

WI Department of Natural Resources (DNR)

Facility Energy Efficiency Plan

Strategic Direction January 2010

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I. Overview

The State of Wisconsin Department of Natural Resources (hereinafter “the Department” and “the DNR”) has substantial property holdings, including approximately 3,000 buildings and facilities in its inventory. However, unlike most other state agencies, much of DNR’s space and many of its facilities are not administrative buildings – in fact, a vast majority of buildings are very low to non-energy users like storage facilities, pavilions, vault toilets, etc.

The Department provides three levels of administration in the field: regional headquarters, service centers, and worksites. All of these facilities and the associated infrastructure are assets for the Department and they must be maintained, renovated, and improved to assure they are in their best working condition, as per the Department of Administration (DOA) administrative rule and the associated Wisconsin State Statutes.

As the costs of heating, cooling, and electricity continue to rise, the Department must seek effective ways to control and reduce its energy use. A formal energy plan will help the Department establish and achieve these goals. This Facilities Energy Efficiency Plan (hereinafter “Plan”) is only a part of a larger effort by the Department to lessen its overall carbon footprint, promote a cleaner environment, improve its operational efficiency, assess and reduce the level of greenhouse gas emissions, conserve and protect both ground and surface waters and provide a visible demonstration of social responsibility. Any of the stated plan’s goals, should not result in degradation of any of this larger Department effort.

This plan is intended to provide guidelines for the DNR to control energy and resource consumption, use resources more efficiently, reduce waste, decrease emissions, and in turn reduce energy costs. This Plan will be implemented for DNR-owned facilities. Any similar management plan for leased facilities will be covered under the State of Wisconsin Department of Administration – Division of State Facilities.

The Plan explains, in non-technical language, the basic guidelines that will be followed by the Department to achieve its Facility Energy Efficiency goals and targets and bring the Department into compliance with Governor’s Executive Order 145¹. This Executive Order speaks to Conserve Wisconsin and the Creation of High Performance Green Building Standards and Energy Conservation for State Facilities and Operations. Achievements in energy efficiency and reductions in energy consumption are part of wider environmental issues.

The Plan will address the following areas: performance standard goals and relative strategies specific to Executive Order 145; performance measurement metrics; future sustainable and energy savings capital development projects; and recent successes and accomplishments.

Success of this Plan and the amount of energy saved through energy efficiency initiatives will depend on many factors, mainly: the design and age of new and existing facilities, how the facilities are used and maintained, the availability of alternative fuels and local resources, the amount and type of capital available to invest and leverage, and whether conservation practices have already been applied. DNR will lead by example by promoting new energy efficiency projects and taking calculated risks as new technologies emerge on these energy fronts.

¹ (http://www.wisgov.state.wi.us/journal_media_detail.asp?locid=19&prid=1907)



II. Performance Standard Goals and Relative Strategies Specific to Executive Order 145:

Energy efficiency and sustainability has been a consideration for facility enhancement and new building projects within the DNR for some time. These efforts have been numerous and diverse and are now being better coordinated to fit in with the larger efforts mentioned above. There are three goals and their respective strategies of this concept paper.

1. **One to Three Year Goal:** Work to combine and *build upon current efforts and assess* where the greatest environmental impact can be gained through energy efficiency work.
2. **Three to Five Year Goal:** Look at *future projects and develop strategies* for implementation in order to make the DNR a leader in energy efficiencies for state government in Wisconsin.
3. **Collaboration Goal:** Find ways to *collaborate and communicate more reliably and efficiently* with staff, other governmental agencies, Friends groups and partners.

1. **One to Three Year Goal:** Work to combine and build upon current efforts and assess where the greatest environmental impact can be gained through energy efficiency work.

A) STRATEGY (EO 145 #2, & #3): Institute a plan for energy audits at each state property between 2009 and 2015. These *energy* audits which include both energy and environmental factors will help prioritize new projects and implement them through the Capital Development Program.

B) STRATEGY (EO 145 #1, & #8): Seek out a stronger partnership with the Department of Administration (DOA), the State Building Commission and partner groups (such as Conserve Wisconsin, Focus on Energy, Office of Energy Independence, Wisconsin Energy Conservation Corporation), to better facilitate trainings, communicate effective standards, and develop proper guidelines for building and design.

<http://www.doa.state.wi.us/section.asp?linkid=135&locid=4>

C) STRATEGY (EO 145 #3 & #6): Institutionalize sustainable design and construction as part of the biennial capital budget planning process. This would be by programming adaptations, specific energy categories and/or energy efficiency criteria and selection processes.

