

U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION



RECIPIENT: City of Rochester

STATE: MN

PROJECT TITLE: District Energy Solar and Geothermal Improvements in Rochester, MN

Notice of Funding Opportunity Number

Procurement Instrument Number
DE-EE0010776

NEPA Control Number
GFO-0010776-001

CID Number

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

A9 Information gathering, analysis, and dissemination

Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

B5.19 Ground source heat pumps

The installation, modification, operation, and removal of commercially available smallscale ground source heat pumps to support operations in single facilities (such as a school or community center) or contiguous facilities (such as an office complex) (1) only where (a) major associated activities (such as drilling and discharge) are regulated, and (b) appropriate leakage and contaminant control measures would be in place (including for cross-contamination between aquifers); (2) that would not have the potential to cause significant changes in subsurface temperature; and (3) would be located within a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to administer Congressionally Directed Spending (CDS) to the City of Rochester, MN (City) to install a commercially available geothermal heating and cooling system at the Mayo Civic Center (MCC), which would be converted from 180-degree Fahrenheit (F) hot water to 130-degree F hot water. The proposed installation would support only this facility. While it is intended to connect to a planned district renewable energy system serving other municipal buildings and private customers, any future work related to the larger system is beyond the scope of CDS funding.

Proposed project activities in this area would include drilling seven geothermal wells, installing submerged closed-loop heat exchangers, horizontal piping, new heat pumps, and associated hydronic heating and cooling equipment, and commissioning the system. An existing concrete plaza located along the north side of the MCC complex along E Center St. would be excavated to install the well field and underground piping. Each well would consist of a 12 inch (in) bore hole drilled to a depth of approximately 160 feet (ft). The wells would be connected underground by lateral piping that extends back into the immediately adjacent MCC Exhibition Hall. After completion, a 12-in pipe would protrude approximately 1 ft above the concrete surface next to the facility; all other piping would be underground. The plaza surface would be restored to its original functionality. Interior retrofits to the heating and cooling system would occur within the facility's existing mechanical room and would not involve any structural alterations, demolition, or new construction.

The proposed project would occur entirely on City property. No change in the use, mission, or operation of existing municipal facilities would arise out of this effort. All necessary state and/or local drilling and construction permits would be identified and obtained prior to commencing work. Industry standard methods and materials would be employed throughout the proposed project. The wells and new equipment would be installed following existing City construction health and safety policies and procedures to minimize risks to project workers and the public.

The MCC Exhibition Hall was built in 2002. The northeast corner of the Rochester Civic Theater, built in 1963, is only other building contiguous to the outdoor project area of temporary surface disturbance. DOE reviewed the National Register of Historic Places (NRHP) and Minnesota's Statewide Historic Inventory Portal (MnSHIP) and found no listed buildings or structures within the project area. DOE also reviewed publicly available information on MnSHIP and the MN Office of the State Archaeologist (OSA) Portal. MnSHIP search results show that the eastern half of the project

area falls within restricted layer OL-ROC-00382. There are two OSA inventoried sites located in the public land survey sections encompassing the project area (TWP:107 DIR:W RNG:14 SEC:35/36) Given historic land use and the extent of previous subsurface disturbance related to the expansion of facilities and roadways, the proposed geothermal installation is not likely to reveal intact soil horizons containing archaeological resources. Pursuant to Section 106 of the National Historic Preservation Act, DOE submitted a Request for Review to the MN State Historic Preservation Office and received concurrence with the determination that no historic properties would be affected by the proposed project.

The proposed project would be located outside of a nearby 100-year floodplain. Wells containing submerged closed-loop heat exchangers operate by non-consumptive recirculation of groundwater and are designed to have no effect on the aquifer. DOE has considered the scale, duration, and nature of the proposed activities to determine potential impacts on other sensitive resources, including those of a biological, ecological, cultural, and socioeconomic nature. DOE does not anticipate impacts on these resources which would be considered significant or require DOE to consult with other agencies or stakeholders.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Geothermal Technologies Office (GTO)
Review completed by Whitney Donoghue on 11/1/2024.

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:



Matthew Blevins

NEPA Compliance Officer

Date: 11/7/2024

FIELD OFFICE MANAGER DETERMINATION

- ☒ Field Office Manager review not required
- ☐ Field Office Manager review required

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :