

From: McMahon, Marie P.
Sent: Friday, June 11, 2010 10:05 AM
To: Mallett, Graceann J.
Cc: Keena, Kevin
Subject: 2009 "Deeper Dive" Projects

Customer	Measures	Previous Annual Electric (kWh)	Annual Savings (kwh)	Percent Savings
Milville Elementary School	HVAC, Lighting	406,000	141,950	35.0%
Andover Town Offices	Lighting	734,000	207,350	28.2%
Dighton Beckwith Middle School	Lighting	661,813	163,060	24.6%
Town Of Billerica - Town Hall	HVAC, Lighting	1,050,800	241,009	22.9%
Rotmans Furniture	Lighting, Lighting Controls, Retrocommissioning	2,990,250	632,119	21.1%
Westborough Office Park 1700	EMS, CoolChoice, Lighting	1,452,994	300,800	20.7%
Dighton Elementary School	Lighting	288,600	58,318	20.2%
Westborough Office Park 1900	Custom, CoolChoice, EMS	1,840,805	347,040	18.9%
Ma College Of Liberal Arts	Lighting, VSD, HVAC	3,546,200	630,016	17.8%
Milford Memorial Elementary	Lighting	310,099	53,822	17.4%
Dighton Middle School	Lighting	491,640	83,812	17.0%
Westborough Office Park 2000	Custom, EMS	1,585,842	264,977	16.7%
Dighton High School	Lighting	1,779,000	286,125	16.1%
Westborough Office Park 1800	EMS, CoolChoice	1,241,103	192,281	15.5%

Commercial & Industrial		Threshold		Design		Exemplary	
	Performance Metric Description	Units	Dollars	Units	Dollars	Units	Dollars
C&I #3:	Performance Lighting - X percent of 2009 new construction and major renovation (NC/MR) projects that include lighting projects go through the performance lighting path (PLP) and achieve a collective average of Y percent savings that is better than the Massachusetts Energy Code in effect on January 1, 2009. Projects that qualify under this program must be new construction projects or renovation projects that involve the installation of new fixtures throughout the building or renovated spaces. Note: If no such NC/MR were available during 2009, the associated Design level monies will be allocated among the remaining metrics.	20%	\$57,482				
	Threshold: % of NC/MR projects with lighting in PLP (X) = 20% and Average savings (Y) = 20%	20%					
	Design: % of NC/MR projects with lighting in PLP (X) = 25% and Average savings (Y) = 20%			25%	\$76,642		
	Exemplary: % of NC/MR projects with lighting in PLP (X) = 30% and Average savings (Y) = 25%			20%		30%	\$84,307
Subtotal - Commercial & Industrial			\$57,482		\$76,642		\$84,307

Total Lighting Projects	73 lighting projects
Total Performance Lighting project	15
Total Performance Lighting Projects Threshold	13
Total Performance Lighting Projects Design	13
Total Performance Lighting Projects Exemplary	11
Average percent above code	36%

2009 Prescriptive Lighting Application

Application Number	Application Status	Application D2 Type Id	Application Status	Customer Name	State ID	Program Name	Sub Program Name
517361	Closed	1	CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE 2/18/2009	WESTBOROUGH BOOKS INC	MA	Design 2000	Lighting
523644	Payment Authorized	1	CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE 4/26/2009	NOVA PACKAGING SYSTEMS MA	MA	Design 2000	Lighting
525713	Closed	1	CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE 2/18/2009	626 D REALTY TRUST	MA	Design 2000	Lighting
526709	Closed	1	CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE 2/18/2009	MASY SYSTEMS INC	MA	Design 2000	Lighting
527127	Closed	1	CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE 2/18/2009	JM 335 REALTY TRUST	MA	Design 2000	Lighting
530341	Closed	1	CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE 2/18/2009	IP SERVICES INC	MA	Design 2000	Lighting
530409	Closed	1	CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE 2/18/2009	SOUTHWORTHMILTON INC	MA	Design 2000	Lighting
531385	Payment Authorized	1	CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE 2/19/2009	TAX CONSULTANT	MA	Design 2000	Lighting
532736	Payment Authorized	1	CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE 3/20/2009	FALLON CLINIC INC	MA	Design 2000	Lighting
533567	Payment Authorized	1	CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE 11/20/2009	C V S STORE # 01025	MA	Design 2000	Lighting
535661	Payment Authorized	1	CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE 3/6/2009	K & L REALTY LLC	MA	Design 2000	Lighting
535944	Payment Authorized	1	CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE 2/19/2009	CARR CHIROPRACTIC	MA	Design 2000	Lighting
537227	Payment Authorized	1	CHANGE IN THE USE OR FUNCTION OF THE BUILDING SPACE 4/15/2009	GEORGE MACOPOULOS	MA	Design 2000	Lighting
504924	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 11/30/2009	TOWN OF AMESBURY	MA	Design 2000	Lighting
519617	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 7/20/2009	TOWN OF ATHOL	MA	Design 2000	Lighting
522763	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 2/26/2009	ADVANCE WELDING AND	MA	Design 2000	Lighting
529527	Closed	2	EXPANSION OF AN EXISTING BUILDING 2/18/2009	ALLIED MACHINE PRODUCTS MA	MA	Design 2000	Lighting
530991	Closed	2	EXPANSION OF AN EXISTING BUILDING 2/18/2009	AMERICAN INDUSTRIAL	MA	Design 2000	Lighting
531233	Closed	2	EXPANSION OF AN EXISTING BUILDING 2/18/2009	LONG TRM PHARM SOLUTION MA	MA	Design 2000	Lighting
531247	Closed	2	EXPANSION OF AN EXISTING BUILDING 2/18/2009	CRUSADER PAPER	MA	Design 2000	Lighting
533063	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 4/26/2009	WORCESTER TELEGRAM	MA	Design 2000	Lighting
535177	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 2/26/2009	ARLAND TOOL MFG CO	MA	Design 2000	Lighting
535878	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 11/8/2009	CERIC FABRICATORS	MA	Design 2000	Lighting
536092	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 4/26/2009	MERRFIELD BUS COMPANY	MA	Design 2000	Lighting
536484	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 4/13/2009	TRIMARK UNITED EAST	MA	Design 2000	Lighting
539131	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 4/13/2009	BUILT-RITE TOOL & DYE	MA	Design 2000	Lighting
539269	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 4/26/2009	WHPPPS INC	MA	Design 2000	Lighting
539863	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 4/17/2009	POBCO INC	MA	Design 2000	Lighting
540406	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 4/22/2009	AIRTEC PRODUCTS CORP	MA	Design 2000	Lighting
540988	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 5/18/2009	WRIGHT ARCHITECTURAL	MA	Design 2000	Lighting
548880	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 7/31/2009	NORTHBORO FREE LIBRARY MA	MA	Design 2000	Lighting
550924	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 11/3/2009	FITCHBURG WELDING CO	MA	Design 2000	Lighting
556667	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 11/10/2009	CAPSTAN ATLANTIC	MA	Design 2000	Lighting
561090	Payment Authorized	2	EXPANSION OF AN EXISTING BUILDING 11/16/2009	C V S STORE #01132	MA	Design 2000	Lighting
520680	Closed	3	NEW BUILDING 2/18/2009	LOWES HOME CENTER INCO/MA	MA	Design 2000	Lighting
523808	Payment Authorized	3	NEW BUILDING 3/26/2009	LOWE'S HOME IMPROVEMEN MA	MA	Design 2000	Lighting
525391	Payment Authorized	3	NEW BUILDING 6/5/2009	B J WHOLESALE CLUB 105	MA	Design 2000	Lighting
526252	Closed	3	NEW BUILDING 2/18/2009	LIBERTY PROPERTIES	MA	Design 2000	Lighting
527004	Closed	3	NEW BUILDING 2/18/2009	TARGET CORPORATION	MA	Design 2000	Lighting
527005	Payment Authorized	3	NEW BUILDING 1/7/2009	TARGET STORE T2288	MA	Design 2000	Lighting

