



PEEEP REPORT

Public Buildings Enhanced Energy Efficiency Program

This information will be made available in alternate format,
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Cost to prepare this report: \$300

PUBLIC BUILDINGS ENHANCED ENERGY EFFICIENCY 2011 REPORT

Minnesota Statutes 16B.322, subdivision 8, states that the Commissioner of Administration shall submit a report containing, at a minimum, the following regarding projects implemented under this section:

- *the total number of projects*
- *the amount of calculated and, if available, actual energy savings for each project*
- *the cost of each project*
- *the total amount paid for technical services provided under subdivision 3 for each project.*

1.0 PROGRAM OVERVIEW

As of the end of 2011, PBEEEP reached several milestones:

- 71 state government sites have enrolled in the program since its inception in August of 2009
- The total building area included in these projects exceeds 31.4 million square feet.
- These sites represent all of the high potential sites in the state.

PBEEEP, the Public Buildings Enhanced Energy Efficiency Program, provides expert services for recommissioning and retrofit projects, combined with innovative financing, to help state government buildings save energy and money. Recommissioning is focused on cost repair to, or optimization of, building operations (schedules, procedures), equipment, facilities, or systems to primarily enhance energy efficiency. It generally focuses on major building systems (building envelope, HVAC, and controls), targeting quick payback energy conservation opportunities.

PBEEEP's goal is to reach every site in the state that appears to offer the potential for cost effective savings using recommissioning. At this time, these are sites with the following features:

- Over 100,000 square feet of conditioned space at a single location (this includes groups of buildings, such as Correctional Facilities and MnSCU campuses);
- Annual energy bills of at least \$120,000 (\$10,000 a month);
- Energy use that is 80% or more of the benchmark value in the Minnesota Benchmarking and Beyond (B3) database (www.mnbenchmarking.com).

There are approximately 1,100 buildings in the State with a total of 36 million square feet that have these features, and Minnesota's State Government PBEEEP, administered by the Center for Energy and Environment, has offered all of them the opportunity to realize cost effective energy savings. Those that did not enroll in the program are already participating in other energy savings programs.

PBEEEP uses a 4 phase process to assure high quality and control costs. Projects begin with a careful screening by CEE's own engineers and managers. This step ensures that all projects are objectively considered for their potential savings using a consistent, rigorous method. The next phase is the Energy Investigation, which is performed by firms on the State's Master Roster of Energy Engineers. CEE administers and reviews their work as part of the quality assurance process. This phase lasts a minimum of six months, covering both heating and cooling seasons. Following next are Implementation, where the actual energy savings measures are put into place and finally Measurement and Verification.

A. PBEEEP ORGANIZATION

The Center for Energy and Environment (CEE) has been engaged by the State Of Minnesota, Department Of Administration to develop and administer PBEEEP. CEE is a Minnesota-based nonprofit organization that works to promote public interest through the responsible and efficient use of natural and economic resources. CEE is the quality assurance provider and day-to-day administrator of the program. Providers manage individual projects and work with CEE and the Project Manager designated by the Department Of Administration, Real Estate & Construction Services.

B. PROGRAM DEVELOPMENT

A fifth program guideline, *Sustainable Energy Efficiency Operations Process for PBEEEP Buildings* was added to the program in June 2011 and its development is in process. In addition the Financial Guidelines have been drafted and will be added to the Guidance Manual once they become part of a formal contract with a financial institution.

C. PROGRAM RELEASE

The State Public Building Enhanced Energy Efficiency Program was formally launched on August 6, 2009 with a Webinar jointly presented by the Center for Energy and Environment (CEE) and the Department of Administration for state agencies and the Minnesota State Colleges and Universities campuses.

