MAINE STATE LEGISLATURE

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To: State and Local Government Committee

From: Directors of the Clean Government Initiative

Date: January 1, 2010

Re: Clean Government Initiative Report 2010

This report is submitted pursuant to MRSA Title 38, Section 343-H, Maine's Clean Government Initiative. This initiative encourages adoption of environmentally sustainable practices by state government and by the state's institutions of higher education as well as ensures environmental regulatory compliance by these entities.

The Directors of the Initiative by statute are the commissioners or the commissioner's designees of the Department of Environmental Protection, and the Department of Administrative and Financial Services, the chancellor of the University of Maine System or the chancellor's designee and the president of the Maine Community College System or the president's designee.

The Clean Government Initiative has produced many successes since it was established in 2002, which have been documented through the biennial reports to the Legislature. This report will summarize selected highlights from the accompanying materials presented in the Appendices that detail the reductions in environmental impact accomplished by Maine State government, the University of Maine System, and the Maine Community College System.

Since the inception of the initiative, Maine has been able to take on more initiatives that further improve the state's performance with regard to reducing the impact it has on the environment. The Clean Government Initiative, which at one time emphasized reports and plans from all agencies and educational institutions, has become more effective by undertaking action and measuring accomplishments. Maintaining agency contacts for communication of applicable compliance issues and reduction initiatives have streamlined and enhanced the effects of the Clean Government Initiative. Pursuant to the law, the Directors provide this information for your use, hope you find the report helpful, and are seeking no statutory changes at this time on behalf of the initiative.

Directive

As per the directive of the initiative, the directors have ensured that environmentally sustainable practices are incorporated into state government planning, operations and regulatory functions, and established metrics to measure and assess the environmental performance of state agencies and state-supported institutions of higher learning.

The successful efforts that the Maine State government demonstrates show that Maine is a national leader when it comes to reducing its environmental footprint, accounting for its environmental aspects, calculating quantitative reduction of environmental impact and documenting the progress the State has made through the Clean Government Initiative.

Highlights of the Clean Government Initiative

- The state fleet traveled 2.6 million less miles than in 2008 and has reduced fuel for the fleet by 17% since 2002.
- In 2000, Maine state government had one hybrid, in 2009 there are 104.
- Bureau of General Services is on track to meet a goal established in 2008 of reducing heating fuel consumption in the state facilities it manages by 5 percent by 2013.
- Since July, 2006 the state has purchased renewable energy credits to cover the electricity that is not currently generated by renewable sources, making Maine the first and only state in the nation to purchase 100% of its electricity from renewable resources. The additional 70% was purchased from 80,000 megawatt hours of renewable energy credits from Maine hydro. This offset approximately 64 million pounds of carbon dioxide.
- Continued use of Green Seal certified cleaning chemicals, which replace use of toxic and hazardous chemicals in the workplace, thereby reducing exposure of cleaning personnel and all state employees.
- Maine was awarded the Environmental Merit Award in April 2009 by the U.S. EPA for the procurement of EPEAT certified Silver and Gold rated computers and monitors and managing the disposal and recycling of the used electronic equipment. By using this type of equipment annual reductions are estimated to be 916,935 kWh which is enough electricity to power 77 U.S. households for a year. 171 Metric Tons of CO2 equivalent greenhouse gasses were reduced annually which is equivalent to removing 115 passenger cars from the road for a year.

- In FY 2009, approximately 93% of the paper and paper products purchased by the State of Maine had at least 30% post consumer content. This has reduced wood use by 1,830 tons, net energy by 19,409 million BTU's, greenhouse gases 3,639,257 lbs CO2 (equivalent) and 13,204,390 gallons of wastewater.
- From FY 2008 to FY2009, the University of Maine System reduced electrical consumption (kWh) by 7.5%, reduced fuel oil consumption (gallons) by 2%, increased natural gas consumption (MMBTU) by 5%, and reduced gasoline consumption (gallons) by 11%.
- The UMS recycles 4000 tons (65%0 of its waste).
- In 2000, UMS had no hybrid vehicles, in 2009 has 19.
- University of Maine reduced green house gas emission by 10% since 2005.
- University of Maine at Augusta completed its voluntary Climate Action Plan.
- University of Maine at Farmington reduced campus-wide building energy use footprint by 21%.
- University of Maine System's has 14 LEED certified/registered buildings where 3 meet the LEED Gold standard (USM) and 6 meet LEED Silver standard (UM-3, UMF-1, USM-2) demonstrating the university's leadership in energy and environmental design.
- The Maine Community College System has instituted building efficiencies (lighting, windows and HVAC updates).
- Maine Community College System worked with DEP on applicable licenses.

Appendices:

- A.) Efforts to Reduce Fuel Consumption and Improve Energy Efficiency in State Government
- B.) Impact reductions through the Environmentally Preferable Procurement Policy
- C.) Compliance Initiatives and Issues at State Facilities
- D.) MCCS Clean Government Initiative Report 2008 & 2009
- E.) Detailed Recent Accomplishments from the University of Maine System

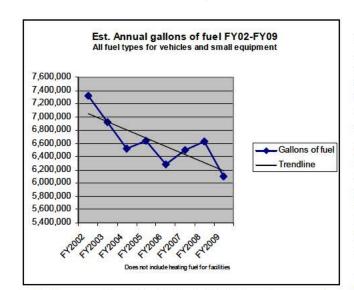
Appendix A.) Efforts to Reduce Fuel Consumption and Improve Energy Efficiency in State Government

The State of Maine has taken significant steps to reduce fuel consumption and improve energy efficiency through a number of efforts, including Governor Baldacci's Executive Order 11 FY 04/05. The executive order represents a comprehensive approach to ensuring the State's continued improvement in the area of energy efficiency. This year, overall estimated gasoline use decreased by approximately 3.2 percent compared with FY08. All fuel usage was down by over 1,200,000 gallons or about 17 percent compared with FY02. The latest FY09 data continue the previously observed long-term downward trend in the amount of fuel used and number of miles traveled in the course of providing the services and carrying out the responsibilities of state government.

State Vehicles

Paid Mileage/Miles Traveled

An analysis by Central Fleet Management (CFM) of State vehicle miles traveled (rental vehicles, lease vehicles and state paid mileage¹) finds that the state has decreased the amount of miles traveled by more than 2.6 million or 6.4 percent in FY09 from FY08. Paid mileage reimbursements decreased by the equivalent of more than 2 million miles. It should be noted that the reimbursement rate for paid mileage increased from 40 cents a mile to 42 cents effective July 1, 2008, pursuant to State bargaining agreements and to 44 cents effective January 1, 2009.



From FY08 to FY09, the State reduced the gallons of gasoline consumed by approximately 125,000 gallons. Also, the average cost decreased more than 50 cents per gallon. To reduce costs and best utilize the State's fleet of vehicles, CFM analyzes the cost of reimbursing employees with paid mileage expenses versus the cost of those employees using a rental or a leased vehicle from Central Fleet. An agency reimbursing an employee for 20,000 miles per year for paid mileage could save approximately \$3,000 per year if that employee used a compact sedan from Central Fleet Management, based on current paid mileage and CFM rates.

Since 2004, more than 220 vehicles,

including more than 70 vehicles in 2009, have been purchased by CFM for use by employees who previously were using their own vehicles and were being reimbursed for their mileage. These 2009 figures reflect the typical continuation of this cost-saving effort as well as an increase associated with the transition to central fleet of the light-duty fleet previously administered by the Maine Department of Transportation pursuant to Public Law 2009, Chapters 213 and 413.²

1. In general, Rental Vehicles are vehicles available through CFM for short term use by agencies. Leased Vehicles are vehicles that are assigned by CFM to a specific agency, usually for the life of the vehicle. State Paid Mileage is reimbursement required under the bargaining contract to be provided to state employees who use their own vehicle to travel on state business.