528970	Closed		3	NEW BUILDING 2/18/2009	RUSHCO SERVICES INC	MA	Design 2000	Lighting
531029	Payment Authorized		3	NEW BUILDING 4/13/2009	C V S STORE	MA	Design 2000	Lighting
531034	Payment Authorized		3	NEW BUILDING 5/20/2009	CVS PHARMACY INC	MA	Design 2000	Lighting
531121	Payment Authorized		3	NEW BUILDING 11/20/2009	CVS PHARMACY 4200-01	MA	Design 2000	Lighting
533220	Payment Authorized		3	NEW BUILDING 5/26/2009	CVS PHARMACY INC	MA	Design 2000	Lighting
533264	Payment Authorized		3	NEW BUILDING 1/5/2009	NANTUCKET LIGHTHOUSE SCHIC	MA	Design 2000	Lighting
533666	Payment Authorized		3	NEW BUILDING 9/2/2009	FIRST BAPTIST CHURCH	MA	Design 2000	Lighting
533868	Payment Authorized		3	NEW BUILDING 9/24/2009	RCG BUILDERS	MA	Design 2000	Lighting
534131	Payment Authorized		3	NEW BUILDING 4/13/2009	DISCOVER MARBLE & GRANIT	MA	Design 2000	Lighting
534483	Payment Authorized		3	NEW BUILDING 8/3/2009	SMALL FRIENDS OF NANT INC	MA	Design 2000	Lighting
535684	Payment Authorized		3	NEW BUILDING 3/9/2009	TEE'S PLUS	MA	Design 2000	Lighting
536557	Payment Authorized		3	NEW BUILDING 3/25/2009	CITY OF REVERE	MA	Design 2000	Lighting
537297	Payment Authorized		3	NEW BUILDING 4/1/2009	CUMMINGS PROPERTIES	MA	Design 2000	Lighting
537306	Payment Authorized		3	NEW BUILDING 4/13/2009	BOISSONNEAU T ELECTRIC	MA	Design 2000	Lighting
537749	Payment Authorized		3	NEW BUILDING 5/6/2009	GORDON COLLEGE	MA	Design 2000	Lighting
538510	Payment Authorized		3	NEW BUILDING 5/14/2009	FORE KICKS II	MA	Design 2000	Lighting
540588	Payment Authorized		3	NEW BUILDING 7/7/2009	NEXT GENERATION CHILD CT	MA	Design 2000	Lighting
540722	Payment Authorized		3	NEW BUILDING 5/29/2009	K & K EQUIPMENT	MA	Design 2000	Lighting
541154	Payment Authorized		3	NEW BUILDING 5/28/2009	TOWN OF EAST BRIDGEWATER	MA	Design 2000	Lighting
541337	Payment Authorized		3	NEW BUILDING 5/28/2009	TOWN OF EAST BRIDGEWATER	MA	Design 2000	Lighting
544393	Payment Authorized		3	NEW BUILDING 7/14/2009	NATIONAL DEVELOPMENT	MA	Design 2000	Lighting
544573	Payment Authorized		3	NEW BUILDING 6/11/2009	ANDOVER HEALTHCARE INC	MA	Design 2000	Lighting
546655	Payment Authorized		3	NEW BUILDING 11/19/2009	CITY OF REVERE	MA	Design 2000	Lighting
549124	Payment Authorized		3	NEW BUILDING 11/20/2009	CVS CORPORATION	MA	Design 2000	Lighting
549210	Payment Authorized		3	NEW BUILDING 8/4/2009	DENNIS BROLIN	MA	Design 2000	Lighting
549726	Payment Authorized		3	NEW BUILDING 10/28/2009	BROX INDUSTRIES	MA	Design 2000	Lighting
554785	Payment Authorized		3	NEW BUILDING 9/22/2009	TOWN OF NANTUCKET	MA	Design 2000	Lighting
554962	Payment Authorized		3	NEW BUILDING 10/2/2009	PSP, LLC	MA	Design 2000	Lighting
557822	Payment Authorized		3	NEW BUILDING 11/13/2009	MARSHALLS	MA	Design 2000	Lighting
558789	Payment Authorized		3	NEW BUILDING 11/22/2009	TARGET CORPORATION	MA	Design 2000	Lighting
558967	Payment Authorized		4	NEW CONTROLS FOR IMPROVED OPERATIONS	MASS CRANE & HOIST SV,INC	MA	Design 2000	Lighting
536170	Payment Authorized		5	NEW EQUIPMENT FOR NEW PROCESS OR EXPANDED OPERATION	JR HUDSON HORSE TRANSP	MA	Design 2000	Lighting
534114	Payment Authorized		6	PLANNED REPLACEMENT OF EQUIPMENT	KEVIN GRACE	MA	Design 2000	Lighting
540477	Payment Authorized		6	PLANNED REPLACEMENT OF EQUIPMENT	DEAN COLLEGE	MA	Design 2000	Lighting
559510	Payment Authorized		6	PLANNED REPLACEMENT OF EQUIPMENT	JUNIPER NETWORKS	MA	Design 2000	Lighting
507324	Payment Authorized		7	RENOVATION OF AN EXISTING BUILDING	LOWELL TRANSITIONAL CTR	MA	Design 2000	Lighting
509866	Payment Authorized		7	RENOVATION OF AN EXISTING BUILDING	TRACY HEALEY CONSTRUCT	MA	Design 2000	Lighting
521459	Payment Authorized		7	RENOVATION OF AN EXISTING BUILDING	CEDAR TREE DEV LLC	MA	Design 2000	Lighting
527536	Payment Authorized		7	RENOVATION OF AN EXISTING BUILDING	GROUP ONE MANAGEMENT	MA	Design 2000	Lighting
527642	Payment Authorized		7	RENOVATION OF AN EXISTING BUILDING	KEVIN VANSTRY	MA	Design 2000	Lighting
529904	Closed		7	RENOVATION OF AN EXISTING BUILDING	TOWN OF NAHANT	MA	Design 2000	Lighting
530579	Closed		7	RENOVATION OF AN EXISTING BUILDING	SSB REALTY LLC	MA	Design 2000	Lighting
531161	Closed		7	RENOVATION OF AN EXISTING BUILDING	EASTGAR REALTY TRUST	MA	Design 2000	Lighting
531673	Closed		7	RENOVATION OF AN EXISTING BUILDING	WORCESTER ACADEMY	MA	Design 2000	Lighting
531896	Closed		7	RENOVATION OF AN EXISTING BUILDING	EQUITY INDUSTRIAL PARTNE	MA	Design 2000	Lighting

