higher value in diverse geographical locations



Demand Side Management

- Commissioning
- Demand Limiting
- Demand Bidding
- Lighting Retrofits
- VFD & ASCO Repl.
- Demand Alarming
- Rebate Administration
- Dark Store
- Capital Projects
- Steam Traps
- Cleaning Light Quad Button
- EMS Scheduling
- EMS Upgrades

Demand Side Accomplishments



Supply Side Management

- Electric Contracts
- Steam Negotiations

Electric Contracts

- MCE - Portfolio Product - NY, NJ & MA
- MCE - Fixed Price - MD
- MCE - Market Based w/tax benefit - LI
- MCE - New England, PA, CT & DC being investigated for opportunities, as well as other states as they de-regulate or Direct Access (DA) makes sense
- MAY - Portfolio Product - MA
- MAY - NY, New England, PA, CT, MD, & DC being investigated for opportunities, as well as other states as they de-regulate or Direct Access (DA) makes sense

Steam Negotiations

- Substantial reductions are available with enhanced data on the electric and heat side
- Dynamic engineering is required—this was provided gratis by our Demand-Response provider
- We were agnostic to our options—cogeneration plant or steam rate reductions

REPORTING

- **Bottom 20—Benchmarking**
- **ROF**
- **Interval data for DA opportunities**
- **Capital Expenditure**

Bottom 20

Macy's East
 Facility Management
 Bottom 20 - kWh Performance to LY
 Mar. 2006 - Week 6
 3/5/2006 - 3/11/2006

Store #	Store Name	OVP	RD	Est./ Act.	MTD					
					TY	PL	LY	Plan Var %	LY Var %	LY Rank
Redacted					32,209	29,043	28,536	(11%)	(13%)	85
					121,892	106,694	108,122	(14%)	(13%)	84
					149,515	130,235	135,334	(15%)	(10%)	83
					179,451	158,287	164,903	(13%)	(9%)	82
					124,591	106,481	115,525	(17%)	(8%)	80
					79,374	72,830	74,748	(9%)	(6%)	77
					109,763	102,590	106,027	(7%)	(4%)	76
					142,565	140,716	139,472	(1%)	(2%)	74
					32,455	30,896	32,049	(5%)	(1%)	73
					75,948	71,388	75,435	(6%)	(1%)	71
					138,784	156,967	137,963	12%	(1%)	70
					144,573	147,308	144,103	2%	(0%)	68
					101,268	110,494	101,010	8%	(0%)	67
					130,932	129,831	130,841	(1%)	(0%)	66
					75,524	75,924	75,677	1%	0%	65
					82,830	82,249	83,194	(1%)	0%	64
					98,699	102,333	99,140	4%	0%	63
					62,706	63,905	63,134	2%	1%	62
					380,866	376,952	383,640	(1%)	1%	61
					103,974	103,627	105,240	(0%)	1%	60
Bottom 20 Total					1,883,079	1,818,170	1,815,213	(4%)	(4%)	
Divisional Total					9,773,772	10,018,956	10,169,340	2.4%	3.9%	



ROF

EMS ROF - Microsoft Internet Explorer

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StartDate 3/1/2006
 EndDate 3/31/2006

Division Macys East
 Sort by Location

R.O.F.

Export Summary
 Export Details

kWh Plan	kWh Act	kWh Diff	kWh\$ Plan	kWh\$ Act	kWh\$ Diff
21,878,598	21,566,386	-312,212	\$3,238,262	\$3,188,698	-\$49,564
		-1.43%			-1.53%

Submit Query Reset Return

Location	View	Data	Per Days	kWh Plan	kWh Act	kWh Diff	%Diff	kWh Avg	kWh\$ Plan	kWh\$ Act	kWh\$ Diff	%Diff	Max kWh\$	Adj ROF	Confidence
71001A	Detail	15	31	361,571	396,213	34,642	9.58%	12,781	\$59,407	\$65,098	\$5,691	9.58%	\$0	\$5,691	48.0%
71002A	Detail	15	31	788,202	807,176	18,974	2.41%	26,038	\$139,672	\$143,032	\$3,360	2.41%	\$0	\$3,360	48.0%
71003A	Detail	15	31	2,787,434	2,809,704	22,270	0.80%	90,636	\$461,627	\$465,287	\$3,660	0.79%	\$0	\$3,660	48.0%
71005A	Detail	15	31	353,157	355,336	2,179	0.62%	11,462	\$51,981	\$52,306	\$325	0.62%	\$0	\$325	48.0%
71007A	Detail	15	31	296,214	284,824	-11,390	-3.85%	9,188	\$54,413	\$52,322	-\$2,091	-3.84%	\$0	-\$2,091	48.0%
71008A	Detail	15	31	328,622	320,980	-7,642	-2.33%	10,354	\$45,142	\$44,103	-\$1,039	-2.30%	\$0	-\$1,039	48.0%
71009A	Detail	15	31	217,386	230,152	12,766	5.87%	7,424	\$29,866	\$31,623	\$1,757	5.88%	\$0	\$1,757	48.0%
71010A	Detail	15	31	361,205	394,117	32,912	9.11%	12,713	\$50,517	\$55,137	\$4,620	9.15%	\$0	\$4,620	48.0%
71011A	Detail	0	31	345,114	0	0	0.00%	0	\$26,732	\$26,732	\$0	0.00%	\$0	\$0	0.0%
71013A	Detail	15	31	311,471	320,887	9,416	3.02%	10,351	\$45,996	\$47,395	\$1,399	3.04%	\$0	\$1,399	48.0%
71014A	Detail	15	31	298,176	220,079	-78,097	-26.19%	7,099	\$32,947	\$24,319	-\$8,628	-26.19%	\$0	-\$8,628	48.0%
71015A	Detail	15	31	286,130	320,519	34,389	12.02%	10,339	\$44,460	\$49,809	\$5,349	12.03%	\$0	\$5,349	48.0%
71016A	Detail	15	31	225,896	273,428	47,532	21.04%	8,820	\$37,041	\$44,842	\$7,801	21.06%	\$0	\$7,801	48.0%
71017A	Detail	15	31	407,486	338,427	-69,059	-16.95%	10,917	\$67,356	\$55,942	-\$11,414	-16.95%	\$0	-\$11,414	48.0%
71019A	Detail	15	31	307,106	321,929	14,823	4.83%	10,385	\$44,058	\$46,165	\$2,107	4.78%	\$0	\$2,107	48.0%
71019B	Detail	15	31	138,480	116,434	-22,046	-15.92%	3,756	\$19,998	\$16,813	-\$3,185	-15.93%	\$0	-\$3,185	48.0%
71020A	Detail	14	31	180,073	202,452	22,379	11.87%	6,531	\$25,024	\$29,011	\$3,987	11.01%	\$0	\$3,987	45.0%