² Effective in FY2010, the light-duty fleet of vehicles with a gross vehicle weight rating of less than 10,000 pounds previously administered by the Department of Transportation was consolidated at Central Fleet Management pursuant to Public Law 2009, Chapters 213 and 413. The heavy-duty fleet at MDOT and the vehicle fleet at the Department of Public Safety, with a few exceptions, remain operated by those respective Departments apart from Central Fleet Management.

| Summary | 2002-2009 | | | | | | | |
|---------|---|------|-------------------------------------|------|---|-----|-----------------------|------|
| | Change in est. paid mileage gallons | % | Change in est. state gas gallons | % | Change in est. state diesel gallons | % | Change all gallons | % |
| FY02-09 | -416,511 | -33% | -560,338 | -16% | -237,286 | -9% | -1,214,135 | -17% |

| | Total Cost | Miles Driven | Estimated Gallons Based on 20 MPG | Annual change |
|-----------------|-------------|--|--------------------------------------|---------------|
| FY2002 | \$7,658,037 | 25,526,792 | 1,276,340 | |
| FY2003 | \$7,242,469 | 22,632,719 | 1,131,636 | -144,704 |
| FY2004 | \$7,469,381 | 23,341,816 | 1,167,091 | 35,455 |
| FY2005 | \$7,283,984 | 22,130,200 | 1,106,510 | -60,581 |
| FY2006 | \$7,409,138 | 21,216,479 | 1,060,824 | -45,686 |
| FY2007 | \$7,365,006 | 19,947,924 | 997,396 | -63,428 |
| FY2008 | \$7,686,335 | 19,215,837 | 960,792 | -36,604 |
| FY2009 | \$7,381,467 | 17,196,568 | 859,828 | -100,963 |
| Gasoline detail | | | | |
| | Total Cost | CFM Ave. Price/Gallon | Estimated Gallons Purchased | Annual change |
| FY2002 | \$3,894,260 | 1.109 | 3,511,506 | |
| FY2003 | \$4,434,222 | 1.280 | 3,464,236 | -47,270 |
| FY2004 | \$4,702,882 | 1.463 | 3,214,547 | -249,689 |
| FY2005 | \$5,665,900 | 1.805 | 3,138,481 | -76,066 |
| FY2006 | \$6,376,582 | 2.130 | 2,993,138 | -145,343 |
| FY2007 | \$6,656,649 | 2.180 | 3,048,564 | 55,426 |
| FY2008 | \$8,046,059 | 2.738 | 2,959,506 | -89,058 |
| FY2009 | \$6,644,681 | 2.233 | 2,951,168 | -8,338 |
| | | -0.505 | decrease from FY 0 | 8 to FY 09 |
| Diesel detail | | | | |
| | | Est. statewide Average Price/Gallon | Estimated Gallons Purchased | Annual change |
| FY2002 | \$2,712,818 | 1.071 | 2,532,576 | |
| FY2003 | \$2,760,703 | 1.027 | 2,328,241 | -204,335 |
| FY2004 | \$2,329,536 | 1.088 | 2,140,944 | -187,297 |
| FY2005 | \$3,736,728 | 1.560 | 2,395,448 | 254,504 |
| FY2006 | \$4,653,425 | 2.083 | 2,234,317 | -161,131 |
| FY2007 | \$5,628,854 | 2.292 | 2,456,215 | 221,898 |
| FY2008 | \$7,936,564 | 2.930 | 2,709,174 | 252,959 |
| FY2009 | \$6,243,410 | 2.720 | 2,295,290 | -413,884 |
| | | -0.209 | decrease from FY 0 | 8 to FY 09 |

| Summarized annual totals | | | | | | | | |
|--------------------------|---|------------------|---|------------------|---|------------------|-----------------------------------|------------------|
| | Estimated paid mileage gallons | Annual Change | Estimated state gasoline gallons | Annual Change | Estimated state diesel gallons | Annual Change | Estimated Total All Gallons | Annual Change |
| FY2002 | 1,276,340 | | 3,511,506 | | 2,532,576 | | 7,320,422 | |

| EV2002 | 1 121 626 | 144.704 | 2 464 226 | 47.270 | 2 229 241 | 204 225 | 6 024 112 | - 206 200 |
|--------|-----------|---------|-----------|---------|-----------|---------|-----------|--------------|
| FY2003 | 1,131,636 | 144,704 | 3,464,236 | -47,270 | 2,328,241 | 204,335 | 6,924,113 | 396,309 |
| | | | | - | | - | | - |
| FY2004 | 1,167,091 | 35,455 | 3,214,547 | 249,689 | 2,140,944 | 187,297 | 6,522,582 | 401,531 |
| FY2005 | 1,106,510 | -60,581 | 3,138,481 | -76,066 | 2,395,448 | 254,504 | 6,640,439 | 117,857 |
| | | | | - | | - | | - |
| FY2006 | 1,060,824 | -45,686 | 2,993,138 | 145,343 | 2,234,317 | 161,131 | 6,288,279 | 352,160 |
| FY2007 | 997,396 | -63,428 | 3,048,564 | 55,426 | 2,456,215 | 221,898 | 6,502,176 | 213,897 |
| FY2008 | 960,792 | -36,604 | 2,959,506 | -89,058 | 2,709,174 | 252,959 | 6,629,472 | 127,296 |
| | | - | | | | - | | - |
| FY2009 | 859,828 | 100,963 | 2,951,168 | -8,338 | 2,295,290 | 413,884 | 6,106,286 | 523,185 |

Note: Fuel data for this report is compiled from multiple Departments and sources. The analysis represents an overall estimate of total fuel use based on that underlying data.

CFM Fuel Cost

In FY09 fuel cost fluctuated greatly. In July the fiscal year started with a high of \$3.60 per gallon. By December it reached a low of \$1.45 and by the end of the fiscal year in June the price was at \$2.30. The average for all fuel purchased in FY09 was \$2.23 per gallon. The price paid by the State for fuel has decreased by just over 50 cents from FY08 cost. It is unknown how the trend will continue through the remainder of FY10. The following is the average price per gallon billed to agencies over the last 3 fiscal years.

| FY07 | | FY08 | | FY09 | |
|----------------|--------|----------------|--------|----------------|--------|
| July 2006 | \$2.50 | July 2007 | \$2.50 | July 2008 | \$3.60 |
| August 2006 | \$2.45 | August 2007 | \$2.35 | August 2008 | \$3.30 |
| September 2006 | \$2.05 | September 2007 | \$2.40 | September 2008 | \$3.15 |
| October 2006 | \$1.85 | October 2007 | \$2.45 | October 2008 | \$2.45 |
| November 2006 | \$1.85 | November 2007 | \$2.70 | November 2008 | \$1.85 |
| December 2006 | \$2.00 | December 2007 | \$2.65 | December 2008 | \$1.45 |
| January 2007 | \$1.80 | January 2008 | \$2.70 | January 2009 | \$1.55 |
| February 2007 | \$1.90 | February 2008 | \$2.70 | February 2009 | \$1.65 |
| March 2007 | \$2.25 | March 2008 | \$2.85 | March 2009 | \$1.70 |
| April 2007 | \$2.45 | April 2008 | \$3.05 | April 2009 | \$1.75 |
| May 2007 | \$2.60 | May 2008 | \$3.40 | May 2009 | \$2.00 |
| June 2007 | \$2.55 | June 2008 | \$3.65 | June 2009 | \$2.30 |

The State is exempt from paying federal or state tax on the price of fuel which is currently 47.9 cents for gasoline.

Fuel Card

The State of Maine has a fuel card contract with Comdata Network Inc. The Comdata MasterCard is accepted virtually universally and offers opportunities for participation by the state's merchants. There are hundreds of vendors statewide that accept this card. All State agencies are using the fuel card contract. This has streamlined billing and helps ensure that discounts at the more than 160 Maine merchants who participate in Comdata's various discount programs are applied appropriately. The fuel card is also formatted for use with the Department of Transportation's automated fueling system, and is available for municipalities, counties and school districts.

Average Fuel MPG

In FY09, Central Fleet Management achieved overall average fuel efficiency for all miles driven by all CFM vehicles of approximately 17.82 miles per gallon. This is a 6.5 percent improvement over FY05. The efficiency for passenger cars for FY09 was 27.90 miles per gallon, an improvement of 4 percent over FY05 and steady compared with FY08.

