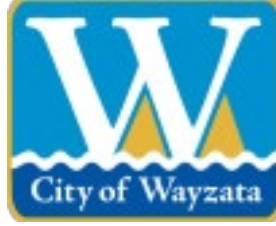


ENERGY AND ENVIRONMENT COMMITTEE

Tuesday, October 24, 2023 5:00 PM – 6:30 PM

**Wayzata City Hall
600 Rice Street East
Wayzata, MN 55391**

1. Roll Call
2. Approve Agenda
3. Approve August 29, 2023 Meeting Minutes
4. Sustainable Home Update
5. Municipal Solar Update
6. Wayzata Schools Solar Update
7. 2024 Work Plan
8. Next Meeting – November 28
9. Adjournment



ENERGY AND ENVIRONMENT COMMITTEE

Meeting Minutes

Tuesday, August 29, 2023 5:00 PM – 6:30 PM

1. Roll Call

Committee Attendees: Chair Lauren Lindelof, Dr. Edmund Chute, KC Chermak, David Ferri, Meaghan Yorro, and Ava McNanley.

Wayzata City Staff Member: Nick Kieser, Parks Planner

2. Approve Agenda

Motion to approve agenda, first by Ferri, and seconded by Chermak. Motion passed 6-0.

3. Approve July 25, 2023

Motion to approve minutes as amended, first by Chute and seconded by Ferri. Motion passed 6-0.

4. EV Event Update

Staff provided an update that the EV Event has started to be promoted in the Wayzata Weekly, social media, and will be in the September Portal. The flyer that was created has also been put out at City Hall. Chair Lindelof noted that the dealerships, scooters, and boats will be out for display starting at 5:00 pm and the educational speakers will start their presentation at 6:00 pm. The two educational speakers will be Scott Randall from Blazing Star Energy and teaches at Century College, along with Alan Wernke who has given many EV presentations.

A list of the dealerships that are coming to the event and that have been contacted has been created. Staff will ask the partners at the Minnesota Clean Cities Coalition if there is any update on the dealerships that have not confirmed yet. The Committee noted that additional promotion could go out to more news stations which staff will work on. Sandwich board signs can also be put out near City Hall closer to the event date. McNanley noted that she will try to put up flyers or marketing materials at the High School as well. Chermak and Ferri stated that they will try to get a food truck lined up for the event.

5. Sustainable Home Review

The Committee reviewed the printouts of the sustainable home that staff put together. Staff included three diagrams that show different projects/programs that a resident can complete to create a more sustainable home. The Committee provided comments and updates to the diagrams which staff will incorporate for review at the next meeting.

6. Municipal Solar Update

Staff provided an update of the solar installation project on municipal buildings. To start, the Public Works solar installation is almost complete as they are putting up the final solar panels now. There will be additional electrical work that needs to be completed along with an inspection by Xcel Energy which will take some more time.

The Muni/Liquor Store will be the next building to have the solar installations sometime in late September then the City Hall complex will be started in October.

9. Next Meeting – September 26

10. Adjournment

Motion to adjourn at 6:05 pm. Motion passed 6-0.



Features of a net-zero home

Interior

Efficient Lighting

Install LED lights throughout the house.

Weatherization

Improve insulation, windows, moisture control, ventilation, etc. and add weather stripping.

Off-Peak Electric Meter

Air Source Heat Pump

Install air source heat pumps for more efficient heating and cooling.

Heat Recovery Ventilation

Distributes tempered fresh air throughout the home.

Heat Pump Water Heater

Efficient electric water heating.

Low-Flow Water Fixtures

To reduce use of water in your household.

Install Ceiling Fans

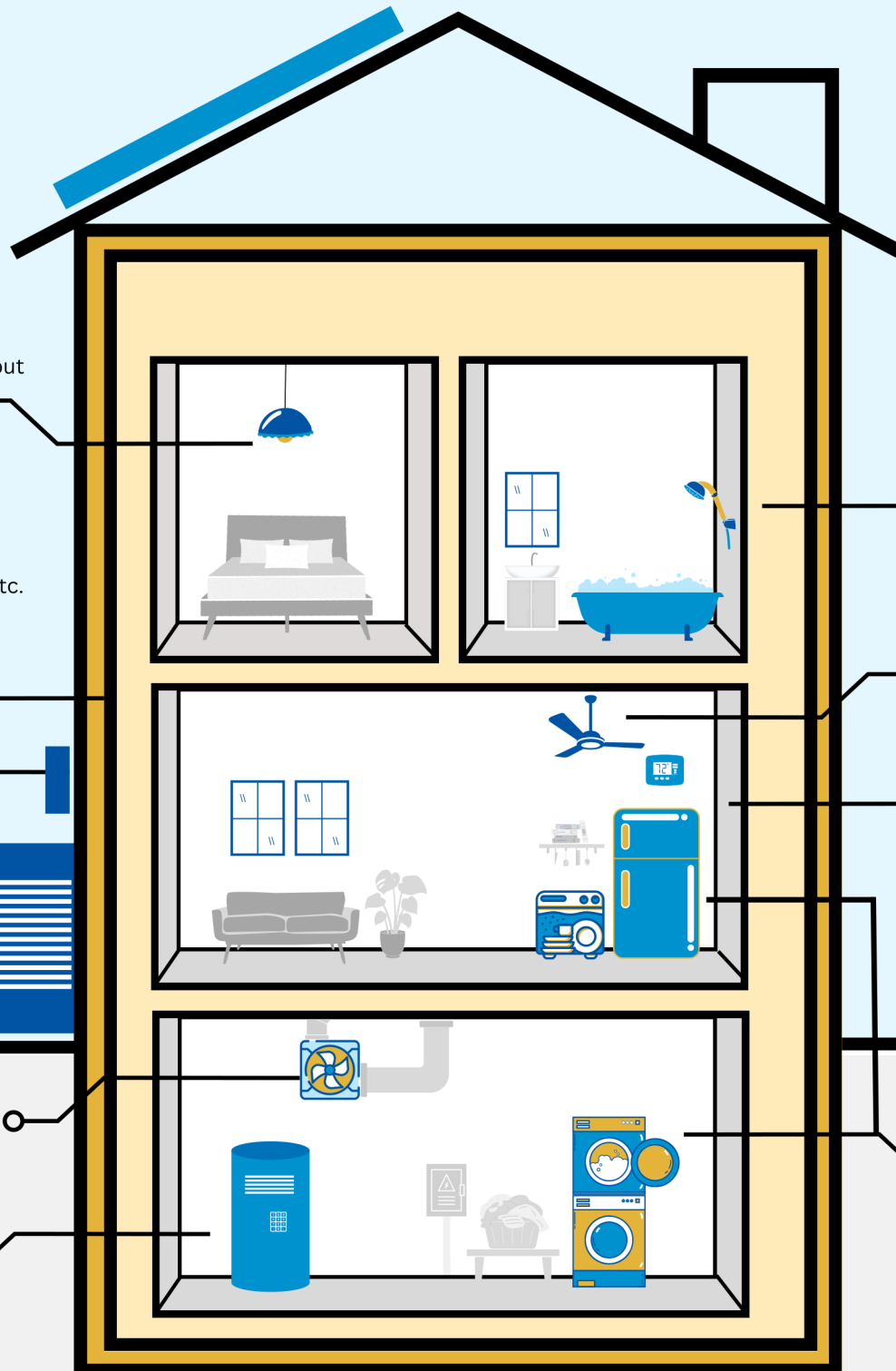
To help air flow evenly throughout the home.