D) STRATEGY (EO 145 #3 & #6): Establish standards for key, low-tech energy-efficient design elements such as day lighting, ventilation, rain gardens, white roofs, LED and T8 lighting, pre-cast concrete, insulation, etc.

E) STRATEGY (EO 145 #2): Develop training for key Department employees, working with Focus on Energy and Conserve WI, to conduct energy audits on state properties. Conserve WI is contributing \$20,000 for consultant services to evaluate the said energy audits and make recommendations as to future capital development energy savings projects².

² Completed and Scheduled energy audits (addendum #1)



F) STRATEGY (**EO 145 #2**): Review and adopt or promote a Best Practices manual for managers and land services staff to utilize for energy efficiency retrofits. See Focus on Energy's "Building Operators Certification" program as an example.

http://www.focusonenergy.com/Business/Education-and-Training/Building_Cert.aspx

G) STRATEGY (**EO 145 #4**): Work with DOA staff to explore statewide or region-wide materials purchases of lighting and/or insulation materials. Additionally, look at statewide or region-wide HVAC maintenance schedules.

2. **Three to Five Year Goal:** Look at future projects and develop strategies for implementation in order to make the DNR a leader in energy efficiencies for state government in Wisconsin.

A) STRATEGY (**EO 145 #5, #6 & #7**): Use DOA energy consultants to assess potentials and investigate payback on non-conventional or alternative technologies as they are practical and relate to capital development. Some examples would be solar hot water, solar PV use, wind power, biomass technologies and partnerships; hydro-electric, cogeneration, and passive systems (tube lighting, white roofing, etc).

B) STRATEGY (**EO 145 # 3 & #5**): Identify renewable energy benchmarks by property, then assist these specific properties/programs in creating incentive systems (recognition, awards, competitions, etc) and implement them.

C) STRATEGY (**EO 145 #7**): Implement more sustainable systems that go above and beyond energy savings, but contribute to minimizing the department's carbon footprint and overall resource uses. Examples would be composting toilets as practical and gray water systems for water re-usage at major facilities and service centers, native plantings, rain gardens, pervious asphalt/concrete for roads, trails, and parking lots. Such water systems must be considered in combination with assuring public health and drinking water protection.

3. **Collaboration Goal:** Finding ways to *collaborate and communicate more reliably and efficiently* with staff, other governmental agencies, Friends groups and partners.

A) STRATEGY: Collaborate on communication pieces (Intranet, email, e-digest) for staff in terms of energy and sustainability goals, both in capital development as well as operational. Example: "NOR Notes" – an internal staff newsletter that has a section (*Greening the NOR*) highlighting how staff can participate in smart conservation practices both at work and at home.

B) STRATEGY: Implement match program with property operations budgets and/or outside (Friends group) funding to increase the priority and shorten the timeline for energy and water efficiency projects.

C) STRATEGY: Investigate external funding sources (private grants or federal dollars) to expand the energy and water efficiency program within DNR.

D) STRATEGY: Work with external partners to further collaborate in finding ways to build more energy efficient and sustainable systems, both for use and for public demonstration³.

³Navarino Nature Center – Green Building (addendum #2)



III. Performance Measurement Metrics:

In order to meet Executive Order 145 and to further provide a method for both measuring successes and reporting results, a performance measurement plan was developed. Specific to the Facility Energy Efficiency Goals as listed, a crucial next step is to expand out the details and metrics associated with those goals:

One to Three Year Goal: Work to combine and build upon current efforts and assess where the greatest environmental impact can be gained through energy efficiency work.

STRATEGY = Institute a plan to complete energy audits⁴ at specific DNR owned property between 2009 and 2015.

- *Continued Cyclic Energy Use Reporting* – DNR Buildings that are 20,000 GSF or greater. Provide data to Conserve WI for DOA statewide energy use reporting at six DNR facilities including: NER, SER, SCR, WCR Headquarters, Lemay Fire Control Center, and Darwin Road Warehouse.
- *Cyclic Energy Use Reporting* - DNR Buildings that are 5,000 to 20,000 GSF. Provide data to DNR facilities management internal energy use reporting.

RESULT = Percent of plan completed by June 30, 2012.

DEMAND = Number of DNR owned properties requiring an energy audit.

OUTPUT = Plan completed.

Three to Five Year Goal: Look at future projects and develop strategies for implementation in order to make the DNR a leader in energy efficiencies for state government in Wisconsin. Complete by June 30, 2015.