Hybrids in the Central Fleet

In 2000, the State of Maine had only one hybrid vehicle in the central fleet. Over the past 9 years, this number has increased to 104. At the end of FY09, approximately 16 percent of all CFM passenger cars (and 38 percent of compact cars) are hybrids.

Breakdown of Hybrid Types with gas

mileage

| FY | Hybrid Count at the end of each FY |
|------|---|
| 2000 | 1 |
| 2001 | 7 |
| 2002 | 12 |
| 2003 | 18 |
| 2004 | 33 |
| 2005 | 46 |
| 2006 | 65 |
| 2007 | 82 |
| 2008 | 79 |
| 2009 | 104 |

| Count | Description | EPA Average Highway MPG | CFM Average MPG based on Historical Data |
|-------|---------------|----------------------------|---|
| 3 | GMC Pickups | 19 | 15 |
| 79 | Toyota Prius | 48 | 44 |
| 18 | Honda Civic | 48 | 41 |
| 1 | Toyota Camry | 34 | 33 |
| 1 | Honda Insight | 70 | 59 |
| 2 | Ford Escape | 29 | 27 |
| 104 | Total | | |

Promotion of GO Maine

GO MAINE Commuter Connections (www.gomaine.org, 800-280-RIDE) is Maine's statewide commuter services program. It provides services and information for the commuting public on healthy, economical and eco-friendly options for commuting to and from work: carpools, vanpools, transit (bus, ferry and rail), bicycle, walking, and Park and Ride lots.

GO MAINE maintains a ride matching database of nearly 8,000 active and prospective commuters. There are currently 500 registered carpools and 40 express commuter vanpools, 31 of which are owned by Maine DOT and administered by GO MAINE.

Information about GO MAINE Commuter Connections is distributed at State new employee orientation sessions and is available on various locations on the State website at www.maine.gov. The GO MAINE website allows individuals to sign up for a vanpool and will match commuters seeking to join a carpool interactively in real time. All registered vanpools and carpools are eligible for the free Emergency Ride Home Guarantee. In 2009, an additional 10 vans have been added to new and existing routes. Five new vehicles are due and will be placed into service immediately. GO MAINE continues to seek commuter input for future vanpool routes.

State employees commuting to and from work riding GO MAINE vanpools may participate in a pre-tax benefit program implemented by the Departments of Administrative and Financial Services and Transportation and the GO MAINE Vanpool Program. This transportation benefit helps state employees who are vanpool participants save a significant amount of money annually on their commuting costs by allowing participants to pay for a portion or all of their monthly vanpool fare with pre-tax dollars resulting in a savings on Federal and State taxes.

GO MAINE and the Maine Department of Transportation are completing the development of a new and improved website, as well as an upgraded ride matching system with enhanced user functions, including a trip planner feature for non-commute travel that can be used by State employees use for official state business travel needs. State employees will be able to use this travel service before signing out a vehicle

from the State fleet or using their private vehicle for business travel needs.

Finally, preferential parking has been established at a variety of locations within the State Complex in Augusta for employees who sign up with the Maine Department of Transportation as a carpool, drive a hybrid vehicle, or ride in a vanpool. A hang tag is provided to identify the vehicle as authorized to park in the specially designated area.

State Buildings

Energy for State Buildings

Work continues, sometimes attention-getting and other times unnoticed, to reduce energy consumption in buildings and to diversify energy sources, all with the aim of improving energy independence and security as well as the environmental impact of energy use. A statutory working group has convened to advance these efforts at facilities statewide and will report in the winter of 2009-2010, and the Bureau of General Services is on track to meet a goal established in 2008 of reducing heating fuel consumption in the state facilities it manages by 5 percent by 2013.

New contracts are in place statewide for bio-diesel fuel, #2 fuel and the additional fuels needed by State buildings for the 2009-2010 heating season. Most deliveries will be at the updated contract price of \$1.91 per gallon. The exact price will vary because of tank size, geographic location, and other factors. Overall, the average statewide cost for No. 2 heating oil for state facilities during the fiscal year will be approximately \$2.33 per gallon. This cost represents a reduction of more than 35 percent from the prior year to prices comparable to the prices of 2006 and 2007.

State government continues to use bio-diesel heating fuel in the core buildings of the two main Augusta campuses that are managed by BGS. The Department of Corrections and Bureau of General Services have entered a contract to convert the Mountain View Youth Development Center to renewable bio-mass energy for the 2011 heating season. That single project will have the effect of reducing the heating fuel consumption at state-owned facilities by approximately 5 percent. A geothermal heating system will be installed at a state facility by the end of 2009. Contract electricity rates covering the majority of electricity consumption to state facilities have been locked at an average \$.1162 per kWh for FY2010 and FY2011, and Maine has entered into the demand response program which rewards the state and in effect lowers energy costs in return for state facilities reducing electricity consumption upon request at times of peak demand. Many other such projects are ongoing.

Environmental Benefits from Energy Related Purchases

The Executive Order establishing the Clean Government Initiative established a goal for the state to purchase 40% of the electricity it consumes from renewable resources. When the State restructured its electric industry it set a requirement that 30% of the electricity purchased by Maine consumers would be derived from efficient or renewable resources, so 30% of the state government's power mix was met from these eligible resources. When it went out to bid for power in 2003 State government required that the 30% come from renewable resources only. Since July, 2006 the state has purchased renewable energy credits to cover the remaining 70%, making Maine the first state in the nation to purchase 100% of its electricity from renewable resources. The additional 70% was purchased from 80,000 megawatt hours of renewable energy credits from Maine hydro. This offset approximately 64 million pounds of carbon dioxide, 113,000 pounds of nitrogen oxide and 200,000 pounds of sulfur dioxide. This is also the equivalent of taking 2700 cars off the road.

Technology Initiatives

Tele-Conferencing/Video-Conferencing

Tele-conferencing and video-conferencing are tools that can help reduce vehicle miles traveled and gas consumption, while increasing employee productivity. Both continue to be used extensively to minimize travel in keeping with the goals established by the Governor. Usage of these alternatives for meetings,

conferences and seminars has increased 24% in FY 09 over FY 08 (based upon total usage minutes) through the state's contract with Premier Conferencing.

Additionally, there has been an increase in the availability and usage of tele-conferencing and web-conferencing by the state's partners. The Office of Information Technology (OIT) is only able to tabulate minutes used with the state's contracted tele-conferencing and web-conference provider. Antidotal evidence finds that webinars and other electronic conferencing seminars are growing in popularity with and being provided by professional associations, federal and state governments and seminar providers, as well as state employees, as a way to interact and impart information. Participation in tele-conferencing and web-conferencing offered and initiated by other entities cannot be quantified by OIT.

Online Services

By reducing the need for citizens to travel in order to conduct business with the State, Maine's award winning portal www.Maine.gov provides much more than just fast, efficient and convenient access to State information and services. Reducing the need for State employees to travel saves cost and conserves energy, but reducing the need for citizen and business travel to transact State business may have an even greater impact on energy conservation.

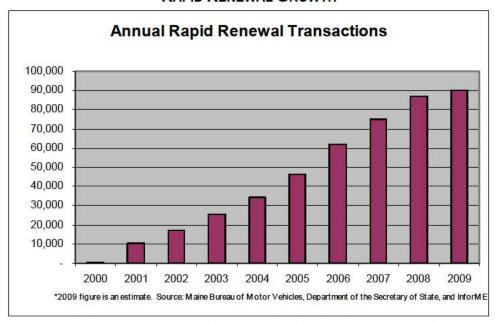
As an example, Rapid Renewal is a service that allows Maine auto owners to pay their excise tax and register their vehicle in one seamless online transaction. Prior to the availability of this service, registering your vehicle involved at least one trip to your municipal office and often a second trip to a branch office of the Bureau of Motor Vehicles. Now 135 communities participate and well over half of Maine's residents live in a community with Rapid Renewal. Residents are able to avoid that travel and save time, and many have taken advantage of the opportunity. In 2008, the number of Rapid Renewal transactions reached a record of 86,972 transactions. Since its introduction, Rapid Renewal has saved nearly 430,000 trips to municipal and state offices, and is on pace to save another 90,000 trips in 2009 as the service continues to grow.

