

CIP, ESP® & MN

2008 to 2012

Mike Myser, EVP mmyser@energyplatforms.com 651-341-5932





Energy Platforms

- Software company focused on EE domain
- Small, growing company
- Shakopee, MN
- 2008 contract to help with Next Generation Energy Act of 2007
- Solution: ESP®





ESP: On-Line IT Platform

- Tools for utilities to implement & report
- Accountability & transparency tools

- Simplifies CIP (make possible?)
- Leverages IT/engineering/knowledge
- Helps MN achieve CIP goals
- At the lowest possible cost





CIP: 2008 - 2012

- Spent \$719M on utility EE programs
- Saved 52,870 Gwh (lifetime of measure)
- Kwh cost of EE: 1.36 cents (vs 8-9 cents retail)
- Save(d) consumers over \$3.5B
 - $-(8.0-1.36 \times 52.9 \text{B Kwh} = \$3.5 \text{B})$
 - 488% ROI
 - Money stays in MN





Electric Savings

Performance Summary					
Spending & Savings	2008	2009	2010	2011	2012
Total Expenditures	\$103,044,006	\$145,037,513	\$174,414,683	\$140,548,772	\$155,901,070
Conservation Expenditures	\$76,637,698	\$118,562,468	\$153,289,918	\$118,535,468	\$135,031,277
% Cons Exp / Total Exp	74.4 %	81.7 %	87.9 %	84.3 %	86.6 %
Total Savings (kWh)	571,706,427	620,719,158	1,206,899,238	805,381,920	881,082,278
Total Low Income Cost	\$3,656,015	\$4,525,678	\$6,598,795	\$6,134,936	\$6,477,764
Low Income Cost/Res Op Rev	0.2 %	0.2 %	0.3 %	0.3 %	0.3 %
% kWh Savings/Sales	0.8 %	1.0 %	1.8 %	1.2 %	1.3 %
% Total Exp / GOR	1.8 %	2.6 %	2.8 %	2.2 %	2.4 %

Gas Savings

Performance Summary					
Spending & Savings	2008	2009	2010	2011	2012
Total Expenditures	\$17,821,907	\$21,592,967	\$36,593,885	\$40,580,905	\$42,776,157
Conservation Expenditures	\$17,821,907	\$21,592,967	\$36,593,885	\$40,580,905	\$42,776,157
% Cons Exp / Total Exp	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
Total Savings (MCF)	1,550,336	1,837,905	2,571,463	2,780,578	2,716,324
Total Low Income Cost	\$2,524,576	\$2,748,206	\$4,149,088	\$3,909,248	\$3,999,427
Low Income Cost/Res Op Rev	0.2 %	0.2 %	0.4 %	0.4 %	0.5 %
% MCF Savings/Sales	0.5 %	0.6 %	0.9 %	0.9 %	0.9 %
% Total Exp / GOR	0.6 %	1.0 %	1.8 %	2.0 %	2.7 %

