

THE HEIGHTS COMMUNITY ENERGY



The Heights is a once in a lifetime housing investment for East Side Saint Paul that can help address:

- Low homeownership, unaffordable rents
- Multi-generational households bursting at the seams
- Poor weatherization and the aging housing stock

The addition of a district owned geothermal energy system can:

- Create access and awareness to sustainable energy options
- Close the clean energy divide
- Keep communities housed



The Heights

- 112-acre brownfield
- 1,000 units of housing
- 1,000 living-wage jobs
- 20 acres of green space
- Demolition and remediation complete



April 1 – Start utility construction.
June 15 – Start of construction on
first buildings.

Anticipated Schedule - Buildings



Housing Affordability



Total Multifamily Rental Units

Rental Rates		
	Workforce	40%
	60% AMI	40%
	50% AMI	10%
	30% AMI	10%

Total For Sale Units

Buyer Income		
	81%-100% AMI	25%
	61%-80% AMI	50%
	<60% AMI	25%

The Heights Environmental Justice Goals

- Zero-carbon
- Essential housing
- Enable wealth generation
- Increase resilience to natural and human-made hazards
- Art and beauty



Carbon Neutrality Site-Wide

Port's mission: sustainable and equitable development

Community's directive for community-based network geothermal system to support goal of carbon free community

City of Saint Paul Comprehensive Plan Sustainability Strategies for the Heights:

S-1: Support site-wide strategies that reduce carbon emissions, such as alternative transportation options, well-connected and varied land uses, and meeting city-wide waste and diversion goals.

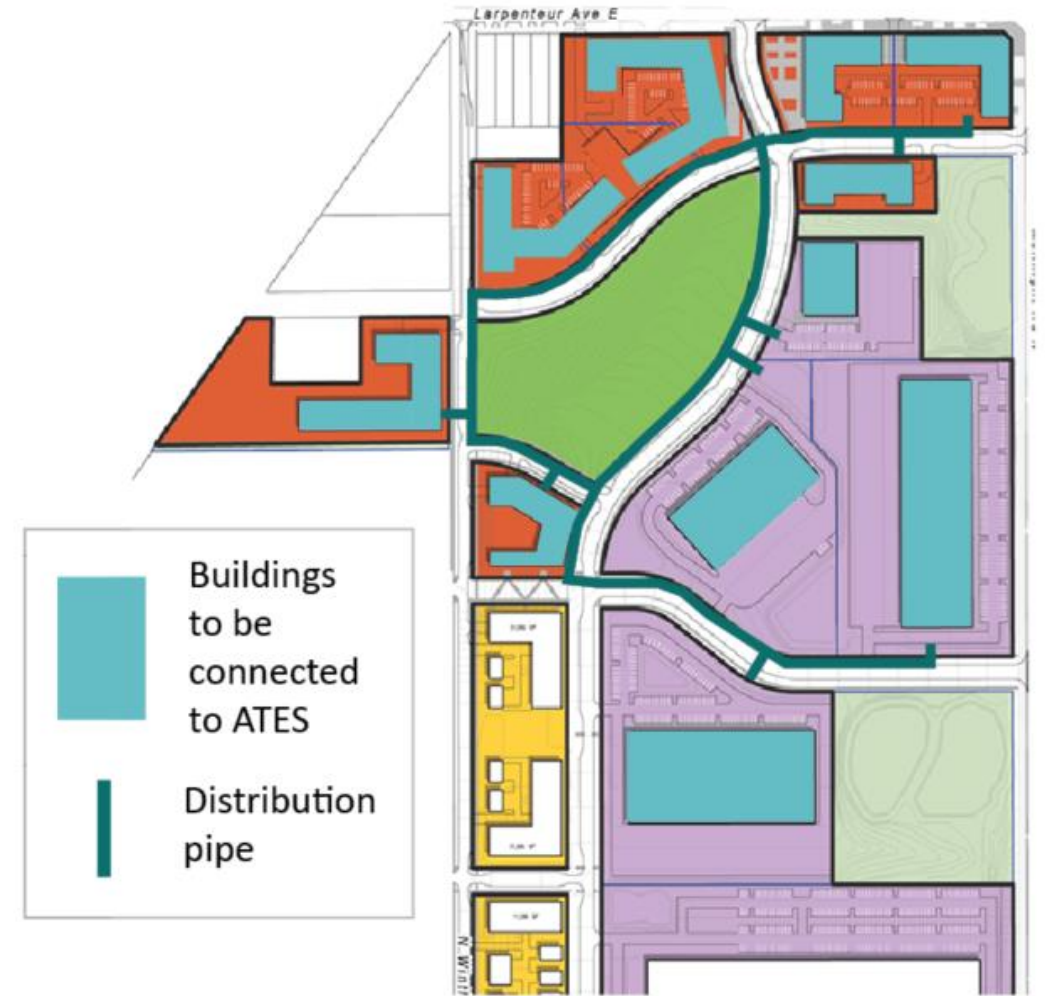
S-4: Meet energy demand using renewable energy sources to the greatest extent feasible, prioritizing on-site generation.

