

MCCAG Label	MCCAG Goal	MCCAG Recommendations	Related Legislation	Bill Content
Agriculture, Forestry and Waste Management				
AFW-1. Agricultural Crop Management	Ensure that no-till, strip-till or other conservation practices make up 33% of all annual crop production in 2025 and increase fertilizer application efficiency by 50% by 2025	Develop flexible outcome-based measures in order to give farmers the ability to use various methods and fund research into the development of farming practices, cropping practices and crops		
AFW-2. Land-Use Management Approaches for Protection and Enrichment of Soil Carbon	Protect 30% of lands in natural cover and/or existing conservation programs from intensive agricultural or urban/suburban development by 2025	Create a program which provides additional tax incentives to landowners for donating development rights as part of an easement transaction for the carbon storage value of the land		
AFW-2. Land-Use Management Approaches for Protection and Enrichment of Soil Carbon	Expand the Reinvest in Minnesota-Clean Energy program land to 200,000 acres by 2025	Fully fund the Reinvest in Minnesota-Clean Energy program in 2008		
AFW-2. Land-Use Management Approaches for Protection and Enrichment of Soil Carbon	Protect or restore northern peatlands and other wetlands to prevent releases of GHGs and fire	Adopt polices that identify areas where peatlands are in danger of ceasing their present carbon sequestration or releasing their stored carbon, expand existing databases to provide baselines for future evaluation of carbon sequestration in peatlands, fund restoration of water tables, support research of the carbon sequestration in peatlands and educate landowners about the role of peatlands	SF2492 (Anderson) LCCMR funding recommendations for environment and natural resources. Signed.	\$550,000 for the updating of the National Wetlands Inventory and \$245,000 for the creation of an inventory of drained restorable wetlands in the southwest prairie region
AFW-3. In-State Liquid Biofuels Production	Ensure that 80% of the thermal heat used in ethanol facilities comes from renewable sources by 2015, offset 50% of MN's gasoline consumption with biofuels produced instate by 2025 and offset 10% of fossil diesel with biodiesel produced instate by 2025	Incorporate a low-carbon index for biofuels production along with feedstock sustainability standards, create efficiency incentives for ethanol facilities to upgrade their equipment, allot dollars for the development of sustainability standards, establish MMBtu energy incentives for biomass conversion facilities and develop a template for a contract between facilities and farmers/intermediary/co-op to minimize the risk for all parties	SF2724 (Vickerman) Biodiesel fuel provisions modifications. Incorporated into SF3683 and Signed.	Increased Minnesota's biodiesel minimum content to 20% by 2015

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AFW-4. Expanded Use of Biomass Feedstocks for Electricity, Heat, or Steam Production	Have 40,000 acres of land producing high-MMBtu and ecologically sustainable energy crops near energy facilities by 2015 and increase the use of normally unused biomass for renewable energy generation to 46,000 billion BTU's per year by 2025	Implement the 2007 Governor's Task Force on the Competitiveness of Minnesota's Primary Forest Products Industry's recommendations, establish criteria for the sustainable harvest and utilization of agricultural and forest residues, create strong efficiency incentives for heating and electricity to reduce landmass pressures, allot funds for the development of sustainable standards and create an MMBtu energy incentive to allow biomass conversion facilities to install biomass feedstock acceptance	SF2492 (Anderson) LCCMR funding recommendations for environment and natural resources. Signed.	\$750,000 for the University of Minnesota to do a research and evaluate methods of managing working prairies for wildlife and renewable bioenergy production
AFW-5. Forestry Management Programs To Enhance GHG Benefits	Increase permanent forestland by 1 million acres by planting trees on converted forestland, increase canopy cover of urban forest by 25%, conduct fuel reduction in forest areas, develop scientific information for incorporating carbon sequestration into forest management plans and identify understocked forestlands administered by the state and counties in Minnesota	Develop a scientific foundation of carbon sequestration practices in MN forest, evaluate and provide incentives to support investments into wood products and increase the number of communities implementing inventory-based forest management plans		
AFW-6. Forest Protection — Reduced Clearing and Conversion to Non-Forest Cover	Achieve "no net loss" of forestlands by 2015 and increase forest carbon stocks by 2025	Use local land-use planning, conservation easements, technical and financial assistance to family forest landowners, education and tax incentives in order to reach the goals	SF3126 (Saxhaug) Forests for the Future Program. Incorporated into SF3056 and Signed. HF1812 (Cohen). Signed.	Creates a program to prevent parcelization of Minnesota's northern forests. Includes a revolving loan fund and authorization for expedited land exchanges. \$53,000 for a study addressing forest parcelization
AFW-7. Front-End Waste Management Technologies	Achieve a 3% per capita decrease in waste generation by 2025	Identify consumer products and packaging that is neither recyclable nor compostable, create voluntary initiatives for the reduction of packaging, increase technical and financial support for existing reduction efforts, develop incentives to encourage local management entities and corporations to support and promote reduction and recycling efforts and expand "Green Building" programs		

