

**MINNESOTA STATE COLLEGES AND UNIVERSITIES
BOARD OF TRUSTEES**

Agenda Item Summary Sheet

Committee: Finance, Facilities and Technology **Date of Meeting:** June 16, 2010

Agenda Item: Sustainability Update

- Proposed Policy Action Approval Required by Policy Other Approvals Monitoring
- Information

Cite policy requirement, or explain why item is on the Board agenda:

The purpose of this report is to present an overview of the activities that have been undertaken to promote sustainability at the colleges and universities.

Scheduled Presenter(s): Allan Johnson, Associate Vice Chancellor Facilities

Outline of Key Points/Policy Issues: Work will continue in the area of sustainability at colleges and universities through campus-focused initiatives. Limited resources at the Office of the Chancellor will be applied towards a continued focus on policies and procedures, maintenance of system planning, design and construction standards, and professional assistance to our campuses. The system must also stay abreast of and respond to constant changes in state and federal laws and requirements for the full spectrum of activities under the sustainability umbrella.

Background Information: In May, 2009 the Board approved the FY2010 Action Plan for the system. Contained therein was a new initiative, *Energy Conservation*, under Strategic Direction 4, Goal 4.2: *Energy Conservation* – Develop policy and prepare a plan to advance sustainable campuses by focusing on improved facilities planning processes, construction, renovation and operation of campus facilities.

**BOARD OF TRUSTEES
MINNESOTA STATE COLLEGES AND UNIVERSITIES**

INFORMATION
Sustainability Update

BACKGROUND

In May, 2009 the Board approved the FY2010 Action Plan for the system. Contained therein is a new initiative, *Energy Conservation*, under Strategic Direction 4, Goal 4.2:

Energy Conservation – Develop policy and prepare a plan to advance sustainable campuses by focusing on improved facilities planning processes, construction, renovation and operation of campus facilities.

The following four areas of focus are included under this initiative:

1. *Develop a comprehensive environmental sustainability policy for Board adoption to advance sustainable campuses by focusing on improved facilities planning processes, construction, renovation and operation of campus facilities.*
2. *Publish procedures and standards for sustainable planning, design, construction and operation of facilities.*
3. *Develop a system-wide “energy benchmarking” system to capture data on consumption of energy in the campus physical plant, guide establishment of benchmarks, and measure and compare progress in reducing energy consumption and costs.*
4. *Report to the Board on accomplishments towards achieving sustainable campuses.*

STATUS

POLICY: Board Policy 5.17 has been rewritten and renamed “*Sustainability, Resources Conservation and Recovery, and Environmentally Responsible Practices.*” The revised policy was approved by the Board at the May 2010 meeting.

In addition, Board Policy 6.4, Facilities Planning, was amended in April 2010 to require that planning for facilities modernization, renewal and improved sustainability be added to each president's scope of responsibility. Board Policy 6.6, Facilities Maintenance and Repair, was amended in May 2010 to add energy efficiency as a component of facilities management.

PROCEDURES AND STANDARDS: Guidelines for preparation of campus Master Facilities Plans and capital project predesigns have been updated to consider

sustainability of the campus physical environment as an important component of overall campus development and specific capital project development. Planning concepts are stressed that reduce excess square footage, reuse and create multipurpose space, and repurpose existing buildings for new and improved programmatic use.

The system's Facilities Design and Construction Standards have long been recognized by the building industry as producing well-built, energy efficient, and long-lasting facilities. These Standards have also been updated to comply with state sustainability requirements known as "B3" (Buildings, Benchmarks and Beyond) and LEED (Leadership in Energy and Environmental Design sponsored by US Green Building Council). This assures that any significant new construction or major renovation project that complies with the MnSCU Design and Construction Standards and state B3 Standards would yield a LEED certifiable project at the "Silver" certification level.

ENERGY BENCHMARKING: "Energy Benchmarking" is critical because you "cannot improve what you do not measure." The state, formerly through the Department of Administration, has had a web-based energy data recording system in place for several years under the statutory umbrella of B3. This system has not been utilized to its full capacity, and many colleges and universities simply did not record energy consumption data. No quality control and coordinated monitoring was taking place. While stronger emphasis is now being placed on the B3 system, primarily because of increased interest by the governor and legislature, B3 still lacked a management structure to allow colleges, universities and the Office of the Chancellor to record, report and manage energy consumption uniformly and system-wide. In May 2009, campuses began in earnest to update energy consumption and facility information in the B3 Energy Benchmarking system with assistance from consultants, The Weidt Group in collaboration with LHB Architects. The objective is to support enhanced maintenance of this web-based system, while creating MnSCU-specific reports for energy management purposes. Once in full operation, with increased assurance of data integrity, energy use comparisons to benchmarks and among campuses will be possible. A natural outcome will be establishment and measurement of energy reduction goals.

The B3 Energy Benchmarking program maps actual energy consumption of a specific building or facility, subject to each campus' metering scheme. Square footage data represents academic and non-academic buildings, as well as "special circumstance" situations such as parking lots and other non-building functions.

The B3 benchmarking system:

- Tracks actual monthly energy consumption from all fuel sources
- Compares actual consumption on a year by year basis
- Compares actual data to standard energy benchmarks for the building type and functional use

As a result, as all campuses begin using the B3 system, they will also be able to identify buildings that have the best opportunities for energy reduction.

ENERGY BENCHMARKING RESULTS TO DATE: Utilities data (electrical power, natural gas, fuel oil, district steam, and potable water) was captured and entered by each campus for the years 2006 through 2009. Data from 2009 still has some gaps, but is adequate to serve as a baseline of sorts for fine-tuning the program. Colleges and universities are being encouraged to closely review current and future entries while observing report results.

Attachment A provides energy consumption information for calendar year 2009 based on utility data provided by each college and university. More work is needed to resolve reporting problems and to gain a deeper understanding of the data. Nevertheless, these preliminary results are encouraging from a data collection and reporting perspective.

<u>Energy Costs</u>	<u>kBtu per sq ft</u>	<u>Cost per sq ft</u>
\$31.6 million	101.68/sq ft	\$1.19/sq ft

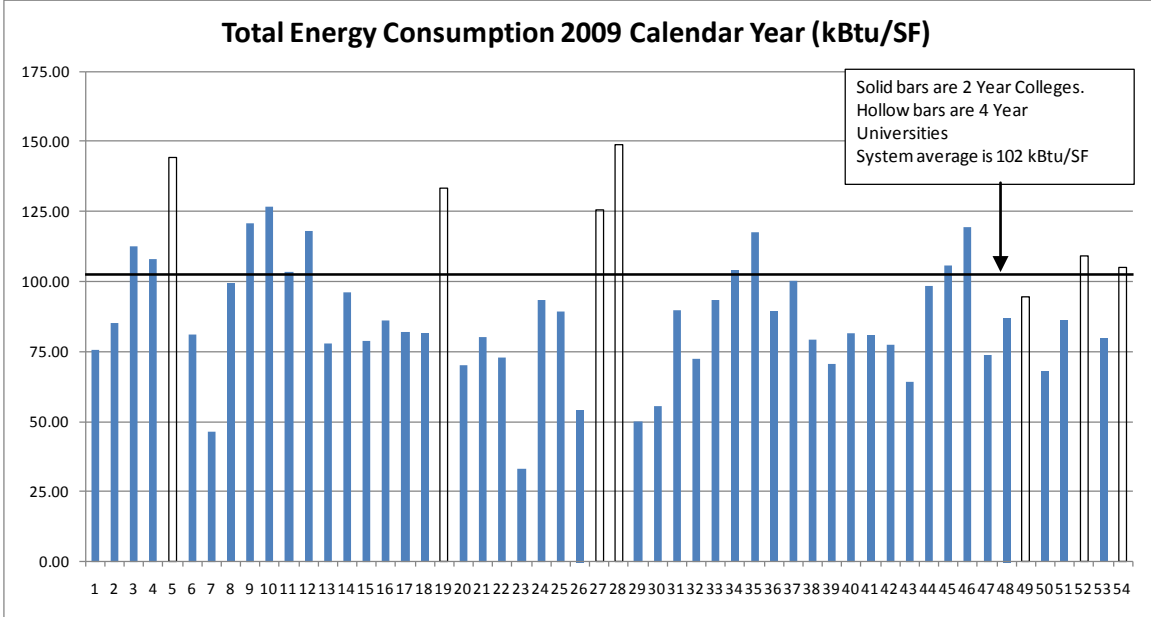
The indicator kBtu/sf is a widely used metric to measure and compare energy use. A joint Midwest Higher Education Compact (MHEC) and Association of Higher Education Facilities Officers (APPA) survey in 2009, in which MnSCU participated, indicated a range from 40 kBtu/sf to a high of 158 kBtu/sf with the average of 93 kBtu/sf at surveyed institutions in the Midwest. While averages may not be a useful guide to improve individual buildings, they do provide a method to set goals, measure overall improvement, compare campuses, and point out anomalies.

In the case of MnSCU campuses, the B3 Benchmarking project indicates an average energy use of 101.68 kBtu/sf. While the data is still subject to further analysis, it is believed the quality control is fairly reliable. Thirty-eight campuses are below the average, with some less than half the average. Sixteen campuses are above the average due to a variety of reasons including initial building construction, significant residential components (which have more intense use), operational hours and academic programs that require considerable energy.

This preliminary data indicates that the highest Kbtu/sf reported in the system is at one of the oldest state universities. Until four years ago, this campus also had the highest Facilities Condition Index (FCI), an indication of a long-standing problem. However, over the last ten years, there have been four major capital investments which should ultimately improve energy efficiency. Recently this campus also signed up for the state’s Public Buildings Enhanced Energy Efficiency Program (PBEEEP) to better understand its energy use and take steps to improve. Other campuses with above average energy consumption may be candidates for replacement of mechanical equipment either through capital renewal, re-commissioning, guaranteed energy savings contracts.

