



City of Ely, MN  
ENERGY ACTION PLAN  
*Comprehensive Plan Addendum*  
November, 2010

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ENERGY ACTION PLAN  
*Comprehensive Plan Addendum*

Adopted by the Ely City Council  
November 16<sup>th</sup>, 2010

Prepared for the  
City of Ely

Prepared by the  
Arrowhead Regional Development Commission  
Regional Planning Division  
*2010*



***ELY ENERGY ACTION PLAN***  
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## ELY ENERGY VISION

*Ely is a leader in energy independence. We maximize our energy efficiency and the use of renewable and local energy resources, leading to sustainability and economic prosperity.*

## ENERGY ACTION PLAN GOALS

- Goal 1: Demonstrate leadership and commitment to energy planning and implementation.
- Goal 2: Maximize energy efficiency of homes and businesses.
- Goal 3: Maximize energy efficiency of community facilities.
- Goal 4: Maximize the use of renewable energy by homes and businesses.
- Goal 5: Maximize renewable energy into all future facility development or redevelopment of projects.
- Goal 6: Plan for land uses and transportation systems that offer opportunities for energy efficient modes of transportation.
- Goal 7: Provide a secure, affordable and sustainable energy environment for the Ely area.
- Goal 8: Attract students, tourists, and business to learn from and experience Ely's energy independence.
- Goal 9: Stay current with emerging technologies, best practices, policies and funding opportunities to impact and support our Vision.
- Goal 10: Foster opportunities for development of energy-related business and jobs.

**CITY OF ELY**

**RESOLUTION AUTHORIZING COMMITMENT TO WORK COLLABORATIVELY  
ON DEVELOPMENT OF AN ENERGY ACTION PLAN**

**WHEREAS**, the City of Ely is a Municipal Corporation governed under the Charter of the City of Ely with powers vested in its City Council;

**WHEREAS**, the City of Ely Planning Commission will utilize renewable/alternative energy as part of future planning if it is economically feasible and shall be reflected in the City of Ely Comprehensive Land Use Plan;

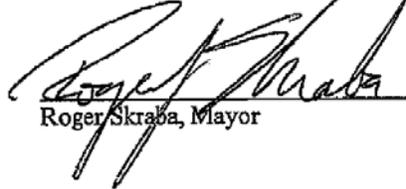
**WHEREAS**, the City of Ely has made a commitment to work collaboratively with a diverse group of stakeholders throughout the process to develop an Energy Action Plan;

**WHEREAS**, the City of Ely has an understanding that participation in this project will conclude with formal adoption of the Energy Action Plan by the City of Ely.

**NOW, THEREFORE BE IT RESOLVED**, That said plans be in all things approved.

Adopted by the Council this 2<sup>nd</sup> day of March, 2010.

  
\_\_\_\_\_  
Terri Boese, City Clerk-Treasurer

  
\_\_\_\_\_  
Roger Skraba, Mayor

## Energy Action Plan Overview

In January, 2010 the Arrowhead Regional Development Commission was awarded grants from the Minnesota Clean Energy Resource Teams (CERTS), the Southwest Initiative Foundation's Rural Energy Development Initiative (REDI), and Iron Range Resources to fund a 12-month pilot project to facilitate development of an Energy Action Plan (EAP) with a community in northeast Minnesota.

The end goal of the Energy Action Plan pilot project is to develop an officially adopted addendum to the Ely Comprehensive Plan that will help guide energy planning for the next several years. In addition, the plan is intended to serve as a model for other communities to replicate for energy planning.

It should be emphasized that while providing a strategic framework for action, the Energy Action Plan should be approached as a "living document" and should be reviewed and updated regularly in response to changing energy issues and opportunities.

## EAP Planning Process

In February, 2010 ARDC released a Request for Proposals (RFP) to all local government and tribes in the seven-county Arrowhead Region to apply for the Energy Action Plan pilot project. In March, 2010 a review of competitive RFP responses was conducted by ARDC and the City of Ely was awarded the project based on its commitment to participate (see Resolution, pg. 5), community involvement, and overall preparedness to advance the EAP pilot project.

Between April - August, 2010 ARDC facilitated three meetings with a focus group of local stakeholders. Together the group created a vision statement and goals for the Energy Action Plan which would to guide the further identification of strategies and action steps for implementation. Members of the focus group included representatives of the following:

- City of Ely
- Ely Alternative Energy Taskforce
- Energy Efficient Ely
- Vermilion Community College
- Ely Area Development Association
- U.S. Forest Service
- Local business owners
- Retired engineers
- Additional consultants in renewable energy, tourism, and economic development.

## EAP Implementation and Partnerships

Just as energy issues and challenges do not exist in isolation in a community, neither do their solutions. This energy action plan is largely based upon a community-based, partnership approach to energy planning and implementation guided by the leadership of the City of Ely.