2.0 REPORTING

A. TOTAL NUMBER OF PROJECTS

Table 1A: Project Count

Total Number of Projects (aggregate):	Reporting Period*	Total
Applications		71
Screen Phase		71
Investigation Phase		49
Implementation Phase		7
Verification Phase		0
Completed**		54

* Only applicable to monthly reporting

** Completed projects include full and partial sites where investigation was not recommended following screening

Table 1B: Building Count**

Total Number of Buildings (aggregate):	Reporting Period*	Total
Applications		905
Screen Phase		905
Investigation Phase*		379
Implementation Phase		51
Verification Phase		0
Completed		526

* Only applicable to monthly reporting

Detailed Information on Projects:

Facility	Agency	Buildings	Square feet	Screen	Investigation	Implement	M&V	Complete
St Cloud	Corrections	33	637,420	●				●
Southwest MN State	MnSCU	28	1,276,778	●	●	○	○	
Rochester CTC	MnSCU	32	827,878	●	●	○	○	
Several	DNR	9	226,762	●	●	○	○	
Oak Park Heights	Corrections	16	421,794	●	●	○	○	
Red Wing	Corrections	32	336,527	●	●	○	○	
Rush City	Corrections	6	435,891	●	●	○	○	
Century College	MnSCU	25	732,094	●	●	○	○	
Minnesota History Center	PMD	1	492,097	●	●	○	○	
Faribault	Mn Academies	18	437,079	●	●	○	○	
Minneapolis	MVH	6	276,288	●	●	○	○	
Shakopee	Corrections	14	242,068	●	●	○	○	
Willow River	Corrections	13	61,222	●				●
Faribault	Corrections	37	1,136,729	●	●	○	○	
Moose Lake	Corrections	26	573,855	●	●	○	○	
MSU Moorhead	MnSCU	40	1,724,372	●	●	○	○	
St Cloud State U	MnSCU	56	3,136,612	●	●	○	○	
Lino Lakes	Corrections	35	608,241	●	●	○	○	
Elmer Andersen Office Bldg	PMD	1	414,068	●	●	○	○	
BCA Maryland Ave	PMD	1	235,414	●	●	○	○	
Stassen Building	PMD	1	454,392	●				●
State Office Building	PMD	1	290,136	●	●	○	○	
M State Detroit Lakes	MnSCU	7	191,824	●				●
M State Fergus Falls	MnSCU	13	165,862	●				●
M State Moorhead	MnSCU	12	190,328	●				●
M State Wadena	MnSCU	10	136,836	●				●
Riverland Albert Lea	MnSCU	8	146,322	●				●
Riverland Austin	MnSCU	19	361,379	●	●	○	○	
Riverland Owatonna	MnSCU	1	25,471	●	●	○	○	
Normandale CC	MnSCU	18	476,110	●	●	○	○	
State Parking Garages	PMD	7	1,280,000	●	●	○	○	
Anoka Ramsey Coon Rapids	MnSCU	26	380,446	●	●	○	○	
Anoka Ramsey Cambridge	MnSCU	2	95,000	●	●	○	○	
MSU Mankato	MnSCU	36	2,770,177	●	●	○	○	
Hennepin Technical College No.	MnSCU	17	423,922	●				●
Hennepin Technical College So.	MnSCU	13	395,697	●				●
AASF Holman Field	Military Affairs	1	95,329	●	●	○	○	
Rosemount TACC	Military Affairs	1	99,522	●	●	○	○	
Orville Freeman	PMD	1	374,744	●				●
Centennial	PMD	1	317,893	●				●
Veterans Services	PMD	1	87,648	●				●
Health Agriculture Laboratory	PMD	1	181,019	●	●	○	○	
Transportation Building	PMD	1	374,818	●	●	○	○	
Administration Building	PMD	1	80,144	●				●
Judicial Building	PMD	1	252,275	●				●
Capitol Building	PMD	1	378,825	●				●
Mn State Retirement Systems	PMD	1	146,981	●	●	○	○	
Fond du Lac Tribal & CC	MnSCU	9	173,274	●	●	○	○	
Moose Lake	DHS	1	186,048	●				●
Bemidji State University	MnSCU	26	1,605,261	●	●	○	○	
Waters Edge	DOT	2	185,000	●	●	○	○	
Northland CC East Grand Forks	MnSCU	9	171,244	●	●	○	○	
Northland CC Thief River Falls	MnSCU	24	321,434	●	●	○	○	
Perpich Center for the Arts	PCAE	4	171,543	●	●	○	○	
St Paul College	MnSCU	2	510,112	●				●
Lake Superior CC	MnSCU	15	362,241	●	●	○	○	
Hibbing CC	MnSCU	22	362,582	● 100	● 25	○ 0	○ 0	
Mesabi CTC Eveleth	MnSCU	8	84,373	●				●
Mesabi CTC Virginia	MnSCU	10	124,211	●	●	○	○	
Itasca CC	MnSCU	13	233,327	●				●
Rainy River CC	MnSCU	16	114,685	●				●
Vermilion CC	MnSCU	14	180,376	●	●	○	○	
Ridgewater CC Willmar	MnSCU	30	486,364	●				●
Ridgewater CC Hutchinson	MnSCU	8	195,906	●	●	○	○	
Pine Technical College	MnSCU	11	98,394	●				●
St Cloud Technical College	MnSCU	15	397,058	●				●
Regional Treatment Center	DHS	13	483,457	●				●
Mn West CTC, Jackson	MnSCU	7	102,050	●				●
Mn West CTC, Worthington	MnSCU	9	144,735	●				●
Anoka Technical College	MnSCU	5	345,293	●				●
BCA, Bemidji	Admin	1	26,854	●				
Total		905	31,472,111	2	33	2	0	27

