

☞ 09hr_SC-ED_Misc_pt02c



Details: Informational hearing (1/27/2009)—folder labeled SJR 86

(FORM UPDATED: 08/11/2010)

WISCONSIN STATE LEGISLATURE ... PUBLIC HEARING - COMMITTEE RECORDS

2009-10

(session year)

Senate

(Assembly, Senate or Joint)

Committee on ... Economic Development (SC-ED)

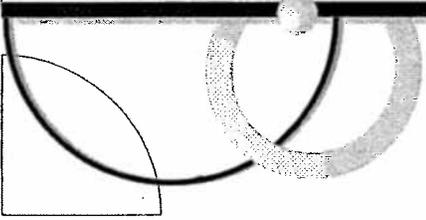
COMMITTEE NOTICES ...

- Committee Reports ... **CR**
- Executive Sessions ... **ES**
- Public Hearings ... **PH**

INFORMATION COLLECTED BY COMMITTEE FOR AND AGAINST PROPOSAL

- Appointments ... **Appt** (w/Record of Comm. Proceedings)
- Clearinghouse Rules ... **CRule** (w/Record of Comm. Proceedings)
- Hearing Records ... bills and resolutions (w/Record of Comm. Proceedings)
(**ab** = Assembly Bill) (**ar** = Assembly Resolution) (**ajr** = Assembly Joint Resolution)
(**sb** = Senate Bill) (**sr** = Senate Resolution) (**sjr** = Senate Joint Resolution)
- Miscellaneous ... **Misc**

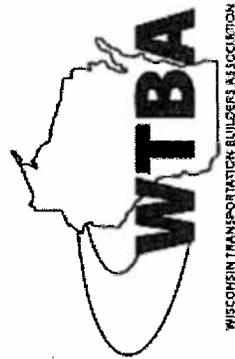
* Contents organized for archiving by: Gigi Godwin (LRB) (July/2011)



Impact of Federal Economic Stimulus Bill

State Senate Committee on Economic Development

Jan. 27, 2009



Jobs

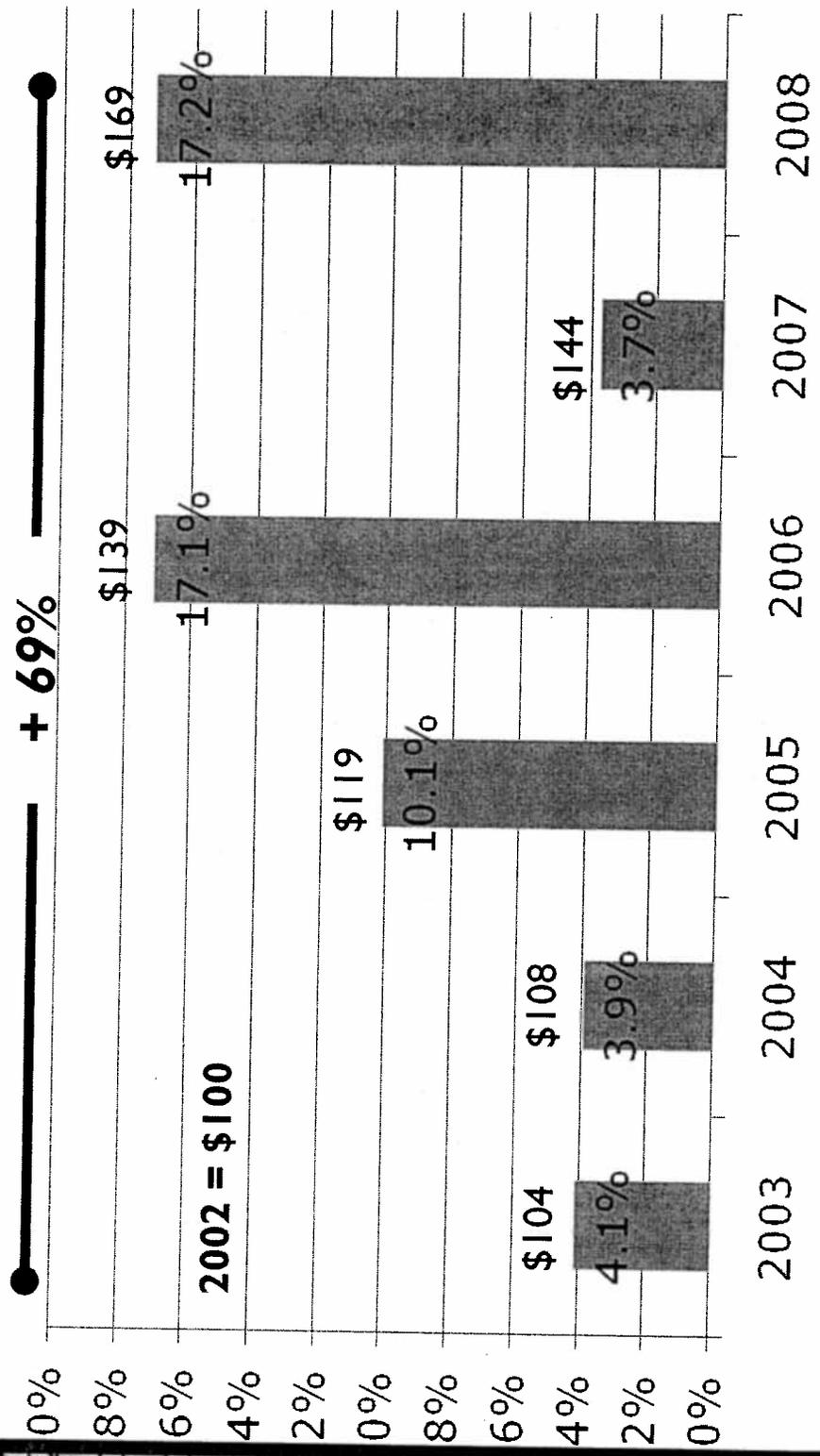
Private-Sector Highway, Street & Bridge Construction Employment in Wisconsin

Average Jobs in 3rd Quarter (typically peak construction season)

Year	Jobs	% Change previous year	% Change since 2000
2000	7,774	--	--
2001	7,643	-1.7%	-1.7%
2002	7,532	-1.5%	-3.1%
2003	7,503	-0.4%	-3.5%
2004	7,393	-1.5%	-4.9%
2005	7,074	-4.3%	-9.0%
2006	6,769	-4.3%	-12.9%
2007	6,138	-9.3%	-21.0%