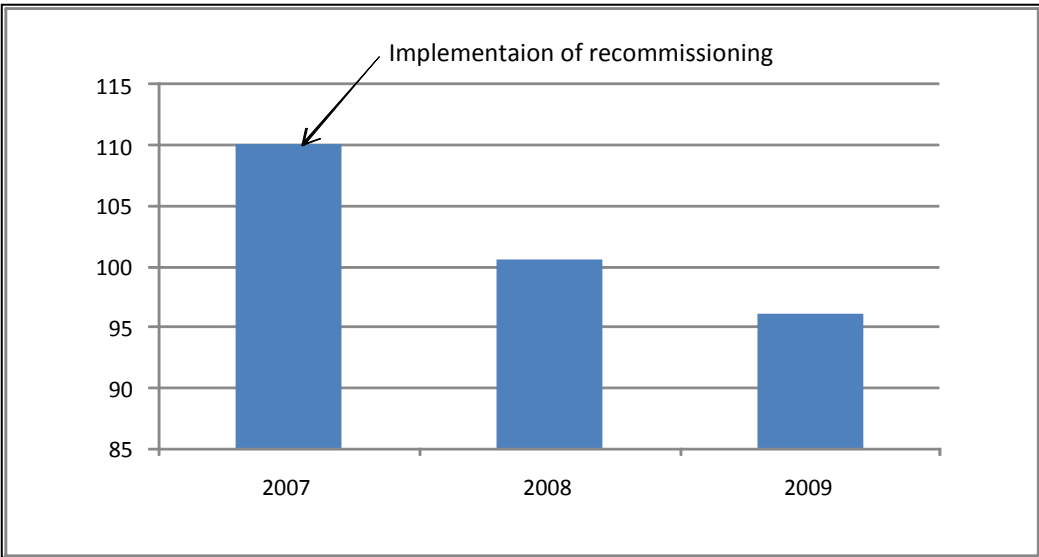
Chart 1 indicates overall average energy consumption in Kbtu/sf for all system campuses based on calendar year 2009 data.

Chart 1



Campuses that are already tracking energy use have demonstrated improvements. Inver Hills Community College was concerned that their energy consumption was higher than other metro-area schools. The Office of the Chancellor assisted the college and seven others by funding re-commissioning studies beginning in 2006. The re-commissioning report recommended adjustments and improvements to several mechanical systems. Work was funded through energy rebates, the HEAPR program, and college funds for quick pay-back items, and was completed in 2008. Chart 2 shows the immediate impact of the work at Inver Hills.

Chart 2



Attachment B is a typical set of reports available to an institution to enable in-house monitoring and tracking of energy use. Quarterly reports are now available to campuses starting in June 2010. This will help improve data accuracy and reliability as the benchmarking system improves over the next year. These detailed reports can also be used to analyze energy purchases, consider alternative fuels, decide on funding for certain repairs, and evaluate return on investment for new mechanical equipment and other related energy efficiency improvements.

In addition to measuring the usual energy sources, the benchmarking program will allow measurement of:

- Carbon emissions, based on energy consumption converted to pounds of carbon dioxide per square foot. The 2009 system results show an average carbon use of 25.79 lbs/sf.
- Potable water consumption, based on gallons per occupant per day. Consumption in 2008 averaged 5 gallons per occupant per day, ranging from 0.09/gallons to a high of 18.5 gallons per occupant per day. The realization of water use by a campus may be the first step towards conservation.

Campuses have been asked to enter and review energy data on a regular basis, preferably monthly as bills are received. There have been mixed results to date in terms of difficulty of entering data. Some campuses have diligently kept track of energy usage and costs for many years; others less so. One college Chief Financial Officer commented that he had saved information for eight years and now finally had a mechanism to capture and compare data. Other campuses will need further encouragement and follow-up to ensure data is entered promptly.

Another method to improve accuracy is to separately meter each building. Since separate metering was not considered important when most facilities were built, very few campuses have the necessary meters. The number of natural gas and electric meters on campuses range from 2 to 89, with a total of 682 meters for the entire system. Installing sub-meters for each building could help improve energy efficiency performance. Design and Construction Standards now require separate meters in new construction and/or significant renovations. Over time, adding meters will improve analysis of building energy use and assist development of energy efficient projects. As monitoring and reporting becomes more routine, institutions will see the value in having additional metering installed for management purposes.

