

RECOMMENDATIONS SUMMARY TABLE		Done	
		Partial	
		On-Going	
		Not Done	
Utility Infrastructure Committee			
	Plan Recommendation	Status	Documentation
A	City Gov't set a goal of purchasing 10% of its annual electrical energy from renewable sources by 2006 and 20% by 2010.	Done	The City is also a participate in the Green Power Tomorrow with 22% of all electricity for city operations coming from renewable sources. In addition, Monona Terrace and Metro Transit are at 47%.
B	City issue a Clean Energy Challenge to city residents urging them to purchase renewable power. 1) 5% of residents buy renewable power and 2) be a EPA Green Power Partner with 2% of the entire community's electrical purchased from renewable sources.	Partial	The City did not do a Clean Energy Challenge but through MGE's Green Power Tomorrow program, 9.6% of City of Madison residents (in the MGE area) have signed up to the program (according to a recent NREL.gov study.) In addition, 3.8% of green power sales compared to total electrical sales. The City (as a local unit of government) is an EPA Green Power Partner, but the community is not (but we probably could.) We are also not listed as a top green power user on EPA's web site (be we probably could.)
C.	The City be engaged in the siting and approval process for new transmission facilities that may be necessary to provide reliable electricity and new renewable power sources to the City of Madison	On-going	City has continued to be involved in PSC proceedings dealing with transmission lines in the area.
D	The City identify opportunities where the installation of distributed generation and combined heat and power systems would benefit the community	On-going	Since 2007, the City has installed 11 solar hot water systems on all the fire stations. In addition 4 solar electric systems have been installed on the Engineering Service Building, the Alicia Ashman Library, Demetral Landfill and Greentree Landfill. The City will install 4 more PV systems with 10 kW each.

	<u>Energy Conservation & Green Building Committee</u>		
	Plan Recommendation	Status	Documentation
I.	<i>Establish a Madison Sustainable City Program</i>		
A.	Adopt a Guiding Principle on Sustainability	Done	Adopted the Natural Step, Legistar #02486 on 12/13/05, Resolution can be found here: http://legistar.cityofmadison.com/detailreport/?key=3258
	<ul style="list-style-type: none"> · Adopt specific performance measures and goals. 	Not Done	Facilities Management develop a building standard document. (Attachment A). Projects must have at least a 10 year payback. Adopted the Northeast Neighborhood Resolution, Legistar #12771 on 3/31/09, Resolution can be found here: http://legistar.cityofmadison.com/detailreport/?key=14355
B.	Commit to sustainability by establishing an Office of Sustainable Development with interdepartmental representation and cooperation. Reorganize across existing departments to integrate sustainable development into all city functions and decisions. The Office of Sustainable Development will report directly to the Mayor	Done	Created Office of Facilities and Sustainability as part of the 2007 Budget. Moved Architects, Maintenance and Custodial Staff over to Engineering and hired Facilities and Sustainability Manager in May of 2007. TNS is discussed at every management team meeting (mayor and top managers, department and division head meeting (mayor and mid-level managers) and with TNS trainees. All of these meetings happen 1-2 times per month.
C.	Develop financial resources for full-scale implementation of sustainable development		