Source: Dept. of Workforce Development Worknet, Quarterly Census of Employment

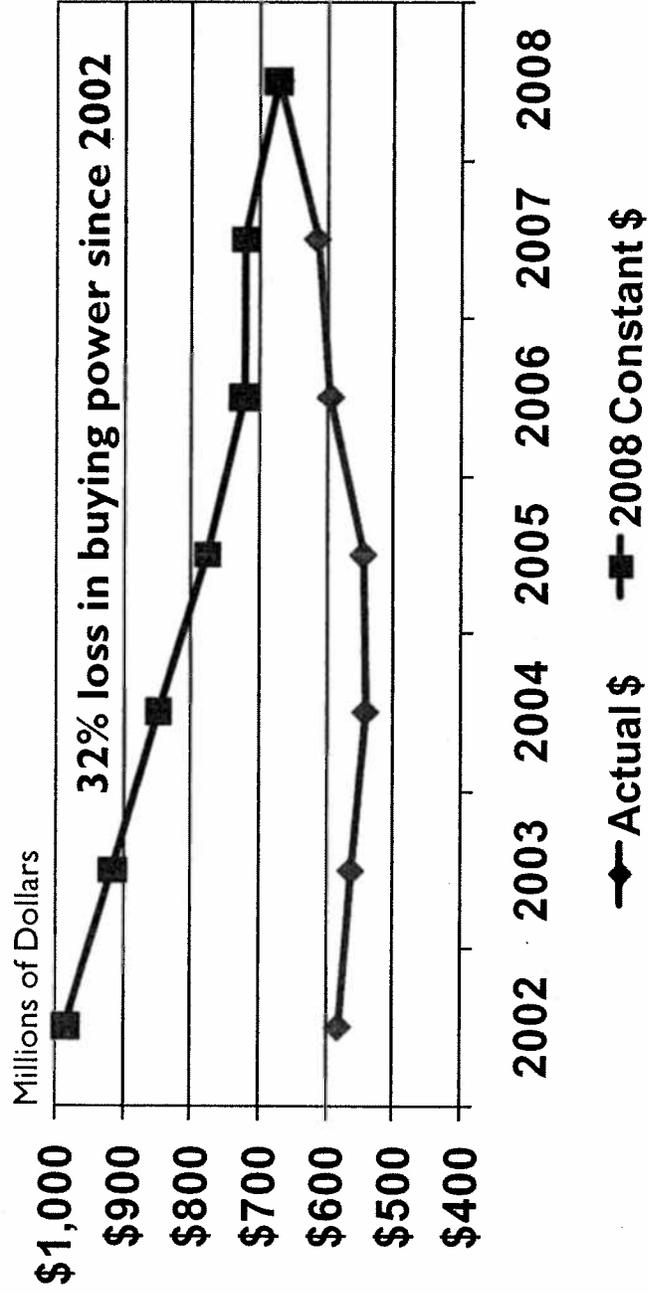
Construction Inflation



Wisconsin Construction Cost Index

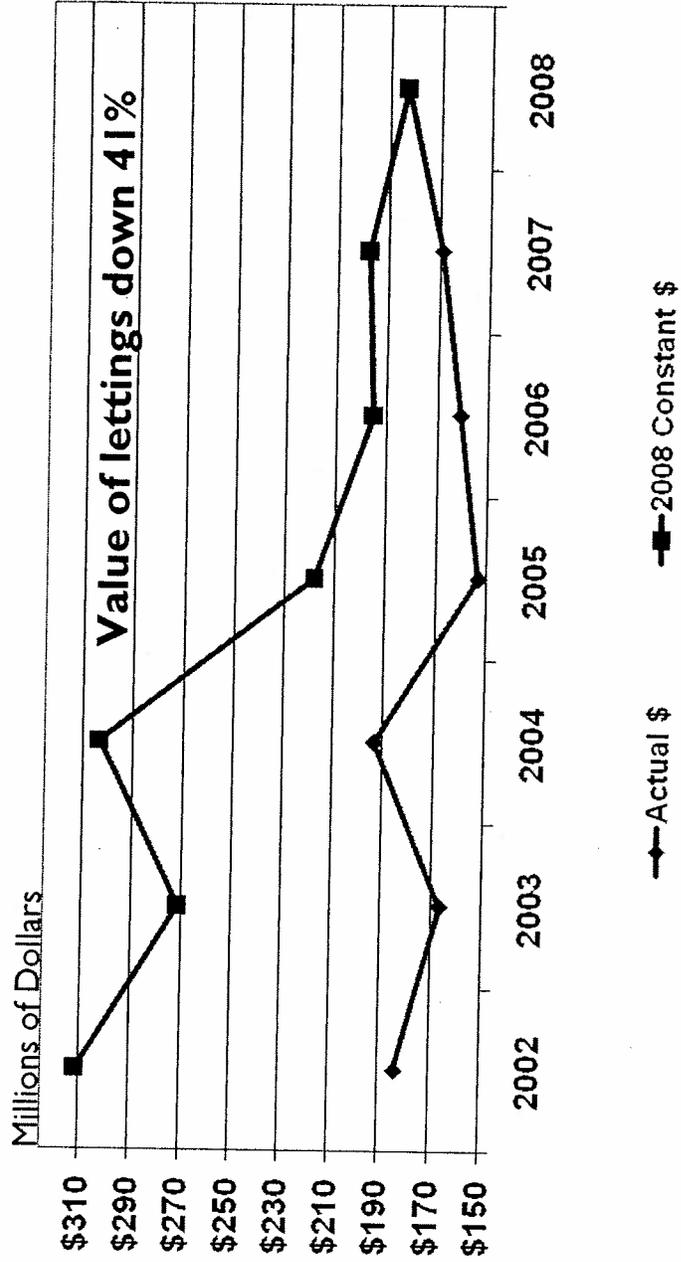
State Highway Rehabilitation

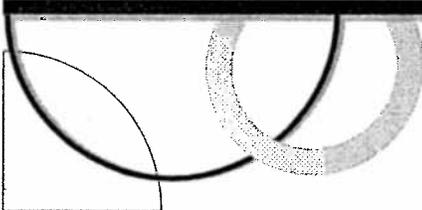
STH REHABILITATION



Major Highway Program

MAJOR PROJECT LETTINGS

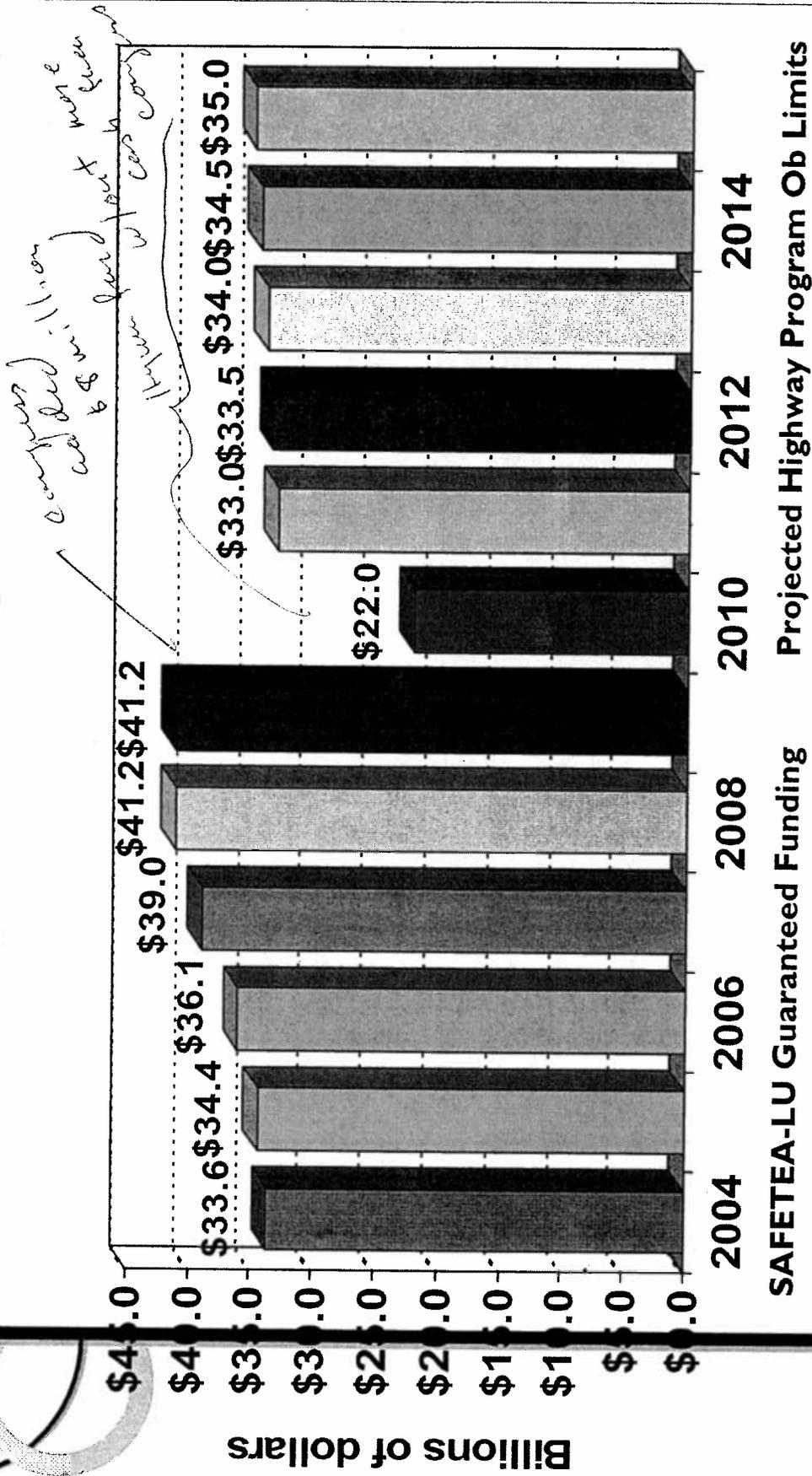




State Revenue Challenges

- **Fuel taxes**
 - Indexing repeal ... rate frozen at 30.9 cpg
 - New era of reduced fuel consumption
- **Vehicle registration fees**
 - Flat \$75 fee ... no natural revenue growth
 - 30% increase in heavy truck fees in '07 budget
- **Bonding**
 - Debt service up 134% over last 10 years
 - First draw on available revenues
- **Current Transportation Fund deficit?**

Fed. Hwy. Funding w/out new \$

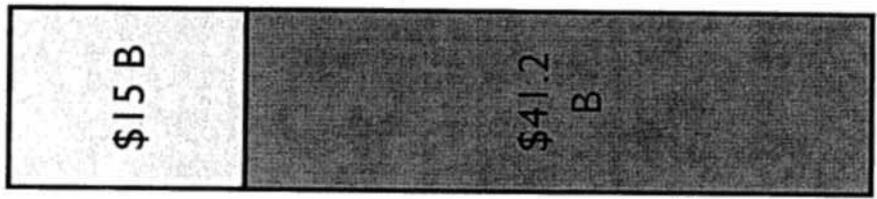


SAFETEA-LU Guaranteed Funding Projected Highway Program Ob Limits

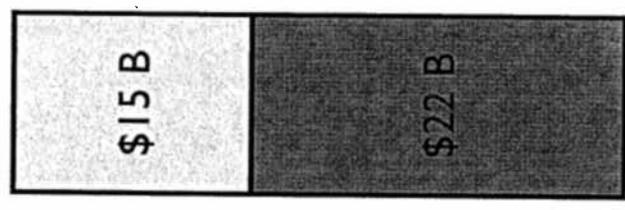
Source: ARTBA & AASHTO calculations from FHWA & Treasury data