Smart Thermostat

Install app based thermostat in your home.

Electric & Energy Star Appliances

Most efficient models for all major appliances.





Solar Panels

Install solar panels on your house or utilize subscription based renewable energy opportunities.

Green Roofs

Reduce energy use by cooling roofs and providing shading, thermal mass and insulation. Green roofs also provide new urban habitat for plants and animals, like birds and insects.



Features of a net-zero home

Exterior

Extended Awnings

Install fixed or retractable awnings to shade windows from sun exposure.

EV Charging Station

Use electric vehicles and install charging stations.

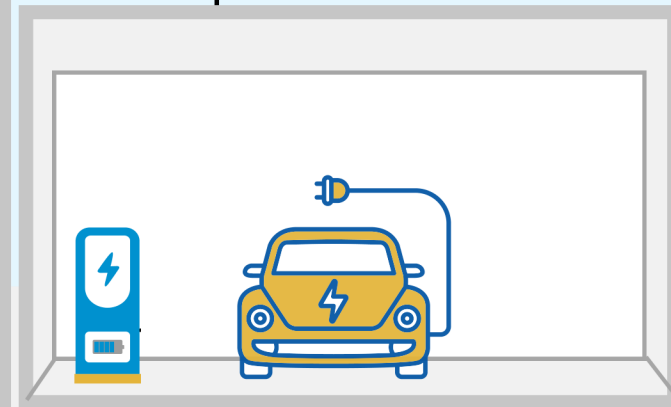
Rain Barrels

Utilize rain barrels to capture rain water for future use.



Driveway Material

Use permeable pavers, aggregate rock mix, and/or lighter color driveway material.





Features of a net-zero home

Yard

Plant Trees for Shade

Plant trees in specific locations to shade your home, offer wind protection, and stormwater runoff collection.

Urban Garden

Plant a garden to provide fruits, vegetables, and herbs.

Smart Sprinklers

Utilize timed and efficient sprinklers for the lawn and gardens.

No Mow/Low Mow

Plant grass seed that requires less yearly maintenance.

Compost

Start a compost area to reduce waste and provides nutrients for your lawn and gardens.

Electric Yard Tools

Use electric yard tools to reduce carbon emissions from gas powered equipment.

Native Garden

Plant native species to increase biodiversity, control stormwater runoff, prevent erosion, create additional habitats, etc..

Rain Garden

Stormwater runoff collects in the garden, is filtered through the soil, and is slowly released back into the ground.

Efficient Lighting – Install energy efficient LED light bulbs. Generally, LED bulbs are 90% efficient, CFL bulbs 85% efficient, while incandescent bulbs are only 10% efficient. Keep an eye out for an ENERGY STAR seal which means the product meets strict energy efficiency guidelines set by the US Environmental Protection Agency. Go to the ENERGY STAR website to find efficient light bulbs, determine your cost savings, and find rebates. https://www.energystar.gov/products/light_bulbs

Residential homes can also conduct a Home Energy Squad visit in coordination with Xcel Energy and Center for Energy and Environment which will change out all of your light bulbs to LED bulbs. <https://www.mncee.org/home-energy-squad?undefined>

Weatherization – Weatherization could include air sealing, exterior wall and attic insulation, moisture control, and ventilation. Conduct a [Home Energy Squad visit](#) to determine what weatherization measures can be taken on your home. At the audit, a blower door test will be performed to determine any air leaks and an inspection of home insulation will be completed to determine if any improvements can be made. Learn more about weatherization [here](#).

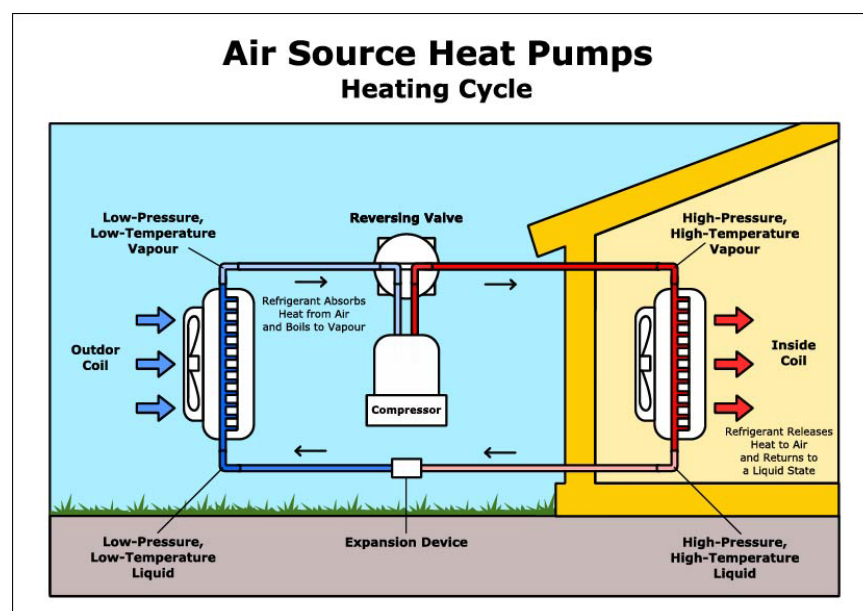
<https://www.mncee.org/home-energy-squad?undefined>

<https://www.energy.gov/energysaver/weatherization>

Off-Peak Electric Meter – If you are a high-energy user during the off-peak times then an off-peak meter might be a good choice for you. The off-peak times are 10:00 pm to 6:30 am. You would pay a lower rate during off-peak times and a higher rate during peak times. Learn more at [Xcel Energy](#).

<https://mn.my.xcelenergy.com/s/billing-payment/residential-rates/limited-off-peak#:~:text=With%20Limited%20Off%2DPeak%2C%20you,will%20pay%20a%20higher%20rate>

Air Source Heat Pump (ASHP) – ASHPs can save MN homeowners 30%-55% on home heating costs and can operate efficiently to as low as -20° F and can now operate with dual heat sources. More information on ASHPs can be found [here](#). Rebates and incentives are also available now to transition to ASHPs which can be found [here](#).