STRATEGY = Use DOA energy consultants to assess potentials and investigate payback on non-conventional or alternative technologies as they are practical and relate to capital development. Use results of energy audits completed as starting point for implementing non-conventional or alternative technologies.

RESULT = Percent of planned retrofit projects completed on time and within budget.

DEMAND = Number of planned retrofit projects for DNR owned properties (total).

OUTPUT = Number of planned retrofit projects completed.

Lighting Projects - Kilowatt Savings Data

RESULT SAVINGS = Percent decrease in annual energy usage.

DEMAND = Amount of kWh usage before the retrofit project completed (benchmark).

OUTPUT = Amount of kWh usage after the retrofit project completed.

Water Consumption Gallons Savings Data

RESULT SAVINGS = Percent decrease in annual water usage.

DEMAND = Amount of water usage before the retrofit project completed (benchmark).

OUTPUT = Amount of water usage after the retrofit project completed.

⁴ Future Energy Audits Schedule – (addendum #3)



Cooling (HVAC) and Heating (Furnace / Boiler) Fuel Savings Data

RESULT SAVINGS = Percent decrease in annual energy usage.

DEMAND = Amount of fuel usage before the retrofit project completed (benchmark).

OUTPUT = Amount of fuel usage after the retrofit project completed.

Collaboration Goal: Find ways to collaborate and communicate more reliably and efficiently with staff, other governmental agencies, Friends groups and partners.

STRATEGY = Develop a communication piece (Intranet, email, e-digest, etc) for administration to highlight DNR accomplishments in green facility enhancements and new construction.

OUTPUT = Number of communication pieces shared which highlight accomplishments.

STRATEGY = Work with DNR property managers on operational conservation practices that fit with new facility construction, remodeling or site work.

OUTPUT = A better understood overall facility operation and maintenance plan, leading to less energy use and better conservation practices.

A set of broad benchmarks are listed below to provide future guidance on capital development projects. This list is intended to be dynamic in nature and be able to provide adequate vision and checkpoints as DNR moves forward with future development.

Specific Programmatic Benchmarks – Statewide sustainable and energy use related programmatic elements that affect most if not all DNR facilities and lands as approved by DOA:

Continued evaluation of:

- Photovoltaic and/or daylighting in new vault toilets for lighting and fans where applicable.
- “Point of use” tankless water heaters.
- Pervious materials as applicable (concrete, asphalt, geo-grids, etc) for roads, lots, trails, landings, etc.
- PV powered energy devices at general facilities (attic fans, venting, security cameras, lighting, displays, etc)
- PV powered pumps/wells in lieu of hand pumps. An additional benefit is the sealed system, which requires less maintenance and lowers the incidence of contamination.
- Occupancy sensors for shop/office and administration type facilities.
- Daylighting as appropriate.
- Fireplaces which are integrated into the overall heat system design and low carbon (pellet type).
- Vestibules (air locks) in all new administrative facilities.
- Water conservation fixtures, like waterless urinals and other Federal “water sense” standards incorporated in all applicable facilities and composting toilets.
- Natural landscapes (xeriscaping: prairie/tree plantings) and minimize lawn areas as appropriate.
- Reduction of building envelope drafts such as exterior doors in PEVS.



IV. Future Sustainable and Energy Savings Capital Development Projects:

This is a list of sample-type future sustainable and energy savings development projects, along with some specific examples within the following categories:

- A.** Projects that can achieve savings quickly, and/or are sustainable and that DNR can accomplish with its own funding.
- B.** Projects suitable for the DOA energy conservation funding (loan program with 20-year payback rate).
- C.** Projects that may best be accomplished in the 2011-13 and later Capital Budgets. These projects would require us to utilize DOA consultants to assess their viability.
- D.** Demonstration Projects.

Category A: Projects that can achieve savings quickly and/or are sustainable that DNR can accomplish with its own funding.

Statewide Capital Development Active List: ~\$180K: Upgrade single paned widows – This is seemingly straight forward, but there are Wisconsin Historical Society (WHS) concerns with many historic type DNR buildings. Windows can be obtained to meet WHS requirements. DNR is initiating an inventory of buildings and scheduling such window replacements using the capital development six-year plan. The DNR has 24 ranger stations that are 70 years or older. Window replacement is practical if the ranger station is not slated to be totally rebuilt. We do not know the exact energy cost savings, but window replacements typically have a seven to ten year payback with an average cost of \$6000 per station.