1)	Identify and develop funding sources for the city's Office of Sustainable Development: 1 st staff member 2005; 2 nd staff member 2006.	On-Going	Moved two architects to Engineering in January of 2007, Hired Facilities and Sustainability Manager in May of 2007, Converted hourly engineer to permanent position in June of 2007, added additional permanent mechanical engineer in January of 2008, and will be adding another hourly engineer in June of 2009.
2)	Pursue additional funding options for support of city sustainability programs.	On-Going	Annual appropriations of \$300,000 for energy efficiency projects and \$100,000 for renewable energy. Additional funding provided through agency's budgets, such as for 2009, \$800,000 for Senior Center HVAC and lighting replacement, \$190,000 for lighting at Streets PW facilities, \$100,000 for Fire Station #1, and \$185,000 for North Police HVAC. Working with Fire Department to prioritize boiler, hot water heater and lighting replacements. Using Landfill remediation funding for additional solar installations. Utilize Focus on Energy programs and work with MGE on demonstration projects which includes funding through a multi-year MOU.
D.	Adopt a green framework for all Madison operations:	NA	The City's overall framework is to provide information to "customer groups" such as residents, business, visitors, etc. This is the way the information is organized but the City has accomplished a lot in these areas.
	-Build Green —green building;	On-Going	Adopted a LEED for City Buildings Resolution, Legistar #07453 on 1/22/08. Report can be found here: http://legistar.cityofmadison.com/detailreport/?key=8477 . City has or is planning a number of LEED certified building including; Monona Terrace - LEED-EB, Goodman Maintenance Facility, Sequoya Library, Fire Station #12, and South Madison Library. Green Elements also incorporated into Allied Drive Redevelopment and through the planning of the Truax Redevelopment.
	-Save Green —energy efficiency;	On-Going	A number of projects including: Lighting, HVAC, envelope (roof, insulation, air-sealing), and water heaters. Here is more information: http://www.cityofmadison.com/Sustainability/City/energyProjects/index.cfm

	<p>-Power Green—renewable energy;</p>	<p>On-Going</p>	<p>Since 2007, the City has installed 11 solar hot water systems on all the fire stations. In addition 4 solar electric systems have been installed on the Engineering Service Building, the Alicia Ashman Library, Demetral Landfill and Greentree Landfill. The City will install 4 more PV systems with 10 kW each. The City is also a participant in the Green Power Tomorrow with 22% of all electricity for city operations coming from renewable sources. In addition, Monona Terrace and Metro Transit are at 47%.</p>
	<p>-Buy Green—city purchasing;</p>	<p>On-Going</p>	<p>Issued Mayoral Administrative Procedure Memoranda (Mayor direct city agencies to follow these policies) for: Green Cleaning, Electronic Purchasing and Recycling, Printer/Fax/Copy/Paper Use and Purchase. Drafts of Office Furniture and Supplies, Vehicle Purchases, Lighting, Solvents, and Lubricants will be approved soon.</p>
	<p>-Drive Green—alternative fuel fleet, public transit, Community Car, etc.; and</p>	<p>On-Going</p>	<p>Adopted anti-idling Resolution, Legistar #05017, adopted on 5/15/07. Resolution can be found here: http://legistar.cityofmadison.com/detailreport/?key=6010. Fleet equipped with GPS locators. Engineering Rodder Truck fueled by 100% bio-diesel made from restaurant grease. Purchase of 5 hybrid buses with and order for 18 more. Transit ridership at record levels at 12.7 million. Future policy on Energy Efficiency Vehicle Purchase. Bicycles available to city staff for transportation to meetings. City adopted the Platinum Bicycling Plan and the City is expanding bike paths and lanes.</p>

	- Manage Green —recycling, environmental performance, environmental development, brownfields redevelopment, green meetings and events, green hotline and webpage.	On-Going	57% recycling rate including curbside recycling, industrial recycling and other sources. TNS project is a goal of Zero Waste. Studying organic waste - anaerobic digester. Comprehensive Plan that encourages in-fill, environmental sensitive development. TNS project of re-writing the zoning code. Development of the NE Neighborhoods. TNS Paper Reduction projects for city committees. (Add stormwater regulations here.) Sustainability web site: http://www.cityofmadison.com/sustainability/
E.	Develop policies and programs that promote sustainable development planning: e.g., efficient use of water across the city and throughout the cycle of use (freshwater demand, sewer and greywater, and stormwater); transportation planning; urban heat island effects; low impact development; smart growth.	Partial	A Comprehensive Plan that encourages Smart Growth, Legistar #02207, adopted 1/07/06. Link is here: http://legistar.cityofmadison.com/detailreport/?key=2970 Accepted the Water Conservation and Sustainability Plan, Legistar #11480 on 10/7/08. Report is here: http://legistar.cityofmadison.com/detailreport/?key=13006 . Adopted the NE Neighborhoods Resolution, Legistar #12771 on 3/31/09. The Resolution can be found here: http://legistar.cityofmadison.com/detailreport/?key=14355 Stormwater runoff must follow DNR rules. City in the process of re-writing the zoning code with sustainability as a goal. City has program called 1000 raingardens which can be seen here: http://www.cityofmadison.com/engineering/stormwater/index.cfm . The Water Utility also has a conservation plan that can be viewed here: http://www.cityofmadison.com/water/environmentalWater.cfm
F.	Develop annual reporting requirements for the city and for each department to measure progress in implementing the Madison Sustainable City Program.	Not Done	Updated Web Site: http://www.cityofmadison.com/Sustainability/ and http://www.cityofmadison.com/mayor/tns/index.cfm
	· Deliver annual state of the environment report.	Not Done	Issue Earth Day Press Release
II.	Madison's GRE² EN Commitment		
	(Green Building, Resource & Energy Efficient Environment)		
A.	Change City Buildings and Operations		