Collaborative assistance and expertise are available from a broad base of stakeholders in the community involved in local energy initiatives. Examples include partners in education, tourism, media, economic development, business owners, natural resource agencies, and local residents. Additionally, two organizations work in the Ely community to specifically advance public awareness of energy efficiency and advance renewable energy projects:

- *The Alternative Energy Taskforce (AETF)* was established by the Ely City Council to investigate and advance opportunities for renewable energy projects in Ely. ([www.ely.mn.us](http://www.ely.mn.us)).
- *Energy Efficient Ely (E3)* is a non-profit, grassroots group that was established in 2008. E3 works to foster public education and outreach on energy efficiency / renewable energy and to advance energy efficiency / renewable energy projects in the Ely community. ([www.eeely.org](http://www.eeely.org)).

## About the Arrowhead Regional Development Commission

The Arrowhead Regional Development Commission (ARDC) is a regional comprehensive planning and development agency serving the counties of Aitkin, Carlton, Cook, Itasca, Koochiching, Lake, and St. Louis in Northeast Minnesota. ARDC's mission is to serve the people of the Arrowhead Region by providing local units of government and citizen groups a means to work cooperatively in identifying needs, solving problems and fostering local leadership.

**GOAL 1:**  
**DEMONSTRATE LEADERSHIP AND COMMITMENT TO ENERGY PLANNING AND IMPLEMENTATION.**

*Strategy 1.1: Formalize Ely leadership for EAP planning and implementation.*

Action 1.1.a: Establish a permanent City Council - Energy Committee with full stakeholder representation. The Energy Committee would be responsible to coordinate planning among related partners and ensure communication on projects between City departments and partners. *(Committee membership to be determined by City Council. The Committee Chair should be an appointed volunteer or Council member serving on the committee).*

Action 1.1.b: Seek funding to establish a full-time or part-time Energy Coordinator position. *(The Coordinator will report to the committee and provide staff support. The Energy Coordinator would be the designated person to advance, track and promote progress on the Energy Action Plan and coordinate planning and implementation efforts among the Energy Committee and related project partners.).*

Action 1.1.c: Have the Energy Committee review the Energy Action Plan on an on-going basis and revise as necessary in response to changing opportunities or conditions.

*Strategy 1.2: Actively engage community members and stakeholders in energy project efforts and raise public awareness of Ely's energy efforts.*

Action 1.2.a: Work collaboratively with and provide assistance as appropriate (planning / financial) to related project partners in energy project implementation efforts.

Action 1.2.b: Provide ongoing communication and updates on energy initiatives to the public using key websites and newspaper/radio media. *(Communication to the public is critical to demonstrating leadership and commitment by the City of Ely).*

Action 1.2.c: Work with related partners to organize and hold an annual "Ely Energy Summit" event to report on energy project progress to Ely community members and partners. *(This may include case studies on area energy projects)*

*completed, energy initiatives underway, or ideas for future energy planning).*

Action 1.2.d: Review the Minnesota Pollution Control Agency's "GreenStep Cities" Program and consider City Council resolution to participate in the program.

**GOAL 2:**

**MAXIMIZE ENERGY EFFICIENCY OF HOMES AND BUSINESSES.**

***Strategy 2.1: Assess energy use in homes and businesses and identify areas for improvement.***

Action 2.1.a: Research and connect residential homeowners to opportunities for on-site energy audit services through energy providers.

Action 2.1.b: Work with the Minnesota Retired Engineers Technical Assistance Program (MN RETAP) to conduct energy efficiency assessments of Ely businesses and create recommendation reports. *(MN RETAP is a free program funded by a grant by the Minnesota Pollution Control Agency).*

***Strategy 2.2: Provide and promote energy efficiency education and training to Ely home owners, businesses, and schools.***

Action 2.2.a: Work to raise public awareness of energy efficiency measures and promote energy use reduction and efficiency to Ely residents and businesses. *(One way to do this may be through creating a regularly featured "Energy in Ely" column or blog in the online Ely Echo and Timberjay newspapers).*

Action 2.2.b: Work with related partners to develop and/or promote energy training events and education materials for the public. *(An example may include organization of a series of seminars or hands-on events focusing on energy topics).*

***Strategy 2.3: Identify and promote funding assistance programs for home and business energy efficiency improvements.***

Action 2.3.a: Research energy efficiency related loans, grants, rebates, and incentives for homes and businesses. (i.e., Funding opportunities may include energy utilities, or regional, State, Federal or non-profit sources).

Action 2.3.b: Provide ongoing communication and updates on related funding opportunities to home/business owners through news media and education and training opportunities.

**Strategy 2.4:** *Develop an “Ely Energy Challenge” program for homes and businesses to commit to and work towards energy efficiency improvements.*

Action 2.4.a: Work with related partners to develop and promote a program for homes and businesses to voluntarily sign on to an “Ely Energy Challenge”, working to implement specific energy efficiency improvements (i.e. lighting, recycling, and other efficiency improvements). List participating homes & businesses online with energy efficiency improvements accomplished.