REPORTING ACCOMPLISHMENTS: The Center for Sustainable Building Research (CSBR), a research entity of the University of Minnesota, is assisting us in developing a report of campus accomplishments towards sustainability. This report is based on campus information entered into a web-based template beginning in April 2010. Questions relating to building type, energy use, water, food, waste, transportation, landscaping, campus culture, purchasing and carbon emissions were asked and answered. Results across the system are very diverse. Each campus has developed their unique response to the issue of sustainability considering their regional location, academic

2009 Annual Summary Energy Report

Generated on 05/24/2010

Institution and Campus	# of Sites	# of Meters	Organization SF*	Total consumption by fuel source in native units							All fuel source and emission totals					All fuel sources and emissions Per SF	
				Electricity (kWh)	Natural Gas (therms)	Steam/Hot Water (mmBtu)	Fuel Oil (gallons)	Propane (gallons)	Total Energy Consumption (kBTU)	Total Energy (\$)	Total CO2 (metric tons)	Total (kBTU/SF)	Total Energy (\$/SF)	Total CO2 (lbs/SF)			
Alexandria Technical College	1	23	449,668	3,640,078	209,623	0	0	0	33,930,936	\$432,780.55	4,152	75.46	\$0.96	20.36			
Anoka Technical College	1	11	353,310	2,904,623	196,126	0	171	0	30,059,753	\$396,833.29	3,472	85.08	\$1.12	21.66			
Anoka-Ramsey Community College, Cambridge	1	7	113,352	1,674,312	68,825	0	0	0	12,775,893	\$208,160.66	1,760	112.71	\$1.84	34.22			
Anoka-Ramsey Community College, Coon Rapids	1	8	380,446	3,842,573	272,200	0	91	0	41,055,092	\$508,410.27	4,661	107.91	\$1.34	27.01			
Bemidji State University	27	79	1,602,910	11,427,428	37,993	158,898	0	0	201,797,639	\$2,114,608.91	17,907	144.46	\$1.49	27.10			
Central Lakes College, Brainerd	1	4	347,079	3,129,226	170,911	0	0	0	28,215,555	\$359,007.98	3,519	81.29	\$1.03	22.35			
Central Lakes College, Staples	1	8	266,850	1,096,530	84,041	0	0	0	12,365,113	\$173,671.00	1,365	46.34	\$0.65	11.27			
Century College	1	13	728,377	8,612,446	419,756	0	0	0	72,461,217	\$977,087.65	9,409	99.48	\$1.34	28.48			
Dakota County Technical College	1	12	543,521	4,785,815	470,651	0	6,881	0	65,578,441	\$589,279.24	6,591	120.65	\$1.08	26.73			
Fond du Lac Tribal and Community College	1	10	173,274	2,283,560	138,084	0	0	0	21,961,255	\$294,640.66	2,641	126.74	\$1.70	33.60			
Hennepin Technical College, Brooklyn Park	1	11	423,922	4,013,368	294,727	0	0	0	43,936,598	\$512,410.64	4,924	103.64	\$1.21	25.61			
Hennepin Technical College, Eden Prairie	1	16	395,697	3,880,783	325,694	0	0	0	46,661,299	\$521,813.15	4,983	117.92	\$1.32	27.76			
Inver Hills Community College	1	8	298,245	3,885,316	130,241	0	14,577	0	28,647,632	\$471,086.99	4,070	96.05	\$1.58	30.09			
Lake Superior College	1	22	362,775	4,409,939	158,416	0	0	0	31,304,623	\$435,154.00	4,510	86.29	\$1.20	27.41			
Metropolitan State University	1	13	280,248	4,945,060	200,075	0	0	0	37,405,171	\$514,597.43	5,179	133.47	\$1.84	40.74			
Minneapolis Community and Technical College	1	25	1,205,861	7,806,381	537,194	0	21,164	0	84,698,417	\$972,008.05	9,596	70.24	\$0.81	17.54			
Minnesota State College-Southeast Technical, Redwing	1	4	102,343	886,457	43,098	0	5,446	0	8,203,695	\$102,807.24	1,023	80.16	\$1.00	22.04			
Minnesota State College-Southeast Technical, Winona	1	12	228,358	1,781,076	103,365	0	0	0	16,684,059	\$240,306.19	2,036	73.06	\$1.05	19.66			
Minnesota State Community & Technical College, Detroit Lakes	1	8	191,824	1,356,666	16,517	0	0	0	6,324,899	\$160,619.16	1,212	32.97	\$0.84	13.93			
Minnesota State Community & Technical College, Fergus Falls	1	6	165,862	1,544,850	99,447	0	0	0	15,475,809	\$155,767.06	1,819	93.31	\$0.94	24.18			
Minnesota State Community & Technical College, Moorhead	1	5	190,328	1,653,480	110,502	0	0	0	16,980,784	\$207,988.20	1,969	89.22	\$1.09	22.81			
Minnesota State Community & Technical College, Wadena	1	7	136,836	1,071,015	36,382	0	0	0	7,388,145	\$108,058.93	1,084	53.99	\$0.79	17.46			
Minnesota State University, Mankato	1	21	2,730,608	32,963,494	2,244,465	0	0	0	342,786,549	\$3,631,902.51	39,484	125.53	\$1.33	31.88			
Minnesota State University Moorhead	11	33	1,736,998	20,611,843	1,560,683	0	71,995	920	240,557,799	\$2,258,207.08	26,281	148.75	\$1.44	34.71			
Minnesota West Community & Technical College, Worthington	1	8	144,735	1,410,441	84,681	0	0	0	13,502,113	\$171,693.60	1,628	93.29	\$1.19	24.79			
Mn West Community and Technical College, Canby	1	4	92,558	498,233	28,506	0	0	0	4,625,229	\$62,253.98	567	49.97	\$0.67	13.51			
Mn West Community and Technical College, Granite Falls	1	3	97,548	573,252	33,620	0	0	0	5,405,914	\$85,349.91	657	55.42	\$0.87	14.85			
Mn West Community and Technical College, Jackson	1	6	102,050	552,470	70,801	0	0	0	9,149,716	\$103,166.93	842	89.66	\$1.01	18.20			
Mn West Community and Technical College, Pipestone	1	3	100,344	546,268	52,481	0	0	0	7,248,990	\$84,936.53	738	72.24	\$0.85	16.20			

