

# Efficiency Retrofitting and Thermal Load Electrification Program

Request for Proposals

Submission Deadline: 12PM EST on August 27<sup>th</sup>, 2021.

Department of Planning and Development,  
Sustainability Office,  
City of Ithaca, N.Y.



# 1. Summary

The City of Ithaca is looking for a **Program Manager** to partner with the City in a multi-year, energy **Efficiency Retrofitting and Thermal Load Electrification Program**, for existing residential and commercial buildings, with specific emphasis on serving disadvantaged communities<sup>1</sup>. The program is expected to take full advantage of existing, off-the-shelf, commercially available technologies; however, applicants are strongly encouraged to submit proposals incorporating emerging, **grid-interacting solutions for load flexibility**. Please refer to section 7. **RFP Submission Requirements** for further information.

# 2. Justification

On June 5<sup>th</sup>, 2019, the City of Ithaca’s Common Council adopted the **Ithaca Green New Deal (IGND)**. This signaled the City’s commitment to fight climate change, economic inequality and racial injustice, while at the same time committing to enable a just transition to a carbon neutral economy by 2030.

The Ithaca Green New Deal goals included the following:

- Achieve carbon neutrality community-wide by 2030.
- Meet the electricity needs of City government operations with 100% renewable energy by 2025.
- Reduce emissions from City vehicle fleet by 50% by 2025.
- Ensure the benefits are shared among all local communities to reduce historical social and economic inequities.
- Facilitate a comprehensive public engagement process.

In 2021, in response to the economic and social effects of the pandemic, the IGND was further refined as a *people-first, socially driven economic strategy, seeking to elevate social capital and to guarantee equity, justice and sustainable prosperity to all members of the community. It represents the City of Ithaca’s response to climate change and social injustice; a new global imperative demanding urgent action, collaboration and the democratization of community engagement.*

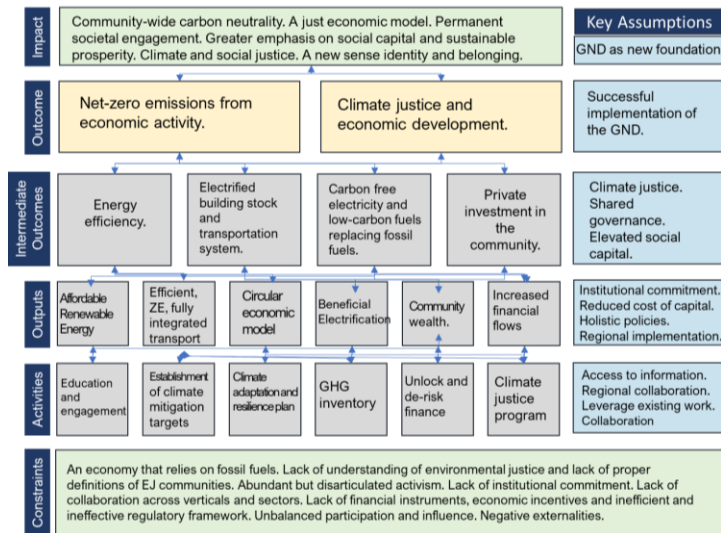


Figure 1. Ithaca Green New Deal Theory of Change

<sup>1</sup> Also referred to as Climate Justice Communities, including low- and moderate-income communities.

The City of Ithaca’s carbon emissions are estimated<sup>2</sup> around 400,000 Mt CO<sub>2</sub>, including Scope 2 emissions. It identifies stationary sources, including residential and non-residential buildings, and transportation as the top two sources of greenhouse gas (GHG) emissions.

The City of Ithaca’s emissions reduction strategy relies on four different concurrent programs: 1) energy efficiency, 2) electrification, 3) decarbonization of the electric grid and 4) carbon capture. It should be noted that low-carbon fuels will be considered to achieve net-zero emissions by 2030.