Local intranet

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Energy Financial Forecast

EXPENSE

	<u>ACT / PROJ</u>	<u>PLN</u>	<u>LY</u>	<u>VARTY TO PLN</u>		<u>VARTY TO LY</u>		<u>VAR PLN TO LY</u>	
	\$\$	\$\$	\$\$	\$\$	\$\$ %	\$\$	\$\$ %	\$\$	\$\$ %
FEBRUARY	2,918,763	2,975,722	2,391,532	\$56,959	1.9%	(\$527,231)	-22.0%	(\$584,190)	-24.4%
MARCH	3,245,034	3,240,640	2,614,613	(\$4,394)	-0.1%	(\$630,421)	-24.1%	(\$626,027)	-23.9%
APRIL	3,460,700	3,460,700	2,646,198	\$0	0.0%	(\$814,502)	-30.8%	(\$814,502)	-30.8%
MAY	4,057,336	4,057,336	3,150,506	\$0	0.0%	(\$906,830)	-28.8%	(\$906,830)	-28.8%
JUNE	4,995,332	4,995,332	3,905,920	\$0	0.0%	(\$1,089,412)	-27.9%	(\$1,089,412)	-27.9%
JULY	5,446,662	5,446,662	4,331,384	\$0	0.0%	(\$1,115,278)	-25.7%	(\$1,115,278)	-25.7%
TOTAL SPRING	\$24,123,827	\$24,176,392	\$19,040,153	\$52,565	0.2%	(\$5,083,674)	-26.7%	(\$5,136,239)	-27.0%

KWH

	<u>ACT / PROJ</u>	<u>PLN</u>	<u>LY</u>	<u>VARTY TO PLN</u>		<u>VARTY TO LY</u>		<u>VAR PLN TO LY</u>	
	KWH	KWH	KWH	KWH	KWH %	KWH	KWH %	KWH	KWH %
FEBRUARY	19,977,842	20,366,751	20,559,537	388,909	1.9%	581,695	2.8%	192,786	0.9%
MARCH	21,853,340	21,823,747	22,047,080	(29,593)	-0.1%	193,740	0.9%	223,333	1.0%
APRIL	21,324,030	21,324,030	21,514,956	0	0.0%	190,926	0.9%	190,926	0.9%
MAY	23,714,899	23,714,899	24,154,033	0	0.0%	439,134	1.8%	439,134	1.8%
JUNE	27,208,089	27,208,089	27,375,618	0	0.0%	167,529	0.6%	167,529	0.6%
JULY	29,278,010	29,278,010	29,880,224	0	0.0%	602,214	2.0%	602,214	2.0%
TOTAL SPRING	143,356,210	143,715,526	145,531,448	359,316	0.3%	2,175,238	1.5%	1,815,922	1.2%

RATE

	<u>ACT / PROJ</u>	<u>PLN</u>	<u>LY</u>	<u>VARTY TO PLN</u>		<u>VARTY TO LY</u>		<u>VAR PLN TO LY</u>	
	Rate	Rate	Rate	Rate	Rate %	Rate	Rate %	Rate	Rate %
FEBRUARY	\$0.1461	\$0.1461	\$0.1163	\$0.0000	0.0%	(\$0.0298)	-25.6%	(\$0.0298)	-25.6%
MARCH	\$0.1485	\$0.1485	\$0.1186	\$0.0000	0.0%	(\$0.0299)	-25.2%	(\$0.0299)	-25.2%
APRIL	\$0.1623	\$0.1623	\$0.1230	\$0.0000	0.0%	(\$0.0393)	-32.0%	(\$0.0393)	-32.0%
MAY	\$0.1711	\$0.1711	\$0.1304	\$0.0000	0.0%	(\$0.0407)	-31.2%	(\$0.0407)	-31.2%
JUNE	\$0.1836	\$0.1836	\$0.1427	\$0.0000	0.0%	(\$0.0409)	-28.7%	(\$0.0409)	-28.7%
JULY	\$0.1860	\$0.1860	\$0.1450	\$0.0000	0.0%	(\$0.0411)	-28.3%	(\$0.0411)	-28.3%
TOTAL SPRING	\$0.1683	\$0.1682	\$0.1308	(\$0.0001)	0.0%	(\$0.0374)	-28.6%	(\$0.0374)	-28.6%

Capital Expense Reporting

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Question

Does demand-side management, its earnings, its data, its incentives, its participating providers, its end-user participation, help to enable deeper transformation in the energy markets?