A1.	Impact City's Existing Building Infrastructure		
1)	<i>Develop Municipal Pilot Projects</i> to showcase energy efficiency, renewable energy, and green building practices. Use LEED™ for Existing Buildings—LEED™-EB—and Advanced Buildings Guidelines for the energy portion of LEED™ as a guideline and standard.	Partial	The city has not implemented a project specifically as a pilot to showcase energy efficiency etc, however, the City has implemented a number of capital projects that showcase renewable energy and energy efficiency. For more information go here: http://www.cityofmadison.com/Sustainability/City/energyProjects/index.cfm and http://www.cityofmadison.com/Sustainability/City/greenBuilding/index.cfm and http://www.cityofmadison.com/Sustainability/City/renewable.cfm . The Monona Terrace is certified LEED-EB and Warner Park Community Center expressed interest. The Engineering Services Building (on Emil Street) also went through a Retro-Commissioning process.
	· Measure, track, review, report.	Not Done	
2)	<i>Upgrade existing building stock and infrastructure</i> : reduce energy consumption, change to green operations (e.g., buy Energy Star), decrease water use, sustainable site and landscaping maintenance.	On-Going	For more information go here: http://www.cityofmadison.com/Sustainability/City/energyProjects/index.cfm The City has also established polices for city operations for: Green Cleaning, Green Electronic Purchasing and Disposal, Fleet Mileage and Emission Standards, Paper and Printer Policy, Office Furniture and Supplies, and Building Standards.
	· Mayor announces City Energy Challenge to city departments to reduce energy use by 10% by 2010. Mayor challenges other units of government to reduce energy (e.g. 100% Energy Star schools).	Not Done	
	· Evaluate existing municipal buildings including civic, office buildings, and community based housing, and develop benchmarks and targets using LEED™- EB and Energy Star.	Partial	City engaged agencies to see who was interested in pursuing LEED-EB. Warner Park Community Center expressed interest. No funding at this time.
	o Major retrofits—as they arise, apply LEED™-EB.	On-Going	Adopted a LEED for City Buildings Resolution, Legistar #07453 on 1/22/08. Report can be found here: http://legistar.cityofmadison.com/detailreport/?key=8477
	· Implement rapid payback upgrades (upgrades with the biggest savings) and programs that lower peak demand, which lowers energy use when demand is highest.	Done	For more information go here: http://www.cityofmadison.com/Sustainability/City/energyProjects/index.cfm
	· Utilize “Focus on Energy” program for moderate payback opportunities.	Done	The City uses FOE for most projects that result in energy savings.