Statewide Capital Development Active List: ~\$65K: Garage Shop/Light replacements – statewide projects to replace out dated or inefficient lighting systems. These projects typically have a five to ten year payback, have an average cost of \$3000/site and are often a result of a Focus on Energy site audit. A good example is Asylum Bay Shop lighting upgrade. This upgrade has shown a 25% decrease in energy usage within the first three months⁵.

Statewide Capital Development Active List: ~\$1.5M: Roof Replacements – statewide projects to replace or re-roof existing buildings. Insulation is often a component of the new roof system. These projects typically have a seven to ten year payback and have an average cost of \$30K per building.

Statewide Capital Development Active List: ~\$52K: Building Insulation Projects – statewide projects to insulate or re-insulate existing buildings. These projects typically have a five to seven year payback and have an average cost of \$9000 per building.

Category B: Projects suitable for the DOA energy conservation funding.

In order to practically use these funds, systems that are appropriately scaled and coordinate well with energy use times are best suited. The rationale is that the said funding currently requires payback based on operational savings basis.

Solar water heating: LF staff will work with a DOA energy consultant(s) as appropriate projects are submitted. The Blue Mound State Park pool may be a viable future project. The Parks program has the potential of pre-warming water for use at the pool site.

⁵Asylum Bay Shop Lighting Upgrade Project (addendum #4)



Solar and/or Wind energy generation project – GEF 2: As GEF 2 is a DOA owned building, LF is working with DOA building management on this project. On November 18, 2008, staff met with DOA to initiate a study to determine how solar electric and electric wind generation can be used for GEF 2. DOA informed us that they are having a consultant perform an energy audit on the entire GEF complex beginning in 2009. These audits have been used successfully on a number of other state buildings to identify specific energy conservation measures. Assuming it would be cost effective, and there are no limiting structural issues with the GEF 2 building the DOA funding could be used to implement a project.

Category C: Projects that may best be accomplished in the 2011-13 and later Capital Budgets. These projects would require us to utilize DOA consultants to assess their viability.

Biomass systems – Wood Pellet Furnaces/Inserts: These are often best suited in areas of the state that have a consistent supply of product. Currently, one is being evaluated for Gov. Thompson State Park.

Geothermal HVAC – DOA requires evaluation of geothermal for all new or extensively remodeled heated buildings. Typical payback varies from 15 to 25 years.

Solar water heating – On a project by project basis, DOA energy consultants are used to assess potentials and investigate viability of these systems. The payback for such installations on larger administrative facilities appears to be best suited for relatively low consistent water use year-round. It should be noted that a reasonable payback for smaller facilities can also be achieved at high use seasonal buildings, when the high use time, coincides well with the ideal solar conditions.

Solar Photovoltaic Systems – On a project by project basis, DOA energy consultants are used to assess potentials and investigate the viability of these systems. Typical payback can vary tremendously from 15 to 75 years. It should be noted that costs for any new technology can be extremely expensive and may not meet anticipated performance.

Wind Energy Generation – On a project by project basis, DOA energy consultants are used to assess the potentials and investigate the viability of these systems. Again, this is an emerging technology with anticipated improved effectiveness over relative short time. Typical payback can vary from 10 to 50 years.

Category D: Demonstration Projects.

These projects will serve as “demonstration and display” types, to showcase energy conservation, renewable energy technologies and sustainable design systems. These specific showcased energy and conservation related elements will provide an invaluable opportunity for a “teaching” moment for staff and the public alike.

Solar canopies for electric vehicles in parks – As the Parks program moves forward with the purchase electric vehicles, Facilities and Lands will assist in evaluating and implementing of an “off-grid” charging system.

Solar thermal water project on a high use Park toilet shower building – This will require some site evaluation and pre-design as well as appropriate programming.

Solar PV system on or near a DNR Service Center Building – This can be used for display or spot lighting, informational or directional messaging.

LED lighting for displays – This could be for PEVS or Ranger Station applications.

Wind Turbine – Electric demonstration project at a PEVS, Ranger Station or Wildlife area as appropriate.



V. Recent Successes and Accomplishments:

The Bureau of Facilities & Lands put together a partial listing of current successes and accomplishments that highlight what the DNR is and has been doing in regards to sustainable planning, design, and construction.

2009 – In Design: NOR Headquarters (Spooner) – Construction is to begin in the spring/summer of 2010. Design for LEED – Gold. High performance and sustainable features include: under floor air/electric/data/telecom, daylighting, occupancy sensors, Variable Frequency Drives, point-of-use, reduced material needs, economizer operation, etc.