Action 2.4.b: Measure and report on the benefits of energy efficiency improvements made under the Ely Energy Challenge program by homes and businesses. *(To engage students in this effort, investigate opportunities to work with the High School or Vermilion Community College to incorporate this work into the classroom curriculum for math / science).*

**GOAL 3:**

**MAXIMIZE ENERGY EFFICIENCY OF COMMUNITY FACILITIES.**

**Strategy 3.1:** *Assess energy use in community facilities and identify areas for improvement.*

Action 3.1.a: Work with the Minnesota Retired Engineers Technical Assistance Program (MN RETAP) to conduct energy efficiency assessments and create recommendation reports for community facilities in Ely. *(Maximizing energy efficiency and use of renewable resources by businesses will reduce operating costs, allowing businesses to invest additional money in products, services, and employees).*

Action 3.1.b: Review and address energy efficiency improvements on City-owned property outside of community facilities (i.e.; tree plantings to increase shade/reduce cooling temperatures, efficiency upgrade of outdoor lighting for street lighting, traffic signals, and parking lots).

Action 3.1.c: Measure and report on the benefits of energy efficiency improvements made for community facilities.

**Strategy 3.2:**      *Develop and adopt a policy or recommended guidelines for energy efficiency improvements for City-owned community facilities.*

Action 3.2.a: Research energy policy models and best practices for other cities, businesses or organizations and draft a policy or guidelines for the City of Ely that address measures to increase energy efficiency and cost savings. *(Example elements might include purchase of Energy Star equipment and appliances, recycling policy, light use policy).*

Action 3.2.b: Adopt the new policy or guidelines by City Council resolution. Communicate the new policy or guidelines to City employees and provide training as needed.

**Strategy 3.3:**      *Identify and promote funding assistance for energy efficiency improvements in City-owned buildings.*

Action 3.3.a: Research grants, loans, rebates and incentives applicable for energy efficiency improvements on City-owned properties.

Action 3.3.b: Identify and prioritize City-owned property for energy efficiency improvement projects. Apply for funding as appropriate to support these projects.

**GOAL 4:**

**MAXIMIZE THE USE OF RENEWABLE ENERGY BY HOMES & BUSINESSES.**

**Strategy 4.1:**      *Encourage the use of local renewable energy resources, including appropriate applications for wind, solar, and biomass energy.*

Action 4.1.a: Work with related partners on an on-going basis to raise awareness of renewable energy options home and business owners through media and events.

Action 4.1.b: Work with local, regional, and State related partners and organizations to promote and provide education and training opportunities on renewable energy to home and business owners to incorporate into design of energy systems.

**Strategy 4.2:**      *Address policy barriers to the installation of renewable energy systems.*

Action 4.2.a: Review the City of Ely code and identify barriers to installation of renewable energy systems such as small-scale wind towers or solar panels. *(Issues to review are setbacks, lot coverage, and structure height, allowance of accessory structure height, building height and bulk as they relate to solar rights. Setbacks and structure height are especially important when considering residential scaled Wind Energy Conversion Systems (WECS). Setbacks regulate against noise, ice throw, and damages if the tower should fail. Most Minnesota cities that allow residential WECS require at least a 2.5 acre lot and setbacks from lot lines (possibly other structures) of at least 1.1 times the height the tower plus blades. Consideration should be included for rooftop and other "non-traditional" type WECS in the discussion of zoning considerations.)*

Action 4.2.b: Amend any identified policy barriers by drafting and adopting new ordinances. *(Recommended resource is Minnesota's 2009 Model Ordinances for Sustainable Development: Solar Energy Standards and Model Wind Ordinance. Both are available online at: <http://www.crplanning.com/susdo.htm>. The League of Minnesota Cities also has some useful zoning information on Wind. <http://lmc.org/page/1/LandUseMaterials.jsp>.)*

**Strategy 4.3:** *Identify and promote financial assistance to support renewable energy projects for homes and businesses.*

Action 4.3.a: Research grants, loans, rebates and production incentives for home / business renewable energy projects.

Action 4.3.b: Provide ongoing communication and updates on funding opportunities that support renewable energy projects to home/business owners through news media and education and training opportunities.

**GOAL 5:**  
**MAXIMIZE RENEWABLE ENERGY INTO ALL FUTURE FACILITY DEVELOPMENT OR REDEVELOPMENT OF PROJECTS.**

**Strategy 5.1:** *Incorporate renewable energy options in facility development projects when possible.*

Action 5.1.a: Evaluate possible renewable energy options (i.e. passive/active solar, thermal solar, biomass, wind, geothermal green roofs, rain gardens) with all facility development or redevelopment planning projects. *(Note: The City of Ely can also include a requirement that potential renewable energy options be looked at as part of the City bid process for a contract award for a project or service).*

Action 5.1.b: Measure and report on the benefits of renewable energy improvements included in facility development projects.

**Strategy 5.2:** *Integrate energy-efficiency / renewable energy building information into the building permit process.*

Action 5.2.a: Provide educational materials (i.e., brochures) on energy efficiency / renewable energy building methods and materials to those seeking building permits.

Action 5.2.b: Identify and communicate information resources to the public on energy efficiency / renewable energy building materials and vendor services.