	· Contract with solar water heating utility.	NA	The City currently owns its own systems.
	· Utilize Focus on Energy co-funding and support to implement high demonstration value renewable energy projects.	On-Going	Working with FOE on structural issues surrounding solar thermal and PV. Research for possible solar thermal storage system on large scale is part of the NE Neighborhood Plan.
	· Install urban off-grid solar electric systems for applications where bringing in power is costly (e.g., bus shelter, walkway lighting, etc.) and for security applications (e.g., critical street lights, etc.).	Partial	The City has not installed a lot off-grid solar PV systems as the MGE buy-back program provides a better financial opportunity to hook into the grid. However, Traffic Engineering is developing a demonstration project for a solar streetlight because there currently is no conduit in the area. In addition, Parks has installed a few solar lights at shelters.
A2.	Impact New City Buildings		
	1) Adopt LEED™ green building rating system for new buildings.		
	· Municipal: Write Requests for Proposals for municipal projects that stipulate LEED™ green building certification for projects of \$1+ million (exceptions for cost) and an integrated design approach in the early design phases of all projects. Initially meet certified level, increase over time.	Done	This language is including in all RFP's that Facilities Management issues. We also include our Green Building Standards and an attachment.
	2) <i>Develop Municipal Pilot Projects</i> to showcase energy efficiency, renewable and green building practices. Use LEED™-NC: New Construction and the Advanced Building Guidelines for the energy portion of LEED™ as a standard, and register and certify the projects.	Partial	The city has not implemented a project specifically as a pilot to showcase energy efficiency etc, however, the City has implemented a number of capital projects that showcase renewable energy and energy efficiency. For more information go here: http://www.cityofmadison.com/Sustainability/City/energyProjects/index.cfm and http://www.cityofmadison.com/Sustainability/City/greenBuilding/index.cfm and http://www.cityofmadison.com/Sustainability/City/renewable.cfm
	· East side police station.	Partial	2009, PV 10KW system to be installed.
	· Private Sector Initiative with public cooperation - Project: 90-unit multifamily and commercial mixed use; The Nelson Group.	Not Done	

	<ul style="list-style-type: none"> Consider a renewable energy demonstration on a new city building. 	Done	Since 2007, the City has installed 11 solar hot water systems on all the fire stations. In addition 4 solar electric systems have been installed on the Engineering Service Building, the Alicia Ashman Library, Demetral Landfill and Greentree Landfill. The City will install 4 more PV systems with 10 kW each.
A3.	Upgrade Operations		
1)	<i>Invest Resources for full-scale implementation of energy conservation and green building practices</i>		
	<ul style="list-style-type: none"> Include funding for green building in capital budget packages for new construction and renovation projects. 	On-Going	Annual appropriations of \$300,000 for energy efficiency projects and \$100,000 for renewable energy. Additional funding provided through agency's budgets, such as \$800,000 for Senior Center HVAC and lighting replacement, \$190,000 for lighting at Streets PW facilities, \$100,000 for Fire Station #1, and \$185,000 for North Police HVAC. Working with Fire Department to prioritize boiler, hot water heater and lighting replacements. Using Landfill remediation funding for additional solar installations. Utilize Focus on Energy programs and work with MGE on demonstration projects.
	<ul style="list-style-type: none"> Shift budgeting focus for buildings to life-cycle costing and assessment rather than first cost. By considering first costs together with operation and maintenance costs over 30 years, decision-makers will have a realistic cost comparison over the life of the building of the actual building cost to the taxpayers. 	Done	Facilities Management has developed spreadsheet that shows life-cycle cost and IRR/ROR. Purchased Trane Trace for building envelope and energy modeling calculations.
	<ul style="list-style-type: none"> <i>Provide managerial, technical, and financial support for operations and maintenance (O&M);</i> 	Not Done	Need to increase staff of maintenance crew
	<ul style="list-style-type: none"> Options: increase staff for facilities management, subcontract out, current management staff and subcontract. 	On-Going	Moved two architects to Engineering in January of 2007, Hired Facilities and Sustainability Manager in May of 2007, Converted hourly engineer to permanent position in June of 2007, added additional permanent mechanical engineer in January of 2008, and will be adding another hourly engineer in June of 2009.
	<ul style="list-style-type: none"> Maintenance software purchase, remote monitoring. 	On-Going	Purchased Utility Manager to track energy usage by meter, Adding Honeywell HVAC controls to many systems to allow for remote monitoring, Also purchasing remote monitoring for lighting systems and some PV.