2009 – In Design: Statewide PEVS projects: (Council Grounds, Blue Mound, and Wildcat Mountain): proposed SIPS (structural insulated panels), both which are very high energy efficiency. Anticipate bid in fall 2009 and construction in spring 2010.

2009 – Substantially Complete: Horicon Education and Service Center – greatly improved insulation and energy efficient heat system; also reused/remodeled existing structure and roof truss assembly to reduce need for new building materials.

2009 – Completed: Rock Island State Park and Escanaba Fish Research Facility totally off the grid with solar energy and generator backup.

2009 – Completed: Potawatomi State Park Off Grid Group Campground - Pre-cast vault toilet w/black vent piping, 135W PV system for lighting in the vault toilet, 2 – 0.5 KW PV arrays that run the water pump for the drinking fountain⁶.

2009 – Completed: Spooner Shop. A 1940's era shop with failing boiler and chimney system, contributing to past heating costs averages of over \$1000/month. New gas-fired boilers and chimney re-lining project should reduce monthly operating costs by 50%.

2009 - Completed: NHAL – Clear Lake: Solar hot water shower building – estimated 2.5 year payback.

2009 – Completed: Trout Lake Bike Path (ARRA Project) – Installed Solar PV well.

2009 – Partnership: Mt. Ashwabay Wind Study working with Focus on Energy; Madeline Island Wind Study/Met. Tower working with Bayfield County.

2008 – Initiated: (Operational) Wisconsin Rapids Service Center staff have implemented a major behavior modification effort to turnoff HVAC systems when they leave on Friday and turn back on Monday, using operable windows until temperature reaches 88 F. This has achieved major energy cost savings in summer.

⁶ Potawatomi State Park Off-Grid Group Camp Project (addendum #5)



2008 – Completed: GEF 2 Remodel. This project included the recycling of sheet metal, glass, tiles, carpet, and wire and the reuse of HVAC fixtures (Variable Air Volume boxes), shelving, system furniture, and free-standing furnishings. This project was highlighted in August 2009 web posting of *Wastecap Resources Solutions*. This reuse effort alone saved the project over \$500,000 in furniture when compared to a conventional remodel.

2008 – Completed: Clear Lake NHAL PEVS – heated by geothermal.

2006 – Completed: Mead Wildlife Area Education Center was rated a LEED Platinum (highest) building and received the 2006 SE2 Award of Excellence and the National Association of Conservation Engineers Award of Honor. Five types of alternative energy system being used: ground water heat pump with heat exchanger, mass thermal wood furnace, solar hot water, solar electric, and wind electric. The facility achieved the LEED Platinum certification in part due to its energy use, lighting systems, water and material use as well as incorporating the above mentioned sustainable strategies.

2005 – Completed: NER headquarters, first LEED rated state Building – rated LEED Gold received 2006 Sustainability and Energy Efficiency (SE2) Award of Merit. This new NER building is achieving an energy savings of 40% per square foot as compared to the square foot costs of the previous headquarters building.

2004 – Completed: SCR Headquarters Building (Fitchburg) remodel, has energy efficient lighting and daylight sensors throughout and new high energy efficient heating system. This project was complete prior to LEED inception.

2001 to 2008 – Completed: Statewide reused/refinished systems furniture: Baldwin, Baraboo, Barnes, Horicon, LaCrosse, Medford, Mellen, Merrill, NER HQDTRS, Pembine, Plymouth, Progress Road (Research Center), Richland Center, Viroqua, Wisconsin Rapids, Wild Rose, Winter.

2000 to 2008 – Completed: Statewide recycled furnishings: Appleton, Black River Falls, Boscobel, Dodgeville, Gays Mills, Interstate, Ladysmith, Mishicot, Oshkosh, Poynette, Rhinelander, Sturtevant, Superior, Tower Hill, Trout Lake, Wausau, Wisconsin Dells, Woodruff, Peshtigo.

1998 to 2009 – Completed multiple small energy conservation related projects that either upgraded or installed building systems or components, like new windows, doors, insulation, electrical, roof, and motion sensor at Brule, Copper Falls, Grantsburg, Pattison, Bayfield, Medford, Rhinelander, Eagle River and Crex Meadows.