Stimulus Funding for Highways

 = \$30 billion in House stimulus funding over 2 years



2009

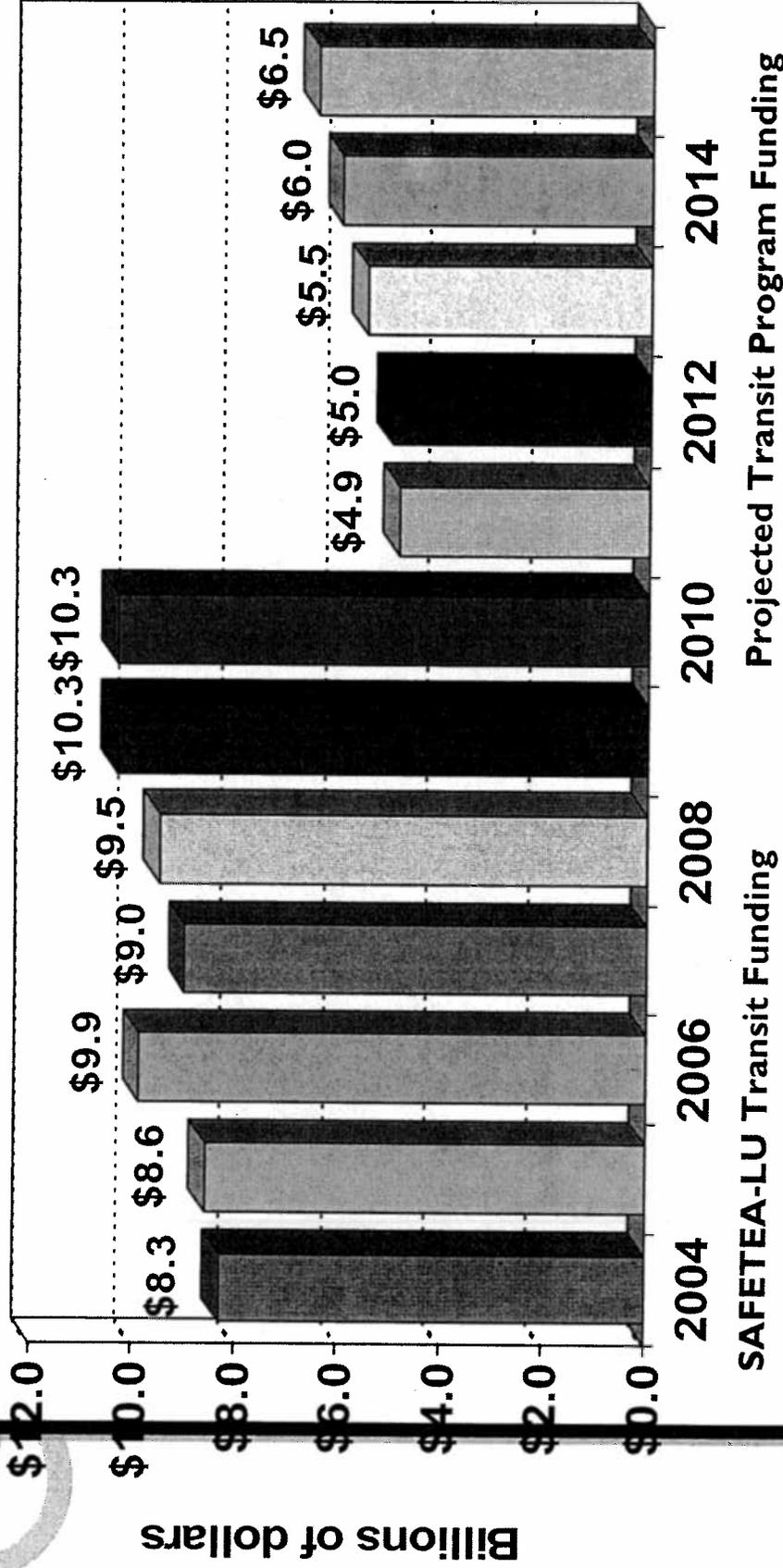


2010



Fed. Transit Funding w/out new

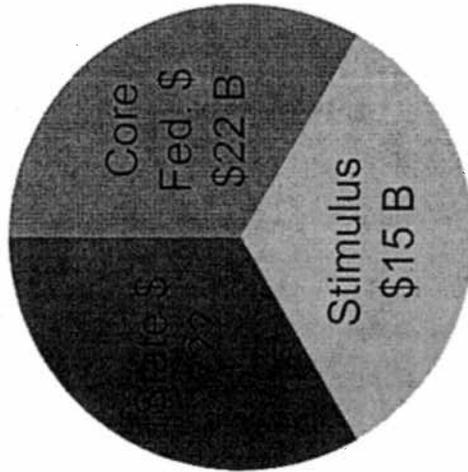
\$



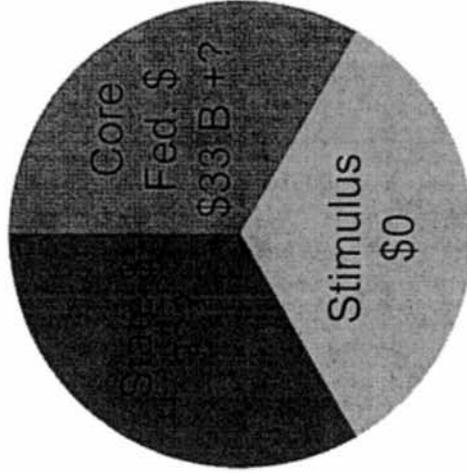
Source: ARTBA & AASHTO calculations from FHWA & Treasury data

Upcoming State Budget

FY 2010



FY 2011



Office of Recovery & Reinvestment ~ Contacts

Directors:

Gary Wolter, Director Alan Fish, Deputy Director

Administration (DOA):

Andrew Moyer, Executive Assistant to DOA Secretary
Linda Barth, DOA Communications Director
Cari Anne Renlund, DOA Chief Legal Counsel
Katie Skillrud, DOA Executive Staff Assistant
Emily Winecke, DOA Communications Assistant
Dave Helbach, Division Administrator of State Facilities
Sheree Dallas-Branch, DOA Division Administrator of Energy

Governor Doyle's Office:

Aaron McCann; Washington D.C. Deputy Director
Tanya Bjork, Gov. Doyle's Director of Federal Relations

Transportation (DOT):

Reggie Newson, Operations Manager for Southeast Region
David Nguyen, P.E., Major Projects Manager

Natural Resources (DNR):

Susan Crawford, Division Administrator of Enforcement & Science

Agriculture (DATCP):

Will Hughes, Division Administrator of Agricultural Development

Public Service Commission (PSC):

Jeff Ripp, PSC Policy Advisor

Commerce:

Amy Young, Economic Development Consultant

Workforce Development (DWD):

Rose Lynch, Chief Information Officer
Nicci Fite, Enterprise Project Specialist

Energy Independence (OED):

Dave Jenkins, Director of Commercialization & Market Development

Housing and Economic Development (WHEDA):

Chris Gunst, Executive Assistant to WHEDA Secretary
Darren Easton, Senior Management Analyst

Children and Families (DCF):

Nikki Hatch, Director of the Office of Performance & Quality Assurance

Health Services (DHS):

Cheryl McIlquham, Director of Office of Policy Initiative & Budget

Revenue (DOR):

Carrie Templeton, Executive Assistant to Revenue Secretary
Sherrie Gates-Hendrix, Legislative Liaison

University of Wisconsin System (UW):

Andy Richards, Office of the President Senior Special Assistant

Testimony
Informational Hearing
Committee on Economic Development

Presented by: Rosemary Wehnes
Sierra Club Associate Midwest Representative
Blue Green Alliance
6526 River Parkway
Wauwatosa, WI 53213

January 27, 2009

Potential Impact of American Recovery & Reinvestment Act on Creating Green Jobs

The economic crisis is directly affecting our families in Wisconsin. In December the U.S. unemployment rate soared to 7.2 %. The manufacturing sector has been hit the hardest with 791,000 jobs lost in 2008. Losses in the construction sector were 632,000 according to the Business Journal.