2009 Annual Summary Energy Report

Generated on 05/24/2010

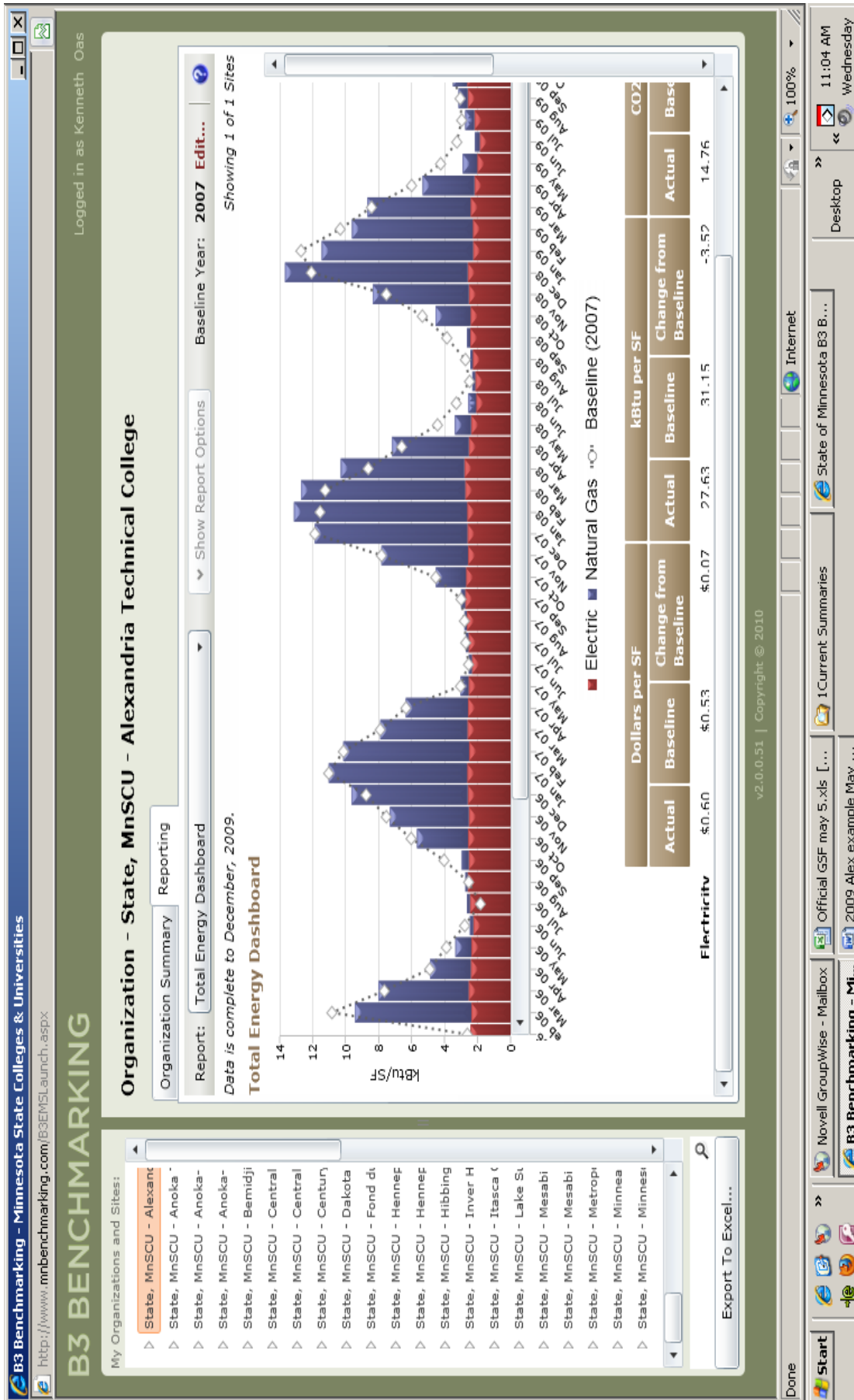
Institution and Campus	Total consumption by fuel source in native units						All fuel source and emission totals						All fuel sources and emissions Per SF	
	# of Sites	# of Meters	Organization SF*	Electricity (kWh)	Natural Gas (therms)	Steam/Hot Water (mmBtu)	Fuel Oil (gallons)	Propane (gallons)	Total Energy Consumption (kBTU)	Total Energy (\$)	Total CO2 (metric tons)	Total (kBTU/SF)	Total Energy (\$/SF)	Total CO2 (lbs/SF)
Normandale Community College	1	6	476,110	7,687,311	225,958	0	0	0	49,420,125	\$733,257,67	7,588	103.80	\$1.54	35.14
North Hennepin Community College	1	7	407,083	5,257,900	284,733	0	4,417	0	47,772,161	\$579,431.11	5,944	117.35	\$1.42	32.19
Northeast Higher Ed District, Hibbing Community College	1	10	362,583	2,953,993	52,128	12,776	0	0	28,205,871	\$549,284.61	3,390	77.79	\$1.51	20.61
Northeast Higher Ed District, Mesabi Comm Tech College-Virginia	1	3	124,211	1,117,504	226	6,284	0	0	10,120,896	\$239,518.60	1,252	81.48	\$1.93	22.22
Northeast Higher Ed District, Itasca Community College	1	8	233,604	1,941,753	114,636	0	0	0	18,388,856	\$216,141.78	2,230	78.72	\$0.93	21.05
Northeast Higher Ed District, Mesabi Comm Tech College-Eveleth	1	3	84,373	909,835	36,745	0	0	308	6,903,792	\$99,377.34	954	81.82	\$1.18	24.94
Northeast Higher Ed District, Rainy River Community College	1	5	113,577	956,694	58,343	0	0	0	9,251,164	\$113,994.60	1,109	81.45	\$1.00	21.53
Northeast Higher Ed District, Vermilion Community College	1	7	206,533	1,723,008	0	0	70,765	7,740	16,425,499	\$290,363.50	2,188	79.53	\$1.41	23.35
Northland Community and Technical College, East Grand Forks	1	6	171,244	1,676,110	93,388	0	0	0	15,302,125	\$156,390.22	1,895	89.36	\$0.91	24.39
Northland Community and Technical College, Thief River Falls	5	18	324,597	3,597,763	197,699	0	0	0	32,563,103	\$442,518.84	4,052	100.32	\$1.36	27.52