533535	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	1/31/2009	CONSOLIDATED FABRICATOF MA	Design 2000	Lighting
533536	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	3/1/2009	CONSOLIDATED FABRICATOF MA	Design 2000	Lighting
535321	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	3/3/2009	ROUTE 6 AUTO MALL INC MA	Design 2000	Lighting
535699	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	5/6/2009	TF KINNEALEY & CO. INC. MA	Design 2000	Lighting
536667	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	11/30/2009	NOTRE DAME HIGH SCHOOL MA	Design 2000	Lighting
536809	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	3/30/2009	JANCO INC MA	Design 2000	Lighting
540571	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	6/30/2009	SALEM STATE COLLEGE MA	Design 2000	Lighting
540735	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	11/2/2009	MAMMOTH FIRE ALARMS MA	Design 2000	Lighting
541651	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	5/6/2009	NASHOBA VALLEY SKI AREA MA	Design 2000	Lighting
542955	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	7/31/2009	MARSHALLS MA	Design 2000	Lighting
547068	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	7/1/2009	JADDAX LLC MA	Design 2000	Lighting
547169	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	11/30/2009	THE CONCORD BUYING GRO MA	Design 2000	Lighting
549365	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	8/6/2009	L O R T ENTERPRISES MA	Design 2000	Lighting
557946	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	10/30/2009	LENNON INVEST GP TRUST MA	Design 2000	Lighting
558227	Payment Authorized	7	RENOVATION OF AN EXISTING BUILDING	11/20/2009	EVANGELOS ROUMBAKIS MA	Design 2000	Lighting
528699	Payment Authorized	8	REPLACEMENT OF FAILED EQUIPMENT	11/23/2009	O S J GROUP OF MASS MA	Design 2000	Lighting

Custom Lighting 2009

Application Number	Customer Name	Program Name	State ID	Application Status	Application Status Dt	Custom D2 Measure	Percent more efficient than code	Custom Lighting	Eligible for Performance Lighting	>20% Beyond Code	>25% =Beyond Code	> 35% Beyond Code	>40% Beyond Code
529818	NORTHBIDGE HIGH SCHOOL	Design 2000	MA	Closed	2/18/2009	LGHT		1	1	1	1	1	
528476	THOMAS H SYLVESTER	Design 2000	MA	Closed	2/18/2009	LGHP	26%	1	1	1	1	1	
524068	IPG PHOTONICS	Design 2000	MA	Payment Authorized	2/26/2009	LGHP	47%	1	1	1	1	1	1
535117	BACONAGOSTINI CONS CO	Design 2000	MA	Payment Authorized	3/12/2009	CD	44%	1	1	1	1	1	1
535118	BROCKTON SCHOOL DEPT	Design 2000	MA	Payment Authorized	3/12/2009	CD	29%	1	1	1	1	1	1
526633	SEPRACOR INC	Design 2000	MA	Payment Authorized	3/24/2009	CD	23%	1	1	1	1	1	1
537584	BWRIRAYHAM REG HS	Design 2000	MA	Payment Authorized	5/5/2009	LGHP	32%	1	1	1	1	1	1
534034	DOCUMENTS ON DEMAND	Design 2000	MA	Payment Authorized	6/26/2009	LGHT	22%	1	1	1	1	1	1
530080	BABCOCK SALES INC	Design 2000	MA	Payment Authorized	10/2/2009	LGHP	56%	1	1	1	1	1	1
525899	TOWN OF NANTUCKET	Design 2000	MA	Payment Authorized	10/5/2009	CD	6%	1	-	1	1	1	1
525899	NORTON COMPANY	Design 2000	MA	Payment Authorized	10/6/2009	CD	40%	1	1	1	1	1	1
530077	BABCOCK SALES INC	Design 2000	MA	Payment Authorized	10/8/2009	LGHP	54%	1	1	1	1	1	1
535572	TACO BELL OF AMERICA INC	Design 2000	MA	Payment Authorized	10/9/2009	LGHP	44%	1	1	1	1	1	1
534277	TACO BELL OF AMERICA INC	Design 2000	MA	Payment Authorized	10/9/2009	CD	50%	1	1	1	1	1	1
531266	PETSMART #1982	Design 2000	MA	Payment Authorized	11/20/2009	LGHT	37%	1	1	1	1	1	1
							TOTAL	15	13	13	11	9	6
							100%	15	87%	87%	73%	60%	40%
							36%	15	13	13	11	9	6

Actual LPD	Code required LPD	% better than IECC 2006	NOTES	Daylighting
	1.2	1.6	26%	No
	0.8	1.5	47%	Yes
	0.9	1.6	44% code; LPD for typical class from DMI study	YES
	1.1	1.5	29% Base Case averaged	Yes
	1.0	1.3	23%	Yes
	1.0	1.5	32%	Yes
	1.0	1.3	22%	No
Various				Yes
	1.0	1.06	6%	
	0.9	1.4	40%	YES
Various				Yes
	1.0	1.8	44%	YES
	0.9	1.8	50%	Yes
	1.2	1.9	37%	

Custom D2 Eased Case Description	Custom D2 Proposed Description
47 new 400 watt pulse start MH fixtures	47 6L T5 HO fixtures
Code LPD	25% Lower than Code (use of daylight harvesting, RTIs, dimming)
Code maximum lighting power density assumed per Perf Lighting program - 1.53 w/sqft	Optimized lighting design to minimize power density - 0.9 w/sqft
See TA - Base School Design	See TA - Green School Design
See TA - Base school design	See TA - Green School Design CDA
R&D office. Code compliant 3.567.661 kWh/yr	Ten CDA improvements targeting reduction of 20%
efficient Lighting	Performance Lighting
code min standard design for office 1.3 w/sqft.	Upgraded design of high eff fluorescents 1.01 w/sqft
Mass Bldg code LPD of 1.3 watts/sf	Using advanced recessed lighting achieve LPD of .735 in all areas.
MA Code Design of Airport Terminal per ASHRAE 90.1 - 2004	CDA with Interactive Analysis and Savings
60,000 sq ft facility meeting State Building Code Requirements	Same building using NGrd CDA approach.
Mass Bldg Code LPD of 1.3 watts/sf	Use advanced recessed indirect fixtures to achieve .7 LPD in eligible areas under space by space method
Lighting to Code	Lighting at 25% better than code or performance lighting
Code building	Advanced building/advanced lighting
Standard efficiency lighting	Lighting 37% above existing code of 1.9watt/lf (per study)