*Note: Enforcement of Chapter 4 of the Ely City Code (Construction, Licensing, Permits, and Regulation) is the surest method to guarantee that future construction will meet minimum energy efficiency standards. The Minnesota State Building Code is incorporated in this ordinance. Chapter 1322 Residential Energy Code and Chapter 1323 Commercial Energy Code of the Minnesota State Building Code each provide criteria for energy efficiency and design requirements.*

**Strategy 5.3:** *Advance renewable energy generation capacity fueled by biomass for district heating in Ely.*

Action 5.3.a: Work collaboratively with public / private partners to evaluate project feasibility, operational details and long-term sustainability of a biomass heating facility.

Action 5.3.b: Educate Ely area residents and business owners about the benefits of biomass heating and plans for the Ely biomass district heating plan. *(Address public questions and concerns on the project through public forums as appropriate).*

Action 5.3.c: Research and secure long-term funding for development, operation, and maintenance of the biomass district heating facility.

**GOAL 6:**  
**PLAN FOR LAND USES AND TRANSPORTATION SYSTEMS THAT OFFER OPPORTUNITIES FOR ENERGY EFFICIENT MODES OF TRANSPORTATION.**

*Strategy 6.1: Identify and remedy pedestrian connections to community facilities.*

Action 6.1.a: Inventory existing sidewalks and crosswalks in residential / business area and identify where gaps exist or improvements are needed.

Action 6.1.b: Include sidewalk and crosswalk improvements in City infrastructure plans.

*Strategy 6.2: Increase the number of bike racks at public / private destinations (community facilities, local businesses).*

Action 6.2.a: Inventory existing locations of bike racks and identify where additional bike racks would be beneficial.

Action 6.2.b: Seek funding or local sponsorship to purchase and install new bike racks.

*Strategy 6.3: Work with partners to develop and promote alternative-energy transportation programs for resident and visitor use.*

Action 6.3.a: Research bike rental program options, such a purchase of new bikes for rent or acquire locally-donated bicycles for free public use. Research bike programs in other communities for examples of best practices.

Action 6.3.b: Create a plan for the bike rental program (include storage and maintenance).

Action 6.3.c: Implement and promote the bike rental program both locally to residents and to Ely visitors.

Action 6.3.d: Investigate winter alternative transportation options for residents and visitors to Ely (i.e., ski / snowshoe) and plan

/ implement / promote resource as done with the bike rental program.

Action 6.3.e: Determine feasibility of installing electric vehicle charging stations in one or more locations. Install and promote charging stations as appropriate.

**Strategy 6.4:** *Include principles of Complete Streets planning for street design and renovations to accommodate all users when possible.*

Action 6.4.a: Become familiar with Complete Streets policies and provide education and/or training to Ely Planning and Zoning employees as appropriate.

Action 6.4.b: Evaluate all transportation and pedestrian related infrastructure projects for inclusion of Complete Streets design principles.

**Strategy 6.5:** *Review and update the City of Ely Land Use Regulations (Zoning), Subdivision Regulations (Platting), and street and sidewalk policies as appropriate to encourage efficient land use patterns and safe, efficient pedestrian connections.*

Action 6.5.a: Review the Planned Unit Development section of the city's Subdivision Regulations (Platting) to encourage efficient development patterns by providing for bonus densities for developments that incorporate pedestrian and bicycle connectivity, high efficiency buildings and appliances, and similar strategies.

Action 6.5.b: Establish requirements for sidewalks and trails that connect to community destinations in new developments.

**GOAL 7:**  
**PROVIDE A SECURE, AFFORDABLE AND SUSTAINABLE ENERGY ENVIRONMENT FOR THE ELY AREA.**

**Strategy 7.1:** *Communicate with land agency partners to discuss natural resource availability and long-term planning for biomass.*

Action 7.1.a: Work closely with U.S. Forest Service, MN DNR, and County contacts throughout the biomass feasibility and planning process.

**Strategy 7.2:** *Support and strengthen local initiatives that contribute to energy efficiency, sustainability, and economic prosperity.*

Action 7.2.a: Communicate with organizers of local energy initiatives and discuss opportunities for City assistance as appropriate (i.e., Ely Farmer's Market program).

**GOAL 8:**

**ATTRACT STUDENTS, TOURISTS, AND BUSINESS TO LEARN FROM AND EXPERIENCE ELY'S ENERGY INDEPENDENCE.**

**Strategy 8.1:** *Actively promote Ely's energy efforts.*

Action 8.1.a: Support and promote existing events that focus on energy efficiency / renewable energy and successful projects which can be shared with the public (i.e. business / home energy improvements). Seek to develop new energy-focused public events in partnership with others. (i.e. Ely Energy Day Fair).

Action 8.1.b: Work with the Ely Chamber of Commerce and local papers to actively promote Ely as a destination for leadership in energy planning and projects.