<https://www.mnashp.org/for-homeowners>

<https://www.mnashp.org/incentives-financing>

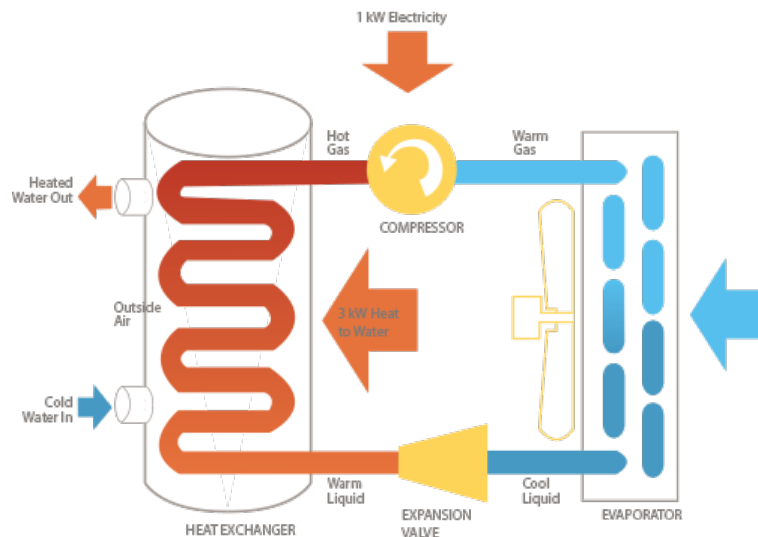
Heat Recovery Ventilation –

Energy.gov

Heat Pump Water Heater (HPWH) – HPWHs are similar to Air Source Heat Pumps where the system uses electricity to move heat from outdoor air into indoor water. These are efficient systems compared to the traditional water heaters.

Energy.gov

<https://www.mncee.org/heat-pump-water-heaters-savings-potential-minnesota>



Low-Flow Water Fixtures – These fixtures installed on your faucets and showerheads can reduce your water consumption and save on your water bill. Look for WaterSense labels when purchasing new faucets, showerheads, and even toilets which meet the EAP criteria. Making the transition to WaterSense fixtures can save the average family 700 gallons of water per year. More information can be found on the [EPA website](https://www.epa.gov/watersense/bathroom-faucets).

<https://www.epa.gov/watersense/bathroom-faucets>

Install Ceiling Fans –

Energy.gov

Smart Thermostat – A smart thermostat allows a homeowner to set a heating/cooling schedule and the system can be controlled by your phone for convenience. Even if you go on vacation you can set a specific schedule for that period of time. This allows homeowners to increase heating/cooling efficiency

and to save on energy costs. During a Home Energy Squad visit a smart thermostat can be installed for free or at a reduced rate. Schedule a Home Energy Squad visit [here](#).

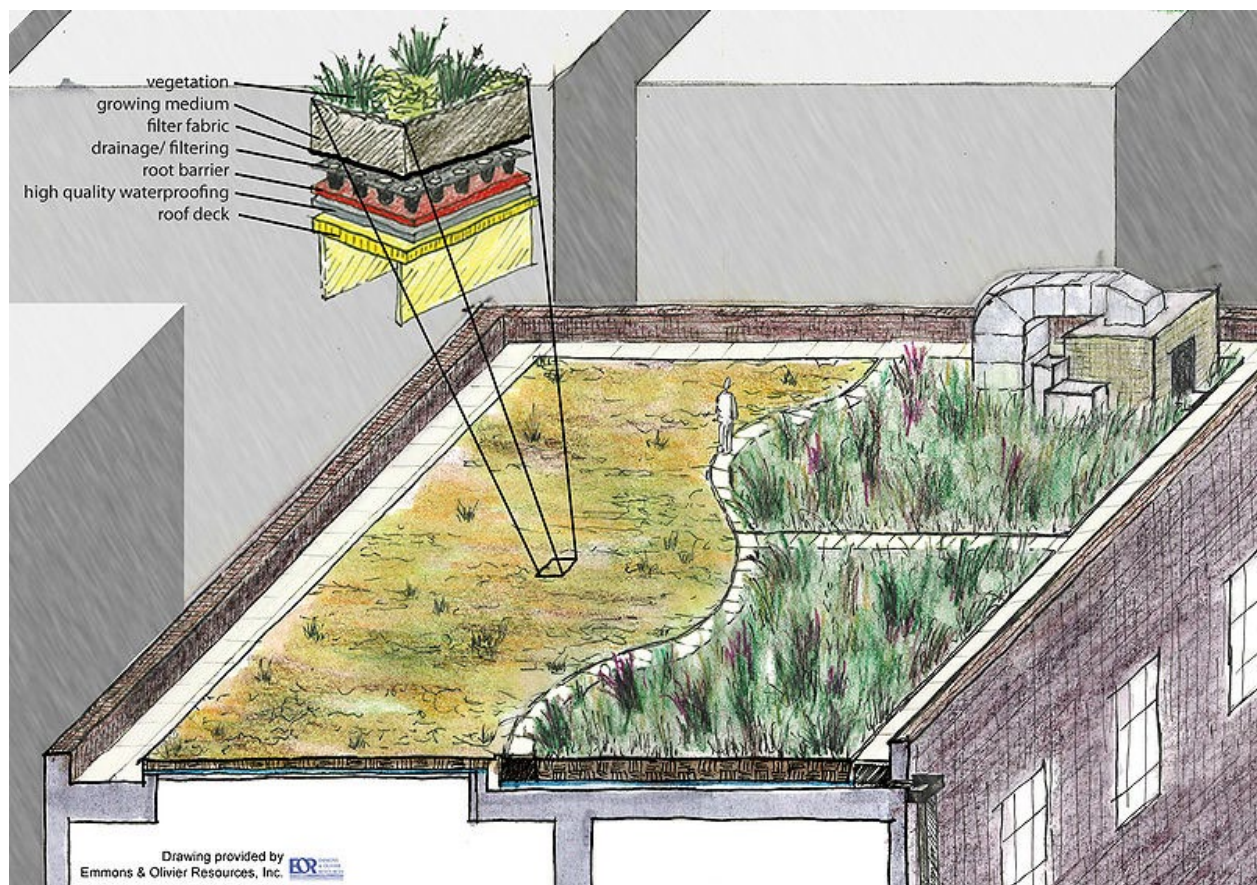
<https://www.mncee.org/home-energy-squad?undefined>

https://www.energystar.gov/products/smart_thermostats

Electric & Energy Star Appliances – Installing new equipment that is electric and efficient like ENERGY STAR products can save on energy costs, reduce greenhouse gas emissions, and improve indoor air quality. You can find a list of ENERGY STAR products [here](#).

https://www.energystar.gov/products/products_list

Green Roofs – Green roofs can be installed on roofs to reduce stormwater runoff, lower building energy costs, and provide many other benefits.



https://stormwater.pca.state.mn.us/index.php/Green_roofs

Solar Panels – Roof or ground-mounted solar can be installed to create renewable energy for your home. There are significant cost savings associated with the installation of solar while providing a clean energy source. There are many companies that offer solar installation service that can be found online.