Cleaner, smarter energy solutions are central to driving economic recovery and growth. Generating more renewable energy, reducing our oil dependence through increased efficiency and public transit, restoring our waterways and parks, and funding local green infrastructure water projects create good jobs, reduces pollution, and will jump-start America's economy.

The American Recovery and Reinvestment Act of 2009 reflects President Obama's vision of an economic recovery plan that recognizes the vital role of clean energy. The bill makes an important down payment on solutions that will transform America's economy and lead to a clean energy future and begins to invest in training the next generation of workers.

The package includes approximately \$100 billion in direct spending and incentives for clean energy, the retrofitting of public buildings and public housing, low and moderate-income home weatherization, clean water and environmental restoration projects, energy efficiency, smart grid, and mass transit projects.

Renewable energy and energy efficiency can create new jobs, reduce energy bills, and generate clean, homegrown electricity. The legislation includes a range of both direct spending and tax incentives to boost clean energy production.

The draft bill includes at least \$37.8 billion for energy efficiency, \$27.8 billion for renewable energy and \$11.6 billion for public transit and clean transportation. The following specific proposals are a selection of highlights from the legislation:

Energy Efficiency and Renewable Energy:

- **Extending the clean energy production tax credits (PTC)** for 3 years and making them "recession proof" by allowing projects to opt out of the PTC in exchange for a reduced value grant from the Department of Energy. In addition, the legislation increases the availability of Clean Renewable energy Bonds (CREBs), providing another financing source to assist in renewable energy development. (Ways & Means, Subtitle G)

- **Fully funding the Green Jobs Act of 2007** to train 70,000 workers in its first year to work in the fields of clean energy and environmental restoration. (Title IX, A(6))
- **\$25.9 billion for Energy Efficiency Programs**, including local government block grants, housing retrofits, (\$6.2 billion) to help low-income families weatherize their homes, and research. (Title V)
- **Extends Energy Efficiency Tax Credits.** The legislation gives the Secretary of Energy additional authority to issue energy conservation bonds and extends tax credits for residential and non-business energy efficiency investments. (Ways & Means, Sec. 1612 & Sec. 1621)
- **\$8 billion for Renewable Energy loan guarantees.** Direct spending to provide loans through the Department of Energy to renewable energy generation and transmission projects. (Title V, Sec. 5003)
- **\$4.5 billion for Grid Reliability & Efficiency.** The legislation provides funds to pursue smart grid, reliability, and energy storage programs under Title XIII of the Energy Independence and Security Act of 2007. (Title V)

*In order for these provisions to be as effective as possible, it is important that both renewable energy and energy efficiency tax credits can be transferred into direct grants to assist struggling manufacturers.

MASS TRANSIT & CLEAN VEHICLES: Public transit and clean vehicles can save consumers money at the gas pump, ease the economy's reliance on oil, curb global warming emissions, and create thousands of new jobs across the country.

- **\$10.1 billion for public transit.** These provisions fund a variety of programs designed to construct new transit systems, upgrade and repair existing systems, and improve services. It is estimated that this level of investment in transit will create over 300,000 jobs across the country. (Title XII)
- **\$2 billion for Advanced Vehicle batteries.** The legislation provides funding and loan guarantees for the development and manufacture of advanced technology batteries. These programs will encourage the creation of high-capacity batteries which can extend the range and power of electric and hybrid-electric vehicles. (Title V)

CLEAN WATER & ENVIRONMENTAL CLEANUP: The American Recovery and Reinvestment Act also invests in critical environmental clean-up efforts. These projects protect public health while creating jobs repairing important infrastructure and cleaning up polluted industrial sites.

- **\$6 billion for the Clean Water State Revolving Fund.** This program provides loans to communities to improve wastewater treatment facilities. (Title VIII – State and Tribal Assistance Grants)

- **\$2 billion for the Drinking Water State Revolving Fund**, which provides loans to repair and construct clean drinking water facilities. (Title VIII – State and Tribal Assistance Grants)
- **\$800 million for the Superfund program** which funds cleanup of hazardous and toxic materials from polluted industrial sites. (Title VIII – Hazardous Substance Superfund)
- **\$200 million for the Leaking Underground Storage Tank (LUST) program**. This program funds the enforcement and cleanup of petroleum leaks from underground storage tanks. (Title VIII – Leaking Underground Storage Tank Trust Fund Program)

These initiatives are a win-win for a strong economy and a healthier environment. They will create good jobs for people here in America and reduce our dependence on dirtier energy sources like oil and coal by promoting the shift to wind and solar power and high energy performance, low carbon cars and buildings.

A report released in 2008 by the Center for American Progress (CAP) highlighted the economic and employment opportunities that can result when significant investments are made in the green economy, specifically what an investment of \$100 billion can mean for the U.S. economy over a two-year period. CAP estimated that new construction and manufacturing opportunities can be created for American workers and businesses with the potential creation of over 900,000 jobs in the construction industry and over 580,000 jobs in the industries that supply American-made component parts and products for wind turbines, energy efficiency, and building retrofits. CAP also estimated that almost 500,000 jobs would be created in the retail and wholesale industries as a result of increased capital from increased employment, leading to the potential total creation of two million jobs from a \$100 billion investment.

Water and wastewater utilities estimate that they have at least \$30 billion of ready-to-go projects that can create millions of good jobs that can't be sent offshore, move the U.S. toward a 21st century economy, and protect public health, safety and the environment at the same time. The American Public Works Association estimates that every \$1 billion invested in infrastructure generates about 35,000 jobs for engineers, construction workers, plumbers, architects, maintenance workers, and many others.

What would a national investment of \$100 billion dollars mean for creating “Green Jobs” in Wisconsin?

In the CAP study, Wisconsin's share of the national economic recovery programs was estimated to be \$1.8 billion, based on criteria combining the state's population and gross domestic product. If Wisconsin were to receive a comparable amount from the American Recovery and Reinvestment Act, the study's analysis shows the net job creation in Wisconsin would be 37,165 jobs. While the specific sectors of investment may deviate from this analysis based on different conditions and public policy priorities, it provides a very rough estimate of the potential to create and/or sustain “Green Jobs” in Wisconsin.

While exact figures are not available, it has been reported that Gov. Doyle expects Wisconsin's share to be at least \$2 billion and the National Conference of State Legislatures has estimated that Wisconsin could get as much as \$3.5 billion (Milwaukee Journal Sentinel, 1/24/2009.)

On January 13th, a broad new coalition of leaders in government, labor and environmental organizations unveiled a “Blueprint for Wisconsin's Green Economy (you should have copies of this document.)” The Blueprint provides a vision and principles for how the federal economic

recovery money should be used, and over \$2 billion in examples of immediate, job-creating projects that increase our energy independence, build public transit systems, provide clean water, and rebuild crumbling urban infrastructure. The proposals as a whole would create an estimated 30,000 jobs in Wisconsin. To see the full Blueprint for Wisconsin's Green Economy, go to www.midwestadvocates.org.

As Wisconsin looks at this investment opportunity, we need to insist that the short term infusion of funds creates long-term benefits. For example, investing in retrofitting our public building to be more energy efficient will pay off dividends in the future in the form of reduced energy costs and in reducing emissions of green house gases. Workers who receive training to do the work through apprenticeship and other training programs will improve their skill level and be positioned for ongoing employment, not just temporary make-work jobs. Manufacturers will benefit from increased orders of supplies and the list goes on. So, projects that ultimately reduce operation and maintenance costs offer clear benefits to our local economy.

Another consideration is that funds need to be put to work in an expedient way, given the state of the economy. Projects like weatherizing homes and repairing infrastructure, such as leaky storm sewers and bridge repairs can be ramped up quickly. By fixing existing infrastructure, jobs will be retained and we can avoid inefficient development that promotes sprawl, increased fuel consumption and climate change emissions.

Finally, by connecting stimulus funds with labor standards, we can help create family supporting jobs that build long-term workforce capacity and strengthen the economic base of local communities. Funding should build valuable job skills by connecting job creation investments with workforce development programs to ensure that workers are well trained and have access to career pathways. A special emphasis should be placed upon projects that create "pathways out of poverty" by connecting underserved communities with training and jobs.

Both Congress and the new Administration have announced that revitalizing the economy and protecting the environment are key priorities and are actively working on an economic recovery package to achieve those objectives. The United States is therefore in a unique position to enact policies that will accelerate the growth of the green economy, empower workers with strong labor standards and more job opportunities, and reduce our nation's greenhouse gas emissions. Wisconsin must be ready to accept that challenge.