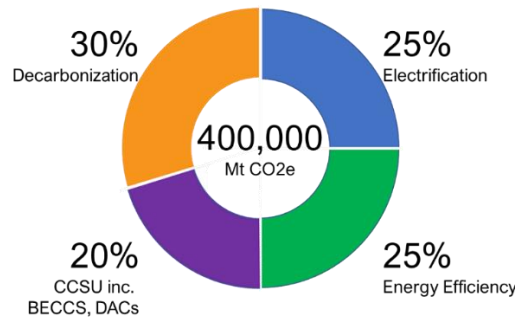


Figure 2. Emissions Reduction Strategy by Program

As part of the overall emissions reduction strategy, the City of Ithaca has launched ten interrelated emissions-reduction and climate justice programs:

1. **Shared Governance.**

**Objective:** To establish a permanent process of democratic engagement to guarantee community involvement in the implementation of the Ithaca Green New Deal, with special emphasis on disadvantage communities.

2. **Climate Justice.**

**Objective:** To define, identify and engage Climate Justice Communities<sup>3</sup> to whom the City will redirect 50% of the economic, social and environmental benefits of the Ithaca Green New Deal.

3. **Workforce Development.**

**Objective:** To consolidate a Green Workforce Development Taskforce (GWDT) for the promotion and creation of at least 1,000 green jobs in the Ithaca Area by 2030.

4. **Financial Risk Mitigation.**

**Objective:** To develop and implement risk mitigation strategies to unlock and de-risk finance, relying on government-led projects as catalyst for private and philanthropic investment in the community.

5. **Circular Economy.**

**Objective:** To implement a circular economic model for the reduction of solid and organic waste, with special focus on upstream solutions to reduce plastic waste and the efficient implementation of the NYS food scraps and food donation law.

6. **Electric Grid Decarbonization.**

**Objective:** To procure 100% carbon-free electricity through the establishment of a Community Choice Aggregation program in collaboration with other municipalities within Tompkins County.

7. **Renewable Energy.**

<sup>2</sup> Current estimation based on available data (2021).

<sup>3</sup> According to the Federal Government Justice40 Initiative and the Climate and Justice Screening Tool developed by CEQ and USDS.

**Objective:** To promote the financing and deployment of 1MW of roof-top and ground-mounted solar PV projects within City boundaries.

#### 8. Energy Efficiency Retrofit and Thermal Load Electrification.

**Objective:** To promote energy-efficiency retrofits and elimination of fossil fuel combustion for building energy services in new constructions and existing residential and commercial.

#### 9. Low-Carbon Fuels.

**Objective:** To promote the production and use of low-carbon fuels as an alternative to natural gas, diesel and fuel oil in applications where electrification may not be possible due to energy flow or energy density considerations.

#### 10. Electric Vehicles and Infrastructure.

**Objective:** To deploy at least 1,000 new 2-wheel and 4-wheel light-duty electric vehicles, while promoting the integration of zero-emissions public, shared and ride hailing services and infrastructure. To deploy at least 50 Level 2 and 10 FCDC public charging stations by 2024.

### 3. Energy Efficiency Retrofit and Thermal Load Electrification

To enable a just transition and meet the strategic goals of the IGND, as well as to **advance the specific objectives of programs 2, 3, 4, 6, 7, 8 and 10**, the City of Ithaca is looking for a program manager to lead the implementation of a comprehensive, multi-year **Energy Efficiency Retrofit and Thermal Load Electrification Program**, focused on residential and non-residential buildings, with special emphasis on serving low- and moderate-income communities.

The main objective of the program is to **gradually improve the overall energy performance of the city's building stock**, by assessing each individual building and determining potential energy efficiency improvements<sup>4</sup>, through energy retrofitting and the substitution of non-electric thermal loads and air conditioning systems, with air-source and ground-source heat pumps, and the installation of efficient lighting, photovoltaic and solar thermal systems, onsite storage, smart thermostats and smart meters.

Given the capital-intensive nature of this program, the program manager is also expected to present an **innovative financial strategy**, including the identification of financial risks and the implementation of financial risk mitigating strategies<sup>5</sup>. This with the intention of **reducing the cost of capital** and to offer **innovative zero-cost and low-cost financial products** to all members of the community, with special emphasis on low- and moderate-income communities.