Extended Awnings – Strategically placed awnings can provide additional shade during the summer months and wind barriers during the winter months to reduce energy needs of your home. Retractable

awnings can also be a good option for specific locations around your home to provide shade when desired.

EV Charging Station – EV charging stations can be installed to allow for electric vehicles (EVs). The use of EVs reduces the amount of greenhouse gas emissions in the transportation sector significantly especially with the continued transition to renewable energy sources. There are many different companies that offer EV charging station installation services.

Rain Barrels – Rain barrels can be used to collect rainwater from your gutter system to be used for irrigation during times without rain. The barrels also reduce stormwater runoff since they will collect the rainwater that normally runs into the stormwater sewer system. Additional information on rain barrels can be found at the [Minnesota Stormwater Manual](#).

[https://stormwater.pca.state.mn.us/index.php?title=MS4 fact sheet -
Rainwater Harvesting / Stormwater Reuse %26 Rain Barrel Programs](https://stormwater.pca.state.mn.us/index.php?title=MS4_fact_sheet_-_Rainwater_Harvesting/_Stormwater_Reuse_%26_Rain_Barrel_Programs)

Driveway Material – Permeable pavers/pavement can be used for a driveway surface to allow stormwater to run through the surface instead of collecting in the stormwater sewer system. This type of system requires specific installation practices and continued maintenance. Additional information can be found at the [Minnesota Stormwater Manual](#).

https://stormwater.pca.state.mn.us/index.php/Overview_for_permeable_pavement

The use of a light-colored pavement material or cool pavement can reflect more solar energy which can help to reduce the heat island effect in more urban/developed areas.

<https://www.epa.gov/heatislands/using-cool-pavements-reduce-heat-islands>

Plant Trees – Planting trees around your can provide a multitude of benefits including; reducing energy costs by providing shade, acting as a windbreak during the winter, reduce soil erosion, reduce stormwater runoff, improves air quality, creates wildlife habitats, along with many other benefits. Learn how to plant trees at the [MN Department of Natural Resources](#) and the [University of MN Extension](#). You can also learn about the benefits of your existing trees and find the best location to plant future trees with the [i-Tree tool](#).

Urban Garden – Planting your own garden leads to environmental, health, and social benefits. An urban garden will reduce transportation needs, reduce heat island effect, decrease industrial agricultural methods, create healthy foods for you and your family, and research shows significant social benefits. Tips on a creating an urban garden can be found on the [MN Department of Health website](#).

<https://www.health.state.mn.us/communities/environment/hazardous/topics/gardurbsoil.html>

Smart Sprinklers – Installing an efficient or “smart” sprinkler system can reduce the amount of water needed on your lawn or garden which will also save you money on your water bill. Smart controllers can be utilized can adjust the sprinkler system to the weather conditions and soil moisture content to ensure your lawn or garden receives the water it needs to thrive. Find more information on irrigation efficiency on the [Met Council website](#).

<https://metro council.org/Wastewater-Water/Planning/Water-Supply-Planning/Conservation-and-Efficiency/Irrigation-Efficiency.aspx>

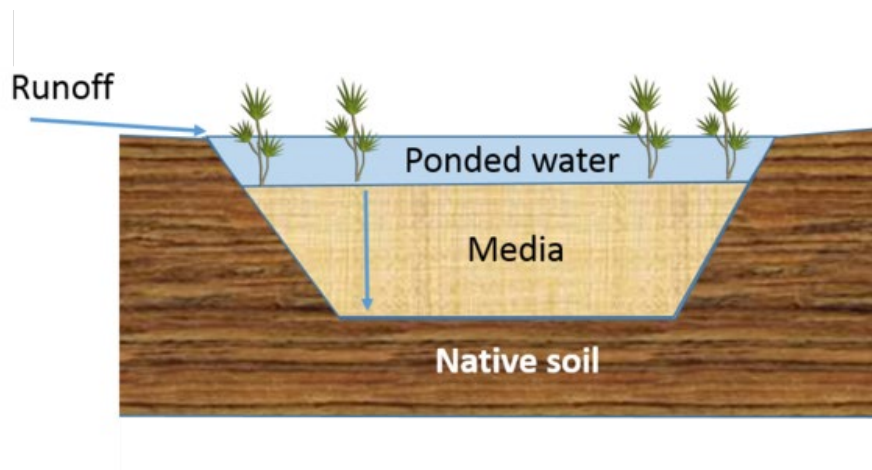
No Mow/Low Mow Grass/Native Landscaping – Seeding your lawn with fine fescues which is known as [no-mow or low-mow grass](#) can reduce the amount of maintenance required to keep a healthy looking lawn. Additional options for a yard can be planting a [bee lawn](#) or with native planting options. A great resource to transition your lawn is the [Lawns to Legumes program](#) which provides additional information on how to install pollinator-friendly native plantings in residential lawns.

<https://extension.umn.edu/lawns-and-landscapes/planting-and-maintaining-fine-fescue-lawn#sources-3239710>

<https://extension.umn.edu/landscape-design/planting-and-maintaining-bee-lawn>

<https://bwsr.state.mn.us/l2l>

Rain Garden – Rain gardens are essentially grassy depressions with specific plants installed to collect stormwater runoff to prevent the water from flowing directly into lakes, rivers, and wetlands. Additional information on the benefits of rain gardens and how to install a rain garden can be found at the [University of MN Extension webpage](#) and the [MN Stormwater Manual](#).



<https://extension.umn.edu/landscape-design/rain-gardens>

[https://stormwater.pca.state.mn.us/index.php?title=Rain_gardens_\(bioretention\)_101](https://stormwater.pca.state.mn.us/index.php?title=Rain_gardens_(bioretention)_101)

Compost – Composting is a process that allows naturally occurring microbes to convert yard waste, such as leaves and grass clippings, or other organic materials to a useful organic soil amendment or mulch. Information on how to compost at your home and specific compostable materials can be found at the [University of MN Extension site](#). You can also find a community compost facility [here](#).

<https://extension.umn.edu/managing-soil-and-nutrients/composting-home-gardens#compostable-materials-882312>

<https://www.pca.state.mn.us/business-with-us/community-composting>

Electric Yard Tools – Maintaining your lawn with electric tools will produce less greenhouse gas emissions compared to gas-powered options. The electric-powered tools are also easier to use year round.

