

Local Climate Action Grants: Planning Application

MN <<http://censusreporter.org/profiles/16000US2746924-northfield-mn/>>

Project Title: Northfield Community Resource Center Geothermal Planning Grant

- Project type (choose one):**
- Develop plans to increase local climate adaptation / resilience
 - Develop plans to reduce local contributions to causes of climate change (GHG mitigation)
 - Develop a combined plan for increased resilience and GHG mitigation

Grant requested (not to exceed \$50,000):	\$ 50,000
Local match (choose one) and enter amount committed (must be equal or greater than required):	
<input checked="" type="checkbox"/> For population 20,000+ (requires 50% match of grant with local funds)	\$
<input type="checkbox"/> For population <20,000 (requires 5% in-kind / local funds for match)	\$
Total project cost (grant requested + local match):	\$

Answer these questions:		Yes	No
1.	Is applicant the sole source of matching funds for this project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	If no, explain:		
		Yes	No
2.	Is applicant in compliance with Minnesota’s tax and environmental regulatory requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	If no, explain:		

2. Project Details

- Project summary** (failure to answer all questions may result in disqualification of the proposed project):
Provide a brief narrative description of the project including the purpose, scope, community need and specific goals of the project and what **final deliverables** will be completed:

Briefly describe the expected outcomes/benefits, with quantitative metrics if possible (approximately 250 words):

The City of Northfield is seeking MPCA grant funding to complete a comprehensive feasibility study and planning process for installing a geothermal heating and cooling system at the Northfield Community Resource Center (NCRC). The project will evaluate the technical, environmental, and financial viability of converting one of the City’s highest energy use facilities to a clean, efficient, and resilient system. Work will include detailed ground and site assessments,

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analysis of geothermal system configurations, lifecycle cost evaluations, greenhouse gas (GHG) reduction modeling, and identification of phasing, permitting, and funding strategies to support future implementation.

This project addresses a significant community need. The NCRC is a major public facility with aging mechanical systems that are increasingly inefficient, expensive to maintain, and inconsistent with the community's clean energy goals. Northfield's Climate Action Plan identifies geothermal energy as a high impact pathway to reduce municipal emissions, lower long-term operating costs, and strengthen resilience of essential public services. A feasibility study is necessary to generate the technical data and planning framework required to move toward capital investment.

Expected outcomes and benefits include:

- A complete feasibility analysis with recommended geothermal design options.
- Quantified GHG emissions reductions, including projected annual and lifecycle CO₂e savings.
- Estimated operational cost savings from reduced energy consumption and maintenance needs.
- Improved system reliability and long-term resilience for a critical community facility.
- A clear implementation roadmap with financial modeling and funding recommendations.

Final deliverables will include a comprehensive technical report, cost and emissions modeling, recommended system design, and an implementation plan to guide next steps in pursuing geothermal installation at the NCRC.

2. Use of climate change data (answer all questions applicable to the proposed project):

All projects: Discuss how data about current Minnesota climate trends and projections of future climate conditions affecting the geographic area of the project will be used to inform the project, as relates to community resilience or to the resilience of the project that will be planned. List specific data sources that will be used. (approximately 250 words):

- a. Projects that address local contributions to climate change for political subdivisions and Tribal governments: Discuss how data about local GHG emissions and sources will be used to inform the project. List specific data sources and/or calculations that will be used. (approximately 250 words):

Local greenhouse gas (GHG) emissions data and emissions-source profiles will directly inform the geothermal feasibility study by ensuring that system planning aligns with the City of Northfield's climate goals and identifies the most effective pathways for emissions reductions. Northfield's municipal operations inventory shows that building energy use is one of the largest contributors to City owned emissions, with the Northfield Community Resource Center (NCRC) consistently ranking among the highest energy consuming facilities. By analyzing historical electricity and natural gas consumption at the NCRC, the project team will quantify baseline emissions and identify the potential magnitude of reductions achievable through geothermal conversion.