B. AMOUNT OF CALCULATED AND ACTUAL ENERGY SAVINGS FOR EACH PROJECT

Table 2: Energy and Cost Savings

Total Energy and Cost Savings (aggregate)	Reporting Period	Total
Electric Savings		
Annual Savings (kWh)		5,535,227
Annual Cost Savings (\$)		\$227,548
Peak Demand Savings		
Annual Savings (kWh)		178
Annual Cost Savings (\$)		\$261
Gas Savings		
Annual Savings (MCF)		72,972
Annual Cost Savings (\$)		\$44,385
GHG reductions (US Tons)		5,136

Individual Project Results

Total Energy and Cost Savings (aggregate)	MN History Center	SMSU	Century College	DNR	MCF Shakopee
Electric Savings					
Annual Savings (kWh)	903,388	4,239,406	339,921	14,073	37,838
Annual Cost Savings (\$)	\$ 45,045	\$158,397	\$20,021	\$880	\$ 3,205
Peak Demand Savings					
Annual Savings (kWh)	9	157	12		
Annual Cost Savings (\$)	\$ 261				
Gas Savings					
Annual Savings (MCF)	43,182		23,022	154	6,614
Annual Cost Savings (\$)	\$ 23,180		\$ 16,369	\$ 154	\$ 4,682
GHG reductions (US Tons)	1,013	3,633	409	12	69

C. TOTAL PAID FOR TECHNICAL SERVICES PROVIDED UNDER SUBD. 3

Table 3: Technical Services Costs for CEE Services

Development Costs (aggregate):	Reporting Period*	Total
Program Development Costs		88,907.50
Project Costs (aggregate):		0
Program Administration Costs		329,085.00
Technical Services (from Table 3)		617,382.20
Total Cost of CEE's Services		1,045,824.70