Similar results can be found in other online services. The use of PayTixx in 2008 reached 28,987 transactions. MOSES, Maine Online Sportsman Electronic Service, continues to grow, serving more than 108, 154 outdoorsmen last year. The Public Criminal History Records is another success story. This service continues to have adoption rates in excess of 95 percent, and as a result of the online service the Department of Public Safety has seen an overall increase in the number of record requests.

A recent addition to Maine's eGovernment offerings, Qualifying Contributions for Maine Clean Election Candidates, allows any Maine registered voter to contribute directly to the Clean Election Program or to support a Clean Election candidate. The State of Maine launched the online contributions site in February 2008. Of the nearly 400 publicly funded candidates, 238 candidates from 213 different Maine cities, towns, townships and unorganized territories received qualifying contributions using the online service in the 2008 election year.

With over 400 online services, Maine.gov holds great potential for changing how citizens interact with government. The benefits include 24/7/365 access to State government information and services, increased efficiency, reduced costs and energy conservation.

RAPID RENEWAL GROWTH



*2009 figure is an estimated projection based on initial experience in 2009 Source: Maine Bureau of Motor Vehicles, Department of the Secretary of State, and InforME.

Appendix B.) Impact reductions through the Environmentally Preferable Procurement Policy

In 2004, the State of Maine has established a broad range of product procurement practices oriented toward the preservation of natural resources, the promotion of environmental sustainability and the protection of the health and safety of employees and citizens. The adoption of the EPP (Environmentally Preferable Procurement) policy considered several factors as part of a best value determination when evaluating purchases, including fuel efficiency, recycled content percentages, materials content, emissions, waste generation, toxicity, and recyclability. The Division of Purchases' bid specifications require environmentally preferable certifications which pertain to certain commodities: EnergyStar for appliances, Green Seal for cleaning products, EPEAT Silver or Gold for computer equipment, for example and specifications for the purchase of paper products and printed materials that come from certified sources. "Certified sources" refers to paper products that are procured from a source that is certified by a credible third-party system such as the Forest Stewardship Council (FSC), the Sustainable Forestry Initiative (SFI), the American Tree Farm System (ATFS), Master Logger Program or other systems that evolve over time to be accepted in the forest products marketplace.

The Department of Environmental Protection and the Department of Agriculture has assisted BGS by participating in BGS's EPP committee and by reviewing RFQ's and purchase contracts for environmental concerns and specifications. This inter-agency partnership has been very effective for ensuring the procurement of environmentally preferable products and has brought the State of Maine considerable recognition for being one of the leading states in the nation for "Leading by Example".

Under the EPP policy, BGS has undertaken several initiatives in coordination with other agencies.

• Requiring Green Seal's certification for applicable cleaning chemicals and hand soaps (GS 37, 41) and documenting a review of appropriate disinfectants and the development of standard operating procedures for use (see Appendix B, Table A).

4536 pounds of total product have been reduced, 896 of which was considered hazardous material. Stronger chemicals such as disinfectants are being reduced due to a standard operating procedure detailing what gets disinfected.

• Requiring EPEAT's rating of electronic equipment and participation with North East Recycling Council's State Electronics Challenge and being awarded the Environmental Merit Award in April 2009 by the U.S. EPA (see Appendix B, Table B).

916,935 kWh were reduced by using EPEAT certified electronic equipment and computers which is enough electricity to power 77 U.S. households for a year.

171 Metric Tons of CO2 Equivalent green house gasses were reduced which is equivalent to removing 115 passenger cars from the road for a year

238 pounds of toxic materials, including lead & mercury (specifically 8.2 grams of mercury which is equivalent to 13 mercury fever thermometers).

10,375 lbs of hazardous waste reduced from end of life management of the unit.

• In FY 2009, approximately 93% of the paper and paper products purchased by the State of Maine had at least 30% post consumer content, which is an increase of about 80% recycled content purchases from FY 06. As with the previous report period (2006-2007; 91%), this far exceeds the statutory requirement that 50% of paper purchased by the State be recycled content paper.

81% of the 286,872 reams of copy and printer paper distributed by the Bureau of General Services central warehouse in FY 08 were recycled.

79% of the 282,981 reams of copy and printer paper distributed by the Bureau of General Services central warehouse in FY 09 were recycled. However, the amount of paper (reams for copy and printers) being purchased was reduced by 23% from 07 to 09.

369,160 reams purchased in 07. 294,580 reams purchased in 08. 20% reduction 282,981 reams purchased in 09. 23% reduction This represents a 23% reduction in paper being purchased.

The quantifiable benefits* to the environment by purchasing 30% post consumer recycled content paper compared with buying virgin paper are reductions in:

Wood Use 1,830 tons Net Energy 19,409 million BTU's Purchased Energy 14,353 million BTU's Sulfur dioxide (SO2) 17,797 pounds Greenhouse Gases 3,639,257 lbs CO2 equiv. Nitrogen oxides (NOx) 6,128 pounds Particulates 3,350 pounds Hazardous Air Pollutants (HAP) 1,518 pounds Volatile Organic Compounds (VOCs) 1,804 pounds Total Reduced Sulfur (TRS) 225 pounds Wastewater 13,204,390 gallons Biochemical Oxygen Demand (BOD) 5,061 pounds Total Suspended Solids (TSS) 12,753 pounds Chemical Oxygen Demand (COD) 15,864 pounds Adsorbable organic halogens (AOX) 42 pounds Solid Waste 1,197,664 pounds

*= Environmental impact estimates were made using the Environmental Defense Fund Paper Calculator. www.papercalculator.org.

• Ending the use of lead Wheel Weights on state vehicles.

Maine estimates that close to 20,000 pounds of lead fell annually on to Maine roadsides in the form of external lead wheel weights from vehicle tires. The lead wheel weights degrade and contribute to lead levels in water runoff and roadside dust. In July 2006 the State of Maine began leading by example with transition of the State light duty fleet away from lead to steel wheel weights. In 2007 the transition expanded to the University of Maine at Orono light duty fleet and to the State DOT heavy duty fleet. Maine DOT became the first State heavy duty fleet in the country to eliminate the use of lead wheel weights. Maine DOT is using an internal balancing product that is not only environmentally preferable but has improved performance and saves money (as a permanent balancing solution). State agencies estimate that they are collectively avoiding the purchase of 1100 lbs of lead annually with the transition. School bus fleet interest began with the Milo area school transportation fleet transition to the product in use by DOT. State procurement language has been amended to require delivery of new light and

heavy duty vehicles with the specified safer alternative wheel balancing products--the language additionally impacts many municipal school bus purchases. Leading by example by State agencies and the University contributed to the Legislature's unanimous passage of LD 986 An Act to Protect the Public Health and the Environment by Prohibiting the Sale of Wheel Weights Containing Lead or Mercury in spring 2009. http://www.mainelegislature.org/ros/LOM/LOM/124th/124R1/PUBLIC125.asp In late summer 2009 EPA announced that they would begin federal rulemaking to ban the use of lead wheel balancing products.

- Requiring specifications for Carpet procurement as set forth in the MOU (Memorandum of Understanding) signed by the DEP Commissioner with CARE (Carpet America Recovery Effort) in April of 2009.
- Requiring specifications for paint based on limited content of volatile organic compounds (VOCs).
- Requiring specifications for environmentally preferable ice and snow melt products;
 - 9000 pounds of calcium chloride/ magnesium chloride/ potassium chloride mix was purchased and sold through the central warehouse.
 - The state prison bought 25,000 pounds of calcium chloride.
- Requiring documentation of mercury levels within lamps and lighting products to ensure conformance with LEED (EB- existing buildings) standard.
- Requiring specifications on procurement of uniforms to conform to an established code of conduct requiring vendors to provide products under healthy, safe, and fair working conditions.