2009 Prescriptive Lighting Applications

Application Number	Application Status	Application ID Type Id	Needs to be code compliance	Include for Metric Count	Application Status Date	Customer Name	State ID	Program Name	Sub Program Name
504924	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 11/20/2009	TOWN OF AMESBURY	MA	Design 2000	Lighting
518617	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 7/20/2009	TOWN OF ATHOL	MA	Design 2000	Lighting
522763	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 2/26/2009	ADVANCE WELDING AND ALLIED MACHINE PRODUCTS	MA	Design 2000	Lighting
529527	Closed	2	Y	1	EXPANSION OF AN EXISTING BUILDING 2/18/2009	AMERICAN INDUSTRIAL	MA	Design 2000	Lighting
530991	Closed	2	Y	1	EXPANSION OF AN EXISTING BUILDING 2/18/2009	LONG TRM PHARM SOLUTIONS	MA	Design 2000	Lighting
531233	Closed	2	Y	1	EXPANSION OF AN EXISTING BUILDING 2/18/2009	CRUSADER PAPER	MA	Design 2000	Lighting
533063	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 4/26/2009	WORCESTER TELEGRAM	MA	Design 2000	Lighting
535177	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 2/26/2009	ARLAND TOOL MFG CO	MA	Design 2000	Lighting
535978	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 11/18/2009	CERIC FABRICATORS	MA	Design 2000	Lighting
536092	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 4/26/2009	MERRFIELD BUS COMPANY	MA	Design 2000	Lighting
536484	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 4/1/2009	TRIMARK UNITED EAST	MA	Design 2000	Lighting
539131	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 4/1/2009	BUILT-RITE TOOL & DYE	MA	Design 2000	Lighting
539269	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 4/26/2009	WHIPPS INC	MA	Design 2000	Lighting
539863	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 4/17/2009	POBCO INC	MA	Design 2000	Lighting
540406	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 4/22/2009	AIRTEC PRODUCTS CORP	MA	Design 2000	Lighting
540988	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 5/18/2009	WRIGHT ARCHITECTURAL	MA	Design 2000	Lighting
548880	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 7/31/2009	NORTHBRO PREE LIBRARY	MA	Design 2000	Lighting
550924	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 11/19/2009	FITCHBURG WELDING CO	MA	Design 2000	Lighting
556667	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 11/02/2009	CAPSTAN ATLANTIC	MA	Design 2000	Lighting
561090	Payment Authorized	2	Y	1	EXPANSION OF AN EXISTING BUILDING 11/16/2009	C V S STORE #01132	MA	Design 2000	Lighting
520680	Closed	3	Y	1	NEW BUILDING 2/19/2009	LOWES HOME CENTER INCORP	MA	Design 2000	Lighting
523908	Payment Authorized	3	Y	1	NEW BUILDING 3/26/2009	LOWE'S HOME IMPROVEMENT	MA	Design 2000	Lighting
525391	Payment Authorized	3	Y	1	NEW BUILDING 6/6/2009	B J WHOLESAL CLUB 105	MA	Design 2000	Lighting
526252	Closed	3	Y	1	NEW BUILDING 2/19/2009	LIBERTY PROPERTIES	MA	Design 2000	Lighting
527004	Closed	3	Y	1	NEW BUILDING 2/18/2009	TARGET CORPORATION	MA	Design 2000	Lighting
527005	Payment Authorized	3	Y	1	NEW BUILDING 1/7/2009	TARGET STORE 7238	MA	Design 2000	Lighting
528970	Closed	3	Y	1	NEW BUILDING 2/19/2009	RUSHCO SERVICES INC	MA	Design 2000	Lighting
531029	Payment Authorized	3	Y	1	NEW BUILDING 4/13/2009	C V S STORE	MA	Design 2000	Lighting
531034	Payment Authorized	3	Y	1	NEW BUILDING 5/20/2009	CVS PHARMACY INC	MA	Design 2000	Lighting
531121	Payment Authorized	3	Y	1	NEW BUILDING 11/20/2009	CVS PHARMACY 4200-01	MA	Design 2000	Lighting
533220	Payment Authorized	3	Y	1	NEW BUILDING 5/26/2009	CVS PHARMACY INC	MA	Design 2000	Lighting
533254	Payment Authorized	3	Y	1	NEW BUILDING 1/5/2009	NANTUCKET LIGHTHOUSE SCHOOL	MA	Design 2000	Lighting
533666	Payment Authorized	3	Y	1	NEW BUILDING 9/2/2009	FIRST BAPTIST CHURCH	MA	Design 2000	Lighting
533868	Payment Authorized	3	Y	1	NEW BUILDING 9/24/2009	RCG BUILDERS	MA	Design 2000	Lighting
534131	Payment Authorized	3	Y	1	NEW BUILDING 4/13/2009	DISCOVER MARBLE & GRANITE	MA	Design 2000	Lighting
534463	Payment Authorized	3	Y	1	NEW BUILDING 9/3/2009	SMALL FRIENDS OF NANT INC	MA	Design 2000	Lighting
535684	Payment Authorized	3	Y	1	NEW BUILDING 9/9/2009	TEE'S PLUS	MA	Design 2000	Lighting
536557	Payment Authorized	3	Y	1	NEW BUILDING 3/25/2009	CITY OF REVERE	MA	Design 2000	Lighting
537297	Payment Authorized	3	Y	1	NEW BUILDING 4/1/2009	CUMMINGS PROPERTIES	MA	Design 2000	Lighting
537306	Payment Authorized	3	Y	1	NEW BUILDING 4/13/2009	BOISSONNEAU ELECTRIC	MA	Design 2000	Lighting
537749	Payment Authorized	3	Y	1	NEW BUILDING 5/8/2009	GORDON COLLEGE	MA	Design 2000	Lighting
538510	Payment Authorized	3	Y	1	NEW BUILDING 5/16/2009	FORE KICKS II	MA	Design 2000	Lighting
540588	Payment Authorized	3	Y	1	NEW BUILDING 7/7/2009	NEXT GENERATION CHLD CTR	MA	Design 2000	Lighting
540722	Payment Authorized	3	Y	1	NEW BUILDING 5/29/2009	K & K EQUIPMENT	MA	Design 2000	Lighting
541154	Payment Authorized	3	Y	1	NEW BUILDING 5/28/2009	TOWN OF EAST BRIDGEWATER WAT	MA	Design 2000	Lighting
541337	Payment Authorized	3	Y	1	NEW BUILDING 5/29/2009	TOWN OF EAST BRIDGEWATER WAT	MA	Design 2000	Lighting
544393	Payment Authorized	3	Y	1	NEW BUILDING 7/14/2009	NATIONAL DEVELOPMENT	MA	Design 2000	Lighting
544573	Payment Authorized	3	Y	1	NEW BUILDING 6/11/2009	ANDOVER HEALTHCARE INC	MA	Design 2000	Lighting
546655	Payment Authorized	3	Y	1	NEW BUILDING 11/19/2009	CITY OF REVERE	MA	Design 2000	Lighting
549124	Payment Authorized	3	Y	1	NEW BUILDING 11/20/2009	CVS CORPORATION	MA	Design 2000	Lighting
549210	Payment Authorized	3	Y	1	NEW BUILDING 8/4/2009	DENNIS BROLIN	MA	Design 2000	Lighting
549726	Payment Authorized	3	Y	1	NEW BUILDING 10/28/2009	BROX INDUSTRIES	MA	Design 2000	Lighting