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AFW-7. Front-End Waste Management Technologies	Reach a combined recycling and composting rate of 75% by 2025	Fully fund existing reuse and recycling programs, expand on existing and create new recycling programs, provide incentives for the reuse of construction materials, develop a market for recycled materials, increase technical and financial support for existing recycling efforts, significantly increase disposal fees and create incentives to encourage corporations to increase reduction and recycling	SF3517 (Olseen) Recycling and composting 2020 task force. Incorporated into HF1812 and Signed.	Ordered Pollution Control Agency to submit a report to the Legislature with recommendations of how to increase country recycling rates to 60% and composting to 15% by 2020
AFW-8. End-of-Life Waste Management Practices	Capture 90% of the methane generated over the life span of landfill in 2020, achieve a 35% reduction in the landfilling of organic waste by 2015 and preprocess all waste entering Waste to Energy facilities by 2020	Implement programs to achieve the goals through ongoing county solid waste management planning, state-based financial and technical assistance programs, tax or other incentives to spur private-sector project development, consideration of optional state system ownership/operation options and educate the public		
Cap & Trade				
C&T-1. Cap-and-Trade Program	Reach a 15% reduction in GHG emissions by 2015, 30% by 2025 and 80% by 2050	Work with the Midwestern Governors Association (MGA) partners to design and implement a multi-sector regional cap-and-trade greenhouse gas emission trading system that is cost-effective, open to consideration of other (non-cap-and-trade) measures, transparent, fair in the distribution of allowances, enforceable and administratively efficient and that encourages collective actions, offers covered entities a degree of certainty regarding outcomes, strives for full coverage of participants, strives for simplicity, and rewards early actions	HF3195 (Knuth) Green Solutions Act. Signed.	States Midwestern Greenhouse Accord cannot become effective until passed by the Legislature. Orders studies on the potential economic, environmental and public-health costs and benefits of the model rule and how the money generated could be spent. Established the Legislative Greenhouse Gas Accord Advisory Group.
C&T-5. Market Advisory Group	N/A	Work with the MGA partners to create a Market Advisory Group consisting of experts to provide guidance to the region on the design of market-based compliance programs to manage greenhouse gas emissions		
C&T-6. Participate in Regional and Multistate GHG Reduction Efforts	N/A	Participate in regional and multi-state greenhouse gas reduction efforts		
C&T-7. Facilitate the Development of an Effective Carbon Credit System for Minnesota	N/A	Study the development of an Carbon Credit System for Minnesota		