END



Green Economic Recovery Program Impact on Wisconsin

Part of a National Program to Create Good Jobs
and Start Building a Low-Carbon Economy



By Robert Pollin, Heidi Garrett-Peltier, James Heintz, and Helen Scharber

For the past year, the U.S. economy suffered through a serious economic slowdown caused by the collapse of the housing market bubble, the destabilizing effects of the housing implosion on financial markets, and the sharp rise in oil prices. The resulting increase in unemployment—reaching 5.7 percent in July 2008—is in fact even worse when taking into account a labor market where people are working fewer hours than they wish, taking pay cuts, or becoming discouraged from looking for work.

The fact sheet below details the impact on Wisconsin based on a national report that outlines a green economic recovery program to strengthen the U.S. economy over the next two years and leave it in a better position for sustainable prosperity. In the national report we propose policies to expand job opportunities by stimulating economic growth, stabilizing the price of oil, and making significant strides toward fighting global warming and building a green, low-carbon economy. This green economic recovery program—including investments in retrofitting buildings, expanding mass transit and freight rail, constructing smart energy grids, and expanding production of wind power, solar power, and advanced biofuels—would be a down payment on a 10-year policy program recommended by the Center for American Progress in its 2007 report “Capturing the Energy Opportunity: Creating a Low-Carbon Economy,” by John D. Podesta, Todd Stern, and Kit Batten.

The decline in construction jobs clearly illustrates the need for a large-scale green economic recovery program in the United States. Employment in construction fell to 7.2 million in July 2008, down from 8 million in July 2006. A green infrastructure investment program would replace, at least, those 800,000 lost construction jobs over the next two years, and could result in renewed investment in the housing sector that is at the root of the current economic slump. This green recovery program provides a needed transfusion of new credit and investment into the construction industry, which could rapidly provide job opportunities that are badly needed. Our program would have similar, if somewhat smaller, effects in supporting U.S. manufacturing.

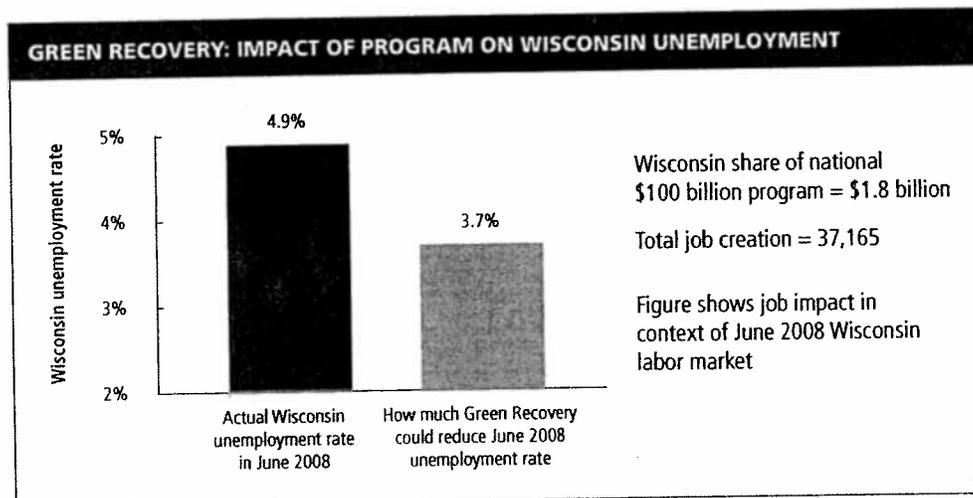


Features of national program

- Total U.S. green economic investment spending: \$100 billion
- U.S. job creation: 2 million new jobs in two years
- Impact on U.S. labor market: could reduce unemployment to 4.4 percent in two years from 5.7 percent in July 2008.
- Six green infrastructure investment priorities: building retrofitting; mass transit and freight rail; smart grid electrical transmission systems; wind energy; solar energy; advanced biofuels.

Impact on Wisconsin

- Wisconsin's share of national green economic recovery program: \$1.8 billion, based on combining state's population and gross domestic product (see technical appendix below for details).
- Wisconsin's net job creation through green economic recovery program: 37,165 jobs, based on Wisconsin unemployment figures in June 2008.
- Impact on Wisconsin's labor market: a net increase of 37,165 jobs would reduce Wisconsin's unemployment rate to 3.7 percent in two years from 4.9 percent in June 2008.



Sources: See technical appendices to full study and state reports.

Major areas of new job creation in Wisconsin and across the nation

The vast majority of jobs created through a green economic recovery program are in the same areas of employment that people already work in today, in every region and state of the country. Constructing wind farms, for example, creates jobs for sheet metal workers, machinists, and truck drivers, among many others. Increasing the energy efficiency of

buildings through retrofitting requires roofers, insulators, and building inspectors. Expanding mass transit systems employs civil engineers, electricians, and dispatchers. More generally, this green recovery program will provide a major boost to the construction and manufacturing sectors throughout the United States through much-needed spending on green infrastructure. The table below provides a representative sample of the employment areas that will expand through the green stimulus program.

GREEN INVESTMENTS AND JOBS	
STRATEGIES FOR GREEN ECONOMIC INVESTMENT	REPRESENTATIVE JOBS
Building Retrofitting	Electricians, Heating/Air Conditioning Installers, Carpenters, Construction Equipment Operators, Roofers, Insulation Workers, Carpenter Helpers, Industrial Truck Drivers, Construction Managers, Building Inspectors
Mass Transit/Freight Rail	Civil Engineers, Rail Track Layers, Electricians, Welders, Metal Fabricators, Engine Assemblers, Bus Drivers, Dispatchers, Locomotive Engineers, Railroad Conductors
Smart Grid	Computer Software Engineers, Electrical Engineers, Electrical Equipment Assemblers, Electrical Equipment Technicians, Machinists, Team Assemblers, Construction Laborers, Operating Engineers, Electrical Power Line Installers and Repairers
Wind Power	Environmental Engineers, Iron and Steel Workers, Millwrights, Sheet Metal Workers, Machinists, Electrical Equipment Assemblers, Construction Equipment Operators, Industrial Truck Drivers, Industrial Production Managers, First-Line Production Supervisors
Solar Power	Electrical Engineers, Electricians, Industrial Machinery Mechanics, Welders, Metal Fabricators, Electrical Equipment Assemblers, Construction Equipment Operators, Installation Helpers, Laborers, Construction Managers
Advanced Biofuels	Chemical Engineers, Chemists, Chemical Equipment Operators, Chemical Technicians, Mixing and Blending Machine Operators, Agricultural Workers, Industrial Truck Drivers, Farm Product Purchasers, Agricultural and Forestry Supervisors, Agricultural Inspectors

In addition, all of these green energy investment strategies engage a normal range of service and support activities—including accountants, lawyers, office clerks, human resource managers, cashiers, and retail sales people. We have not listed these and other related occupations in the table above because these jobs are not directly linked to any of our six green investment strategies. But new employment opportunities will certainly open up in these areas as a result of the green investment program.

Wisconsin’s green infrastructure investment allocations: Wisconsin’s job estimates are based on this distribution of an overall \$1.8 billion in green public- and private-sector investments:

- Energy efficient building retrofits: \$710 million
- Mass transit and freight rail: \$355 million
- Smart grid: \$177 million
- Wind power, solar power, and advanced biofuels: \$532 million

These investment figures are meant to be broadly illustrative of investment possibilities in order to estimate job creation across sectors. Individual states could adjust their overall green stimulus budget to reflect different conditions or public policy priorities.

Technical Appendix: Method for Allocating Green Recovery Funds to States

When we consider the green economic recovery program on a state-by-state basis, we have to make some assumptions as to what share of the \$100 billion should be allocated to each state. There is no obvious formula as to how this should best be done.

One way would be to make some assumptions as to which states have advantages in various investment areas, such as solar or wind power, or with agriculture to produce advanced bio-fuels. But whatever funding allocations we could establish on that basis would inevitably be largely arbitrary. Most importantly, we don't know an appropriate way to weigh the importance of geographic or climate advantages for any given state or region relative to the needs of the different states for the spending injection from the stimulus program.

With this in mind, there seemed to be two more reasonable approaches to assigning amounts of money going to each state from the overall stimulus budget of \$100 billion. One is on the basis of each state's share of national GDP, and the other is in terms of each state's population. Assigning on the basis of population is, of course, the most egalitarian approach, with each person in the country having an equal dollar claim on the overall pool of investment funds. But proceeding in this way could also allocate an inappropriate share of funds to states that are at significantly different levels of development. Under a solely population-based approach, for example, a state with more developed industry and building stock might receive more investments from this program for retrofitting buildings and greater tax incentives for renewable energy than a less developed state. This would suggest that the funds should also be allocated with reference to each state's level of development.

We recognize that there are reasonable arguments in behalf of both a GDP-share and a population-based allocation of funds. As such, what we have done is to combine both approaches. We have calculated what the allocation of investment should be under both the GDP- and population-based approaches, and taken the midpoint of these two calculations as our figure for each state's allocation of the \$100 billion for the overall green stimulus program.