These data will be incorporated into lifecycle modeling to compare the facility's current fossil-fuel dependent system with projected emissions from a geothermal system operating under current and future grid conditions. Minnesota specific grid emissions factors will be used to model reductions over time as the electrical grid continues to decarbonize. This approach enables the City to evaluate avoided CO₂e emissions, cost effectiveness metrics, and long-term impacts aligned with Northfield's Climate Action Plan targets.

Specific data sources and calculations that will inform the project include:

- City of Northfield Municipal GHG Inventory (baseline building emissions)
- Facility-level utility data from Xcel Energy (electricity and natural gas use)
- Standard GHG Protocol methodology for stationary energy calculations
- Engineering modeling of geothermal system performance and avoided onsite combustion emissions

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Together, these sources will allow the City to quantify emissions reductions with precision and evaluate geothermal as a long-term decarbonization strategy for the NCRC.

- i. For projects focused only on a Tribal government or one or more county, city, town/township, or Regional Development Commission, does the applicant want to be provided (at no cost) the three most recent years available of local GHG emissions data for the political subdivision(s) that is the focus of the project? Yes No
 - o If Yes, are one or more tasks utilizing this data included in the project Workplan submitted with this application? Yes No
 - b. Projects that address local contributions to climate change for community-based organizations and educational institutions: Discuss how data about GHG emissions from specific community facilities and/or community member activities will be used to inform the project. List specific data sources and/or calculations that will be used. (approximately 250 words):
3. **Environmental Justice (EJ) Areas:**
Using the [MPCA's criteria and interactive mapping tool](#), will the applicant's geographic area specifically addressed by the proposed project include one or more MPCA-identified Environmental Justice areas (EJ areas)? Yes No

If yes (proposed project includes EJ areas):

- a. Will the planning to be undertaken by this project yield direct benefits for communities within these EJ areas? Yes No
 - i. If yes, describe these communities and how they will benefit:
 - ii. If yes, describe how the planning completed for this project will benefit EJ areas specifically compared to other communities in the area covered by the project:
- b. Will these communities be provided the opportunity to have a voice in decision-making through meaningful involvement as part of the planning completed for this project? Yes No
 - i. If yes, describe this engagement in Question 4. Engagement and involvement below.
 - ii. If no, explain why there are no opportunities for meaningful involvement:

Note: The RFP includes resources on climate equity and environmental justice to be used for planning in Section 6.

4. **Engagement and involvement:**

Briefly describe what groups (e.g., community residents, organizations, institutions) will be engaged during this planning project and how this engagement is included in the Workplan:

Community engagement will focus on the organizations and residents served by the Northfield Community Resource Center (NCRC), a hub for critical social services that support thousands of residents, including historically underserved populations. NCRC Tenants include United Way, the Community Action Center, FiftyNorth Senior Center, Head Start, Healthy Community Initiative and other nonprofit and public service organizations.

As part of the workplan, City staff will engage building tenants through an informational session and targeted outreach to share the goals of the geothermal planning project, including how energy efficient improvements can reduce operating costs, enhance building comfort, and support the City's climate action and greenhouse gas reduction goals. Engagement will prioritize input from tenants serving vulnerable populations to ensure that planning decisions promote equity, minimize disruption to essential services, and maximize co-benefits, such as lower utility costs, improved environmental sustainability, and strengthened community resilience.

This approach ensures that the planning process reflects the needs of both the organizations and the communities they serve, while fostering shared understanding and support for climate resilience.

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5. **Co-benefits from project completion to help ensure a lasting impact:**

Briefly describe what, if any, benefits the project deliverables will provide for the community to help ensure a lasting impact (e.g., will: meet application requirements for an identified funding opportunity, assign direct responsibility / timeline for implementation of included actions, include follow up adding budget line items to implement all or parts of the plan, identify actions that advance equity in the community):

The project will provide the City with a plan for incorporating a geothermal system at the Northfield Community Resource Center (NCRC), outlining technical options, cost considerations, and implementation steps. This planning work will set the groundwork for future installation, including identifying potential budget line items and incorporating the project into the Capital Improvement Plan (CIP). By delivering a clear, actionable document to City Council, the project ensures informed decision making and creates a pathway for Council supported investments that reduce operating costs, advance the City's climate goals, and enhance the sustainability and resilience of a facility that serves thousands of residents, including historically underserved populations.