Best Practice Actions

Buildings & Lighting Best Practices Category: BPs 1 - 5

Best Practice #1: Efficient Existing Public Buildings

1. Enter/update building information into the **MN B3 Benchmarking database**, and routinely enter monthly usage data for all city-owned buildings/infrastructure that consume energy/water.
2. Make **no/low cost** indoor lighting and operational changes in city-owned/school buildings to reduce energy costs.
3. **Invest in larger energy efficiency projects** through performance contracting or other funding or through smaller retro-commissioning/retrofit projects in city-owned/school buildings.
4. Implement **information technology efforts and city employee engagement** to reduce plug loads, building energy use and workflow efficiency.
5. Document that the **new construction or major remodeling** of a public building has met the SB 2030 energy standard or has met or qualified under a green building or energy framework.
6. Improve the **operations & maintenance** of city-owned/school buildings and leased buildings by using a customized online energy efficiency tool, asset management tool, green building framework or green lease.
7. Install for one or more city-owned/school buildings one of the following **efficiency measures**:
 - a. A ground-source, closed loop geothermal system.
 - b. A district energy/microgrid system.
 - c. A rainwater harvesting system for building water use.

2. Efficient Existing Private Buildings

1. Create or participate in a **marketing/outreach/incentive program** to promote/achieve residential energy/water use reduction and energy efficiency.
2. Integrate green building and EV charging best practices information and assistance into the **building permit process**.
3. Implement an **energy rating/disclosure policy** for residential and/or commercial buildings.
4. Describe energy/water efficiency actions and other **green building practices at businesses** and not-for-profit organizations located within/nearby the city.
5. **Conserve/protect drinking/groundwater** resources by creating a water-wise landscaping ordinance/guidance, WaterSense purchasing program, or guidance on rainwater harvesting and home water softener use.
6. Provide a financial or other **incentive to private parties** who add energy/sustainability improvements, meet the SB 2030 energy standard, or renovate using a green building or energy framework.
7. Customize a model **sustainable building renovation policy** that includes the SB 2030 energy standard and adopt the language to govern commercial renovation projects that:
 - a. Receive city financial support, and/or
 - b. Require city regulatory approval (conditional use permits, rezonings, variances, PUD status).

3. New Green Buildings

1. Require by city policy that **new city-owned buildings** be built using the SB 2030 energy standard and/or a green building framework.
2. Work with the local school district to ensure that **future new schools** are built using the SB 2030 energy standard and/or a green building framework.
3. Adopt a sustainable building **policy for private buildings**; include the SB 2030 energy standard; adopt language governing new development projects that:
 - a. Receive city financial support, and/or
 - b. Require city regulatory approval (planned unit development, conditional use permit, rezoning, variance).
4. Provide a financial or other **incentive to private parties** who build new buildings that utilize the SB 2030 energy standard and/or a green building framework.
5. Adopt environmentally preferable covenant guidelines for new **common interest communities** addressing issues such as stormwater, greywater, native vegetation, growing food, clothes lines, electric vehicle charging, and renewable energy.

4. Efficient Outdoor Lighting and Signals

1. Require energy efficient, Dark-Sky compliant **new or replacement outdoor lighting** fixtures on city-owned/private buildings and facilities.
2. Purchase LEDs for **all future street lighting and traffic signals**.
3. Replace the city's **existing street lighting** with Dark Sky-compliant LEDs, modifying any city franchise/utility agreement and adding smart grid attributes.

4. Coordinate traffic signals and/or optimize signal timing so as minimize car idling at intersections yet maintain safe and publicly acceptable vehicle speeds.
5. Use LED/solar-powered lighting for a flashing sign or in a street, parking lot or park project.
6. Relamp/improve exterior building lighting for city-owned buildings/facilities with energy efficient, Dark-Sky compliant lighting.
7. Replace city-owned parking lot/ramp lighting with Dark-Sky compliant, energy efficient, automatic dimming lighting technologies.
8. Replace the city's existing traffic signals with LEDs.
5. Building Redevelopment
1. Adopt an historic preservation ordinance/regulations to encourage adaptive reuse.
2. Implement the Minnesota Main Street model for commercial revitalization.
3. Plan for reuse of large-format retail buildings, or work with a local school, church or commercial building to either add-on space or repurpose space into new uses.
4. Create/modify a green residential remodeling assistance/financing program to assist homeowners in adding space or features such as EV charging, renewables to their existing homes.
5. Adopt development/design standards and programs that facilitate infill, redevelopment, and adaptable buildings .
Land Use Category: BPs 6 - 10
6. Comprehensive Plans
1. Adopt a comprehensive plan or (for Category B & C cities) adopt a future land use plan that was adopted by the county or a regional entity.
2. Demonstrate that regulatory ordinances comply with the comprehensive plan including but not limited to having the zoning ordinance explicitly reference the comprehensive plan as the foundational document for decision making.
3. Include requirements in comprehensive and/or other plans for intergovernmental coordination addressing regional land use and watershed/wellhead impacts, infrastructure, transportation, economic development and city/regional services.
4. Include ecological provisions in the comprehensive plan that explicitly aim to minimize open space fragmentation and/or establish a growth area with expansion criteria.
5. Adopt climate mitigation and/or energy independence goals and objectives in the comprehensive plan or in a separate policy document, and include transportation recommendations such as becoming an EV-ready city.
7. Efficient City Growth
1. Eliminate barriers and actively encourage higher density housing by including in the city zoning ordinance and zoning map: a. Neighborhood single-family density at 7 units/acre or greater wherever urban services are available. b. Multi-family housing at a gross density of at least 15 units/acre adjacent to a commercial zoning district or transit node.
2. Achieve higher density housing through at least two of the following strategies: a. Incorporate a flexible lot size/frontage requirement for infill development. b. Use density and floor area ratio (FAR) bonuses in selected residential zoning districts. c. Cluster residential development; tie a regulatory standard to comprehensive plan language defining compact city expansion zones that limit low-density development. d. Allowing accessory dwelling units, single-room occupancy housing, senior housing, co-housing or tiny houses/apartments by right in selected zoning districts. e. Implement a vacation rental property registration policy and/or special tax.
3. Achieve higher intensity commercial/industrial land uses through at least one of the following strategies: a. Include in the city zoning ordinance and zoning map a commercial district with zero-lot-line setbacks and a FAR minimum of 1. b. Set targets for the minimum number of employees/acre in different commercial zones.
4. Provide incentives for affordable housing, workforce housing, infill projects, or for life-cycle housing at or near job or retail centers, or for achieving an average net residential density of seven units per acre.
5. Use design to create social trust and interaction among neighbors and allow developments that meet the prerequisites for LEED for Neighborhood Development certification.
8. Mixed Uses
1. Organize or participate in a community planning/placemaking/design process for the city/a mixed use district, including specific community engagement practices that engage cultural and income diverse community members.
2. Locate or lease a school, city building or other government facility that has at least two of these attributes: a. Adjacent to an existing employment or residential center. b. Designed to facilitate and encourage access by walking, biking, or other non-vehicle travel modes c. Accessible by regular transit service.