About the Authors

Robert Pollin is Professor of Economics and Co-Director of the Political Economy Research Institute (PERI) at the University of Massachusetts-Amherst. James Heintz is Associate Research Professor and Associate Director of PERI. Heidi Garrett-Peltier and Helen Scharber are Ph.D. students in Economics and Research Assistants at PERI.

The project managers at the Center for American Progress are Kit Batten, Managing Director for Energy and Environmental Policy, and Bracken Hendricks, Senior Fellow.

For more information, please contact Debbie Zeidenberg, PERI Communications Director, at dzeiden@peri.umass.edu or John Neurohr, Deputy Press Secretary for the Center for American Progress, at 202.481.8182 or jneurohr@americanprogress.org.

This and other state fact sheets, and the comprehensive study were made possible with the generous support of the Nathan Cummings Foundation.

Blueprint for Wisconsin's Green Economy

Our Vision for the Future

With federal economic recovery funds carefully targeted to build Wisconsin's green economy, we will see thousands of new green, family-supporting jobs reducing Wisconsin's unemployment rate and freeing families from chronic poverty and poor health. We will use trains and buses that efficiently connect people to employment. Thousands of workers will retrofit buildings and homes, making them energy efficient, yielding substantial savings to homeowners and businesses. The former, diminished manufacturing sector in Wisconsin will be rapidly transformed into green factories, capable of building parts and equipment for wind, solar, and geothermal systems. We will build a renewable energy system that reduces our dependence on foreign oil and lessens our greenhouse gas emissions. With clean air, fresh water, reduced poverty, green manufacturing, and green education, Wisconsin will emerge as a sign of hope for a secure and sustainable green economy.

Principles for Expenditure of Economic Recovery Funding

- Transportation dollars should prioritize investment in transit, including bus systems, bus rapid transit, light rail, commuter rail, and inter-city rail. Not only will these projects create construction and manufacturing jobs, they will require ongoing operations and maintenance jobs as well. They will also offer sorely needed transportation choices to Wisconsin's cities.
- Infrastructure projects should focus on "Fix-it First". Maintenance and repair of existing transit, highways, bridges and roads should be prioritized for infrastructure funds. By fixing existing infrastructure, jobs will be retained and we can avoid inefficient development that promotes sprawl, increased fuel consumption and climate change emissions.
- Federal funds should be directed to large-scale energy efficiency retrofit projects for residential and commercial buildings. Energy efficiency offers the best path for job retention and creation while achieving significant reductions in climate change emissions.
- Investments should be made in our water infrastructure, with a particular focus on green infrastructure. Green infrastructure is the interconnected network of open spaces and natural areas – such as greenways, wetlands, parks, forest preserves, native plant vegetation and rain gardens, disconnected downspouts, green roofs, rain barrels, permeable pavement – that naturally manages stormwater, reduces flooding risk and improves water quality.

- By connecting stimulus funds with labor standards, we can help create family-supporting jobs that build long-term workforce capacity and strengthen the economic base of local communities. Government should attach labor standards to the economic recovery funds, requiring that prevailing wage standards apply.
- Funding should build valuable job skills by connecting job creation investments with workforce development programs to ensure that workers are well trained and have access to career pathways. To expand a skilled workforce and build long-term employment opportunities organizations receiving funding should be subject to local hire and apprenticeship requirements. A special emphasis should be placed upon projects that create “pathways out of poverty” by connecting underserved communities with training and jobs.

Illustrative Projects to Build Wisconsin’s Green Economy in the Areas of:

1. *Energy Independence*
2. *Transit*
3. *Water Infrastructure*
4. *Redevelopment of Impoverished Urban Areas*

1. Energy Independence

Wisconsin can move toward energy independence through greater use of renewable energy and improved energy efficiency of buildings. Renewable energy resources in Wisconsin include biomass, wind, solar and geothermal. Most new jobs in the renewable energy and efficiency fields closely align with Wisconsin’s present skilled labor force: machinists, electricians, metal and construction workers.

Jobs Created by Investing in Energy Efficiency

Every \$1 million invested in efficiency retrofits generates 8 to 11 on-site jobs.¹ This calculation is used in the table below to estimate job creation for those projects where such estimates were not provided.

Jobs Created By Investing in Renewable Energy

As one of the leading manufacturing states in the nation, Wisconsin is well positioned to build components for generating renewable energy and increasing energy efficiency in buildings. A \$5.53 billion investment in renewable component manufacturing in Wisconsin is estimated to generate over 35,000 new jobs.² This calculation is used in the table below to estimate job creation for those projects where such estimates were not provided.

We have identified a partial list of over \$1 billion worth of energy independence projects that could create an estimated 7,340 jobs in Wisconsin.

Location	Project Lead	Brief Project Description	Cost	Estimated Jobs Created
Statewide	State	Renewable Energy Projects-Private	\$763,500,000	4,900
Statewide	State	Renewable Energy Projects-Public	\$70,600,000	460
Statewide	State	Office of Energy Independence Grants for renewable energy Projects	\$117,000,000	750
Statewide	Focus on Energy	Focus on Energy Grant Projects \$10 Million-Lighting retrofits, \$16 Million, community wind projects.	\$34,700,000	200
Dane County	Dane County	Manure Digester Cooperative Project for small to medium dairy farms in Lake Mendota watershed	\$1,100,000	15-20
Dane County	Dane County	Manure Digester Cooperative Project for small to medium dairy farms in Black Earth Creek Watershed	\$1,000,000	15-20
Dane County	Madison/Dane County	City-County Building Solar Energy Project to provide 50% of City-County Building's hot water	\$187,300	4
Dane County	Dane County	Construction of energy efficient Badger Prairie Health Care Center with renewable geothermal heating/cooling and solar water heater	\$1,750,000	20
Green Bay	City	Green building incentives	\$225,000	28
Milwaukee	Department of Administration	Milwaukee Energy Efficiency (Me2)-Retrofit Milwaukee housing stock to improve energy efficiency	\$20,000,000	300

Madison	City	Energy efficiency revolving loan program for City of Madison homeowners	\$1,000,000	300
Madison	City	Expand existing MadiSun program to provide grants to businesses to install solar electric and solar hot water systems	\$1,000,000	6
Milwaukee	Department of Public Works	Retrofit 10% of city street lighting with LED technology	\$14,000,000	140
Milwaukee	Housing Authority	Replace 15% of fleet with energy efficient vehicles, install passive solar systems and green roofs	\$5,400,000	54
Milwaukee	Department of Public Works	Street lighting—replace series circuitry to improve efficiency	\$8,000,000	80
Milwaukee	Department of Administration	Retrofit existing lighting, HVAC, windows, building systems, etc. to reduce energy consumption	\$5,000,000	50
New Berlin	City	Wind turbines w/ manufacturer	\$15,000,000	16

2. Transit

Investing in transit provides an immediate economic boost, and an investment in our long-term prosperity. Investing in transit infrastructure and services, as well as in facilities that support walking and bicycling, contributes substantially to job creation and economic growth, while helping communities transition to a more energy-efficient, environment-friendly, and economically sustainable transportation system.

Every billion dollars invested in public transit creates 35,000 jobs.³ This calculation is used in the table below to estimate job creation for those projects where such estimates were not provided.

Investing in transit will generate jobs in construction of new rights-of-way, transit stations, maintenance facilities, and other fixed installations. It will also increase demand for specialized design and engineering services as well as for a wide range of different construction materials. Purchases of transit equipment—buses, rail vehicles, traffic control systems—support domestic manufacturers of these items and maintain the supply chain needed to support future growth.

Spending on expanded and improved transit service also supports employment of bus and train drivers, maintenance workers, and other operations staff. Many of these are well-

paying jobs that require only modest training and can't be out-sourced. Such investments yield significant benefits for private residential and commercial development—in particular, efficient mixed-use development that creates still more transit accessible jobs and adds to the local economic base while helping manage the cost of city services and reducing energy use by curbing urban sprawl.

Improving and expanding transit reinforces other economic recovery and job creation efforts by ensuring that workers offered new opportunities through those efforts can get to their jobs. Doing so also ensures that these opportunities are available to and accessible by all, including low-income people and people of color that automobile-centered transportation planning all too often disadvantages.

We have identified a partial list of \$755 million worth of transit projects that could create an estimated 22,000 jobs in Wisconsin.