	o Include purchasing and leasing guidelines and listings that incorporate life-cycle costing.	Partial	There are APM's such as the Paper Printer Policy and the Recycling Electronics that consider life-cycle costing. Most capital purchases over \$25,000 go through a Public Works bidding process.
2)	<i>Develop cost effective green building and energy efficient operations and maintenance standards that are performance based and results oriented. Adopt state and other relevant effective guidelines (e.g., day lighting standard, construction, and demo material specifications.)</i>	Partial	Facilities Management develop a building standard document. (Attachment A).
3)	<i>Measure progress by City departments—track environmental, energy, and economic performance (new and existing buildings).</i>	Not Done	Facilities Management advertising for hourly engineering. Hiring in summer of 2009
B.	Change Policies Impacting the Private Sector		
B1.	Adopt a High Performance Green Building Rating System for New Buildings Receiving Public Funding		
1)	Commercial mixed use: require Tax Incremental Financing (TIF) projects use LEED™ program beginning 2006. Encourage other developers to build green.	Partial	Private developments can request more than 50% of the increment. TIF policy does allow this and green building costs are eligible expenses - including LEED certification.
2)	Low-income and community-based public housing: City supported projects mandatory by 2006, encourage developers of other types of commercial projects to build green.	Partial	Facility Management staff go to development meetings and provide input on how to make their project more green.
3)	Residential (1–2 family): Phase in Wisconsin Green Built Home by 2007 at minimum green guide level for all publicly funded projects. Work with Dane County early to make this countywide. Encourage higher achievement. Encourage all developers to build green through voluntary incentives.	Not Done	May be able to be implemented as part of the Stimulus.
4)	Planning documents (Plats, PUD's, staff generated plans): require low-impact development. Create low-impact guidelines and then quickly phase in practices.	Partial	Northeast Neighborhoods and Re-writing the Zoning Code are two areas where this is being developed.
B2.	Examine Zoning, Permits, Codes, Procedures, etc.		
1)	Identify requirements that don't support green design.	Partial	Solar Ordinance update and Zoning Code Rewrite are two areas where this is being worked on.

2)	Eliminate city policies that create economic disincentives to green.	Partial	The City has also established polices for city operations for: Green Cleaning, Green Electronic Purchasing and Disposal, Fleet Mileage and Emission Standards, Paper and Printer Policy, Office Furniture and Supplies, and Building Standards.
3)	Streamline the lengthy approval process for existing buildings and infill to encourage green, high performance building. Also, assign staff (case worker) contact to move the green projects through.	Not Done	Discussions about how this would work though the development of the NE Neighborhoods Plan.
4)	Amend ordinances- current old ordinances provide no latitude to staff for discretion.	Partial	Solar Ordinance updated
5)	Develop a more comprehensive dark skies and efficient outdoor lighting initiative.	Partial	Commission on the Environment is currently discussing compliance/monitoring of the City's Dark Sky Ordinance.
B3.	Examine overall process of City building procurement and design activities and make changes to ensure benefits of integrated design in buildings		
B4.	Provide green building, energy efficiency and renewable energy incentives		
1)	<i>Institute full cost accounting</i> for all departments citywide. Allow operational savings, like energy savings, to go back to individual department budgets. This provides an incentive to reduce costs so there will be more funding for services and programs.	Not Done	There is already incentives for agencies to be sustainable, as projects that can articulate how they will help meet the 4 system conditions are likely to get funding/approval.
2)	<i>Permitting expedition, exemptions, or relaxation</i> of some requirements, with priority for green projects as pilots.	Not Done	Discussions about how this would work though the development of the NE Neighborhoods Plan.
3)	<i>Provide financial incentives</i> to offset some of incremental costs (see Appendix C Govt. Green Building Programs, including Portland's G-rated matrix, Santa Monica incentives, etc.).	Not Done	Discussions about how this would work though the development of the NE Neighborhoods Plan.
4)	<i>Establish City preference for doing business with firms that implement green practices</i> , similar to minority business preference.	Not Done	City has established a local-preference policy.
5)	<i>Reward efficient energy and water users.</i>	Not Done	Some work through Mpoweringmadison.com. Water Utility has a rebate for low-flow toilets.
6)	<i>Increase permit fees for standard construction</i> while reducing fees for green projects where applicable.	Not Done	Discussions about how this would work though the development of the NE Neighborhoods Plan.