3. Modify a planned unit development ordinance to emphasize or require mixed use development, to limit residential PUDs to areas adjacent to commercial development, and/or to add sustainability features.
4. Report that a (re)development meets a city/community-determined minimum point threshold under the Equitable Development Scorecard or LEED-ND (Neighborhood Development).
5. Have a downtown zoning district that emphasizes small and destination businesses, entrepreneurial spaces, and allows or requires residential and compatible-commercial development.
6. Incorporate form-based zoning approaches into the zoning code, in those areas where a diverse mix of uses is desired.
7. Create incentives for vertical mixed-use development in appropriate locations (downtown, commercial districts near colleges or universities, historic commercial districts, commercial districts with minority-owned businesses).
9. Efficient Highway- and Auto-Oriented Development
1. Establish design goals for at least one highway/auto-oriented corridor/cluster.
2. Participate in regional economic development planning with representatives from surrounding townships, cities, the county and business interests to: a. Estimate commercial/industrial needs among all jurisdictions. b. Jointly implement recommendations to stage highway/auto-oriented commercial development in order to avoid overbuilding and expensive low-density development.
3. Adopt infrastructure design standards that protect the economic and ecologic functions of the highway corridor through clustering of development, native plantings and incorporating access management standards.
4. Adopt development policies for large-format developments , zoning for auto-oriented commercial districts at the sub-urban edge and/or in tightly defined and smaller urban development corridors/nodes that have some bike/walk/transit access.
10. Design for Natural Resource Conservation
1. Conduct a Natural Resource Inventory or Assessment (NRI or NRA); incorporate protection of priority natural systems or resources such as groundwater through the subdivision or development process.
2. For cities outside or on the fringe of metropolitan areas, conduct a build-out analysis, fiscal impact study, or adopt an urban growth boundary and a consistent capital improvement plan that provides long-term protection of natural resources and natural systems, and agricultural practices outside the boundary.
3. For cities within metropolitan areas, incorporate woodland best management practices addressing protection of wooded areas into zoning or development review.
4. Adopt a conservation design policy ; use a conservation design tool for pre-design meetings with developers and for negotiating development agreements in cities with undeveloped natural resource areas.
5. Preserve environmentally sensitive, community-valued land by placing a conservation easement on city lands, and by encouraging/funding private landowners to place land in conservation easements.
6. Conserve natural, cultural, historic resources by adopting or amending city codes and ordinances to support sustainable sites , including roadsides, and environmentally protective land use development.
7. Support and protect wildlife through habitat rehabilitation, preservation and recognition programs.
Transportation Category: BPs 11 - 14
11. Living & Complete Streets
1. Adopt a complete streets policy , or a living streets policy, which addresses landscaping and stormwater.
2. Adopt zoning language or approve a skinny street/development project that follows green street and/or walkable streets principles.
3. Modify a street in compliance with the city's complete streets policy.
4. Identify, prioritize and remedy complete streets gaps and lack of connectivity/safety within your road network by, for example, bike/pedestrian plan, adding a bike route/lane, truck route, sidewalk or mid-block alley.
5. Identify and remedy street-trail gaps between city streets and off-road trails/bike trails to better facilitate walking and biking.
6. Implement traffic calming policy/measures , including lane conversions (road diets), roundabouts, low-speed streets, shared space and depaving, in at least one street redevelopment project.
12. Mobility Options
1. Increase walking, biking and transit use by one or more of the following means: a. Document increased infrastructure for pedestrians, bikers, and public transit users. b. Increase the number of employers promoting multiple commuting options. c. Be recognized as a Walk Friendly, Bicycle Friendly, or Age Friendly Community.
2. Conduct an Active Living campaign such as a Safe Routes to School (SRTS) program.
3. Prominently promote mobility options : public transit; paratransit/Dial-A-Ride; cab services; rental cars; bike lanes; trails; airports.

4. Promote carpooling, ridesharing, carsharing, and bikesharing .
5. Implement workplace multi-modal transportation best management practices - including telework/flexwork - in city government, businesses or at a local health care provider.
6. Add/expand public transit service .
13. Efficient City Fleets
1. Efficiently use your existing fleet of city vehicles by encouraging trip bundling, video conferencing, carpooling, vehicle sharing and incentives/technology.
2. Right-size/down-size the city fleet with the most fuel-efficient vehicles that are of an optimal size and capacity for their intended functions.
3. Phase-in operational changes, equipment changes including electric vehicles , and no-idling practices for city or local transit fleets.
4. Phase in bike, e-bike, foot or horseback modes for police, inspectors and other city staff.
5. Document that the local school bus fleet has optimized routes, start times, boundaries, vehicle efficiency and fuels, driver actions to cut costs including idling reduction, and shifting students from the bus to walking, biking and city transit.
6. Retrofit city diesel engines or install auxiliary power units and/or electrified parking spaces, utilizing Project GreenFleet or the like.
14. Demand-Side Travel Planning
1. Reduce or eliminate parking minimums ; add parking maximums; develop district parking.
2. For cities with regular transit service, require or provide incentives for the siting of retail services at transit/density nodes.
3. For cities with regular transit service, require or provide incentives for the siting of higher density housing at transit/density nodes.
4. Require new developments or redevelopments to prepare a travel demand management plan or transit-oriented development standards or LEED for Neighborhood Development certification.
Environmental Management Category: BPs 15 - 23
15. Sustainable Purchasing
1. Adopt a sustainable purchasing policy or administrative guidelines/practices directing that the city purchase at least: a. EnergyStar and EPEAT certified equipment and appliances. b. Paper containing post-consumer recycled content.
2. Purchase energy used by city government - via the municipal utility, green tags, community solar garden, 3rd party - with a higher renewable percentage than required by Minnesota law.
3. Establish purchasing preferences that support local, Minority, Disability, and Women-Owned businesses and, working with a local business association, develop a list of locally-produced products and suppliers for common purchases.
4. Require purchase of U.S. EPA WaterSense -certified products.
5. Set minimum sustainability standards to reduce the impact of your concrete use, asphalt, roadbed aggregate, or other construction materials .
6. Require printing services to be purchased from companies participating in Printing Industry Midwest's Great Green Printer initiative, or certified by the Sustainable Green Printing Partnership..
7. Lower the environmental footprint of meetings and events in the city.
8. Use national green standards/guidelines for purchasing/investments such as cleaning products, furniture, flooring/coatings.
16. Community Forests and Soils
1. Certify as a Tree City USA .
2. Adopt best practices for urban tree planting/quality ; require them in private developments and/or use them in at least one development project.
3. Budget for and achieve resilient urban canopy/tree planting goals .
4. Maximize tree planting along your main downtown street or throughout the city.
5. Adopt a tree preservation or native landscaping ordinance.
6. Build community capacity to protect existing trees by one or more of: a. Having trained tree specialists. b. Supporting volunteer forestry efforts. c. Adopting an EAB management plan/climate adaptation plan for the urban forest
7. Conduct a tree inventory or canopy study for public and private trees.
17. Stormwater Management
1. Adopt and use Minnesota's Minimal Impact Design Standards (MIDS) .
2. Complete the GreenStep Municipal Stormwater Management Assessment .
3. Adopt by ordinance one or more of the following stormwater infiltration/management strategies to reduce impervious surface: a. A narrower streets provision that permits construction of 24-foot roads for public, residential access and subcollector streets (with fewer than 400 average daily trips).