554785	Payment Authorized	3	Y	1	NEW BUILDING 9/22/2009	TOWN OF NANTUCKET	MA	Design 2000	Lighting
554952	Payment Authorized	3	Y	1	NEW BUILDING 10/22/09	PSP, LLC	MA	Design 2000	Lighting
557822	Payment Authorized	3	Y	1	NEW BUILDING 11/13/2009	MARSHALLS	MA	Design 2000	Lighting
558789	Payment Authorized	3	Y	1	NEW BUILDING 11/22/2009	TARGET CORPORATION	MA	Design 2000	Lighting
507324	Payment Authorized	7	n	0	RENOVATION OF AN EXISTING BUILDING 2/4/2009	LOWELL TRANSITIONAL CTR	MA	Design 2000	Lighting
509866	Payment Authorized	7	N	0	RENOVATION OF AN EXISTING BUILDING 10/20/2009	TRACY HEALEY CONSTRUCTION	MA	Design 2000	Lighting
521459	Payment Authorized	7	n	0	RENOVATION OF AN EXISTING BUILDING 7/16/2009	CEDAR TREE DEV LLC	MA	Design 2000	Lighting
527536	Payment Authorized	7	N	0	RENOVATION OF AN EXISTING BUILDING 2/24/2009	GROUP ONE MANAGEMENT	MA	Design 2000	Lighting
527642	Payment Authorized	7	N	0	RENOVATION OF AN EXISTING BUILDING 14/2/2009	KEVIN VANSTRY	MA	Design 2000	Lighting
529904	Closed	7	N	0	RENOVATION OF AN EXISTING BUILDING 2/18/2009	TOWN OF MAHANT	MA	Design 2000	Lighting
530579	Closed	7	N	0	RENOVATION OF AN EXISTING BUILDING 2/18/2009	SSB REALTY LLC	MA	Design 2000	Lighting
531161	Closed	7	N	0	RENOVATION OF AN EXISTING BUILDING 2/18/2009	EASTGAR REALTY TRUST	MA	Design 2000	Lighting
531673	Closed	7	N	0	RENOVATION OF AN EXISTING BUILDING 2/18/2009	WORCESTER ACADEMY	MA	Design 2000	Lighting
531896	Closed	7	n	0	RENOVATION OF AN EXISTING BUILDING 2/18/2009	EQUITY INDUSTRIAL PARTNER	MA	Design 2000	Lighting
533535	Payment Authorized	7	N	0	RENOVATION OF AN EXISTING BUILDING 1/31/2009	CONSOLIDATED FABRICATORS	MA	Design 2000	Lighting
533536	Payment Authorized	7	n	0	RENOVATION OF AN EXISTING BUILDING 3/1/2009	CONSOLIDATED FABRICATORS	MA	Design 2000	Lighting
53521	Payment Authorized	7	N	0	RENOVATION OF AN EXISTING BUILDING 3/2/2009	ROUTE 6 AUTO MALL INC	MA	Design 2000	Lighting
53699	Payment Authorized	7	N	0	RENOVATION OF AN EXISTING BUILDING 6/2/2009	TF KINNEALEY & CO. INC.	MA	Design 2000	Lighting
536667	Payment Authorized	7	n	0	RENOVATION OF AN EXISTING BUILDING 11/30/2009	NOTRE DAME HIGH SCHOOL ST MA	MA	Design 2000	Lighting
536809	Payment Authorized	7	n	0	RENOVATION OF AN EXISTING BUILDING 3/20/2009	JANCO INC	MA	Design 2000	Lighting
540571	Payment Authorized	7	n	0	RENOVATION OF AN EXISTING BUILDING 3/20/2009	SALEM STATE COLLEGE	MA	Design 2000	Lighting
540735	Payment Authorized	7	n	0	RENOVATION OF AN EXISTING BUILDING 11/22/2009	MAMMOTH FIRE ALARMS	MA	Design 2000	Lighting
541651	Payment Authorized	7	n	0	RENOVATION OF AN EXISTING BUILDING 5/5/2009	NASHOBA VALLEY SKI AREA	MA	Design 2000	Lighting
542955	Payment Authorized	7	n	0	RENOVATION OF AN EXISTING BUILDING 7/31/2009	MARSHALLS	MA	Design 2000	Lighting
547068	Payment Authorized	7	n	0	RENOVATION OF AN EXISTING BUILDING 7/1/2009	JADDAX LLC	MA	Design 2000	Lighting
547189	Payment Authorized	7	n	0	RENOVATION OF AN EXISTING BUILDING 11/30/2009	THE CONCORD BUYING GROUP	MA	Design 2000	Lighting
549365	Payment Authorized	7	n	0	RENOVATION OF AN EXISTING BUILDING 6/6/2009	L O R T ENTERPRISES	MA	Design 2000	Lighting
557946	Payment Authorized	7	Y	1	RENOVATION OF AN EXISTING BUILDING 10/30/2009	LENNON INVEST GP TRUST	MA	Design 2000	Lighting
558227	Payment Authorized	7	N	0	RENOVATION OF AN EXISTING BUILDING 11/20/2009	EVANGELOS ROUMBAKIS	MA	Design 2000	Lighting

C&I Performance Metric #4: Planning Actions

In response to the Massachusetts Green Community Act, the Program Administrators (“PAs”) will develop and execute an action plan, including a set of milestones, that will accelerate the changes necessary in their business to meet increased savings goals for 2009-2011. Accordingly each PA will demonstrate the completion of an action plan that will incorporate the following program elements. The plan will include jointly delivered elements where appropriate.