**Strategy 8.2:** *Develop local energy-related workforce education and training programs.*

Action 8.2.a: Work with Vermilion Community College, Ely School District, and other workforce and post secondary education partners to develop and implement workforce skills training in energy-related fields that offer growth opportunities in the area.

**GOAL 9:**

**STAY CURRENT WITH EMERGING TECHNOLOGIES, BEST PRACTICES, POLICIES AND FUNDING OPPORTUNITIES TO IMPACT AND SUPPORT OUR VISION.**

**Strategy 9.1:** *Participate in energy-related groups, organizations and events.*

Action 9.1.a: Review opportunities for involvement at the local, regional, State or national level and participate as appropriate. *(For example, Northeast Minnesota Clean Energy Resource Team "CERT" meetings / trainings ).*

**Strategy 9.2:** *Research regional, State and other relevant funding announcements to support energy efficiency and renewable energy projects.*

Action 9.2.a: Sign-up for State, regional, and other energy-related listserves and e-newsletters to stay informed on a regular basis. *(Example recommended resources include the Office of Energy Security "Gaining Green Renewable News" e-newsletter / New Funding Opportunities in Energy and the Environment listserve).*

**Strategy 9.3:** *Share and communicate energy project information with others.*

Action 9.3.a: Use media and public forums as appropriate to engage and inform Ely residents, business owners, and others.

#### **GOAL 10:**

#### **FOSTER OPPORTUNITIES FOR DEVELOPMENT OF ENERGY-RELATED BUSINESS AND JOBS.**

**Strategy 10.1:** *Include strategies for business development related to energy efficiency / renewable energy in local economic development efforts.*

Action 10.1.a: Review the existing economic development plan. If there is not a plan, work to create a comprehensive economic development strategy that includes energy-related business development and workforce development strategies. (The energy strategies should be included as part of the overall efforts along with mining, forestry, tourism, etc. and not to the exclusion of other industries.)

Action 10.1.b: Discuss opportunities with economic partners to focus on growing local energy efficiency / renewable energy related businesses in Ely and training a local workforce that can implement energy initiatives instead of recruiting outside businesses. *(Strengthening and expanding homegrown businesses is a more successful long-term strategy to support the sustainability aspect of the Energy Action*

*Plan. Recruiting also requires more resources of time and money).*

Action 10.1.c: Work to identify and promote training and certification opportunities to foster local energy efficiency / renewable energy related services and products (i.e., home/business energy auditing services).

***Strategy 10.2: Provide and promote Ely's leadership in energy efficiency and sustainability in economic development efforts.***

Action 10.2.a: Work with business and entrepreneurship support networks to strengthen existing businesses and grow new businesses to capture growth in the local and regional efficient and renewable energy markets.

Action 10.2.b: Work with Ely Area Development Association, Ely Chamber of Commerce, and other partners to promote Ely's competitive and sustainable energy costs, local firm expertise, skills and abilities of local labor force, and energy efficient and sustainable facilities.

Action 10.2.c: Encourage Ely residents and businesses to use local contractors and products to maximize energy efficiency and use of renewable energy.

## ELY ENERGY ACTION PLAN - IMPLEMENTATION CHART

### GOAL 1: DEMONSTRATE LEADERSHIP AND COMMITMENT TO ENERGY PLANNING AND IMPLEMENTATION.

<u>Strategy</u>	<u>Action Step</u>	<u>Timeframe</u>	<u>Progress</u>
<b>Strategy 1.1: Formalize Ely leadership for EAP planning and implementation.</b>	1.1.a: Establish a permanent City Council Energy Committee with full stakeholder representation.	Short-Term (3-12 months)	
	1.1.b: Seek funding to pay for an Energy Coordinator position.	Short-Term (3-12 months)	
	1.1.c: Review the Energy Action Plan and revise as necessary in response to changing opportunities or conditions.	On-Going	
<b>Strategy 1.2: Actively engage community members and stakeholders in energy project efforts and raise public awareness of Ely's energy efforts.</b>	1.2.a: Work collaboratively with and provide assistance as appropriate (planning / financial) to related project partners in energy project implementation efforts.	On-Going	
	1.2.b: Provide ongoing communication and updates on energy initiatives to the public using key websites and newspaper/radio media.	On-Going	
	1.2.c: Work with related partners to organize and hold an annual "Ely Energy Summit" event to report on energy project progress to Ely community members and partners.	Annually	
	1.2.d: Review the Minnesota Pollution Control Agency's "GreenStep Cities" Program and consider City Council resolution to participate in the program.	Short-Term (3-12 months)	