* Only applicable for monthly reporting

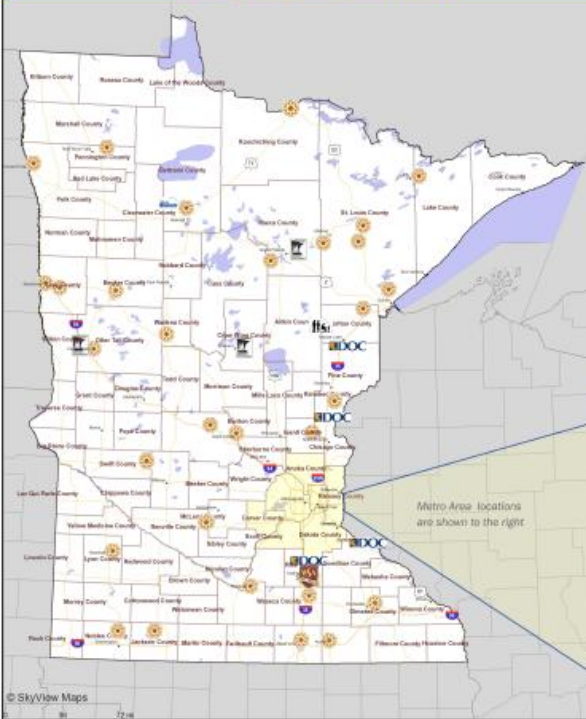
D. COST OF EACH ACTIVE PROJECT

Table 3: Project Costs

<i>Project Name and Phase:</i>	<i>Reporting Period*</i>		<i>Total</i>	
	CEE Technical Services	Provider Project Cost**	CEE Technical Services	Provider Project Cost
Southwest MSU			\$ 38,811	\$ 128,105
Rochester CTC			\$ 14,334	\$ 134,951
DNR Northern MN			\$ 17,681	\$ 15,257
MCF Oak Park Heights			\$ 10,463	\$ 20,217
MCF Red Wing			\$ 13,286	\$ 35,335
MCF Rush City			\$ 18,259	\$ 57,465
Century College			\$ 27,948	\$ 90,000
MN History Center			\$ 19,299	\$ 95,200
MN Academy of the Deaf			\$ 8,286	
Mn Academy of the Blind			\$ 2,433	\$ 13,785
MCF Shakopee			\$ 20,754	\$ 43,200
MCF Faribault			\$ 12,144	\$ 39,407
MCF Moose Lake			\$ 15,479	\$ 31,128
MSU Moorhead Part 2			\$ 12,081	\$ 26,322
St Cloud SU*			\$ 33,226	\$ 175,973
St Cloud State Part 2			\$ 2,574	\$ 70,524
MCF Lino Lakes			\$ 10,318	
Elmer Anderson			\$ 9,341	\$ 34,100
BCA St Paul			\$ 6,796	\$ 28,650
State Office Building			\$ 5,538	\$ 32,832
Riverland College			\$ 18,378	\$ 45,500
Normandale CC			\$ 10,913	\$ 36,350
State Parking Garages			\$ 8,754	\$ 104,403
ARCC- Coon Rapids Campus			\$ 6,978	
ARCC Cambridge Campus			\$ 2,573	
MSU Mankato Completed			\$ 34,166	\$ 112,101
St Paul AASF			\$ 3,308	\$ 15,844
Rosemount TACC			\$ 3,491	
Health Agriculture Lab			\$ 4,133	\$ 12,500
Transportation Building			\$ 8,898	\$ 51,200
MN Retirement Systems			\$ 5,576	\$ 16,425
Fond du Lac Tribal CC			\$ 4,959	
Bemidji State			\$ 13,804	\$ 71,010
DOT Waters Edge			\$ 5,390	\$ 12,852
Northland Community College			\$ 8,979	\$ 42,500
Perpich Center			\$ 4,475	\$ 15,188
Lake Superior College			\$ 4,896	\$ 8,563
NHED Campuses			\$ 20,994	
Ridgewater CC Hutchinson			\$ 4,380	\$ 14,737
Anoka Technical College			\$ 3,549	
BCA Bemidji			\$ 675	
Completed Projects			\$ 100,115	\$ 300,569
Total			\$ 578,429	\$ 1,932,192
Total Agency Funds Committed				0

* Only applicable for monthly reporting

Participants Across Minnesota



Participants Across Minnesota

Agency Sites	Buildings	Square Feet	Participation Level
MN State Colleges & Universities	617	19,483,996	Near Full
Department of Administration	22	5,387,308	Full
Department of Corrections	212	4,405,484	Full
Minnesota State Academies	18	437,079	Full
Veterans Affairs	6	276,288	Full
Department of Natural Resources	9	226,762	Full
Military Affairs	2	194,851	Full
Human Services	14	669,505	Full
Department of Transportation	2	185,000	Full
Perich Center for Arts Education	3	157,575	Full
Total	905	31,423,848	99%

Metro Area



Enrollment Progress

99%
of Minnesota's state government
building space is enrolled