Northwest Technical College, Bemidji	1	8	104,445	916,523	50,374	0	0	0	8,296,497	\$102,432.20	1,032	79.43	\$0.98	21.79
Pine Technical College	1	8	98,394	940,637	36,303	0	0	0	6,935,125	\$115,292.42	976	70.48	\$1.17	21.86
Ridgewater College, Hutchinson	1	5	195,906	2,189,395	81,219	0	0	0	15,805,457	\$287,325.09	2,253	80.68	\$1.47	25.35
Ridgewater College, Willmar	1	15	490,964	3,761,330	245,887	0	0	0	38,065,382	\$418,555.79	4,450	77.53	\$0.85	19.98
Riverland Community College, Albert Lea	1	6	146,322	917,137	61,071	0	0	0	9,396,037	\$119,029.81	1,091	64.21	\$0.81	16.44
Riverland Community College, Austin	1	12	361,379	2,897,353	250,945	0	0	0	35,635,579	\$505,866.39	3,763	98.61	\$1.40	22.95
Riverland Community College, Owatonna	1	2	24,900	326,179	14,812	0	0	0	2,632,911	\$49,022.54	350	105.74	\$1.97	31.03
Rochester Community and Technical College	4	15	826,527	13,787,183	183,972	7,903	0	0	73,834,135	\$921,107.81	12,815	119.23	\$1.48	37.60
South Central College, Faribault	1	3	91,567	672,467	43,321	0	0	0	6,739,820	\$88,483.96	792	73.61	\$0.97	19.07
South Central College, Mankato	1	4	302,315	2,606,176	169,048	0	0	0	26,239,183	\$302,936.16	3,076	86.79	\$1.00	22.43
Southwest Minnesota State University	1	6	1,276,778	33,748,922	16,257	0	0	0	116,853,083	\$1,078,429.20	28,001	94.57	\$0.87	49.97
St Cloud Technical and Community College	1	12	397,058	3,623,605	141,715	0	0	0	26,907,327	\$403,509.16	3,769	67.77	\$1.02	20.92
Saint Paul College	1	7	510,112	5,021,226	24,460	24,200	0	0	43,846,534	\$981,476.68	5,542	85.95	\$1.92	23.95
St. Cloud State University	1	87	3,182,587	29,999,592	2,112,152	0	200,696	2,525	347,200,890	\$3,767,765.90	38,362	109.09	\$1.18	17.06
Winona State University	1	29	2,125,411	18,970,659	1,495,421	0	35,586	0	223,118,954	\$2,145,937.92	24,194	104.98	\$1.01	25.10
TOTAL ALL ORGANIZATIONS	97	682	26,584,507	285,987,238	14,189,918	210,059	431,788	11,492	2,703,048,845	\$31,562,057.10	329,147	101.68	\$1.19	27.30