- 1) Workforce development, that addresses needs for additional internal and external staff and resources;
- 2) Outreach and communications, that stimulates participation by channels and other trade allies;
- 3) Statewide awareness, via public media or common website that elevates customers’ recognition of program administrator sponsored efficiency services, and
- 4) Effective gas and electric integration.

The plan must be in place by June 1st and implementation no later than September 15th. (Plan must be approved by the DOER/Energy Efficiency Advisory Council prior to implementation)

Note:

- 1) For WMECO, report on efforts to engage with gas companies where appropriate and possible.
- 2) The utility metrics, referred to here, are not applicable to the Cape Light Compact (“Compact”), however the Compact strives to coordinate its programs on a statewide basis where appropriate.

Part 1: Workforce development that addresses needs for additional internal and external staff and resources.

INTERNAL STAFF AND RESOURCES

A number of specific action items are required to translate the increase in energy efficiency program budgets and savings over the next three years in to additional internal resources. These action items include:

1. Hiring Plans: Each PA needs to compare their current staffing levels to those required to meet the increased program savings and spending goals. Based on this analysis, each PA will develop a hiring plan establishing hiring goals by year.
2. Hiring: Working with their respective Human Resources' Departments, each PA will begin to fill the positions, insuring that the positions are filled based on the annual hiring goals.
3. Training: Lastly, each PA will develop a training plan for new hires, incorporating internal and external training resources to accomplish these goals.

Hiring To Date:

National Grid has hired a total of 8 additional staff in Waltham (program development and management) since 2007 to support deployment of expanded and enhanced efficiency services. An additional 5 full time equivalent positions have been approved and are in the process of being filled.

C&I Electric Staff –Program Planning and Management

	Staff Primary Location	2007 (Base Year)	2008	2009	Existing Vacancies	Total
National Grid(1)	Waltham	8	4	3	5	20

(1) Approximately 75% of staff time spent on Massachusetts.

EXTERNAL STAFF AND RESOURCES

External staff development has focused primarily around the efforts of the New England Clean Energy Council Workforce. Reports covering Massachusetts energy efficiency workforce needs was recently completed by the New England Clean Energy Council in April 2009. Particularly relevant is the report titled “Workforce Impacts of Expanded Commercial and Industrial Energy Efficiency Funding in Massachusetts.”

Included in this report are a series of recommendations and action items that now need to be evaluated and prioritized. These include:

- Increase C&I EE business opportunities for companies by expanding admissions to the “Expediter” and “Agent” categories serving smaller customers
- Continue to support and encourage comprehensive treatment of EE opportunities through expanded technical assistance funding to engineers and designers
- Work with universities to identify C&I EE career paths and provide practical applications of engineering skills in C&I EE
- Reach out to more Specialized Installers as well as General Electrical Contractors to promote the business advantages of selling C&I EE
- Energy Efficiency Engineering Mentoring: Capture lessons learned as EE engineers, technical advisors, project developers and project managers retire
- Encourage and support creation of EE tracks at universities: Formalize EE education in traditional engineering disciplines and multi-disciplinary programs
- Create internship, fellowship and co-op education opportunities with established EE business and utilities: Provide practical experience with real projects to students
- Establish a website with EE job postings and training programs across the Northeast: Establish a “go to” destination for EE job seekers and provide a clear signal to potential future job seekers that there is serious demand for EE professionals

Finally action plans need to be developed and resources assigned to those initiatives that have the best payback.

In conclusion the PAs will work with the current organizations that are sponsoring and developing increased workforce infrastructure to design and deliver expanded energy efficiency services. As implementers of these services PAs expect that a continuation of additional internal staffing will be required in addition to the establishment of partnerships with other colleges, universities and technical schools to supply the workforce necessary. It is these joint efforts that will make it possible to meet the obligations expansion expected from the Massachusetts Green Communities Act.

Part 2: Outreach and communications that stimulates participation by channels and other trade allies;

OUTREACH AND COMMUNICATIONS PLAN

To increase program awareness and participation in 2010-2012, PA's will need to consider the multitude of ways to reach out to and communicate with customers and trade allies.

I. CUSTOMERS

General Advertising

Advertising serves as a means to generate initial awareness among a broad audience. These upfront dollars are intended to offset more costly labor intensive dollars that might otherwise be spent by NATIONAL GRID staff in initiating customer interest. NATIONAL GRID will need to expand the investment in communicating the benefits of Energy Efficiency Programs to business and municipal customers in order to increase the overall industry awareness of energy efficiency.

Action Item: Work with internal Corporate Communications Departments and ad agencies as necessary to ensure consistent messaging and branding within their organizations.

Governor's Clean Energy Challenge

Harnessing competitive forces often yields positive results. Offering mentors and public recognition as additional carrots to businesses, while simultaneously promoting PA programs, should prove even more worthwhile. The Governor's Clean Energy Challenge strives to do just that. One of the main purposes of the Challenge is to increase program participation.

Action Item: Continue to collaborate with Challenge administrators and communicate with internal staff to ensure Challenge participants are fast-tracked.

Innovative Incentives

In a difficult economy, additional incentives have proven worthy of financially motivating customers to participate in the programs.

Action Item: Explore creative pricing with other innovative incentives.

Integrated Website

As part of the 2009 metric, the PA's are collaborating to develop a comprehensive website for any customer (ie residential, business, gas, or electric) who wants information on energy efficiency programs in the state. The website is intended to increase overall awareness of programs as well as participation.

Sponsorships/Memberships/Subscriptions

Memberships and subscriptions to industry associations are critical to establishing and maintaining credibility within the industry. Each association provides resources (data, research, etc.) to further the development and evaluation of energy efficiency programs and services. Moreover, sponsorships of specific events hosted by such associations offer networking and visibility among critical association members.

Action Item: Examine additional associations whose goals align with NATIONAL GRID's to ensure comprehensive reach of programs.

Questline Newsletter

NATIONAL GRID's strategic business customers have responded favorably to the introduction of the monthly online newsletter licensed from Questline. The newsletter provides information on various energy efficiency topics and provides an additional opportunity to promote upcoming trainings and events which NATIONAL GRID hosts and/or sponsors.

Action Item: Continue service.

Tradeshows:

Tradeshows serve to reach a targeted C&I audience and provide a forum where potential customers can personally communicate with staff to ask questions and gain additional information.

Action Item: Continue to examine various tradeshows that provide an opportunity to showcase energy efficiency programs.

Training & Education:

Training has proven to serve as a precursor to the C&I energy efficiency sales process. By educating customers on various topics, customers begin to trust NATIONAL GRID to provide energy efficiency programs and services. These include workshops on end-use technologies such as motors/VFD's, chillers, pumps, and the Compressed Air Challenge delivered through the Massachusetts Energy Efficiency Partnership (MAEEP); workshops targeted to Operations & Maintenance staff through the BOC and administered by Northeast Energy Efficiency Council (NEEC); and workshops on Advanced Buildings developed by the New Buildings Institute.