7)	Staff technical assistance: <i>City hire LEED™ accredited professional to educate other city staff and aid developers.</i>	Not Done	There is no plan to add staff at this time.
8)	<i>Adjust stormwater utility fee—reduce fee if using a cistern, etc. Evaluate rates to ensure efficiency is rewarded. Fee-bate. (See page 66.)</i>	Not Done	Residents need to show that their site can infiltrate a 10-year storm event. The Stormwater utility fees are not very high so no one has done this.
9)	<i>Tax Incremental Financing (TIF) would include green building using LEED™ standards as TIF eligible expense.</i>	Done	Green Building Elements including LEED certification are eligible expenses.
B5.	Track Benefits: Benchmarking.		
	Required: information reporting from private sector (new buildings).	Not Done	
	· Use TIF projects from between 2004–2007 to provide data - data collection for benchmarking tied to permit requirements.	Not Done	
	· Use same number of non-TIF projects and compare.	Not Done	
C.	Work Collaboratively: educate, communicate, facilitate.		
C1.	Develop green building, energy efficiency, and renewable energy technical assistance and outreach tools, including a training program for City departments, public officials, residential and business communities, and private sector partners		
1)	<i>Educate City Staff.</i>		
	· Hold developer/City staff and officials sustainable development workshop.	On-Going	Monthly TNS meeting, Facilities Management attends development meetings weekly. Various trainings offered to city staff and developers/contractors, etc.
2)	<i>Educate stakeholders in business community.</i>		
	· Mobilize partners: formally collaborate with a diverse group of private businesses, associations, utilities, nonprofits, and colleges (including the University of Wisconsin) to cooperate on energy efficiency and green building. Encourage them to:	On-Going	Through Mpoweringmadison.com
	o Create and participate in EnAct for business.	Partial	Not EnAct - but Mpoweringmadison.com
	o Reduce summer peak demand by commercial customers.	On-Going	Through the Dane County Clean Air Coalition

	o Utilize "Focus on Energy" and renewable energy program services and co-funding.	On-Going	Marketed through MadiSUN - A program where the City hires a consultant to provide free solar assistance.
3)	<i>Educate Residential Community.</i>		
	· Reduce summer peak demand through new initiatives.	On-Going	Through the Dane County Clean Air Coalition
	· Implement city appliance turn-in program, encouraging people to get rid of old inefficient appliances.	Not Done	Streets accepts most appliances for weekly pick-up. A program to encourage swapping out old appliances for increased energy savings will need to be marketed by utilities and other entities.
C2.	Facilitate and Endorse Partner Organization Programs		
	· Launch neighborhood grocery and convenience store energy efficiency program.	Not Done	
	· Expand participation in EnAct for homes.	Not Done	Launched Mpoweringmadison.com
	· Utilize Focus on Energy Efficiency and Renewable Energy program services and co-funding.	On-Going	Through Mpoweringmadison.com and MadiSUN.
C3.	Marketing and Communications		
1)	Communicate successes-public, local government, private, staff	Partial	Updated web page: http://www.cityofmadison.com/Sustainability/ and http://www.cityofmadison.com/mayor/tns/index.cfm
	· Publicize results of pilots; and	Not Done	
	· Document pilots in process -video teaching tool/resource.	Not Done	
2)	Provide marketing for developers that design, build, and retrofit energy efficient green buildings; help with advertising and promotion.	Not Done	
	· Showcase firms demonstrating leadership to increase profile for green projects.	Not Done	Some work through Mpoweringmadison.com
	· Create industrial and commercial sector leadership groups.	Not Done	Some work through Mpoweringmadison.com
3)	Initiate Mayor's award, and other methods for recognizing Sustainable City participation as well as outstanding performance and achievement.	Not Done	
C4.	Develop Madison Hallmark: Solar City		
1)	Create a Solar Mile on East Washington Avenue Corridor.	Not Done	

2)	Identify other opportunities for renewables where city development is occurring and incorporate high visibility solar demonstrations.	On-Going	Since 2007, the City has installed 11 solar hot water systems on all the fire stations. In addition 4 solar electric systems have been installed on the Engineering Service Building, the Alicia Ashman Library, Demetral Landfill and Greentree Landfill. The City will install 4 more PV systems with 10 kW each.
	<ul style="list-style-type: none"> A good potential opportunity is Villager Mall on Park Street. 	Not Done	