Environmental Benefits from Green Seal Certified Cleaning Chemical Purchases (Appendix B, Table <u>A):</u>

| year | buildings | sq ft | | | | | | |
|--------------|-------------|------------|-------|------------|---------------|----------|--------------|---------------|
| 2009 | | 1,387,923 | | | | | | |
| type of clea | aner | product | cases | oz/ bottle | bottles/ case | oz/ case | total ounces | total gallons |
| All purpose | e Can | berra 4000 | 27.5 | 64 | 5 | 320 | 8,800 | 68.75 |
| Bathroom | Can | berra 4030 | 20 | 64 | 5 | 320 | 6,400 | |
| glass clear | | berra 4020 | | 64 | 5 | 320 | 800 | |
| hand soap | Go | jo foam GS | 233 | 42 | 3 | 126 | 29,358 | 229 |
| | | | | | | | 45,358 | |
| disinfectan | ıt* Can | berra 4080 | 5.5 | 64 | 5 | 320 | 1,760 | 13.75 |
| | | | • | | | | | |
| year | buildings | sq ft | | | | | | |
| 2008 | | 1,437,234 | | | | | | |
| Multi surfa | ce cleaner | | 13 | 64 | 5 | 320 | 4,160 | 32.5 |
| All Surface | | | 17 | 64 | | 320 | 5,440 | 42.5 |
| hand soap | Go | jo foam GS | 213 | 42 | 3 | 126 | 26,838 | |
| | | | | | | | 36,438 | 285 |
| | | | | | | | | |
| | • | | _ | | | | | |
| year | buildings | sq ft | | | | | | |
| 2007 | 38 | , , | | | | | | |
| Glass Clea | | 640 | 2 | 64 | | 320 | 640 | |
| Bathroom | | 1600 | 5 | 64 | | 320 | 1,600 | |
| All purpose | | 2240 | 7 | 64 | | 320 | 2,240 | |
| hand clean | er | Gojo foam | 347 | 42 | 3 | 126 | | |
| | | | | | | | 48,202 | |
| disinfectan | t cleaner** | | 5 | 64 | 5 | 320 | 1,600 | 12.5 |

^{*} disinfectants not calculated in EPP total, but usage will be tracked.

^{**} disinfectant cleaners no longer used as per the disinfectant SOP to reduce hazardous chemical usage.

Environmental Benefits from EPEAT Certified Electronics Purchases (Appendix B, Table B):

Environmental Benefits from EPEATTM **Purchases For the State of Maine**

Calculations provided by the Northeast Recycling Council, Inc.
Using the Electronics Environmental Benefits Calculator, Version 2.0, 3/19/2009

| EPEAT Purchasing Data (1/1/2008 – 9/30/2009) | | | | | | |
|--|--------|---------------|-----------------------|--------------------------|---------|--|
| Product Type | EPEAT | TM-Registered | Total Units Purchased | | | |
| • | Bronze | Silver | Gold | EPEAT + Non- EPEAT | % EPEAT | |
| Desktops | 0 | 1 | 1,064 | 1,209 | 88.1% | |
| LCD Monitors | 1 | 143 | 1,281 | 2,580 | 55.2% | |
| Notebooks | 0 | 2,204 | 71 | 2,277 | 99.9% | |

| Environmental Benefits | EPEAT TM Purchases | | | | |
|--|-------------------------------|--|--|--|--|
| Reductions In | How Much? | Equivalent To | | | |
| Energy usage | 916,935 kWh | Electricity to power 77 U.S. households for a year | | | |
| Greenhouse gas emissions | 171 MTCE | Removing 115 passenger cars from the road for a year | | | |
| Toxic materials, including lead & mercury | 108 kg (238 lbs) | | | | |
| Mercury Only | 8.2 g | 13 mercury fever thermometers | | | |
| Municipal solid waste | 2,301 kg (5,074 lbs) | | | | |
| Hazardous waste | 4,705 kg (10,375 lbs) | End of life management | | | |
| Costs – resulting from life cycle energy use reductions | \$86,742 | Life cycle energy reductions, not user energy use reduction. | | | |

Appendix C.)

Compliance Initiatives and Issues at State Facilities

Compliance Initiatives

State of Maine Property Management Division IPM Policy

In keeping with the spirit of 'leading by example' and the Clean Government Initiative and as directed by Governor Baldacci's Executive Order, the Bureau of General Services (BGS), in consultation with the Maine Department of Agriculture, drafted an Integrated Pest Management (IPM) Policy and a Request for Proposals for IPM service bids. As directed by the Executive Order, the Maine IPM Council was asked to evaluate the feasibility of requiring that State of Maine pest management contractors be IPM-certified. The IPM Council determined that such a requirement is feasible for structural pest control contractors and made a formal recommendation to DAFS that priority be given to IPM-certified contractors.

IPM policy documents, applicable to office buildings and grounds under the control of BGS Property Management Division (PMD), are currently in place. The IPM Policy and the IPM RFP have been implemented and have established a formal IPM program for PMD-managed properties. Key elements of the IPM Policy include 1) appointment of an IPM Coordinator to oversee the program; 2) assignment of a Building Coordinator to serve as a communication link between occupants, and the IPM Coordinator has occurred at half of the state buildings; 3) IPM is tracked via a web based program which is accessible by IPM Coordinators; 4) RFP to be issued by the end of May 2010.

Compliance Issues

DEP Bureau of Land and Water

Department of Inland Fish & Wildlife (DIFW) received nine simultaneous Notices of Violation (NOVs) for all nine of its hatcheries and rearing stations in October 2008.

Subsequent to the NOVs, several meetings with IF&W staff were held concerning compliance problems at all Inland Fish & Wildlife Hatcheries. The Department continues to work with IF&W fish hatcheries concerning effluent violations, testing violations, compliance schedule violations, equipment failures, and operational problems that have plagued the IF&W facilities. During the summer of 2009, site visits at five of the IF&W facilities were conducted with IF&W's consulting engineers, and upgrade plans were developed for DEP approval. To resolve all of the violations in IF&W's record, and to establish a corrective action schedule, the Department sent a proposed Consent Agreement (CA) to IF&W in November 2009. This agreement is very close to final form, and once signed, it will be submitted to the Board of Environmental Protection for approval.

The following is a list of the "enforcement actions", i.e., Compliance Initiative Letter (CILs), Letter of Warning (LOWs) and NOVs and CAs, dealing with State agencies during the past 2 years from DWQM. These all involve MEDIFW facilities.

- 1. Augusta Fish Hatchery
 - a. CIL (7/7/08)
- 2. Embden Fish Rearing Station
 - a. LOW (8/12/09)
 - b. CIL (9/15/09)
- 3. Enfield Fish Hatchery
 - a. LOW (7/10/08)
 - b. CIL (12/19/09)
- 4. Grand Lake Stream Hatchery
 - a. LOW (7/9/09)
- 5. Palermo Fish Rearing Station
 - a. LOW (5/13/08)
 - b. CIL (11/12/09)
 - c. CIL (12/16/09)

As you may also be aware, we issued NOVs to all of the MEDIFW facilities with waste discharge licenses on 10/27/08. In addition to the above 5 facilities, NOVs were sent to:

- 1. Casco Fish Hatchery
- 2. Gray Fish Hatchery
- 3. New Gloucester Fish Hatchery
- 4. Phillips Fish Hatchery

A final, proposed CA was sent to MEDIFW on 11/6/09. This CA included the violations and corrective actions listed in the above 9 NOVs. It is still under negotiation.

DEP Bureau of Remediation and Waste Management
Maine State Health Lab, Augusta MER0000002832
DHHS – Health and Environmental Testing Lab
NOV
3/7/08

Maine Turnpike Authority, Gray ME5000001040 INSPECTED on 7/24/2008 NO VIOLATIONS CITED letter 8/6/08

Maine RS Maintenance, Limestone ME5000001388 434 Loring Commerce Center Rd, Maine Military Authority, Dept. DVEM NOV 12/1/08

Maine RS Maintenance, Limestone MER000002477 34 Colorado Rd, Maine Military Authority, Dept. DVEM NOV 12/1/08

Maine RS Maintenance, Limestone MER000500215 32 Connecticut Rd, Maine Military Authority, Dept. DVEM NOV 12/1/08

Darling Marine Center UMaine, Walpole MED985473396 U Maine System NOV 3/7/08

<u>DEP Bureau of Air Quality</u> Riverview Psychiatric LOW

University of Maine System Accomplishments Meeting Objectives of Clean Government Program (2009)

University of Maine System (UMS) continues to improve its energy efficiency and environmental stewardship across all seven of its universities.

