



# Geothermal Clean Energy Challenge

## Save Energy, Reduce Greenhouse Gas Emissions

The New York Power Authority (NYPA) and the New York State Energy Research and Development Authority (NYSERDA) developed the Geothermal Clean Energy Challenge to **stimulate and finance the installation of best-in-class, large-scale geothermal systems**, also known as ground-source heat pump (GSHP) systems. These systems reduce energy costs and greenhouse gas emissions. Increasing the use of these systems will play a major role in achieving Gov. Andrew M. Cuomo’s goal to reduce New York State’s greenhouse gas emissions 40 percent by 2030.

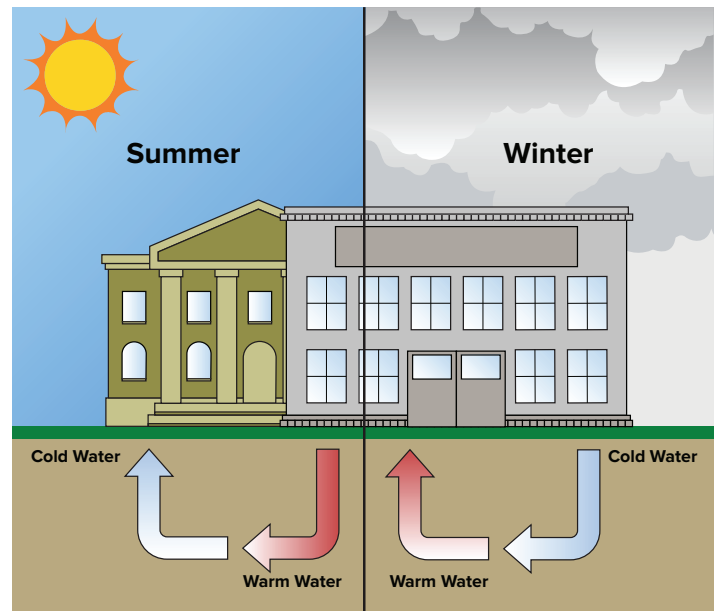
The Geothermal Clean Energy Challenge provides **free technical support, financial assistance and implementation services**. Support includes site screening analysis summary reports (Stage 1), refined economic analysis advanced reports (Stage 2), audit-grade detailed design study and business planning reports (Stage 3), and project design engineering, procurement, and construction and performance monitoring (Stage 4). Applications will be judged against program requirements at each stage.

## Eligible Organizations

- Colleges/universities
- K–12 schools
- State and local government entities
- Healthcare organizations

## Benefits

- Cost savings
- System longevity
- Reliable and low maintenance
- Reduced greenhouse gas emissions



## About Ground-Source Heat Pump Systems

GSHP systems use consistent underground temperatures to efficiently heat and cool buildings. GSHPs combine an underground (or underwater) heat exchanger (ground loop) system with a pump system.

*Continued on reverse*

**Additional Information:** [nypa.gov](http://nypa.gov) | [nypa.gov/geothermalchallenge](http://nypa.gov/geothermalchallenge)

**A Program of the New York Power Authority and NYSERDA**

## How GSHPs Work

**Heating mode:** Ground heat is captured by the ground loop, circulated and distributed into the building.

**Cooling mode:** Heat from the building is captured and transferred into the ground.

**Potential uses:** Space heating/cooling, warm water, chilled water, refrigeration and pool heating.

## Initial Screening

Summary reports will be provided for the first 75 eligible GSHP systems that apply, at no cost, to sites. This includes a quantitative analysis of the technical and economic viability of the proposed systems and a review of qualitative factors important for implementation.

To qualify for the initial summary report, a site must:

- Be located in New York State
- Have heating or cooling loads of at least 100 tons (100 tons typically corresponds to approximately 40,000 square feet of conditioned space for one or more buildings combined)
- Not have active commitments for studies of the proposed GSHP systems from NYSERDA, NYPA or their local electric utility
- Provide all information requested by program administrators

## Advanced Reports Generated

Applicants who move forward in the program will receive the following reports at no cost:

- Refined economic analysis
- Building energy model

Funding assistance is available for participants with signed program commitments to further receive:

- American Society of Heating, Refrigerating and Air-Conditioning Engineers Level 2 targeted audit
- Site geotechnical testing and analysis
- Schematic GSHP system design

For detailed program information and an application, visit [nypa.gov/geothermalchallenge](http://nypa.gov/geothermalchallenge)

**Entry deadline: April 30, 2018 or until 75 sites are enrolled, whichever occurs first.**