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Cross-Cutting Issues				
CC-1. GHG Inventories, Forecasting, Reporting, and Registry	Develop a complete inventory of emission sources and sinks at least once every 2 years, biennially provide a summary of statewide emission and reductions, develop a complete forecast of future GHG emissions in at least 5-and 10-year increments extending at least 20 years into the future	Institute a formal greenhouse gas inventory, forecast and reporting functions within the Minnesota Pollution Control Agency	SF3337 (Prettner Solon) Creating coordinated process for reducing greenhouse gas emissions. Incorporated in SF3661 and Signed.	Requires Commissioners of Commerce and PCA to biannually submit to the Legislature a report of reductions achieved
CC-3. State and Local Government GHG Emissions (Lead by Example)	For state and local governments to "lead by example"	Educate government agencies and employees about energy conservation, provide performance reviews and recognition of agency progress, and encourage the procurement of low-GHG products	SF3337 (Prettner Solon) Creating coordinated process for reducing greenhouse gas emissions. Incorporated in SF3661 and Signed.	Requires Commissioners of Commerce and PCA to annually submit a Greenhouse Emission Reduction Plan which, as one of its components, will have the state "lead by example."
CC-4. Public Education and Outreach	N/A	Build on current educational efforts and action campaigns in order to encourage all sectors to take action		
CC-8. Encourage the Creation of a Business-Oriented Organization To Share Information and Strategies, Recognize Successes, and Support Aggressive GHG Reduction Goals	N/A	Encourage the creation of a business-oriented organization to share greenhouse gas reduction information and strategies		
CC-9. Dedicate Greater Public Investment to Climate Data and Analysis	N/A	Develop a plan for periodically assessing the recent and projected impacts of climate change on Minnesota natural resources and economic activity	SF2492 (Anderson) LCCMR funding recommendations for environment and natural resources. Signed.	\$330,000 for the University of Minnesota to study the impacts of global warming on biomass production, carbon sequestration and water quality in prairie and tree species
Energy Supply				
ES-1. Generation Performance Standard	N/A	Create a Generation Performance Standard which states that new power plants cannot emit more than 1,100 pounds of carbon dioxide per megawatt-hour, however this standard should not apply to Mesaba or Big Stone II. More study is needed		

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ES-3. Efficiency Improvements, Repowering, and Other Upgrades to Existing Plants	N/A	Promote the identification and pursuit of cost-effective emissions reductions from existing generating units through improving their operating efficiency, adding biomass or other fuel changes, or adding carbon capture technology		
ES-4. Transmission System Upgrading, Including Reducing Transmission Line and Distribution System Loss	Launch a program in 2010 and achieve reductions over the 2010-2025 time period	Provide financial incentives for implementing smart energy technologies, assess the effectiveness of streamlining efforts enacted in 2005 to siting and routing of transmission lines, allow financial recovery credit for related efficiency saving resulting in GHG reductions, improve individual line and grid efficiencies with incentives to reduce line losses and provide financial R&D support to identify new technologies	SF3758 (Doll) Transmission Technical Modifications. Incorporated in SF3661 and Signed.	Grants pass-through authority to utilities for transmission and renewable energy obligations costs
ES-5. Renewable and/or Environmental Portfolio Standard	N/A	Implement the RES		
ES-6. Nuclear Power Support and Incentives	N/A	Study the role of new nuclear power in Minnesota as a GHG reduction option in the post-2025 time period		
ES-8. Advanced Fossil Fuel Technology Incentives, Support, or Requirements	N/A	Study the role of carbon capture and storage technology for new coal stations as a GHG reduction option in the post-2025 time period along with the role of carbon capture and storage technology with biomass		
ES-12. Distributed Renewable Energy Incentives and/or Barrier Removal	N/A	Develop subsidies and other incentives to encourage investment in small-scale distributed renewable energy resources		
Residential, Commercial and Industrial				
RCI-1. Maximize Savings From the Utility Conservation Improvement Program (CIP)	N/A	State should develop and implement a “decoupling” policy and work to further remove disincentives or regulations that inhibit energy efficiency, utilities should develop a standardized portfolio of energy efficiency programs and program, Department of Commerce should develop a standardized method for evaluating the success of utility programs, order a study of the feasibility of increasing the energy savings requirement of the Conservation Improvement Program to 2%		