**GOAL 2: MAXIMIZE ENERGY EFFICIENCY OF HOMES AND BUSINESSES.**

<u>Strategy</u>	<u>Action Step</u>	<u>Timeframe</u>	<u>Progress</u>
<b>Strategy 2.1: Assess energy use in homes and businesses and identify areas for improvement.</b>	2.1.a: Research and connect residential homeowners to opportunities for on-site energy audit services through energy providers.	Short-Term (3-12 months)	
	2.1.b: Work with the Minnesota Retired Engineers Technical Assistance Program (MN RETAP) to conduct energy efficiency assessments of Ely businesses and create recommendation reports.	Short-Term (3-12 months)	
<b>Strategy 2.2: Provide and promote energy efficiency education and training to Ely home owners, businesses, and schools.</b>	2.2.a: Work to raise public awareness of energy efficiency measures and promote energy use reduction and efficiency to Ely residents and businesses.	On-Going	
	2.2.b: Work with related partners to develop and/or promote energy training events and education materials for the public.	On-Going	
<b>Strategy 2.3: Identify and promote funding assistance programs for home and business energy efficiency improvements.</b>	2.3.a: Research energy efficiency related loans, grants, rebates, and incentives for homes and businesses.	On-Going	
	2.3.b: Provide ongoing communication and updates on related funding opportunities to home/business owners through news media and education and training opportunities.	On-Going	
<b>Strategy 2.4: Develop an “Ely Energy Challenge” program for homes and businesses to commit to and work towards energy efficiency improvements.</b>	2.4.a: Work with related partners to develop and promote a program for homes and businesses to voluntarily sign on to an “Ely Energy Challenge”, working to implement specific energy efficiency improvements	Mid-Term (1-2 years)	

	2.4.b: Measure and report on the benefits of energy efficiency improvements made under the Ely Energy Challenge program by homes and businesses.	Mid-Term (1-2 years)	
<b>GOAL 3: MAXIMIZE ENERGY EFFICIENCY OF COMMUNITY FACILITIES.</b>			
<b><u>Strategy</u></b>	<b><u>Action Step</u></b>	<b><u>Timeframe</u></b>	<b><u>Progress</u></b>
<b>Strategy 3.1: Assess energy use in community facilities and identify areas for improvement.</b>	3.1.a: Work with the Minnesota Retired Engineers Technical Assistance Program (MN RETAP) to conduct energy efficiency assessments and create recommendation reports for community facilities in Ely.	Short-Term (3-12 months)	
	3.1.b: Review and address energy efficiency improvements on City-owned property outside of community facilities.	On-Going	
	3.1.c: Measure and report on the benefits of energy efficiency improvements made for community facilities.	On-Going	
<b>Strategy 3.2: Develop and adopt a policy or recommended guidelines for energy efficiency improvements for City-owned community facilities.</b>	3.2.a: Research energy policy models and best practices for other cities, businesses or organizations and draft a policy or guidelines for the City of Ely that address measures to increase energy efficiency and cost savings.	Mid-Term (1-2 years)	
	3.2.b: Adopt the new policy or guidelines by City Council resolution. Communicate the new policy or guidelines to City employees and provide training as needed.	Mid-Term (1-2 years)	
<b>Strategy 3.3: Identify and promote funding assistance for energy efficiency improvements in City-owned buildings.</b>	3.3.a: Research grants, loans, rebates and incentives applicable for energy efficiency improvements on City-owned properties.	On-Going	

	3.3.b: Identify and prioritize City-owned property for energy efficiency improvement projects. Apply for funding as appropriate to support these projects.	On-Going	
<b>GOAL 4: MAXIMIZE THE USE OF RENEWABLE ENERGY BY HOMES &amp; BUSINESSES.</b>			
<b><u>Strategy</u></b>	<b><u>Action Step</u></b>	<b><u>Timeframe</u></b>	<b><u>Progress</u></b>
<b>Strategy 4.1: Encourage the use of local renewable energy resources, including appropriate applications for wind, solar, and biomass energy.</b>	4.1.a: Work with related partners on an on-going basis to raise awareness of renewable energy options home and business owners through media and events.	On-Going	
	4.1.b: Work with local, regional, and State related partners and organizations to promote and provide education and training opportunities on renewable energy to home and business owners to incorporate into design of energy systems.	On-Going	
<b>Strategy 4.2: Address policy barriers to the installation of renewable energy systems.</b>	4.2.a: Review the City of Ely code and identify barriers to installation of renewable energy systems such as small-scale wind towers or solar panels.	Mid-Term (1-2 years)	
	4.2.b: Amend any identified policy barriers by drafting and adoption of new ordinances.	Mid-Term (1-2 years)	
<b>Strategy 4.3: Identify and promote financial assistance to support renewable energy projects for homes and businesses.</b>	4.3.a: Research grants, loans, rebates and production incentives for home / business renewable energy projects.	On-Going	
	4.3.b: Provide ongoing communication and updates on funding opportunities that support renewable energy projects to home/business owners through news media and education and training opportunities.	On-Going	