Location	Project Lead	Brief Project Description	Cost	Estimated Jobs Created
Chicago-Milwaukee-Madison Corridors	WisDOT	Chicago-Milwaukee-Madison High Speed Rail Infrastructure between Kenosha and Watertown (portion of Midwest regional rail)	\$112,525,000	3,921
Milwaukee, Racine, Kenosha	Inter-governmental Partnership and SE WI Regional Transit Authority	Kenosha-Racine-Milwaukee Commuter Rail capital costs	\$198,000,000	3,160
Statewide	WisDOT or Transit Systems	Capital for buses, hybrid buses, van pool vehicles, ADA buses and vans, paratransit buses, taxi vehicles, and bus and vehicle rehab	\$61,100,000	2,128
Statewide	WisDOT or Transit Systems	Building projects such as needed facilities and equipment maintenance and upgrades, stations, stops	\$105,100,000	3,662
Statewide	WisDOT or Transit Systems	Other programs such as fuel assistance and lower fares to increase bus ridership, expanding service to better connect workers and employers, engineering and design for capital and building projects, intelligent transportation systems	\$32,000,000	1,115

Milwaukee	Milwaukee County Transit System	Capital for 155 buses due or past due for replacement	\$62,300,000	2,171
Milwaukee	Milwaukee County Transit System	Bus Rapid Transit design and build, stops, stations, terminal	\$40,000,000	1,394
Milwaukee	Department of Public Works	Milwaukee Connector street car circulator system	\$100,000,000	3,484
Milwaukee	WI Dept. Natural Resources	Construct portions of the Hank Aaron State Trail to provide commuter bike/ped route and walk-to-work links from distressed neighborhoods to the Menomonee Valley – an area of job growth	\$5,300,000	74
Kenosha	City of Kenosha	Street Car Expansion capital costs	\$23,800,000	829
Sheboygan	City of Sheboygan	Construction of a Pedestrian Bridge over the Sheboygan River to retain jobs and develop additional jobs	\$7,000,000	35
Madison	City of Madison	2 Bike Trails to connect Greenway View to the Capital City Bike Trail, and MATC and the Truax Airpark with the Capital City Trail	\$2,010,000	12
Madison	City of Madison	Train stations to serve high speed rail	\$2,000,000	11
Janesville	City of Janesville	5 bike trails: construction, extensions, and tunnels	\$2,825,000	29
Cedarburg	City	Interurban bike/walk trail asphalt overlay, and Cedar Creek Walkway	\$1,525,000	23

3. Water Infrastructure

Green infrastructure for water describes practices that mimic natural hydrologic systems and encourage infiltration and treatment of stormwater, such as rain gardens, infiltration swales (or bioswales), green roofs, planting of native vegetation, and downspout disconnection and rain barrel installation. Green infrastructure can also include preservation and restoration of an interconnected network of open spaces and natural areas – such as greenways, wetlands, parks, and forests – that naturally manage stormwater, reduce flooding risk and improve water quality. Green infrastructure usually costs less to install and maintain when compared to traditional forms of built infrastructure.

The types of jobs created by building and maintaining our green infrastructure cross many sectors and include plumbing, landscaping, building, and design. Green infrastructure also supports jobs connected with manufacturing of materials such as roof membranes, rain barrels, and permeable pavement.

We have identified a partial list of \$30 million worth of green infrastructure projects that could create an estimated 384 jobs in Wisconsin.

Location	Project Lead	Brief Project Description	Cost	Estimated Jobs Created
Greater Milwaukee Region (MMSD service area)	Milwaukee Metropolitan Sewerage District (MMSD)	Pilot downspout disconnection project in combined sewer areas	\$6,000,000	86
Greater Milwaukee Region (MMSD service area)	MMSD	MMSD Green/Blue Roof Initiative	\$5,000,000	71
Greater Milwaukee Region (MMSD service area)	MMSD	MMSD Green Parking Lot Initiative	\$5,000,000	71
Greater Milwaukee Region (MMSD service area)	MMSD	Greenseams Restoration (revegetation/reforestation) Program	\$2,000,000	29
Greater Milwaukee Region (MMSD service area)	MMSD	MMSD Green Alley Program	\$1,500,000	21
Greater Milwaukee Region (MMSD service area)	MMSD	Kinnikinnick River / 6 th and Chase Street flood management	\$4,000,000	57
Milwaukee	Library	New porous parking lots to reduce rain runoff	\$325,000	5
Milwaukee	Library	Install green roof on Central Library	\$1,000,000	14
Madison	City	Urban stormwater diversion to protect Cherokee Marsh, stormwater management pond, replace restrooms, pave existing roadway/parking	\$4,300,000	25
Madison	City	Installation of Proprietary Stormwater Treatment Catch basins in the Capital Neighborhood	\$800,000	5

In many parts of Wisconsin, water infrastructure is old, failing, and unable to meet the demands of the population it serves. Sewage system infrastructure leaks and overflows also cause sewage to pour into our waterways, which pollutes lakes, rivers and streams,

and puts environmental and public health in jeopardy. EPA estimates that \$19.4 billion annually, or \$388 billion over the next 20 years, is needed to address the nation's failing water infrastructure systems, which includes both wastewater and drinking water systems. It is imperative that traditional sewage and water infrastructure are updated throughout Wisconsin. The following projects are examples of projects that are designed to reduce water pollution and improve the delivery of clean water.

We have identified a partial list of \$96 million worth of traditional sewage and water infrastructure projects that could create an estimated 650 jobs in Wisconsin.

Location	Project Lead	Brief Project Description	Cost	Estimated Jobs Created
Greater Milwaukee Region (MMSD service area)	MMSD	Municipality inflow and infiltration reduction	\$25,000,000	357
Milwaukee	Department of Public Works	Complete 76 sewer projects that reduce sewer overflow	\$31,430,000	37
Milwaukee	Department of Public Works	Complete sanitary sewer rehab, including laterals, for three systems	\$23,000,000	27
Bayfield		Replacement of undersized sanitary sewers, updating manholes, updating storm sewers, and replacing deteriorating water mains	\$1,240,000	15
Green Bay	City	Baird Creek Sanitary Sewer Interceptor	\$1,400,000	50
Green Bay	City	Developed Areas Stormwater Management Retrofits: Phase II	\$2,700,000	100
Madison	City	Convert system to a fixed network automatic meter reading system to improve customer service, water conservation, asset management, and data collection	\$11,000,000	62

4. Urban Redevelopment

Rehabilitation of impoverished urban neighborhoods by large-scale renovations and public works is needed to address chronic industrial contamination and poverty issues. In Milwaukee, which has Wisconsin's highest concentration of people in poverty, there is a critical need for investments that would clean up contaminated properties, provide job training for local residents, create opportunities for locally-grown food, and catalysts for job creation.

We have identified a partial list of almost \$47 million worth of urban redevelopment projects that could create an estimated 5,000 jobs in Wisconsin.

Location	Project Lead	Brief Project Description	Cost	Estimated Jobs Created
Milwaukee	Department of City Development	Build urban agriculture infrastructure by acquiring 20,000 SF building adjacent to a City-owned 2 acre parcel to create a grower-to-market economic opportunity	\$772,000	10
Milwaukee	Department of City Development	Provide job training for residents in 30 th Street Industrial Corridor to prepare for jobs in environmental remediation	\$750,000	30-40
Milwaukee	Department of City Development	Create business park at the former AO Smith/Tower site. Project includes demolition, environmental investigation and remediation, design and installation of infrastructure	\$25,645,000	700
Milwaukee	Department of City Development	Develop 200-acre business park and incubator space for water-related industries, research and development	\$15,000,000	150 construction 4,000 water business park
Milwaukee	Department of Public Works	Urban Forestry Training Pilot Project	\$2,000,000	80

Milwaukee	WI Dept. of Natural Resources	Transform a 25-acre brownfield into urban forest and native plant sanctuary. Extensive riverbank restoration and native landscape installation will include job training programs.	\$2,600,000	20
-----------	-------------------------------	--	-------------	----

Endnotes

¹ p. 16. White, S. and Walsh, J. 2008. *Greener Pathways: Job and Workforce Development in the Clean Energy Economy*. Center on Wisconsin Strategy. The Workforce Alliance. The Apollo Alliance. This does not include indirect economic effects, which would increase the job numbers further.

² G. Sterzinger, Component Manufacturing: Missouri's Future in the Renewable Energy Industry (REPP: July 2008) available at www.apolloalliance.org/downloads/ApolloREPPExecSummary.pdf.

³ American Public Transportation Association (APTA), Letter to President-Elect Barack Obama; Outside Witness Testimony of Wisconsin Department of Transportation Secretary Frank Busalacchi to House Transportation and Infrastructure Committee, "Investing in Infrastructure: The Road to Recovery," October 28, 2008, at 1.

Green Jobs

Facts



Job Opportunities in a Green Economy: Wisconsin Can Gain from Fighting Global Warming

Curbing global warming is the work of a generation, and specifically, the work of millions of people, performing the jobs needed to build the green economy. Clean energy investments will create opportunities for welders, sheet metal workers, machinists, truck drivers, and others. In Wisconsin, there are more than 304,000 jobs in a representative group of job areas that could see job growth or wage increases by putting global warming solutions to work. And the benefits of those new jobs would spread to a much wider swath of the economy.