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RCI-2. Improved Uniform Statewide Building Codes	Implementation of the energy code statewide in 2009 for all non-agriculture buildings	Create a new building code at the state legislature and require that it will be updated every three years, mandate education on each new energy code cycle along with continuing education on energy and mechanical code requirements for contractors, building code officials and architects registered with the state and develop an educational program for the public and realtors through the Department of Commerce	HF3574 (Bakk) State building code application and enforcement regulation. Signed	Made the State Building Code the standard throughout the state
RCI-3. Green Building Guidelines and Standards Based on Architecture 2030	All new buildings will be carbon-neutral by 2030	Pass legislation mandating that all state and local government agencies meet <i>Architecture 2030</i> criteria for new and existing buildings; provide tax and other financial incentives for the construction and retrofit of buildings; provide expedited code review for projects meeting certain energy and green building standards and benchmarks; require designers to sign off that all plans were made using "best available energy technology" or explaining why it was not, establish a database on ongoing building performance tracking in all sectors and a clearinghouse to provide information and assistance on green building guidelines, establish education and training programs for all key decision makers; building professionals; and other participants in implementing this policy, mandate that the State Boards of Licensing for building professions cover energy performance	SF2706 (Prettner Solon) Sustainable Buildings 2030. Signed.	Establishes Sustainable 2030 requirement for all state-bonded buildings. Orders the Commissioner of Commerce to contract with the Center for Sustainable Building Research at the University of Minnesota to create and update Minnesota's energy efficiency building standards every 3-5 years and provide funds for technical projects and other research
RCI-4 Incentives and Resources to Promote Combined Heat and Power (CHP)	Achieve 50% of the Combined Heat and Power (CHP) technical potential in MN	Promotion of the use of natural gas-fired and biomass-fired CHP systems through tax benefits; attractive financing arrangements; utility rebates; and other incentives to promote CHP technologies along the creation or expansion of markets for CHP units and removal of the barriers to CHP development, require the full consideration of the economic and environmental benefits of CHP as a resource in each electric utility's Integrated Resource Plan		
RCI-5. Program to Reduce Emissions of Non-Fuel, High-Global-Warming-Potential GHGs	N/A	MPCA should undertake a rulemaking process to identify uses and emission sources of High-Global-Warming-Potential Greenhouse gases and to eliminate the use of such gases where that can be done at a reasonable cost, state should provide funding and incentives for the reduction and phase-out when not cost effective through tax incentives and funding for programs that offer education and technical assistance	SF3319 (Rest) Greenhouse gas reporting requirements. Incorporated into SF3337 and Signed.	Orders manufacturers and individuals who purchase more than 500 metric tons a year of a high-GWP a year to file with the PCA. Requires auto manufacturers to disclose if selling a new car with a High GWP-Gasses in air condition system. Orders PCA to conduct a study on uses and recommendations for elimination

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RCI-6. Non-Utility Strategies and Incentives To Encourage Energy Efficiency and Reduce GHG Emissions	N/A	Provide tax incentives or benefits, energy efficiency technical assistance, state economic assistance and/or direct GHG reductions in order to encourage manufacturing and commercial facilities to implement cost-effective ways to reduce greenhouse gas emissions through energy efficiency and adoption of renewable energy technologies		
RCI-7. Conservation Improvement-Type Program for Propane and Fuel Oil Efficiency	N/A	Create an ongoing state task force of consumers, state agencies, utilities, and business representatives to annually review CIP initiatives and make changes according to program effectiveness, technological changes, and critical fuel changes		
RCI-8. Energy Performance Disclosure	N/A	Require utilities to provide an energy performance disclosure and energy consumption history to parties owning any public, commercial, or residential property; require property owners to make disclosure and history available to prospective buyers or renters; develop a task force of utilities and parties of concern to devise a uniform utility information standard		
RCI-9. Promote Technology-Specific Applications to Reduce GHG Emissions	Implement a program by 2010	Provide incentives for technology-specific applications to reduce GHG emissions and create a process to determine and clarify which applications work best in reducing GHG emissions		
RCI-10. Support Strong Federal Appliance Standards and Require High State Standards in the Absence of Federal Standards	Adoption of new standards by 2009 to the levels recommended by the report "Leading the Way: Continued Opportunities for New State Appliance and Equipment Efficiency Standards"	Adopt State of Minnesota Residential Appliance Efficiency Standard for items not covered by federal standards or where higher-than-federal standard efficiency requirements are appropriate; require that all energy-consuming appliances be labeled for average annual energy consumption; require the development of a consumer education program on appliance efficiency; require high-efficiency ENERGY STAR appliances be installed in all new residential construction and major retrofit; require utilities to provide ENERGY STAR appliance rebates where they are deemed cost-effective and require and/or encourage appliance manufacturers to adopt grid-friendly "smart chip" technology		