NOTE:
 Lighter numbers indicate meters with significant gaps in consumption data or with minor gaps in consumption data that the program estimates.
 *Organization SF represents the average square foot over the duration of the year, taking in to account that the overall square footage can change throughout the year as buildings are added or removed.

Alexandria Technical College – Example of Reports

The following report is monthly energy usage for natural gas and electricity.

A comparison of total energy is also made to the 2007 baseline.



Monthly Total Dollars by Month – Overlapped Years

B3 Benchmarking - Minnesota State Colleges & Universities
 http://www.mnbenchmarking.com/B3EMSLaunch.aspx

B3 BENCHMARKING

My Organizations and Sites:
 > State, MnSCU - Alexandria
 > State, MnSCU - Anoka
 > State, MnSCU - Anoka
 > State, MnSCU - Anoka
 > State, MnSCU - Bemidji
 > State, MnSCU - Central
 > State, MnSCU - Central
 > State, MnSCU - Central
 > State, MnSCU - Dakota
 > State, MnSCU - Fond du Lac
 > State, MnSCU - Hennepin
 > State, MnSCU - Hennepin
 > State, MnSCU - Hibbing
 > State, MnSCU - Inver Hills
 > State, MnSCU - Itasca
 > State, MnSCU - Lake Superior
 > State, MnSCU - Mesabi
 > State, MnSCU - Mesabi
 > State, MnSCU - Metropolitan
 > State, MnSCU - Minnesota
 > State, MnSCU - Minnesota

Export To Excel...

Organization Summary Reporting

Report: Total Fuel Consumption (Dollars) by Month

Baseline Year: 2007 Edit...

Showing 1 of 1 Sites

Monthly Year Over Year

All Fuel

Year	Days	Average SF	Total Dollars	Normalized Baseline Dollars	Change from Baseline Dollars	% Change	Total Energy Cost \$	Average Cost Rate \$ /kBtu
2005	0	390,404	Missing	Missing	-	-	-	-
2006	365	390,404	314,966.10	333,423.79	-18,457.69	-6%	\$314,966.10	\$0.09
2007	365	390,404	375,154.58	375,154.58	0.00	0%	\$375,154.58	\$0.10
2008	366	390,404	431,024.87	399,321.98	31,702.89	8%	\$431,024.87	\$0.12
2009	365	449,668	432,780.55	451,081.83	-18,301.28	-4%	\$432,780.55	\$0.11
2010	31	449,668	37,505.20	40,303.21	-2,798.01	-7%	\$37,505.20	\$0.87

Data is complete to December, 2009.

v2.0.0.51 | Copyright © 2010

Done

Start

Novell GroupWise - Mailbox

B3 Benchmarking - Mi...

Official GSF may 5.xls [...]

1Current Summaries

State of Minnesota B3 B...

Internet

100%

11:13 AM

Wednesday

Desktop

Annual Total Usage in KBtus

B3 BENCHMARKING

My Organizations and Sites:

- ▶ State, MnSCU - Alexandria
- ▶ State, MnSCU - Anoka
- ▶ State, MnSCU - Anoka-
- ▶ State, MnSCU - Anoka-
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Export To Excel...

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Organization - State, MnSCU - Alexandria Technical College

Organization Summary Reporting

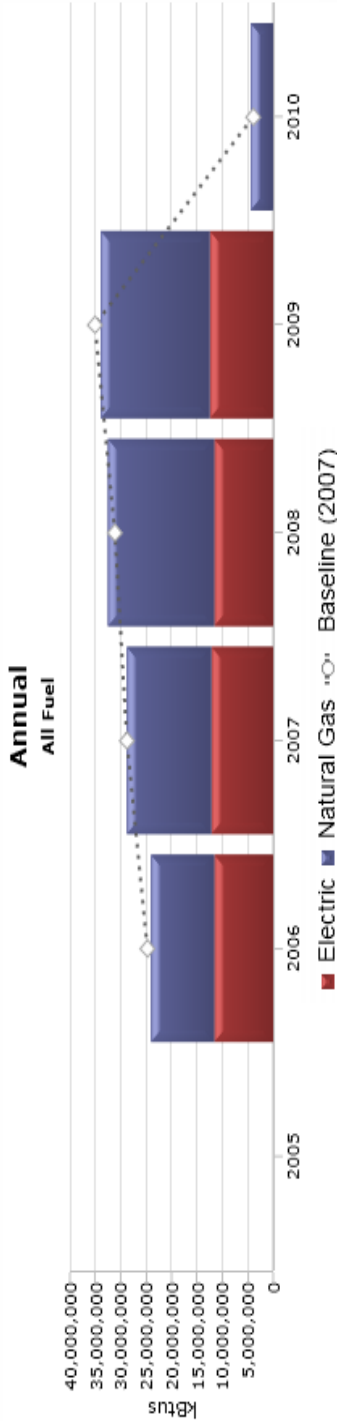
Report: Annual Fuel Consumption (kBtus)

Show Report Options

Baseline Year: 2007 Edit...

