

# Providence, RI: Establishing a Permanent Pool of Capital for Energy and Resilient Infrastructure Updates

*Building a Clean Energy Investment Pipeline in Providence, Rhode Island*

## AT A GLANCE

### Investment Priorities

Municipal & School Solar Portfolios, Ground-Source Heat Pump District Networks, Net-Zero School Construction, Community-Scale Clean Energy & Resilience

### Pipeline Value

\$614.6M (solar \$16M; net-zero school construction \$429M; geothermal networks \$77.6M; ProvPort solar \$10M)

### Key Partners

City of Providence Department of Sustainability, PowerOptions, Climate Jobs RI, Rhode Island Department of Education (RIDE), Rhode Island Energy, Sustainable Endowments Institute, Planning Communities

### Community Impacts

- 150,000+ MT CO2e cumulative GHG reduction through 2040
- Up to \$12M in projected City savings

### Strategic Role:

Co-Investor | Project Developer

### The Path Forward

Finalizing the Green Revolving Fund ordinance and deploying \$3M in initial capital toward near-term solar projects to capture Investment Tax Credit (ITC) incentives, while advancing geothermal feasibility studies at four school campus sites and securing seed capital for an external Green Revolving Fund targeting larger-scale projects.

## THE BIG PICTURE

The City of Providence has electrified 22% of its municipal buildings and has a clear mandate to reach net zero across all city-owned facilities by 2040. With support from the Municipal Investment Fund (MIF), Providence is converting that progress into a durable, systematic strategy: launching a Green Revolving Fund (GRF) to recycle incentive savings into future projects, standing up the Providence Decarbonization Network to coordinate public and private capital, and embedding ground-source heat pump networks into the largest school reconstruction program Rhode Island has undertaken.

**The Challenge:** Finding a reliable, continuous funding mechanism to advance upgrades of aging municipal facilities (specifically school buildings) in critically impacted neighborhoods without straining local budgets.

**The Solution:** Creating the "Providence Decarbonization Network" to pool resources and launch localized GRFs, ensuring a permanent pool of capital for energy-efficiency and resilience upgrades. This will be the first integrated, self-reinforcing decarbonization finance structure in the city.



## CREATING THE FOUNDATION: NETWORKS, FUNDS, AND MARKET INFRASTRUCTURE

Through the Municipal Investment Fund (MIF), Providence has built the institutional and financial infrastructure needed to move from project-by-project to a coordinated, scalable decarbonization program.

- **Providence Decarbonization Network:** Developed during the MIF grant period, this cross-sector partnership brings together city departments, state agencies, Rhode Island Energy, higher education institutions, developers, philanthropic foundations, and labor and workforce organizations to identify projects, share resources, and advance financing strategies. The network built an online engagement platform to streamline project submissions, recruit partners, and track progress.
- **Green Revolving Fund (Internal):** Providence is establishing a municipal GRF seeded with ~\$3M from surplus capital improvement funds and managed by the Department of Sustainability in collaboration with the Finance Department. Incentives and rebates from funded projects revolve back into the fund to support future investments. A draft ordinance is in development for city council approval. The GRF's initial focus is on securing ITC credits for solar installations across the municipal and school portfolios.
- **External Green Revolving Fund (Exploratory):** Providence is exploring the development of a separate external GRF to support decarbonization projects in buildings owned by universities, businesses, and nonprofits.
- **Policy Foundation:** Providence's decarbonization ordinance (Ordinance No. 2024-3) requires all municipal buildings to be carbon neutral by 2040. The Building Energy Reporting Ordinance (BERO) mandates annual energy reporting for large buildings, generating the data needed to prioritize and track projects. Rhode Island's C-PACE program provides long-term financing for commercial, industrial, nonprofit, and multifamily property owners for eligible energy improvements. The City's First Source Ordinance and registered apprenticeship requirements embed local workforce and labor standards into all city-funded projects.



*An image of stakeholder engagement.*

## FEEDING THE PIPELINE: PRIORITY PROJECTS SOLAR NOW, GEOTHERMAL NEXT

Providence is advancing a two-phase origination strategy: deploying a near-term solar portfolio to generate immediate ITC savings that capitalize the GRF, while simultaneously evaluating how to develop four campus-scale geothermal networks co-located with state-funded school reconstruction projects.

**Municipal and School Solar Portfolio:** 19 projects spanning municipal facilities, schools, and community centers are identified, totaling ~\$16M in project costs. Solar is the GRF's priority deployment sector, using near-term contracts to capture the ITC direct pay before it expires.

- **Investment Readiness:** Advanced Predevelopment. Contracts are being structured to meet ITC safe harbor timelines.

**Ground-Source Heat Pump Networks — Four Campus Sites:** Providence is advancing geothermal feasibility across four multi-building school campus sites; each designed to extend heat pump loops to adjacent properties and create district-scale thermal networks. Brown University has completed feasibility studies for its adjacent campus and is sharing data and discussing collaboration. Providence is also engaging with the University of New Hampshire for technical assistance on geothermal assessments.

- **Investment Readiness:** Market-Scale Feasibility. Site and ground assessments are the next pre-development step, with the total geothermal pipeline estimated at ~\$77.6M across all four sites.

**Net-Zero School Reconstruction Portfolio:** Seven Providence Public School District schools are planned for replacement or major reconstruction under the RIDE school building authority, totaling ~\$429M in project costs. All new buildings are planned to be fully electrified. This represents the largest capital allocation in the pipeline and the primary vehicle for embedding clean energy standards into the school portfolio at scale.

- **Investment Readiness:** Advanced Predevelopment. Projects are entering or completing the design phase under RIDE's construction program.



## PROJECTS SEEKING CAPITAL: FIRST MOVER

One project has emerged as Providence's potential first public-private partnership capital structure and is most advanced in the financing process.

### ProvPort Rooftop Solar

Rooftop solar installation at ProvPort, a City-owned port in South Providence, a critically impacted community with elevated asthma rates, is currently operated as a nonprofit under a long-term management agreement. The port already operates a 1.5 MW onsite wind turbine.

- **Capital Stack:** Total project cost \$10M; transaction size \$5M.
- **Revenue Streams:** On-site solar generation offsets port operational energy costs.
- **Investment Readiness:** Advanced Predevelopment. Changes in funding have required the City and ProvPort to reassess capital stacks. ProvPort's soon-to-be-released Master Plan will consolidate project priorities.

Timeline: Near-term predevelopment coordination between City and ProvPort is underway.

## PROVEN IMPACT & NEXT STEPS

Providence has built the financial and institutional architecture to scale its building electrification threshold from 22% to full portfolio coverage. The MIF-funded GRF, Decarbonization Network, and geothermal site analysis collectively unlock the capital flows that the city cannot generate through its capital improvement budget alone.

- **The Multiplier Effect:** Every ITC-qualifying solar contract locked in through the GRF's initial deployment recovers up to 30% of project costs back into the fund, compounding the City's decarbonization capital base. Providence's Municipal Building Decarbonization Roadmap projects 150,000+ MT CO<sub>2</sub>e in cumulative reductions through 2040, a 50%+ reduction in Energy Use Intensity across the portfolio, and up to \$12M in energy costs, all of which could flow back into the GRF over time.
- **The Strategic Gap:** The four geothermal campus sites represent \$77.6M in infrastructure investment, where upfront capital is the primary constraint. Site and ground assessments are the immediate pre-development need before engineering and financing can be structured. For the external GRF, the City has identified \$500K in potential seed capital and confirmed philanthropic interest, but meaningful scale requires additional anchor contributors to reach the \$5M to \$15M capitalization target.

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