b. Use of pervious pavements for streets, trails, parking areas, and sidewalks. c. For sites less than one acre, retain the water quality volume of 1.1 inches of runoff from all impervious surfaces for new and fully-redeveloped construction sites. d. For non-MS4 permittees, adopt an illicit discharge prohibition rule or ordinance and an erosion and sediment control ordinance. Sponsor a robust Adopt-a-Drain program.
4. Create a stormwater utility that uses variable fees to incentivize stormwater infiltration, minimize the volume of and pollutants in runoff, and educate property owners and renters on the importance of managing stormwater runoff.
5. Adopt and implement guidelines or design standards/incentives for at least one of the following stormwater infiltration/reuse practices: a. Rain gardens/infiltration practices. b. Rainwater harvesting practices. c. Green alleys or green parking lots. d. Pervious/permeable pavement or pavers. e. Green roofs / green walls. f. Tree trenches / tree boxes. g. Incorporate compost and/or native plants into landscape design.
6. Improve smart-salting by reducing chloride use in winter maintenance and dust suppressants to prevent permanent surfacewater and groundwater pollution.
18. Parks and Trails
1. Make improvements within your city's system of parks, offroad trails and open spaces.
2. Plan and budget for a network of parks, green spaces, water features and trails for areas where new development is planned.
3. Achieve minimum levels of city green space and maximize the percent within a ten-minute walk of community members.
4. Adopt low-impact design standards in parks and trails that infiltrate or retain all 2 inch, 24-hour stormwater events on site.
5. Create park/city land management standards/practices that maximize at least one of the following: a. Low maintenance turf management; native landscaping; organic or integrated pest management; pollinator/monarch-safe policies. b. Recycling/compostables collection; use of compost as a soil amendment. c. Sources of nonpotable water, or surface/rain water, for irrigation.
6. Certify at least one golf course in the Audubon Cooperative Sanctuary Program.
7. Document that the operation and maintenance, or construction/remodeling , of at least one park building used an asset management tool, the SB 2030 energy standard, and/or a green building framework.
8. Develop a program to involve community members in hands-on land restoration, invasive species managmenet, and stewardship projects.
19. Surface Water
1. Consistently monitor surface water quality/clarity and report findings to community members.
2. Conduct or support multi-party community conversations , assessments, plans and actions around improving local water quality and quantity.
3. Adopt and report on measurable, publicly announced surface water improvement targets for lakes, rivers, wetlands and ditches.
4. Adopt a shoreland ordinance for all river and lake shoreland areas.
5. Adopt goals to revegetate shoreland and create a local program or outreach effort to help property owners with revegetation.
6. Implement an existing TMDL implementation plan .
7. Create/assist a Lake Improvement District .
8. Reduce flooding damage and costs through the National Flood Insurance Programs and the NFIP's Community Rating System.
20. Efficient Water and Wastewater Facilities
1. Compare the energy use and financial performance of your facilities with other peer plants using standardized, free tools.
2. Plan and budget for motor maintenance and upgrades to assure the most energy efficient, durable and appropriate equipment is available when upgrades or break downs occur.
3. Establish an on-going budget and program for decreasing inflow and infiltration into sewer lines and losses in drinking water systems .
4. Optimize energy and chemicals use at drinking water/wastewater facilities and decrease chloride in wastewater discharges.
6. Implement a wastewater plant efficiency project (co-generation, water reuse) or a program for local private business operations (water conservation, water reuse, business co-location).
7. Create a demand-side pricing program to reduce demands on water and wastewater systems.

21. Septic Systems

1. Report to landowners suspected noncompliant or failing septic systems as part of an educational, informational and financial **assistance and outreach program** designed to trigger voluntary landowner action to improve septic systems.
2. Use a **community process** to address failing septic systems.
3. Clarify/establish one or more **responsible management entities (RMEs)** for the proper design, siting, installation, operation, monitoring and maintenance of septic systems.
4. Adopt a subsurface sewage treatment system ordinance based on the Association of Minnesota Counties' **model ordinance**.
5. Create a program to **finance** septic system upgrades.
6. Work with homeowners and businesses in environmentally sensitive areas and areas where standard septic systems are not the least-cost option to promote **innovative waste water systems**, including central sewer extensions.
7. Arrange for **assistance to commercial, retail and industrial businesses** with water use reduction, pollution prevention and pretreatment prior to discharge to septic.

22. Sustainable Consumption and Waste

1. **Improve city operations and procurement** to prevent and reuse, recycle and compost waste from all public facilities (including libraries, parks, schools, municipal health care facilities), and minimize use of toxics and generation of hazardous waste.
2. Address concerns over **consumer products and packaging** through encouragement/implementation of one or more of:
 - a. Education on needless consumption, waste prevention and alternatives, including product stewardship / producer responsibility.
 - b. Reuse options.
 - c. Recycling / composting options.
 - d. Credits, fees.
 - e. Mandates, bans.
3. Improve profitability, legal compliance and conserve resources through adoption of **ordinance language, licensing and resource management contracts**.
4. Publicize, promote and use the varied businesses/services collecting and marketing **used, repaired and rental consumer goods**, especially electronics, in the city/county.
5. Arrange for a residential and/or business/institutional **source separated organics** collection/management program.
6. Improve **recycling services and expand** to multi-unit housing and commercial businesses.
7. Improve/organize residential trash, recycling and organics **collection** by private and/or public operations and offer significant volume-based pricing on residential garbage and/or incentives for recycling.
8. Adopt a **construction and demolition ordinance** governing demolition permits that requires a level of recycling and reuse for building materials and soil/land-clearing debris.

23. Local Air Quality

1. **Replace small internal combustion engine lawn and garden equipment** (e.g. lawnmowers, weed whips, etc.) with lower polluting equipment.
2. **Reduce residential burning** of wood and yard waste and eliminate 'backyard' trash burning.
3. **Decrease air emissions** from vehicle idling, business trucking, and pollutants/noise from stationary engines/back-up generators.
5. Install, assist with and promote **publicly available EV charging stations** or public fueling stations for alternative fuel vehicles.