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Transportation and Land Use				
TLU-1. Improved Land-Use Planning and Development Strategies	Increase to 60% the percentage of housing targeted to the metro area from 2013-2030 and 75% of the percentage of jobs. A significantly higher percent of new growth in jobs and housing should be targeted into incorporated cities in Greater MN	Establish a process for designating types of priority growth areas within the state and ways to encourage higher-density housing and employment use in these areas along with transit options, review and revise school siting laws and encourage the development or rehabilitation of schools in priority growth areas, plan and zone for new housing development to be near existing jobs and plan and zone for new commercial development near existing housing, establish programs to preserve key open spaces, invest in transit- and pedestrian-oriented corridors and develop statewide guidance and technical support for Complete Streets and Well-Connected Streets	SF1402 (Dille) President Theodore Roosevelt Memorial Bill to Preserve Agricultural, Forest, Wildlife and Open Space Land. Incorporated into SF3683 and Signed.	States counties outside the metropolitan area shall consider adopting goals and objectives for the preservation of agricultural, forest, wildlife and open space land, and minimizing development of sensitive shoreland areas.
TLU-2. Expand Transit, Bicycle, and Pedestrian Infrastructure	Double transit ridership by 2020, improve and expand transit service between regional centers in Greater MN and the Twin Cities and increase bike and pedestrian infrastructure across MN	Add light rail, commuter rail and dedicated busways and increase regular route bus service by 80%, expand transit service between Greater MN and the Twin Cities via intercity bus and Amtrak, and support increased walking bike access	HF2800 (Lieder) Safe Roads and Bridges Act. Governor's veto overridden.	Provided additional transit money equaling \$1.2 billion over the next ten years for the metropolitan area and \$57 million for Greater Minnesota.
TLU-5. Climate-Friendly Transportation Pricing	25% market penetration for PAYD insurance by 2015 and 50% by 2025	Adopt policies which will help drivers pay the true price of commuting such as "Pay As You Drive" insurance structures and lower registration fees, feebates and/or tax credits for low-GHG vehicles		
TLU-7. "Fix-it-First" Transportation Investment Policy and Practice	Legislation passed in 2009 that identifies goals and investment policies including targeted growth areas and implementation steps	Fix existing infrastructure before starting new construction		Although no legislation has been passed, MN/DOT has established a goal to fund maintenance/improvement projects before new construction
TLU-9. Workplace Tools To Encourage Carpooling, Bicycling, and Transit Ridership	All non-rural employers of over 200 employees in an incorporated municipality, colleges and universities and government units to provide commuter benefit programs	Expansion of Minnesota's current Employer Transit Pass tax credit and establishing technical assistance for employers		

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TLU-14 Freight Mode Shifts: Intermodal and Rail	Change Minnesota's freight systems in order to increase use of rail systems	Create more effective freight transition between modes, establish tax credits for rail expansion/preservation and direct MnDOT to preserve existing corridors and consider new regional rail options in the State Transportation Infrastructure Plan		
TLU-3. Low-GHG Fuel Standard	Average carbon intensity of on-road transportation fuel to be reduced by 10% by 2020 and 12% by 2025	Partnership with the University of MN and MnDOT to create a framework for a low-GHG fuel standard (LGFS), use market-based mechanisms for fuel providers to choose how they will meet the LGFS, use full-fuel life cycle basis for measuring GHG impact of transportation fuels and provide financial incentives for refueling station creation and retrofitting based on LGFS		
TLU-4. Infrastructure Management	Reduce urban-area transportation emissions by 0.5% by 2025	Make investments to reduce traffic congestion, adopt a "complete streets" policy for all new and reconstructed roads, and require cities and counties to develop bicycle; pedestrian and transit plans		
TLU-6. Adopt California Clean Car Standards	N/A	Adopt California's Clean Car Standards		
TLU-12. Voluntary Fleet Emission Reductions	Reduce the amount of total fleet generated GHG emissions by 5% a year	Establish a state Fleet Efficiency Consortium sponsored by the Department of Transportation; MPCA; and/or Commerce, create a source of funds to support existing successful voluntary GHG reduction efforts at fleets and add mobile emissions to the state Climate Registry project		
TLU-13. Reduce Maximum Speed Limits	Law passed in 2008 and effective Jan. 1, 2009	Reduce maximum speed limit to 55 mph on urban interstates and 60 mph on rural interstates; provide funding for enforcement and public education		