Action Item: Continue to offer various types of trainings to customers and explore new ones.

II. TRADE ALLIES

Approximately 30% of NATIONAL GRID's C&I customers hear about energy efficiency programs through trade allies. As such, special efforts need to be targeted to various trade allies and channel partners to stimulate all decision makers and influencers of the C&I sales process.

Action Items:

- Segment and analyze different types of trade allies to better understand their motivational drivers
- Examine various methods to educate and reach out to trade allies
 - Use Vendor Open Houses to educate and inform trade allies about programs, policies, budgets, and goals in order to further extend the reach of C&I sales efforts
- Identify various training opportunities that might address specific training needs of trade allies
 - Investigate the appropriate delivery methods of such trainings for different types of trade allies
- Provide feedback mechanisms to trade allies to explore additional opportunities to incorporate trade allies into NATIONAL GRID's extended sales force

Part 3: Statewide awareness, via public media or common website that elevates customers' recognition of program administrator sponsored efficiency services.

The Massachusetts Program Administrators are working together to increase awareness of commercial and industrial (“business”) energy efficiency programs and services as well as create a single website for residential and business energy efficiency programs in Massachusetts.

PixelMEDIA had been hired to create a single website for residential energy efficiency programs and the business program managers are currently negotiating with PixelMEDIA to expand the scope of this website. The new site will serve as an additional resource for customers looking for energy efficiency solutions.

The development of the website is occurring in four distinct phases: Defining, Modeling, Designing, and Building.

- Defining: PixelMEDIA will conduct a one-day, on-site assessment workshop with stakeholders and decision makers involved in the planning of the business section of the website. The goal of the workshop will be to identify content which will help define the organizational model for the integrated web site.
- Modeling: PixelMEDIA will use the information collected in the assessment workshop and create full site architecture (site map) and associated workflows. It will show the overall site structure of each logical page as well as the flow between pages.
- Designing: PixelMEDIA will create templates representing page types identified in the business section of the site. These templates will include example content, both to ensure their viability and provide guidance for further copywriting.
- Building: PixelMEDIA will complete all aspects of technical execution prior to integrating utility-created content in the site's new content management system. Pixel will work closely with the team of Program Administrators to configure the content management system for business template pages in three distinct environments: quality assurance, content authoring and production. Program Administrators will be responsible for providing the content of the website.

In conjunction with this effort, the Program Administrators are working with PixelMEDIA to create a unique seamless brand for the residential and business energy efficiency offerings. During brand development, Pixel will research:

- How PAs perceive their programs,
- How target audiences perceive them
- How PAs want the programs to be perceived.

With this understanding of the brand, Pixel will document the PAs communication goals and translate them into a concise message. PixelMEDIA will then express the brand message through content and visual design.

The unified C&I energy efficiency portal website will be in development for 16-20 weeks starting in May, 2009 and is expected to be completed by October, 2009.

Part 4: Effective gas and electric integration.

Interim Gas-Electric Efficiency Coordination

In order to meet GCA goals and fully serve customers, it is critical that all efficiency opportunities are identified through a fuel blind approach. This philosophy will be interwoven in all commercial/industrial programs. Although a team has been formed to look at integration on a statewide basis, this will take time. Electric utilities will therefore incorporate an intermediate step using a triage process.

Single Point of Contact Coordinator

Each electric utility will have a single point of contact as a gas efficiency expert both with regard to technologies as well as with knowledge of all other gas utility programs. This *Single Point of Contact Coordinator* will maintain relationships with their gas utility counterparts, keeping up to date collateral of their programs and ensure they are presented in conjunction with electric offerings.

Energy Audits

Energy audits conducted by electric utilities will require inclusion of gas, oil, propane, water and any other applicable energy opportunity. Through regular training mechanisms, vendors will be educated on non-electric technologies and gas utility programs.

Customer Experience

The goal of this effort will be to have seamless delivery to the customer. Although programs will be offered through existing utility structures and incentive applications will vary, the *Single Point of Contact Coordinator* will ensure utility requirements and mechanisms are handled behind the scenes while the customer will only see the resulting value proposition of a combined fuel blind solution.

Inter-utility communication & training

The PA's will need to investigate inter-utility communication strategies to ensure proper coordination. A proactive approach might include elements such as cross-utility training for internal program managers and staff as well as external energy engineers who work on the various programs, periodic reporting, etc. Such an implementation strategy will not only provide seamless delivery to the customer, but also help other utilities sell more.

Action Items:

- Define POC
- Schedule meeting with gas utilities to discuss strategy
- Define gas-electric communication process
- Define scope of energy audits
- Schedule training sessions for –
 - Internal staff
 - Energy Engineers
 - Implementation vendors

From: Siegal, Mark
Sent: Wednesday, June 09, 2010 6:37 PM
To: Mallett, Graceann J.
Subject: FW: FW: METRIC PLANS: National Grid
Grace --

Rather succinct acceptance from Doug....

Mark

From: Douglas Baston [<mailto:dcbaston@northatlanticenergy.com>]
Sent: Friday, August 21, 2009 10:21 AM
To: Siegal, Mark
Cc: Mosenthal@optenergy.com; Paul Horowitz; McAteer, Michael L.
Subject: Re: FW: METRIC PLANS: National Grid

Yup.

D

Douglas Baston, President
North Atlantic Energy Advisors
Eighteen Sheepscot Road
Alna, Maine 04535

P: 207.882.7221
F: 207.882.4194

Siegal, Mark wrote:

Thanks Doug. Are we in agreement that the plan has been completed (Requirement 1 of the metric) and we are in the process of executing the elements of this plan which meets the criteria for the second requirement of this metric?

Mark

From: Douglas Baston [<mailto:dcbaston@northatlanticenergy.com>]
Sent: Friday, August 21, 2009 9:53 AM
To: Siegal, Mark
Cc: Mosenthal@optenergy.com; Paul Horowitz; McAteer, Michael L.
Subject: Re: FW: METRIC PLANS: National Grid

Thanks for the update.

Doug

Douglas Baston, President
North Atlantic Energy Advisors
Eighteen Sheepscot Road

P: 207.882.7221
F: 207.882.4194

Siegal, Mark wrote:

Hello --

Just wanted to check in regarding the plans submitted as part of Metric #4. As you know, we've been moving forward on implementation. For example:

- the state-wide website has made progress in finalizing the design, and structure as well as coming to closure on a state-wide name
- NGRID staff has been increasing over the year with more staff scheduled to be hired in the next few months.