**GOAL 5: MAXIMIZE RENEWABLE ENERGY INTO ALL FUTURE FACILITY DEVELOPMENT OR REDEVELOPMENT OF PROJECTS.**

<u>Strategy</u>	<u>Action Step</u>	<u>Timeframe</u>	<u>Progress</u>
<b>Strategy 5.1: Incorporate renewable energy options in facility development projects when possible.</b>	5.1.a: Evaluate possible renewable energy options with all facility development or redevelopment planning projects.	On-Going	
	5.1.b: Measure and report on the benefits of renewable energy improvements included in facility development projects.	On-Going	
<b>Strategy 5.2: Integrate energy efficiency / renewable energy building information into the building permit process.</b>	5.2.a: Provide educational materials (i.e., brochures) on energy efficiency / renewable energy building methods and materials to those seeking building permits.	Short-Term (3-12 months)	
	5.2.b: Identify and communicate information resources to the public on energy efficiency / renewable energy building materials and vendor services.	Mid-Term (1-2 years)	
<b>Strategy 5.3: Advance renewable energy generation capacity fueled by biomass for district heating in Ely.</b>	5.3.a: Work collaboratively with public / private partners to evaluate project feasibility, operational details and long-term sustainability of a biomass heating facility.	Long-Term (3-10 years)	
	5.3.b: Educate Ely area residents and business owners about the benefits of biomass heating and plans for the Ely biomass district heating plan.	On-Going	
	5.3.c: Research and secure long-term funding for development, operation, and maintenance of the biomass district heating facility.	On-Going	

**GOAL 6: PLAN FOR LAND USES AND TRANSPORTATION SYSTEMS THAT OFFER OPPORTUNITIES FOR ENERGY EFFICIENT MODES OF TRANSPORTATION.**

<u>Strategy</u>	<u>Action Step</u>	<u>Timeframe</u>	<u>Progress</u>
<b>Strategy 6.1: Identify and remedy pedestrian connections to community facilities.</b>	6.1.a: Inventory existing sidewalks and crosswalks in residential / business area and identify where gaps exist or improvements are needed.	Mid-Term (1-2 years)	
	6.1.b: Include sidewalk and crosswalk improvements in City infrastructure plans.	Long-Term (3-10 years)	
<b>Strategy 6.2: Increase the number of bike racks at public / private destinations (community facilities, local businesses).</b>	6.2.a: Inventory existing locations of bike racks and identify where additional bike racks would be beneficial.	Short-Term (3-12 months)	
	6.2.b: Seek funding or local sponsorship to purchase and install new bike racks.	Short-Term (3-12 months)	
<b>Strategy 6.3: Work with partners to develop and promote alternative-energy transportation programs for resident and visitor use.</b>	6.3.a: Research bike rental program options, such a purchase of new bikes for rent or acquire locally-donated bicycles for free public use. Research bike programs in other communities for examples of best practices.	Mid-Term (1-2 years)	
	6.3.b: Create a plan for the bike rental program (include storage and maintenance).	Mid-Term (1-2 years)	
	6.3.c: Implement and promote the bike rental program both locally to residents and to Ely visitors.	Mid-Term (1-2 years)	
	6.3.d: Investigate winter alternative transportation options for residents and visitors to Ely (i.e., ski / snowshoe) and plan/implement/promote resource as done with the bike rental program.	Mid-Term (1-2 years)	

	6.3.e: Determine feasibility of installing electric vehicle charging stations in one or more locations. Install and promote charging stations as appropriate.	Long-Term (3-10 years)	
<b>Strategy 6.4: Include principles of Complete Streets planning for street design and renovations to accommodate all users when possible.</b>	6.4.a: Familiarize with Complete Streets policies and provide education and/or training to Ely Planning and Zoning employees as appropriate.	On-Going	
	6.4.b: Evaluate all transportation and pedestrian related infrastructure projects for inclusion of Complete Streets design principles.	On-Going	
<b>Strategy 6.5: Review and update the City of Ely Land Use Regulations (Zoning), Subdivision Regulations (Platting), and street and sidewalk policies as appropriate to encourage efficient land use patterns and safe, efficient pedestrian connections.</b>	6.5.a: Review the Planned Unit Development section of the city's Subdivision Regulations (Platting) to encourage efficient development patterns by providing for bonus densities for developments that incorporate pedestrian and bicycle connectivity, high efficiency buildings and appliances, and similar strategies.	Long-Term (3-10 years)	
	6.5.b: Establish requirements for sidewalks and trails that connect to community destinations in new developments.	Long-Term (3-10 years)	

**GOAL 7: PROVIDE A SECURE, AFFORDABLE AND SUSTAINABLE ENERGY ENVIRONMENT FOR THE ELY AREA.**

<b><u>Strategy</u></b>	<b><u>Action Step</u></b>	<b><u>Timeframe</u></b>	<b><u>Progress</u></b>
<b>Strategy 7.1: Communicate with land agency partners to discuss natural resource availability and long-term planning for biomass.</b>	7.1.a: Work closely with U.S. Forest Service, MN DNR, and County contacts throughout the biomass feasibility and planning process.	On-Going	