Geography: S - Minnesota ▼	Electric Organizations:		All Organiza	tions •	Cate	Category Type:		
Year: 2012 ▼	Gas Organizations:		All Organizations 🔻		Market Segment:			
		Spend / kWh Saved Lifetime	Annual Kilowatt Hours Saved	Annual Kilowatt Hours Saved Lifetime	Kilowatts Saved	Spending Total	Program Count	
Electric Utility Infrastructure Impr	ovements	0.0033	20,011,678	400,233,550	1,803	1,313,828		
Specialty Non-Residential		0.0062	94,320,053	1,414,800,793	10,402	8,735,359		
Compressed Air		0.0065	17,488,032	262,320,486	2,580	1,703,490		
Motors & Drives		0.0066	54,712,738	820,691,065	7,516	5,409,780		
Non-Residential Custom Efficiency		0.0077	61,846,569	927,698,528	75,568	7,148,165		
Agricultural Efficiency		0.0096	2,070,241	31,053,615	209	299,159		
Residential Building Envelope		0.0100	81,789	1,635,780	11	16,321		
Other - Direct		0.0100	13,726,386	205,895,796	140,155	2,058,316		
Residential Space Heating (non-Heat Pumps)		0.0102	1,480,261	22,203,919	1,914	226,928		
Residential Heat Pumps		0.0111	25,333,011	303,996,131	4,451	3,378,900		
Residential Behavioral Change		0.0113	34,862,658	174,313,292	6,053	1,965,010		
Non-Residential Computer Efficiency and Plug Loads		0.0121	22,149,315	132,895,892	1,919	1,602,856		
Non-Residential Refrigeration		0.0124	1,961,682	19,616,822	282	243,052		
Non-Residential Lighting		0.0140	221,575,740	2,658,908,880	557,357	37,117,307		
Public Infrastructure		0.0148	952,245	14,283,669	11,190	211,271		
Non-Residential Space Cooling (Non-Heat Pumps)		0.0148	17,343,159	346,863,181	10,515	5,148,099		
Non-Residential Behavioral/Operations		0.0149	200,110	1,000,550	7	14,922		
Non-Residential Heat Pumps		0.0157	3,011,517	36,138,203	994	568,501		
Food Comise		0.0150	260 655	2 000 025	40	62.027		

Geography: S - Minnesota 🔻			All Organizations 🔻		Show Non-Reporting:			
Year: 2012 ▼			All	All Organizations 🔻				
		Annual Kilowatt Hours Saved Lifetime		Annual Kilowatt Hours Saved	Kilowatts Saved	Spending Total	kWh Sales	Gross Operating Revenue
Xcel Energy		4,631,670,1	52	386,181,989	115,763	98,095,988	31,183,574,000	3,349,
Minnesota Power		733,605,7	25	55,864,309	7,193	6,813,816	9,388,538,146	567,
Otter Tail Power		316,236,8	01	28,484,130	5,950	4,816,995	2,072,980,000	155,
Great River Energy		295,134,0	00	18,645,200	149,810	4	0	
Rochester Public Utilities		280,084,2	02	23,778,384	15,320	3,297,943	1,230,443,003	126,
Dakota Electric Assn		252,151,9	45	19,007,634	5,713	3,809,219	1,874,803,600	188,
Connexus Energy		224,679,1	36	21,738,479	3,948	3,072,928	1,982,387,386	219,
Interstate Power and Light		175,472,7	25	13,503,569	2,321	2,548,155	839,465,957	75,
East River Electric Power Coop, Inc.		126,299,2	80	6,715,679	207,002	90,581	0	
Minnkota Power Coop/NMPA		95,605,5	40	6,861,545	3	1,049,539	0	
Minnesota Valley Electric Coop		89,137,9	98	6,683,579	1,612	1,254,068	721,469,035	68,
Shakopee Public Utilities (MMPA mer	nber)	82,671,3	43	6,707,853	3,153	545,592	399,829,000	38,
East Central Energy		81,174,8	25	6,609,163	1,834	1,819,728	915,576,975	109,
Beltrami Electric Coop, Inc.		73,354,3	76	5,242,286	370	516,204	422,288,512	44,
Chaska, City of		72,569,7	51	5,489,174	1,525	442,089	336,914,000	32,
Hutchinson Utilities Commission (MRES Member)		66,434,5	01	4,751,780	687	408,553	282,861,591	25,
Brainerd Public Utilities		63,587,5	53	3,959,603	305	197,734	240,530,343	18,
Stearns Coop Electric Assn		62,636,1	59	4,907,555	1,228	886,631	484,862,935	47,
Wright-Hennepin Coop Electric Assn		58,845,2	75	4,476,575	3,091	1,136,177	880,550,421	84,
Austin Utilities		56,862,3	92	5,327,419	8,668	502,540	350,846,487	33,





Summary

- CIP 2008-2012
 - Impressive results!
 - Policy tune-up? Lifetime vs first year savings
- ESP
 - leverage tech. to achieve goals at lowest cost
 - transitioning to maintenance
- Good work: Legislature, DER, utilities