Thanks,
Mark

From: Siegal, Mark
Sent: Friday, May 29, 2009 3:03 PM
To: 'Douglas Baston'; 'mosenthal@optenergy.com'; 'Paul Horowitz'
Cc: 'Brusco, Roseann'; 'Dick Oswald'; McAteer, Michael L.; 'jarvis@unitil.com'; 'Gundal, Frank'
Subject: METRIC PLANS: National Grid

Hello Doug/Paul/Phil,

Please find attached NATIONAL GRID's metrics due by June 1st. Please let us know if you have any comments/questions.

Thank you and have a nice weekend,
Mark

From: Gundal, Frank [<mailto:Frank.Gundal@nstar.com>]
Sent: Friday, May 29, 2009 1:00 PM
To: Douglas Baston; 'mosenthal@optenergy.com'; Paul Horowitz
Cc: Shea, Lisa; Brusco, Roseann; Dick Oswald; McAteer, Michael L.; Siegal, Mark; 'jarvis@unitil.com'
Subject: FW: METRIC PLANS
Importance: High

Doug/Paul/Phil,

Please find attached NSTAR's metrics due by June 1st. Please let us know if you have any comments/questions.

Frank

From: Brusco, Roseann
Sent: Friday, May 29, 2009 12:56 PM
To: Gundal, Frank
Subject: METRIC PLANS
Importance: High

<<Workforce Development -NSTAR.doc>> <<Outreach and Communication Plan-NSTAR.doc>>
<<Statewide Awareness -NSTAR.doc>> <<Gas-electric Coordination-NSTAR.doc>>

I changed the PA & utilities references to NSTAR except where the efforts being described were intended to be presented as collaborative efforts among the PA's.

Roseann G. Brusco
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NSTAR Electric & Gas
One NSTAR Way, SW360
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Combined Heat and Power Initiative - 2009

Primary Objective	To provide opportunities for clean, combined heat and power applications sponsored jointly by gas and electric companies, with sufficient efficiency and hours of operation to be cost-effective
Initially Offered	2009
2009 Savings Target	Lifetime MWh: National Grid : ~1,000,000 kWh * 15 years; Lifetime kW: 200 kW
2009 Budget	National Grid: \$250,000, \$200,000 for incentives, \$50,000 for TA studies
Joint vs. Company Specific Offering	The track will be offered by gas and electric companies offering a jointly sponsored incentive to qualified projects.
Program Design	<p>The CHP Initiative offers C&I customers the opportunity to receive financial incentives and technical assessments services for their combined heat and power applications. The technology does present unique challenges in that cost-effective operation, from both the customer and utility perspective, requires substantial thermal load through-out the year which can be difficult to quantify with a high degree of certainty. In addition, the capital cost is significant, so that a relatively small deviation from projections can render a project not cost-effective. Finally, the time-line for project development is long, typically greater than 18 months.</p> <p>National Grid will require a technical assessment study, which can be co-funded by the sponsoring utilities and the customer. The study will investigate and document site specific conditions with a particular focus on reliably identifying the thermal load.</p> <p>National Grid will offer incentives for applications which pass a benefit cost ratio(BCR) screening analysis through a fixed incentive based on \$/kW of installed capacity up to a maximum percent of the total project cost. The fixed incentive per \$/kW of installed capacity offers simplicity and a level of certainty to vendors and customers. The BCR screening process provides leverage to manage installed costs. The eligibility process will be aligned with the APS process.</p> <p>Long term metering of the useful thermal load and electric output will be a requirement for receiving the incentive.</p> <p>The BCR screening process will require a technical submission by the customer identifying the expected hours of generation, capacity and thermal load profiling.</p>
Target Market	Combined heat and power application applications require a year-round and significant thermal load, such as those found in some industrial processes, health care, commercial laundries, and some high domestic hot water applications found in multi-family and nursing homes.
Marketing Approach	Projects will be jointly marketed to by both gas and electric companies in a manner which is seamless to the customer. National Grid will primarily market to customers,

(continued)	<p>developers, and design professionals through extensive one-on-one communications.</p> <p>National Grid will also market through channel partners, including architects, engineers and equipment manufacturers.</p>
Target End Uses	Target end-uses include industrial processes, commercial laundries and some high use domestic hot water applications.
Recommended Technologies	Properly permitted reciprocating and turbine driven generators. Back pressure turbines may also be considered.
Project Technical Requirements	<p>A detailed engineering study must be completed that documents the site's annual hourly thermal load and waste heat utilization, the annual electric production and the summer and winter demand reduction.</p> <p>CHP must be designed around the facility's thermal load.</p> <p>CHP installation must exceed 60% annual efficiency.</p> <p>Annual Efficiency is defined as the net electric and thermal energy output utilized divided by the thermal input used.</p> <p>Each project must pass Program Benefit/Cost Test.</p> <p>Metering shall be installed to monitor and trend gas input, kW/kWh output and thermal outputs (utilized & dumped heat).</p>
Financial Incentives	<p>National grid will offer technical assistance and incentives for qualified projects.</p> <ul style="list-style-type: none"> • \$750/kW of installed capacity up to 33% of total project cost. • Individual project cap of \$100k • Co-funding of a technical assessment by qualified vendors.
Delivery Mechanism	CHP will be primarily delivered utilizing in-house staff in both gas and electric companies for marketing, administration, and program implementation activities. Contractor support, however, is retained for certain activities including technical review of some applications and customer technical and design assistance.
Enhancements Planned for 2009	This is a new track in 2009

National Grid 2009 Cogeneration Pilot Project

In 2009 the Energy Efficiency Program Administrators had a Metric to develop a pilot Program for Combined Heat and Power (CHP). National Grid investigated many potential CHP projects for participation in the 2009 Pilot, but the first project to receive a proposed incentive was a 500 kW back pressure steam turbine generator project at Erving Paper in Erving, Mass.. Erving Paper contacted National Grid about this project after they had a meeting with Commissioner Phil Giudice who informed them about the CHP Pilot Program. In March we had a kick-off meeting with Erving staff (Tom Newton, General Mgr, and Mike Peterson, Plant Manager) and their CHP contractor TurboSteam to discuss the project with them and present information on the CHP Pilot Program. Engineers at Turbo Steam provided detailed a detailed engineering analysis of the steam and electric loads for the Erving plant as well as proposed 500 kW steam turbine generator savings and installation costs. During the months of June through August National Grid performed a thorough review of the energy savings calculations and design and operational assumptions in the engineering study. The projected electric and oil savings for this project was approximately \$220,000 and had a project cost of ~\$500,000. This gave a simple payback 2.3 years before incentive. Based on the finalized cost and savings, the project successfully passed the Benefit Cost test and in September 2009 National Grid offered a proposed incentive to Erving Paper of \$100,000 towards the project installation. With this incentive the project would have provided Erving Paper with a 1.8 year payback. Due to economic reasons Erving Paper decided not to move ahead with the project in 2009. Erving Paper is still considering the project and under the current 2010 CHP Program could be eligible for \$200-\$250k towards the CHP Project.