Clean-Energy Strategies Can Generate Job Growth

A new study by economists at the Political Economy Research Institute of the University of Massachusetts at Amherst examines the types of jobs that are needed to create a clean-energy economy and pinpoints six specific energy strategies that reduce pollution and can lead to job growth:¹

- Building retrofitting
- Mass transit
- Energy-efficient automobiles
- Wind power
- Solar power
- Cellulosic biofuels

New jobs will certainly be needed for building a green economy, but the vast majority of jobs associated with these six green strategies are in the same areas of employment that people already work in today, in every region and state of the country. For example, constructing wind farms creates jobs for sheet metal workers, machinists, and truck drivers, among many others. Increasing the energy efficiency of buildings through retrofitting relies, among others, on roofers, insulators, and building inspectors. Expanding mass transit systems employs civil engineers, electricians, and dispatchers. What makes these entirely familiar occupations "green jobs" is that the people working in them are contributing their everyday labors toward building a green economy.

For more information, please contact **Peter Altman** at (202) 289-6868

Produced in Partnership with:
NRDC
Sierra Club
United Steelworkers
Blue-Green Alliance
Center for American Progress
Green for All

Visit www.bluegreenalliance.org/gjfa to read the full report, *Job Opportunities for the Green Economy: A State-by-State Picture of Occupations that Gain from Green Investments*



GREEN JOBS FOR America

www.bluegreenalliance.org/gjfa



Green Jobs

Job Opportunities in a Green Economy: Wisconsin Can Gain from Fighting Global Warming

Train operators who currently deliver furniture may one day deliver wind turbine component parts, meaning that their work will be contributing to building a green economy, and that a green economy is creating new employment in rail transportation.

By examining the number of people who are employed in each of the occupations that will be affected by these six green economy strategies, and the average wages in each state for each of these job types, it becomes clear that millions of U.S. workers, across a wide range of occupations, states, and income levels, will all benefit from defeating global warming and transforming the United States into a green economy.



A push to dramatically increase America's clean-energy supply will mean increased demand for these workers, and rising demand could also lead to rising wages.

Jobs that Will Build the Green U.S. Economy

Green Economy Strategy	Representative Jobs
Building Retrofitting	Electricians, heating/air conditioning installers, carpenters, construction equipment operators, roofers, insulation workers, carpenter helpers, industrial truck drivers, construction managers, building inspectors
Mass Transit	Civil engineers, rail track layers, electricians, welders, metal fabricators, engine assemblers, production helpers, bus drivers, first-line transportation supervisors, dispatchers
Energy-Efficient Automobiles	Computer software engineers, electrical engineers, engineering technicians, welders, transportation equipment painters, metal fabricators, computer-controlled machine operators, engine assemblers, production helpers, operations managers
Wind Power	Environmental engineers, iron and steel workers, millwrights, sheet metal workers, machinists, electrical equipment assemblers, construction equipment operators, industrial truck drivers, industrial production managers, first-line production supervisors
Solar Power	Electrical engineers, electricians, industrial machinery mechanics, welders, metal fabricators, electrical equipment assemblers, construction equipment operators, installation helpers, laborers, construction managers
Cellulosic Biofuels	Chemical engineers, chemists, chemical equipment operators, chemical technicians, mixing and blending machine operators, agricultural workers, industrial truck drivers, farm product purchasers, agricultural and forestry supervisors, agricultural inspectors

Green Jobs in Wisconsin

Solving global warming will require all kinds of workers with a wide range of skills. Tens of thousands of Wisconsinites have good-paying job skills that are representative of a broad range of skills needed to build clean energy solutions:

- **Carpenters** will be needed to make buildings more energy efficient. There are nearly 21,000 carpenters in Wisconsin, paid an average of over \$18 per hour.
- **Electricians** are essential to expanding mass transit solutions. There are over 12,000 electricians in Wisconsin, paid an average of \$24 per hour.
- **Operations managers** are needed to manufacture of energy-efficient automobiles. There are nearly 25,000 operations managers in Wisconsin, paid an average of nearly \$42 per hour.
- **Machinists** craft essential components for wind power. There are nearly 17,000 machinists in Wisconsin, paid an average of over \$17 per hour.
- **Welders** are vital to solar power manufacturing. There are nearly 13,000 welders in Wisconsin, paid an average of over \$16 per hour.
- **Industrial truck drivers** transport supplies and fuels for the cellulosic biofuels sector. There are nearly 17,000 industrial truck drivers in Wisconsin, paid an average of over \$14 per hour.²

¹ These six strategies are of course by no means exhaustive. For example, a 2007 study by McKinsey and Company, *Reducing Greenhouse Gas Emissions: How Much at What Cost?*, discusses five broad clusters of approaches to reducing greenhouse emissions, including improving energy efficiency in buildings and appliances; increasing fuel efficiency in vehicles and reducing carbon intensity of transportation fuels; improving efficiency in energy-intensive industrial production; expanding and enhancing carbon sinks; and reducing the carbon intensity of electrical power production. Within these five broad clusters, they identify a total of 41 strategies that, in combination, are capable of significantly reducing greenhouse emissions.

² Sources: May 2007 State Occupational Employment and Wage Estimates, Bureau of Labor Statistics; IMPLAN input-output modeling system, Bureau of Economic Analysis 2005 Annual Input-Output Accounts.

COALITION FOR WISCONSIN'S GREEN ECONOMY

c/o Midwest Environmental Advocates
551 W. Main Street, Suite 200, Madison, Wisconsin 53703

January 13, 2009

Re: Blueprint for Wisconsin's Green Economy

Dear President-Elect Barack Obama Transition Team and Wisconsin Congressional Delegation:

In this time of economic turmoil, a coalition has come together to support the creation of family-supporting jobs in the green collar economy. We are providing you with a blueprint for investments that will build Wisconsin's green economy. The *Blueprint for Wisconsin's Green Economy* is designed to provide a vision for the future, principles to govern the federal economic recovery bill, and illustrative examples of immediate, job-creating projects that increase our energy independence, build public transit systems, provide clean water, and rebuild crumbling urban infrastructure.

Rather than investing federal dollars in the present foreign oil-dependent economy, we urge you to stimulate a new, green economy that ensures greater environmental and economic sustainability.

We, the undersigned government officials, organizations and individuals endorse the *Blueprint for Wisconsin's Green Economy* and urge you to use the federal economic recovery bill to create these green collar jobs.

Sincerely,

Mayor Tom Barrett
City of Milwaukee

Mayor Dave Cieslewicz
City of Madison

Kathleen Falk
Dane County Executive

Rep. Spencer Black
Wisconsin State Legislature

Rep. Jon Richards
Wisconsin State Legislature

Rep. Tamara Grigsby
Wisconsin State Legislature

Kevin Shafer
Milwaukee Metropolitan
Sewerage District

Tony Perez
Housing Authority City of Milwaukee

Ald. Robert Bauman
Milwaukee Common Council

Melissa K. Scanlan
Midwest Environmental Advocates

Dale Olen
Sierra Club, Great Waters Group

Robert Kraig
Citizen Action of Wisconsin

Eric Uram
Sierra Club – John Muir Chapter

Cheryl Nenn
Milwaukee Riverkeeper

Chuck Geiger
Rosemary Wehnes
Wisconsin Blue Green Alliance

Pam Fendt
Good Jobs and Livable Neighborhoods
Coalition

Jerry Ann Hamilton
Milwaukee Branch NAACP

Ken Leinbach
Urban Ecology Center

Kerry Thomas
Transit NOW

Steve Hiniker
1000 Friends of Wisconsin

Richard Riley
Amalgamated Transit Union Local 998

Coalition for Advancing Transit
Steering Committee (Transit List Only)

Jennifer Giegerich
Wisconsin League of Conservation Voters

Patrick McDonnell
Dane Alliance for Rational Transportation

Peter McAvoy
Sixteenth Street Community Health Center

Chris Litzau
Milwaukee Community Service Corps

Laura Bray
Menomonee Valley Partners, Inc.

Charlie Higley
Citizens Utility Board of Wisconsin

Bruce Speight
WISPIRG

Jim Te Selle
Wisconsin Great Lakes Coalition

Dan Kohler
Wisconsin Environment

Amber Meyer Smith
Clean Wisconsin

Michael J. Vickerman
RENEW Wisconsin

Bruce Keyes
Friends of Hank Aaron State Trail

Ann Brummitt
Milwaukee, Wisconsin

William Johnson
Milwaukee, Wisconsin

Peter E. McKeever
Garvey, McNeil & McGillivray, SC.
Madison, Wisconsin

Ed Garvey
Garvey, McNeil & McGillivray, SC.
Madison, Wisconsin