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24. Benchmarks & Community Engagement

1. **Inclusive and Coordinated Decision-Making:** Use a city commission or committee to lead, coordinate, report to and engage community members on the identification and equitable implementation of sustainability best practices.
2. **Communicating Progress on Goals:** Organize goals/outcome measures from all city plans (social, environmental, economic) and report to community members data that show progress toward meeting these goals.
3. **Measuring Outcomes:** Engage community members and partners in identifying, measuring, and reporting progress on key sustainability and social indicators/ including energy use/greenhouse gas emissions, social vitality/social inclusion outcome measures.
4. **Public Education for Action:** Conduct or support a broad sustainability education and action campaign, building on existing city & community relationships, networks & events involving:
 - a. The entire community, community leaders
 - b. Homeowners, manufactured home communities, landlords and tenants
 - c. Community-based organizations, block clubs, neighborhood associations, front yards/sidewalks
 - d. Congregations.
 - e. Schools, colleges.

5. Planning with a Purpose: Conduct a community visioning and planning initiative that engages a diverse set of community members & stakeholders and uses a sustainability, resilience, or environmental justice framework such as: a. Strong Towns, Resiliency, Transition, Appreciative Inquiry. b. Eco-municipalities, Smart Cities, Healthy Communities. c. Environmental Justice, Race Equity, Equitable Development.
6. Engaging the Next Generation: Engage wide representation of community youth and college students by creating opportunities to participate in city government (including commissions).
7. Expanding Community Engagement: Engage Black, Indigenous, People of Color (BIPOC), renters, low-income, new Americans, differently abled and other traditionally under-represented community members by encouragement, and support to participate in current and new opportunities in city government.
25. Green Business Development
1. Grow new/emerging green businesses and green jobs through targeted assistance and new workforce development.
2. Create or participate in a marketing/outreach program to connect businesses with assistance providers, including utilities, who provide personalized energy, waste or sustainability audits and assistance.
3. Promote sustainable tourism in your city, and green tourism resources to tourism and hospitality businesses in/around the city.
4. Strengthen value-added businesses utilizing local "waste" material.
5. Lower the environmental footprint of a brownfield remediation/redevelopment project beyond regulatory requirements; report brownfield projects.
6. Promote green businesses that are recognized under a local, regional or national program.
7. Conduct or participate in a buy local campaign for community members and local businesses.
26. Renewable Energy
1. Adopt wind energy and/or biomass ordinances that allow, enable or encourage appropriate renewable energy installations.
2. Promote resident/business purchases and/or generation of clean energy by: a. Promoting a local/municipal utility's green power purchasing program that allows residents/businesses to order/buy new renewable energy. b. Creating and sharing a map of the community's solar resource and/or linking to the MN Solar Suitability App. c. Connecting residents/businesses with the Clean Energy Project Builder for potential installers.
d. Hosting a community-wide solar bulk-buy program or campaign (also called "solarize programs").
3. Promote financing and incentives programs such as PACE for clean energy: a. PACE for commercial property owners to install renewable energy systems, energy efficiency measures and EV charging infrastructure for existing or new construction. b. Local, state and federal financial incentives for property owners to install renewable energy systems. c. Local utility renewable energy production incentives and rebates.
4. Support a community solar garden or help community members participate in a community renewable energy project by: a. Serving as a host site for a community solar garden. b. Facilitating development, by the municipal utility or other entity, of a community solar garden for residents. c. Participating in a community solar garden to ensure accessibility and availability to low-income residents.
5. Install a public sector/municipally-owned renewable energy technology, such as solar electric (PV), wind, biomass, solar hot water/air, micro-hydro.
6. Report installed private sector-owned renewable energy/energy efficient generation capacity with at least one of the following attributes: a. Fueled by flowing water, sun, wind, or biogas. b. Fueled in part or whole by manure or woody (EAB) biomass, optimized for minimal air and other environmental impacts and for energy efficiency and water conservation. c. Distributing heating/cooling services in a district energy system. d. Producing combined heat and power; using a microgrid. e. Energy storage integrated into a renewable energy installation.
7. Become a solar-ready community, including adopting ordinance/zoning language and an expedited permit process for residents and businesses to install solar energy systems.
27. Local Food
1. Incorporate working landscapes - agriculture and forestry - into the city by adopting an ordinance for one or more of the following: a. An agriculture and forest protection district. b. A local food production district. c. Incubator farms, emerging farmers, and land access.

2. Facilitate creation of home/community gardens, chicken & bee keeping , and incorporation of food growing areas/access in multifamily residential developments.
3. Create, assist with and promote local food production/distribution within the city: a. A farmer's market or co-op buying club. b. An urban agriculture business or a community-supported agriculture (CSA) arrangement between farmers and community members/employees. c. A community or school garden, orchard or forest.
4. Measurably increase institutional buying and sales of foods and fibers that are local, Minnesota-grown, organic, healthy, humanely raised, and grown by fairly compensated growers.
5. Assess, plan for, and enhance the community's local food system .
28. Business Synergies and EcoDistricts
2. Document that at least one business/building uses waste heat or water discharge from another business or conducts materials exchange activities with another organization.
3. Require, build or facilitate at least four attributes in a business/industrial park project : a. Shared parking/access, electric vehicle charging for 3% of parking and/or synchronized with solar generation. b. Green product development, manufacturing or sales OR a green job training program. c. Buildings located within walking distance of transit and/or residential zoning. d. Renovated buildings, buildings designed for reuse, shared recreation/childcare facilities. e. Green buildings built to Minnesota's SB2030 energy standard OR renewable energy generated on-site. f. Combined heat and power (CHP) generation capacity, shared geothermal heating/cooling, microgrid OR energy storage. g. Low-impact site development.
4. Use 21st century ecodistrict tools to structure, guide and link multiple green and sustainable projects together in a mixed-use neighborhood/development, or innovative district, aiming to deliver superior social, environmental and economic outcomes.
29. Climate Adaptation and Community Resilience
1. Prepare to maintain public health and safety during extreme weather and climate-change-related events, while also taking a preventive approach to reduce risk for community members.
2. Integrate climate resilience into city or tribal planning, policy, operations, and budgeting processes.
3. Increase social connectedness through engagement, capacity building, public investment, and opportunities for economically vulnerable residents to improve their economic prosperity and resilience to climate change.
4. Encourage private sector action and incentivize investment in preventive approaches that reduce risk and minimize impacts of extreme weather and the changing climate for human health and the built environment.
5. Protect public buildings and natural/constructed infrastructure to reduce physical damage and sustain their function during extreme weather events.
6. Reduce the urban heat impacts of public buildings, sites, and infrastructure and provide resiliency co-benefits.
7. Protect water supply and wastewater treatment facilities to reduce physical damage and sustain their function during extreme weather events.
8. Improve local energy resilience by minimizing fuel poverty, installing distributed renewable energy systems, and developing microgrids that can improve energy system resiliency.