Data is complete to December, 2009.

Showing 1 of 1 Sites



Year	Days	Average SF	Total kBtu	Normalized Baseline kBtu	Change from Baseline kBtu	% Change	Total Energy Cost \$	Average Cost Rate \$ /kBtu
2005	0	390,404	Missing	Missing	-	-	-	-
2006	365	390,404	24,039,011	24,754,694	-715,682	-3%	\$314,966.10	\$0.01
2007	365	390,404	28,784,431	28,784,431	0	0%	\$375,154.58	\$0.01
2008	366	390,404	32,503,287	31,157,723	1,345,564	4%	\$431,024.87	\$0.01
2009	365	449,668	33,930,936	35,082,663	-1,151,727	-3%	\$432,780.55	\$0.01
2010	31	449,668	4,419,086	3,896,706	522,380	13%	\$37,505.20	\$0.01

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1Current Summaries

State of Minnesota B3 B...

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Annual CO2 Emissions

B3 BENCHMARKING

My Organizations and Sites:

- State, MnSCU - Alexandria
- State, MnSCU - Anoka
- State, MnSCU - Anoka
- State, MnSCU - Anoka
- State, MnSCU - Anoka
- State, MnSCU - Bemidji
- State, MnSCU - Central
- State, MnSCU - Central
- State, MnSCU - Central
- State, MnSCU - Centun
- State, MnSCU - Dakota
- State, MnSCU - Fond du Lac
- State, MnSCU - Hennepin
- State, MnSCU - Hennepin
- State, MnSCU - Hibbing
- State, MnSCU - Inver Hills
- State, MnSCU - Itasca
- State, MnSCU - Lake Superior
- State, MnSCU - Mesabi
- State, MnSCU - Mesabi
- State, MnSCU - Metropolitan
- State, MnSCU - Minnesota
- State, MnSCU - Minnesota

Logged in as Kenneth Oas

Organization - State, MnSCU - Alexandria Technical College

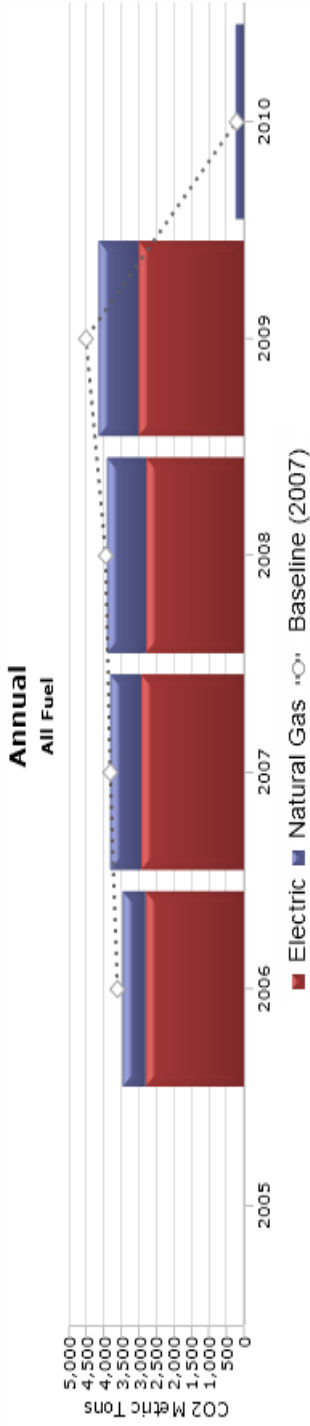
Organization Summary Reporting

Report: Annual Fuel Consumption (CO2)

Baseline Year: 2007 Edit...

Data is complete to December, 2009.

Showing 1 of 1 Sites



Year	Days	Average SF	Total CO2 metric tons	Normalized Baseline CO2 metric tons	Change from Baseline CO2 metric tons	% Change	Total Energy Cost \$
2005	0	390,404	Missing	Missing	-	-	-
2006	365	390,404	3,466	3,617	-150	-4%	\$314,966.10
2007	365	390,404	3,821	3,821	0	0%	\$375,154.58
2008	366	390,404	3,910	3,950	-40	-1%	\$431,024.87
2009	365	449,668	4,152	4,513	-361	-8%	\$432,780.55
2010	31	449,668	235	207	28	13%	\$37,505.20

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2009 Alex example May ...

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