UMS currently expends over \$19 million annually in energy costs (including vehicles). This includes the annual consumption of over 73 million kWh of electricity, 2.5 million gallons of fuel oil, 426,800 MMBTUs of natural gas, and 7,000 gallons of gasoline.

From FY 2008 to FY2009, UMS reduced electrical consumption (kWh) by 7.5%, reduced fuel oil consumption (gallons) by 2%, increased natural gas consumption (MMBTU) by 5%, and reduced gasoline consumption (gallons) by 11%.

The following is a summary of UMS's continuing efforts to improve energy efficiency and environmental stewardship.

AASHE Climate Commitment

- All seven UMS Presidents have signed the American College and University Presidents Climate Commitment sponsored by the Association for the Advancement of Sustainability in Higher Education (AASHE).
- Each campus has:
 - o Set up a mechanism to guide the process
 - o Completed an inventory of greenhouse gas emissions
 - Begun creating and implementing a climate action plan (that includes a target date and interim milestones for achieving campus climate neutrality). Note: UMA has completed their plan. Remaining campuses plan on completing action plan January 2010.
 - o Taken at least two immediate steps specified in the commitment to reduce greenhouse gas emissions.
 - Integrated sustainability into the curriculum and making it part of the educational experience.
 - Will make the action plan, inventory and periodic progress reports publicly available (see http://acupcc.aashe.org/index.php?q=&class=&state=ME).

Leadership in Energy and Environmental Design (LEED)

- UMS is a member of the US Green Building Council.
- UMS is a leader with LEED registered and LEED certified buildings.
 - o UMS has 14 LEED registered/certified buildings. Broken down as follows:
 - 3 LEED Gold certified (USM)
 - 6 LEED Silver certified (UM, UMF, USM)

December 18, 2009

- 3 LEED certified buildings (UM, UMF, USM)
- 2 LEED registered, pending certification (UMFK, USM)

Fleet Vehicles

- Purchase/lease of non-hybrid vehicles by UMS includes requirements that they have gas mileage ratings and low emissions.
- UMS has 19 hybrid vehicles system-wide.

Recycling

- On average, UMS recycles 4000 tons (65%) of its waste.
- Recycling accounts for a reduction in carbon dioxide equivalent emissions of 13,080 tons.

Rebuild America Grants

- UMS received Department of Energy Rebuild America Grants in 2004, 2005, and 2006. The grants provided funding for consultative and engineering services. These grants were completed at the end of 2008.
- In 2008, the Rebuild America Grants funded retro-commissioning of several buildings across the system to improve performance and reduce energy consumption.
- In 2008, the Rebuild America Grants supported a pilot investment grade energy audit within one building on each campus.
- Final reports for the 2005 and 2006 grants are attached for further information.

Cogeneration

- Both the University of Maine (UM) and the University of Southern Maine (USM) investigated the principle of cogeneration at their respective central heat plants to provide electrical power for its facilities.
- Both Central Maine Power and Bangor Hydro-Electric negotiated with USM and UM
 respectively to provide reduced electrical transmission and distribution costs in exchange
 for delaying the construction of their cogeneration facilities. This cost reduction is
 providing both campuses with some buffer to increased energy prices.
- UM, as an alternative to a full scale cogeneration facility, installed a 600kW back pressure turbine to generate a small amount of electricity from heat at its steam plant. The turbine will produce about 3 million kWh of electricity per year using thermal energy that was previously wasted. This project will result in greenhouse gas emissions reductions of about 1400 metric tons CO₂e.

Strategic Procurement

UMS's Strategic Procurement Office has continued its practice of using EPP strategies to ensure that products and equipment meet or exceed environmental standards.

UMS has made a commitment to EPP purchases to the extent possible and to buy from vendors who are being good stewards of the environment. This is done by having every bid issued request information on products that display positive environmental attributes, products that generate less waste in packaging, products that are more durable, products that are reusable or remanufactured, products that meet environmental criteria during production, or suppliers that will reclaim or take back products or components following their use.

UMS also provides alternate recycled material content proposals in every bid to allow UMS to buy as many products as possible with recycled material content. Alternates must meet or exceed U.S. Environmental Protection Agency (EPA) recycled content procurement guidelines.

UMS also prefers to purchase Energy Star compliant equipment where possible.

When requesting proposals from licensed pesticide applicators, UMS reserves the right to select an IPM-certified company over a non-IPM certified company.

Specific Campus Accomplishments

University of Maine (UM)

Through energy conservation efforts and fuel switching between #6 fuel oil and natural gas, UM achieved the Governor's Carbon Challenge in 2008 by reducing campus greenhouse gas emissions by 10% compared to 2005 emissions. UM was able to sustain this reduction in 2009. This was accomplished ahead of the original target date of 2010. The reduction is equivalent to about 7,000 metric tons of CO₂.

Established a free shuttle-bus service between the UM campus and downtown Orono. The Black Bear Orono Express is a joint venture between UM, the Town of Orono, the Orono Village Association, Bangor Area Transit, and the Maine Department of Transportation. Ridership has been increasing steadily since service began and now stands at nearly 350 riders per day.

UM's Green Campus Initiative (GCI) has launched a bike program for students. The Blue Bikes program collects abandoned bicycles, repairs them, and makes them available free of charge to UM students who present a valid university ID. The university also continues to install more bike racks around campus to encourage biking.

UM has designated preferred parking and free permits for carpools.

UM's campus master plan features pedestrian access as a central theme. In support of this concept, UM has secured state funding to improve the primary bike trail that connects the campus core to a major, off-campus residential area (University Park), and to build a new pedestrian thoroughfare called the "Black Bear Way" that will connect the

primary residential part of campus with the Student Recreation and Fitness Center and the major athletics facilities on campus.

UM's Auxiliary Services is currently in the process of negotiating a contract with Casella Waste Systems for a single-stream recycling pilot program at Hilltop Commons, one of UM's dining centers.

Custodial services currently use a wide variety of environmentally preferable cleaners. 75% of cleaning products used on campus (including <u>all</u> of the products used in the Student Recreation and Fitness Center) are Green Seal certified. Hand soap in campus restrooms is Green Seal certified, as well.

UM's Advanced Engineered Wood Composites (AEWC) Center is currently building a \$5 million facility for the testing and manufacturing of next-generation wind turbine blades. AEWC was also awarded \$8 million by the U.S. Department of Energy to support a program for the development of deep water offshore wind energy systems.

UM Facilities Management, in cooperation with the School of Forestry, is installing an anemometer at Witter Farm to assess the potential for wind power at that site.

UM has upgraded lighting efficiency in the Alfond Arena with support from Efficiency Maine.

UM has completed a comprehensive technical study of the campus energy infrastructure, including detailed analysis of a variety of large-scale cogeneration options and boiler upgrades at the central plant.

UM has assembled a high-level energy team to advise the Vice President for Finance and Administration regarding all matters related to campus energy use, including the environmental impact of all energy decisions.

University of Maine at Augusta (UMA)

Completed a Climate Action Plan. See: http://acupcc.aashe.org/cap-report.php?id=158 to download an Adobe Acrobat PDF of the plan.

University of Maine at Farmington (UMF)

Reduced campus-wide building energy footprint to 95,329 BTU/SF/YR, which is 21% less than the average of 120,000 BTU/SF/YR for similar campuses in similar climates.

Compared last three years of energy use data between geothermal heated Education Center and the oil heated Roberts Learning Center, which are similar size buildings with similar use. The Education Center consumes 77% less energy than the Roberts Learning Center (28,784 BTU/SF/YR vs. 128,509 BTU/SF/YR). Although the use of geothermal

energy plays a role, the more efficient building envelope in the newly constructed Education Center may account for about 25-30% of the difference in energy use.

Grace Eason, UMF faculty member, has been recently recognized by the USGBC for incorporating the Education Center's green attributes into her curriculum. (See link, and scroll down: http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1889)

UMF Campus Computer Center was able to reduce electrical usage by 52.3% since FY 04. See:

http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/PoweringDownFromtheBottomUpGre/182047 for detailed information on this effort as it applies to computer equipment.