<b>Strategy 7.2: Support and strengthen local initiatives that contribute to energy efficiency, sustainability, and economic prosperity.</b>	7.2.a: Communicate with organizers of local energy initiatives and discuss opportunities for City assistance as appropriate	On-Going	
<b>GOAL 8: ATTRACT STUDENTS, TOURISTS, AND BUSINESS TO LEARN FROM AND EXPERIENCE ELY'S ENERGY INDEPENDENCE.</b>			
<u><b>Strategy</b></u>	<u><b>Action Step</b></u>	<u><b>Timeframe</b></u>	<u><b>Progress</b></u>
<b>Strategy 8.1: Actively promote Ely's energy efforts.</b>	8.1.a: Support and promote existing events that focus on energy efficiency / renewable energy and successful projects which can be shared with the public (i.e. business / home energy improvements). Seek to develop new energy-focused public events in partnership with others. (i.e. Ely Energy Day Fair).	On-Going	
	8.1.b: Work with the Ely Chamber of Commerce and local papers to actively promote Ely as a destination for leadership in energy planning and projects.	On-Going	
<b>Strategy 8.2: Develop local energy-related workforce education and training programs.</b>	8.2.a: Work with Vermilion Community College, Ely School District, and other workforce and post secondary education partners to develop and implement workforce skills training in energy-related fields that offer growth opportunities in the area.	Long-Term (3-10 years)	

**GOAL 9: STAY CURRENT WITH EMERGING TECHNOLOGIES, BEST PRACTICES, POLICIES AND FUNDING OPPORTUNITIES TO IMPACT AND SUPPORT OUR VISION.**

<u>Strategy</u>	<u>Action Step</u>	<u>Timeframe</u>	<u>Progress</u>
<b>Strategy 9.1: Participate in energy-related groups, organizations and events.</b>	9.1.a: Review opportunities for involvement at the local, regional, State or national level and participate as appropriate.	On-Going	
<b>Strategy 9.2: Research regional, State and other relevant funding announcements to support energy efficiency and renewable energy projects.</b>	9.2.a: Sign-up for State, regional, and other energy-related listserves and e-newsletters to stay informed on a regular basis.	On-Going	
<b>Strategy 9.3: Share and communicate energy project information with others.</b>	9.3.a: Use media and public forums as appropriate to engage and inform Ely residents, business owners, and others.	On-Going	

**GOAL 10: FOSTER OPPORTUNITIES FOR DEVELOPMENT OF ENERGY-RELATED BUSINESS AND JOBS.**

<u>Strategy</u>	<u>Action Step</u>	<u>Timeframe</u>	<u>Progress</u>
<b>Strategy 10.1: Include strategies for business development related to energy efficiency / renewable energy in local economic development efforts.</b>	10.1.a: Review the existing economic development plan. If there is not a plan, work to create a comprehensive economic development strategy that includes energy-related business development and workforce development strategies.	Mid-Term (1-2 years)	

	10.1.b: Discuss opportunities with economic partners to focus on growing local energy efficiency / renewable energy related businesses in Ely and training a local workforce that can implement energy initiatives instead of recruiting outside businesses.	Mid-Term (1-2 years)	
	10.1.c: Work to identify and promote training and certification opportunities to foster local energy efficiency / renewable energy related services and products	On-Going	
<b>Strategy 10.2: Provide and promote Ely's leadership in energy efficiency and sustainability in economic development efforts.</b>	10.2.a: Work with business and entrepreneurship support networks to strengthen existing businesses and grow new businesses to capture growth in the local and regional efficient and renewable energy markets.	Long-Term (3-10 years)	
	10.2.b: Work with Ely Area Development Association, Ely Chamber of Commerce, and other partners to promote Ely's competitive and sustainable energy costs, local firm expertise, skills and abilities of local labor force, and energy efficient and sustainable facilities.	Long-Term (3-10 years)	
	10.2.c: Encourage Ely residents and businesses to use local contractors and products to maximize energy efficiency and use of renewable energy.	On-Going	

## RECOMMENDED RESOURCES

Following is a list of some key recommended resources for a wealth of further information, technical assistance, and potential funding sources to help support and advance energy-related planning projects.

### **Minnesota Office of Energy Security**

<http://www.energy.mn.gov>

Office of Energy Security, Minnesota Department of Commerce website with extensive resources and publications related to home and business energy efficiency and renewable energy technologies. The MN Office of Energy Security website has extensive information on current grants, loans, tax credits and rebates.

### **DSIRE (Database of State Incentives for Renewables & Efficiency)**

[www.dsireusa.org](http://www.dsireusa.org)

Provides a comprehensive listing of applicable State of Minnesota and Federal incentives and rebates for energy projects, as well as information on grants and loans.

### **U.S. DOE Energy Efficiency and Renewable Energy / Energy Savers**

<http://www.energysavers.gov/>

Provides extensive information on energy efficiency and renewable energy for the home or business as well as rebates, tax credits, and financing.

### **Minnesota Clean Energy Resource Teams (CERTS)**

<http://www.cleanenergyresourceteams.org/>

The CERTs program connects people with technical resources needed to identify and implement community-scale energy efficiency and clean energy projects. Specifically see the publications, case studies, and technology information on website.

### **US EPA Energy Star**

<http://www.energystar.gov/>

Website contains broad information about energy efficiency and links to lists of specific ENERGY STAR qualified products.