Addendum #1: Conserve WI/Focus on Energy: Energy Efficiency Project*

Completed and Scheduled Energy Audits

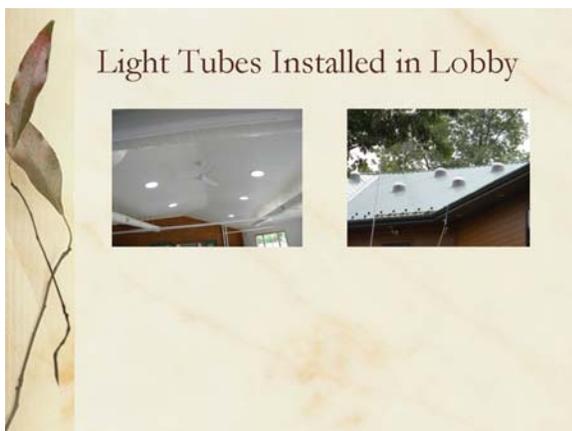
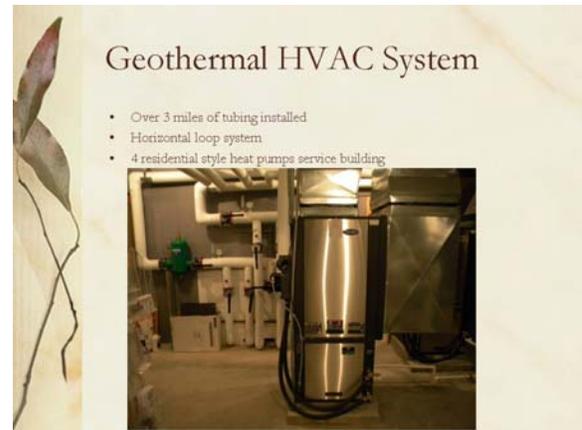
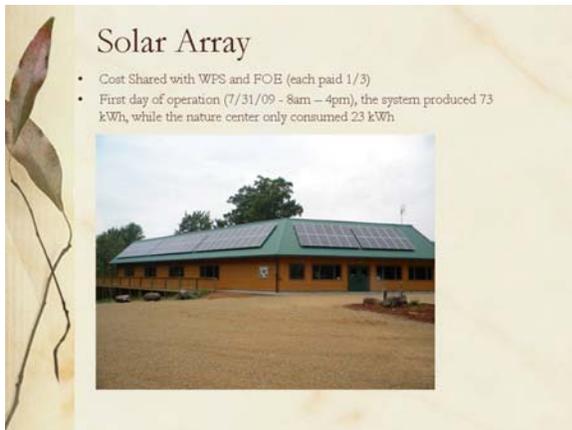
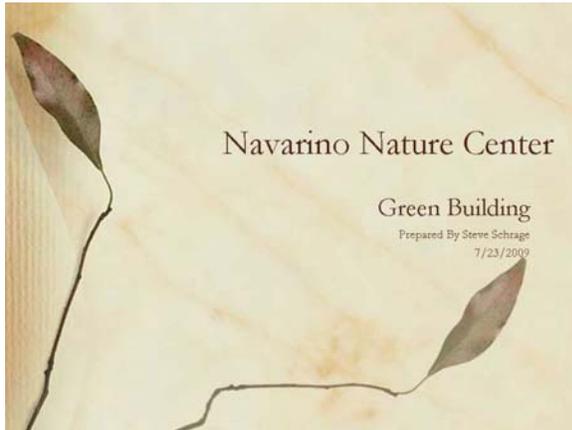
Audit Complete?	Building #	Property	Area (sf)	Region	Miles from Madison	Construction Year
Y	373	Lemay Center	41,400	NO	181	1922
Y	6837	Rhineland SC	39,552	NO	200	2003
Y	5690	Eau Claire HQ	24,000	WC	179	1964
Y	5724	Sturgeon Bay SC	22,000	NE	183	1990
Y	6684	Oshkosh SC	13,356	NE	87	1999
Y	3939	Richard Bong PEVS	11,410	SE	99	1981
Y	5183	Park Falls SC	7,415	NO	246	1989
Y	4418	Barnes RS	5,548	NO	297	1984
Y	6693	Kettle Moraine PEVS	5,000	SE	90	1978
Y	<u>4314</u>	<u>Langlade RS</u>	<u>4,008</u>	<u>NE</u>	<u>182</u>	<u>1984</u>
**Pending	2631	Montello RS	4,000	NE	64	1975
**Pending	5174	Grantsburg RS	3,636	NO	298	1959
**Pending	5655	Gordon RS	3,600	NO	286	1991
**Pending	4684	Spooner RS	2,516	NO	257	1986
**Pending	310	Mercer RS	2,280	NO	242	1939
**Pending	246	Adams RS	2,280	WC	84	1940

*Conserve WI in conjunction with DNR staff, is contributing \$20,000 for consultant services to evaluate the said energy audits and make recommendations as to future capital development energy savings projects.