UMF won the 2009 "Power Down for the Planet Challenge." This was achieved by getting 24% of computer users to pledge to commit to sustainable computing practices.

Using funds from the 2007 State Bond Referendum and resources from UMS and UMF, Preble Hall was renovated to improve energy efficiency and environmental safety in the science laboratories. The most visible change is the replacement of the building's south exterior wall and the installation of energy efficient windows. The structure features a continuous surface of 2 inch rigid insulation placed on vertical steel studs improving the building's energy efficiency. The heating system was modified in preparation for a changeover to geothermal heating for heating and cooling that is planned in the near future based on the success of the Education Center. See: http://www.umf.maine.edu/campus/docs/RP090-001.jpg

The UMF Department of Geology was awarded a Quimby Family Foundation grant to study the effects of climate change on high elevation ponds in Maine. The project will concentrate on student field research during the summer of 2010 to better understand how water temperature variability in ponds affects pond geology and the sensitive life forms.

UMF ranked 39 out of 206 colleges and universities in cumulative recycling rate as part of the 2009 RecycleMania competition. RecycleMania is a friendly competition and benchmarking tool for college and university recycling programs to promote waste reduction activities to their campus communities. Over a 10-week period, schools report recycling and trash data which are then ranked according to who collects the largest amount of recyclables per capita, the largest amount of total recyclables, the least amount of trash per capita, or the highest recycling rate. See:

http://www.recyclemaniacs.org/doc/Recyclemania 2009 Results.xls

UMF in collaboration with Farmington citizens and non-profit groups held a Community Sustainability Forum in conjunction with the observance of 350 Day (October 24th). 350 Day is part of a campaign to create global solutions to limit the carbon in the atmosphere to 350 parts per million. See Link:

http://www.umf.maine.edu/inside/news.php?newsid=6029

University of Maine at Fort Kent (UMFK)

Conducted feasibility study of installing wood based energy system in order to partner with the Governor's initiative through the Maine Department of Conservation.

Hosted state and national energy leaders at Maine's First Cool Congress to develop and implement effective local energy projects and policies aimed to reduce energy use. (See: http://www.umfk.maine.edu/valleyvision/release/default.cfm?release=09093)

Held an environmental speaker series on campus. (See: http://www.umfk.maine.edu/valleyvision/release/default.cfm?release=08073)

Established Center for Rural Sustainable Development in northeastern Maine. (See: http://www.umfk.maine.edu/valleyvision/release/default.cfm?release=08002)

University of Maine at Machias (UMM)

Reduced fuel oil consumption by 31,727 gallons (18%) over last two fiscal years through heating system improvements and administrative controls.

Reduced electrical consumption by 118,933 kWh (6.5%) over last two fiscal years through use of high efficiency lighting and administrative controls.

Renovated Torrey Hall in 2008 which added computerized building energy management system, new boilers, air to air heat exchangers, and automated lighting controls which all improved energy efficiency of building. All classrooms are now ventilated for comfort and health.

Installed hour meters on all campus boilers to improve measurement of oil consumption in near real time. This provides opportunity for intervention on abnormal consumption prior to having tank refilled.

Used only Green Seal certified cleaning chemicals for janitorial services. Purchased toilet paper with 100% recycled content. Installed door mats manufactured with recycled materials in Torrey Hall, Science Building, and Dorward Hall.

Switched from oil-based floor refinishing products to water-based Green Seal products for wooden gym floor in Reynolds Center.

UMM continued

Started a campus community garden 2009 and campus cafeteria organic waste, leaves, grass clippings are composted. Wood chips from tree trimming used for walking trail maintenance.

University of Maine at Presque Isle (UMPI)

UMPI installed a \$2 million wind turbine as an educational demonstration project, a form of energy cost reduction, and to promote the use of small-scale renewable energy sources. See: http://www.umpi.edu/wind

Based on information from investment grade energy audit pilot project, UMPI purchased a retractable pool cover to improve energy efficiency in Gentile Hall. The pool cover is expected to save an estimated \$16,000 annually in energy costs, or about a three-year payback. The cover is creating savings in terms of the heating of the pool water, chemicals, and the replenishing of water from evaporation. (See: http://www.umpi.edu/news/688-featured-article)

Installed efficient lighting in several campus buildings with support of Efficiency Maine.

During the Spring 2010 semester, will offer the first of many courses designed especially for those who want to understand key topics and the issues surrounding renewable energy. The first three courses to be offered are Energy Law and Public Policy, Sustainability Management, and Energy Fuels. These classes mark the beginning of an Energy and Sustainability Concentration in the UMPI's academic programming. See: http://www.umpi.edu/news/715-headline-for-a-third-article



OFFICE OF THE PRESIDENT

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December 8, 2009

Mr. Peter Cooke Department of Environmental Protection 17 State House Station Augusta, ME 04333-0017

MCCS Clean Government Initiative Report

for the Calendar Years 2008 and 2009

Dear Peter:

Enclosed please find the report of the colleges of the Maine Community College System listing briefly their environmental improvements in 2008 and 2009. Our colleges continue to address priority items and, while other improvements still remain, we are proud of our on-going accomplishments.

If you have any comments or questions regarding this report, please do Thank you for your ongoing attention to, and not hesitate to contact me. leadership in, this initiative.

Truly yours,

erek P. Langhauser

General Counsel

DPL:ad Enclosure

MAINE COMMUNITY COLLEGE SYSTEM CLEAN GOVERNMENT INITIATIVE REPORT 2008-09 ACTIVITIES THAT HAVE BEEN COMPLETED AND/OR REMAIN ONGOING

SOUTHERN MAINE COMMUNITY COLLEGE

A. Buildings

- 1. Complete renovation of the Health Sciences Center making it the most energy-efficient building.
- 2. Continued a program of installing improved heat monitoring systems to reduce fuel consumption.
- Installed motion-sensitive lighting in restrooms and other spaces in four buildings.
- Continued a program of asbestos and lead-paint abatement (as repairs are made).
- 5. Began energy upgrades for several buildings, especially a complete energy overhaul of the Automotive Technology Center.
- 6. Began conversion of the Tripp Building to an alternative energy technology laboratory.

B. Risk Management

- Revision of the following programs by EH&S: Product Safety ("Hazard Communication") and Laboratory Safety ("Chemical Hygiene") including greater emphasis on consuming-in-use and environmentally friendlier products.
- 2. Achieved a score of 4.6 (superior/outstanding) out of 5 in the Maine Municipal Association's Leadership Program.

C. Air Issues

- 1. With the assistance of Maine DH&HS, completed a campus wide radon gas inventory and undertook radon gas mitigation in six buildings.
- Completed ventilation improvements to the Maine Advanced Technology Center to limit emissions of volatile organic compounds.
- 3. Successfully renewed the college's air emissions license including reduction in greenhouse gas emissions.

D. Water and Stormwater Issues

- 1. Instituted a sustainable turf management program and began effort to make the college a demonstration site for this practice.
- 2. Reduced salt and sand use during wintertime, both significant sources of stormwater pollution.
- 3. Began a public education program (EH&S and the Horticulture Department) to inform the campus and the local community of the need to reduce stormwater pollutants.
- 4. Further implemented best management practices to reduce stormwater pollution.

F. Waste Management Issues

- 1. Instituted single stream recycling, reducing waste to EcoMaine to about half of what the college previously generated.
- 2. Maintained hazardous waste generation at a level that keeps the college in the DEP small-quantity generator category.

KENNEBEC VALLEY COMMUNITY COLLEGE

- Hazardous waste Inventoried all chemical stocks, ensured that they are
 properly stored and have had any inappropriate chemicals removed by a
 certified vendor. We now have a contracted Chemical Hygience Office
 who is working on an electronic database for our inventory and MSDS
 data sheets.
- 2. <u>Emergency response</u> Met with local emergency responders to review and seek comment on the College's Crisis Response Plan and Emergency Evacuation Procedures. We will be scheduling a crisis response drill with our local national guard emergency response team.
- 3. <u>Air emissions</u> Inspection by the Maine EPA for compliance with the College's air emissions license and are in full compliance.
- 4. OSHA labeling Applying OSHA labeling requirements and have completed a review of the College's MSDS binders.
- 5. Oil storage All tanks have been inspected and found to be in compliance.