6. **Barriers and challenges:**

Briefly describe the potential barriers or challenges for this project, and how will they be addressed:

Potential barriers for this project include site specific geotechnical constraints, uncertainty around capital costs, and the need for City Council approval to advance implementation. These challenges will be addressed through a comprehensive geothermal feasibility study that evaluates subsurface conditions, system design options, and cost scenarios specific to the Northfield Community Resource Center. Early engagement with City staff, building tenants, and decision-makers will help identify operational considerations and build understanding of the project's benefits. The planning process will also produce clear, actionable recommendations and cost estimates that support informed decision making and help position the project for future funding and inclusion in the City's Capital Improvement Plan (CIP).

7. **Metrics to track project success:**

- a. Describe what process or metrics will be used for tracking future implementation of actions identified in the plan. (approximately 200 words):

Key implementation metrics will include whether recommended actions are incorporated into the City's annual budget and Capital Improvement Plan (CIP), reviewed and approved by City Council, and advanced through design or engineering phases toward construction readiness. The City will also track whether the project supports future grant applications or leverages additional funding sources.

As implementation moves forward, the City will compare projected outcomes identified in the plan, such as energy savings, lifecycle cost reductions, and greenhouse gas emission reductions; with actual performance data as it becomes available to assess progress and effectiveness.

- b. Describe any additional process or metrics that will be used for tracking co-benefits of the planning project. (approximately 200 words):

Co-benefit metrics identified in the plan will include projected reductions in greenhouse gas emissions, estimated utility cost savings, and anticipated improvements in building energy efficiency and comfort. These metrics will demonstrate how the project supports long-term affordability and operational stability for both the City and tenant organizations.

3. **Experience and qualifications**

1. Briefly describe applicant organization's experience and qualifications related to its role in the proposed project. List similar projects and the roles specific personnel played from the applicant organization:

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The City employs approximately 123 full-time staff and operates with an annual operating budget of just under \$20 million, providing the organizational capacity and financial stability needed to successfully administer grant-funded projects.

Northfield has previously been awarded and successfully managed multiple state grants, including the Minnesota Department of Commerce's Solar on Public Buildings Grant Program. Through this program, the City led the installation of a 40 kW solar photovoltaic system on a City owned facility and was responsible for project management, contractor coordination, budgeting, reporting, and compliance with state grant requirements.

The proposed project will be overseen by a cross-departmental team that includes the City's Facilities Manager, Assistant to the City Administrator and City Engineer, with additional capacity provided by a full-time Sustainability Coordinator joining the team in January 2026.

2. Will anyone outside your organization be responsible for work performed? Yes No

If yes:

a. Provide name of outside organization(s) and contact information, experience, and qualifications specifically related to the proposed project. Describe the role(s) and responsibilities of the outside organization(s) in the project: The City has not yet selected an outside consultant for this project. A competitive Request for Proposals (RFP) will be issued in June 2026 to procure a qualified firm with experience conducting geothermal feasibility studies for public or institutional facilities.

The selected consultant will be responsible for evaluating site conditions at the Northfield Community Resource Center, analyzing geothermal system design options, estimating capital and operating costs, projecting energy savings and greenhouse gas emission reductions, and identifying implementation pathways. The consultant will also coordinate with City staff and building tenants and prepare final deliverables suitable for City Council review and future inclusion in the City's Capital Improvement Plan (CIP).

Contact information for the selected firm will be provided to MPCA upon contract award.

b. Provide detailed information about the roles, qualifications, and experience with similar projects of the specific people from each outside organization who will work on this project: N/A

- c. Have all of these individuals and organizations been consulted and agreed to work on the project? Yes No

If no, explain:

The City has consulted internal staff and building tenants regarding the proposed planning project and has received preliminary support. However, an outside consultant has not yet been selected. The City will issue a competitive Request for Proposals (RFP) in June 2026 to procure professional services for the geothermal feasibility study. Final participation and agreements will be established following consultant selection and contract execution.