**Pending audits are dependant on how far funding will go relative to projects listed.



Addendum #2: Navarino Nature Center – Green Building



LED Light Bulb Demonstration

- Which Bulb is Brighter?
- LED is 1/10 the wattage to operate while producing the same amount of light (in person it is hard to tell the difference)
- LED Cost - \$125



Rain Water Collection



- They were doing maintenance on the barrels ☹️

Solar Cooking

- The Nature Center cooks lunch in there solar oven for guests.



Waterless Urinals

- The New and Improved design by Kohler



LED Exterior Lighting



- All exterior lights are LED
- Can LED lights are installed in the soffit around the building

Passive Solar on the Rustic Cabin

- Used to heat cabin in fall and early winter
- At 30 degrees F outside temp it will produce almost 60 degree F to be circulated through it.



Addendum #3: Energy Audits Schedule

Internal Energy Audits – Steve Schrage, Facilities and Lands construction representative in the NER, is currently the only LF staff trained in conducting energy audits and continues to perform such audits in NER. The audits identify various energy saving ideas that can be done. Some are as simple as replacing incandescent light bulbs with compact fluorescents and weather stripping to slightly more complex in replacing lighting fixtures, adding insulation, and/or replacing full HVAC systems. Following through on the energy audit recommendations will allow for significant energy savings at these local facilities. Using an LTE or a contract, such as Focus on Energy, DNR could hire additional energy audit trained people to accelerate doing such audits.

Schedule and Complete Energy Audits on DNR owned **Service Centers** (19)

DNR Owned Service Centers – Northern Region

- Antigo
- Cumberland
- Hayward
- Spooner - Headquarters
- Rhineland - Headquarters
- Park Falls
- Woodruff

DNR Owned Service Centers – Northeast Region

- Green Bay – Headquarters
- Oshkosh
- Sturgeon Bay

DNR Owned Service Centers – West Central Region

- Eau Claire – Headquarters
- Black River Falls
- Wausau
- Wisconsin Rapids

DNR Owned Service Centers – South Central Region

- Fitchburg – Headquarters
- Dodgeville
- Horicon
- Poyette

DNR Owned Service Centers – Southeast Region

- Milwaukee – Headquarters



Schedule and Complete Energy Audits on DNR owned **Wildlife Properties** (9)

Wildlife Properties – Statewide

Poynette Game Farm
Navarino
White River Marsh Shop
Horicon Shop
Newville Shop
Spring Green Office
Black Earth Lab
Sandhill Wildlife Area
Crex Meadows Complex

Schedule and Complete Energy Audits on DNR **Forestry Ranger Stations** (8)

Forestry Ranger Stations – Statewide

Barnes RS
Langlade RS
Montello RS
Grantsburg RS
Gordon RS
Spoooner RS
Mercer RS
Adams RS

Schedule and Complete Energy Audits on DNR owned **Fisheries Properties** (14)

Fisheries Properties – Statewide

Art A. Oehmcke SFH
CD Basadny Anadromous Fish Facility
Brule River Rearing Station
Gov. Tommy G. Thompson SFH
Kettle Moraine Springs SFH
Lakewood Rearing Station
Langlade Rearing Station
Lake Mills SFH
Les Voigt SFH
Nevin SFH
Osceola SFH
St. Croix Falls SFH
Thunder River Rearing Station
Wild Rose SFH