- 6. <u>Wastewater and storm water</u> Level spreaders are being monitored and inspected the VORTENS unit in the Lunder parking area.
- 5. Oil and hazardous substance cleanup and reporting All requirements met; no spills during this period.
- 6. <u>Selected chemical safety rules</u> The Chemical Hygience and Hazardous Communications policies have been reviewed, revised and implemented.
- 7. <u>Safe drinking water act</u> Drinking water has been tested and meets standards.
- 8. <u>Biomedical waste</u> Being disposed of in the proper manner.
- 9. <u>Asbestos</u> One exhaust hood located in the science lab in King Hall is labeled/inspected/tested and the asbestos is contained in the sealed hood.
- Battery and fluorescent lights Compliant with Universal Waste stream standards; these are segregated in a restricted area and disposed of properly.
- 11. Energy Conservation Improved HVAC controls systems to automatically default to set back temperatures during non-peak times. Only one parking area remains on a timer and their settings are reviewed periodically. Buildings are shut down as quickly as possible by consolidating classes into two buildings to the extent possible on Saturdays. Solar film applied on the south facing window wall of Carter Hall that mitigated solar gain thereby achieving significant cooling cost savings.
- 12. Recycling Recycle paper, printer cartridges and cardboard with a qualified vendor. All our scrap metal is taken to a recycling facility.
- 13. <u>Green cleaning products</u> We use green products 90% of the time for the College's cleaning needs.
- 14. <u>Air quality</u> –Air quality has been tested in all buildings and findings are within normal ranges.
- 15. <u>Lighting retrofit</u> Converted King Hall from T-12 fixtures/bulbs to T-8. This has resulted in a significant reduction in electrical usage.
- 16. <u>Hazardous waste</u> Removal of identified chemicals for disposal will continue to be removed at least annually.
- 17. Emergency response Conducted an emergency response drill.

- 18. <u>Energy Conservation King Hall</u> The roof-mounted cooling tower has been relocated to ground level and enclosed to save a significant amount of electricity. Additionally, a hot water heater has been installed rather than heating water using the boiler to achieve additional oil savings. All windows have been replaced and insulation increased in exterior walls.
- 19. <u>Frye Administration & Whitney Wing</u> Current boiler has been replaced with two smaller boilers (the current boiler is over-sized; one of the smaller boilers will be used as a back-up) and replace the control system. Also, lighting has been switched over from T-12 to T-8.
- 20. Tree planting We continue to plant more trees on campus.
- 21. External lighting around Frye Building Currently on individual photo eyes, but will be incorporated into the campus-wide exterior lighting system.

NORTHERN MAINE COMMUNITY COLLEGE

- 1. Created a task force to consider energy conservation projects, education, and green initiatives on campus. This energy task force is made up of students, faculty and staff. They have created energy conservation contests, projects and educational displays to help engage the entire campus community in the energy conservation and green initiatives.
- 2. Annual fuel and VOC report sent to local DEP office per air emissions license requirement.
- 3. All college boilers were inspected and all required preventive maintenance and cleanings completed.
- 4. All college HVAC systems underwent all required preventive maintenance and cleanings by contractors or in-house staff.
- 5. Completed an energy audit and has identified four projects that the College is currently working on implementing.
- 6. Completed abatement of asbestos and universal waste from ACAP building 119. Once it was abated the building was demolished.
- 7. Worked with the local DEP, an engineering firm, and a general contractor to remove underground waste oil storage tank and replace oil water separator in the Mailman Trades building. This reduced the number of oil tanks in the ground and also increased the efficiency of the separator.

- 8. Completed update of the College Integrated Contingency Plan which includes the college's Spill Prevention, Control and Countermeasure Plan (SPCC).
- 9. The underground storage tanks (UGST) and monitoring systems were inspected.
- 10. Reviewed universal waste collection procedures and storage areas to meet EPA and DEP requirements.
- 11. Reduced electrical consumption on campus by 6% by scheduling HVAC equipment to run as needed, motor replacements, and lighting replacements.
- 12. Created MSDS system database and website to track all chemicals on campus.
- 13. Review and updated biohazard waste storage and disposal procedures.

CENTRAL MAINE COMMUNITY COLLEGE

- 1. Replaced incandescent lighting in resident halls with compact florescent bulbs.
- 2. Replaced parking lot lighting with more efficient MHID lights.
- 3. Removed excess lighting in multiple classrooms.
- 4. Retrofitted the gymnasium with Lutron Ecosystem lighting (HOT5 fixtures).
- 5. Installed lighting sensors in classrooms, restrooms, and select public rooms campus wide.
- 6. Replaced all CLF and incandescent exit signs with LED exit signs.
- 7. Developed plans for replacement lighting in AUT, BCT, and MT labs with HPT8 lighting.
- 8. Replaced electrical distribution infrastructure allowing full campus electrical looping.
- 9. Resident hall survey for solar heating and cooling.
- 10. Completed green cleaning chemical conversion.

- 11. Window replacement in 400/500 wings Jalbert Hall.
- 12. Water saving devices installed in some restrooms.

WASHINGTON COUNTY COMMUNITY COLLEGE.

A. All

- 1. Installed new energy efficient HVAC units in Diesel, Welding, Heating & Plumbing, and Electrical Shops.
- 2. Installed new heating units in Diesel, Welding, Heating & Plumbing, and Electrical classrooms.
- 3. Energy efficient lighting in Diesel, Plumbing & Heating, and Electrical shops as well as hallways in Julia Nault Wing.
- 4. Installed energy efficient lighting and motion detection switches in Business Office, Nursing Lab, Science Lab, classrooms, assembly room, and computer rooms.
- Installed new computer control heating system for Diesel, Welding, Heating & Plumbing, and Electrical shops as well as hallways and bathrooms in Julia Nault Wing.
- 6. Safety Works inspection of all shop areas.
- Inspection of all Underground Storage Tanks completed. Will be taking a 4000 gallon UST out of service and replacing it with two 400 gallon DEP approved tanks.
- Continue to meet Maine Drinking Water Program standards with all four wells.

EASTERN MAINE COMMUNITY COLLEGE

A. All

1. Completed MS4 Permit – Storm water permitting.

- 2. Member of the BASWGM Participated in the Bangor Area Storm Water Group.
- 3. Updated Energy Project lists.
- 4. Completed major renovations to Maine Hall. Replacement of 250 windows and added spray foam insulation to a 100,000 SF building to increase the R factor from R3 to R24.
- 5. Designed new upgrades to the Maine Hall heat plant system.
- 6. Replace old classroom and hallway lighting to energy efficient light in 3 areas on campus.
- 7. Replaced exterior light with energy efficient fixtures.
- 8. Completed parking lot and campus green projects.
- 9. Developed new training matrix for employees.
- 10. Completed campus wide lighting survey.
- 11. Updated Emergency Manual.

YORK COUNTY COMMUNITY COLLEGE

- 1. Remove regulated material (universal waste, light bulbs, non-PVC ballast & batteries) every 60 days.
- 2. Will be installing new Energy Management System included will be 18 new rooftop units. These units will lower carbon footprint by reducing energy consumption.
- 3. Achieved a score of 4.7 out of 5 in the Maine Municipal Association Leadership Program.
- 4. Provide yearly refresher training to all facilities staff in hazardous communication, blood bourne pathogens, fire safety, emergency response, CPR, First Aid, and AED's.
- 5. Complete MSDS updates on regular basis to maintain MSDS binders.

- 6. Recycling paper, cardboard, & printer cartridges on a weekly basis.
- 7. Energy Audit in process.
- 8. Semi- annual preventative maintenance is conducted on the College's heating and air-conditioning equipment.
- 9. All classrooms have motion sensors for energy conservation.
- 10. All bathrooms equipped with water saving devices.
- 11. Propane tank farm is inspected yearly for compliance.
- 12. Facilities is now using all green seal cleaning products.