

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
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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.