S-5: Restrict natural gas service to systems or devices for which an equivalent all-electric system or design is unavailable, impractical, not cost effective, or is determined to present an equity gap.

S-6: Pursue the integration of ground source energy systems such as geothermal energy at the site and/or district scale to reduce energy demand.

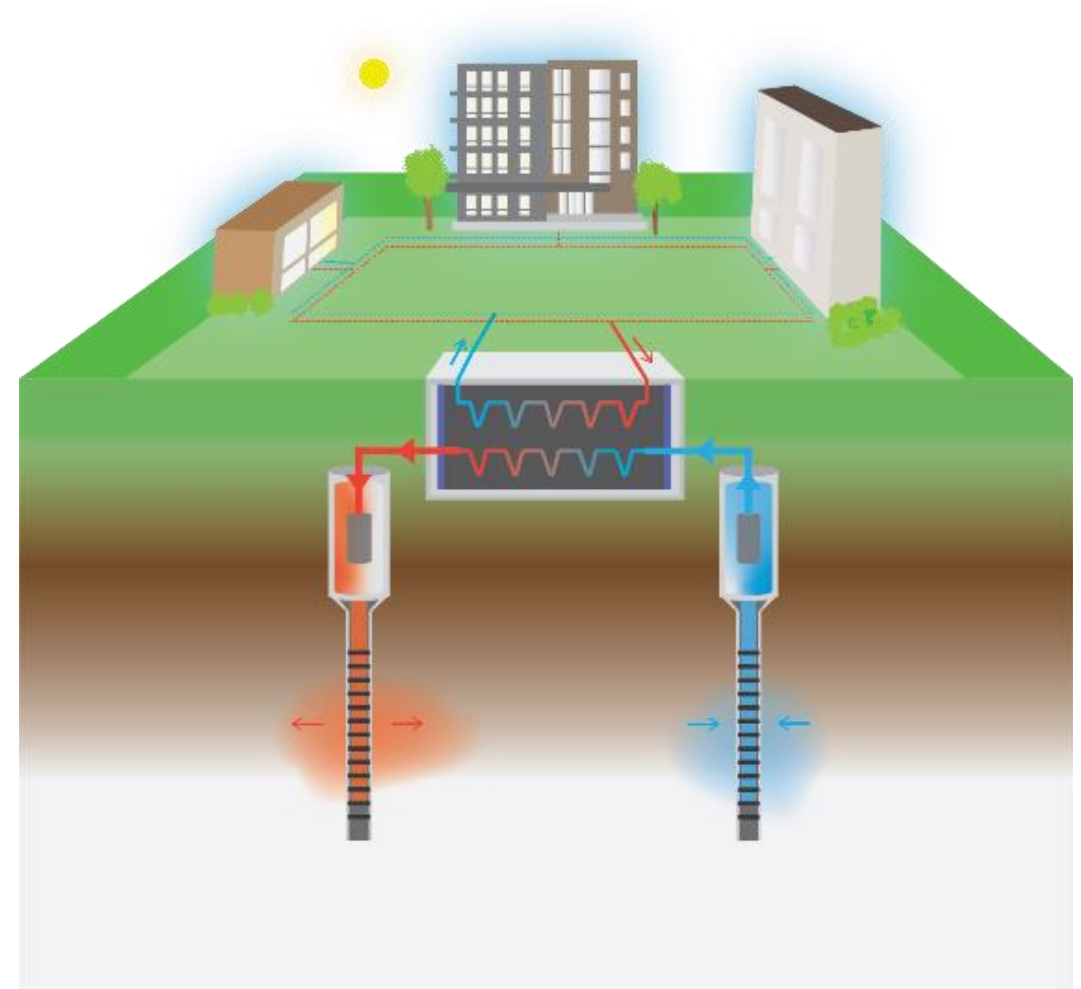
Thermal Energy Network

- Renewable energy to heat and cool energy efficient buildings
- Eliminates natural gas
- Cost-based rates
- Reliable energy services
- Easy energy operations
- Small mechanical footprint



Aquifer Thermal Energy Storage (ATES)

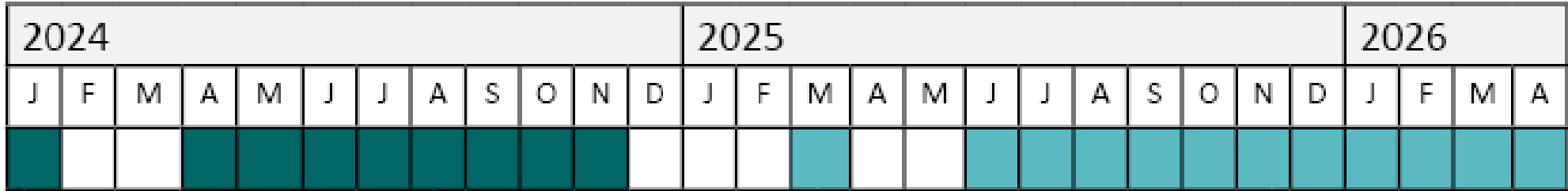
- Wells, piping network, and heat pumps
- Move heating and cooling between buildings and the local aquifer
- Heating without on-site natural gas consumption
- Smaller footprint than traditional geothermal wellfield
- Favorable hydrogeology
- Couple with renewable electricity



IRA Direct Pay Credit



Schedule & Capital Requirements



**Distribution
Design Tabletop**
Source: City/Port
\$450,000

**Distribution System
Pipe/Well Header
in the ROW**
Source: MnCIFA
(Green Bank) IRA
Tax Credit Advance
\$4.7 million

**Test Wells to
Measure Flow**
Source: District
Energy
\$350,000

Well Construction
Source: TE Utility Financing/
City and County Support
\$6 million

Note: Construction costs are estimates and will be updated once design and engineer is completed.

Request: \$4.7M of \$12M

- Requesting short-term bridge loan or IRA credit advance
- Investment to install energy system infrastructure during road and utility installation (summer 2024)
- No interest in 2024. Accrue interest through repayment in 2027.

The Heights Community Energy Estimated Sources & Uses of Funds:		
Sources-		
MnCIFA Loan	\$	4,700,000
City of Saint Paul / Saint Paul Port Authority	\$	450,000
The Heights Community Energy	\$	350,000
MnCIFA/Grant Funding/Utility Financing/City County Financial Assistance	\$	6,500,000
Total Sources	\$	12,000,000
Uses-		
Distribution Design (Tabletop)	\$	450,000
Distribution System	\$	4,700,000
Test Wells and Flow Measurements	\$	350,000
Well Construction	\$	6,000,000
Other Costs	\$	500,000
Total	\$	12,000,000