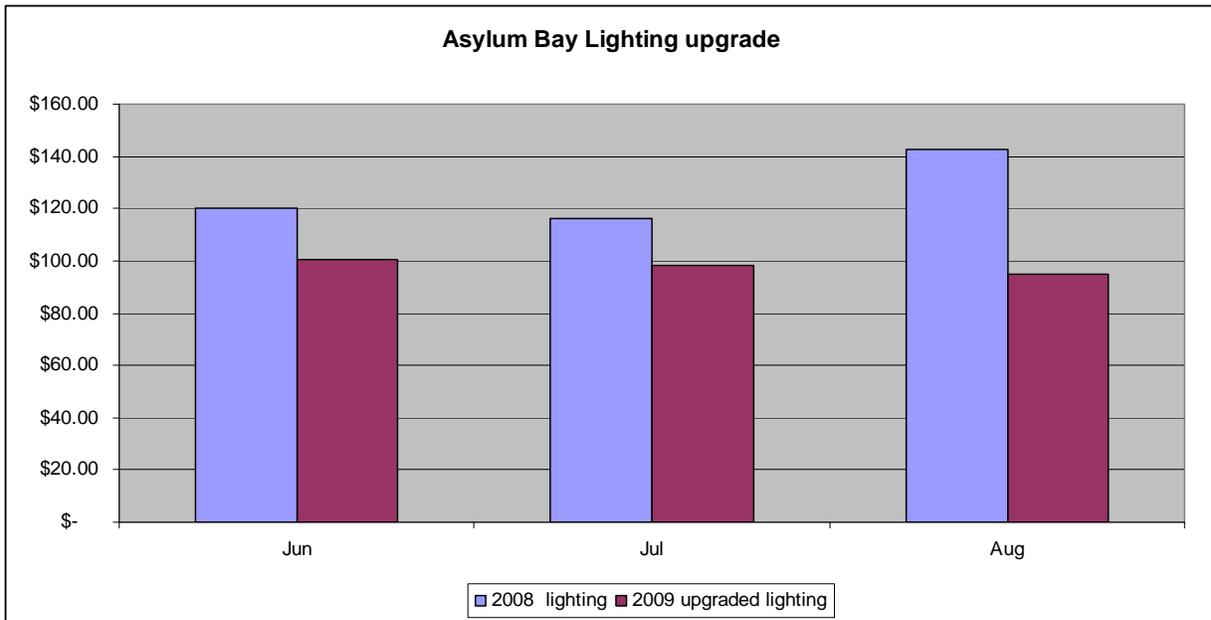
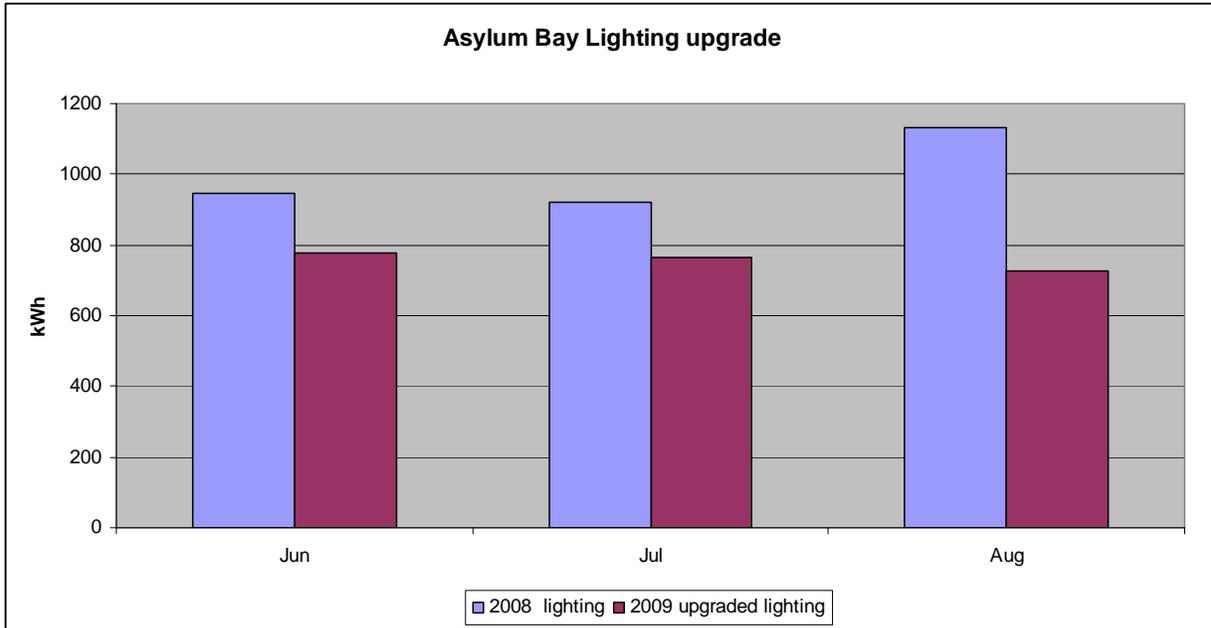
Schedule and Complete Energy Audits on DNR owned **Parks Properties** (2)

Parks Properties – Statewide

KMSF –SU (Eagle)
Interstate SP

Addendum #4: Asylum Bay Shop Lighting Upgrade

DNR replaced all light fixtures in the Asylum Bay shop in May 2009. This project was created from the energy audit completed on 10/22/08. Here is a comparison for the kWh usage from June, July, and August of 2008 before the upgrade and after the upgrade. **The numbers show a 25% decrease in energy usage over the three months!**



Addendum #5: Potawatomi State Park – Off Grid Group Camp