For this purpose, the program manager is also expected to assist with the creation and administration of a long-term financing facility, capable of managing a **structured long-term, zero-cost and low-cost lending and operating leasing programs**, for residential and commercial customers. We expect the program manager to be able to identify and **rely on state and federal government incentives, grants and rebates**, as well as to take full advantage of economies of scale and bulk purchasing power, to **reduce initial capital requirements** and capital calls.

This City of Ithaca's building stock includes approximately 6,000 buildings, including single family and multifamily residential buildings, commercial, mixed-use, schools, churches, institutional and special purpose buildings<sup>6</sup>.

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<sup>4</sup> Focused on minimizing energy consumption and peak loads.

<sup>5</sup> Considering, for example, loan loss reserve/credit enhancement programs.

<sup>6</sup> This represents approximately one third of the total building stock in Tompkins County

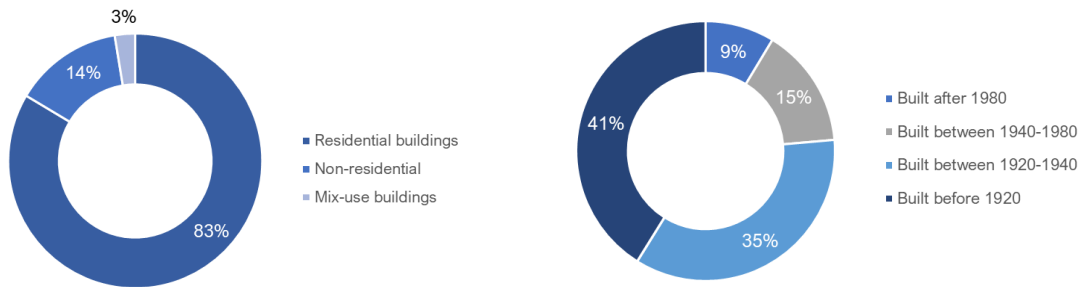


Figure 3. City of Ithaca's Building Stock

The **Energy Efficiency Retrofit and Thermal Load Electrification Program** is expected to be implemented in two stages:

- **Phase 1:** 1,000 residential and 600 non-residential units, with emphasis on LMI communities.
- **Phase 2:** 3,500 residential and 900 non-residential units, with emphasis on LMI communities.

It is the City's expectation that not all buildings will require deep envelope intervention or the electrification of thermal loads; however, the expectation is that **all buildings will be assessed prior to being issued a recommendation to improve overall energy performance** and eliminate carbon emissions, potentially including some of the following measures:

- Envelope intervention to maximize performance and reduce energy loads.
- Replacement of low performance windows.
- Installation of energy recovery ventilation systems.
- Efficient and automated LED lighting.
- Electrical panel and installation upgrades.
- Substitution of electric appliances with highly efficient, smart electric alternatives.
- Substitution of natural gas, propane and fuel oil space heating systems with cold-climate air-source and ground-source heat pumps for space heating and cooling.
- Substitution of natural gas and propane water heaters with heat pump water heaters with storage tanks.
- Substitution of natural gas and propane cooking stoves with electric induction cooktops.
- Substitution of natural gas and propane clothes dryers with electric heat pump dryers.
- Load flexibility, grid interacting, advance control systems.
- Solar PV and onsite energy storage systems.
- Bi-directional electric vehicle charging systems.

The City of Ithaca expects this program to have a deep and permanent effect on the city's electric distribution grid. It is therefore the expectation that the program manager will work with the City of Ithaca and NYSEG/Avangrid in constantly assessing and recommending actions to manage the impact of electrification on the City's electric grid.

## 4. Climate and Economic Justice

The IGND is a people-first approach to carbon neutrality, where equity, justice and sustainable prosperity represent the core values of the City's economic transformation strategy. A key objective of the City's strategy

is to **redirect at least 50% of the economic, social and environmental benefits to disadvantaged communities**<sup>7</sup>.

The City identifies disadvantaged communities as either a **group of individuals living in geographic proximity to one another, or a geographically dispersed set of individuals**, where either type of group experiences common conditions such as the following<sup>8</sup>:

- Low income, high and/or persistent poverty.
- High unemployment and underemployment.
- Racial and ethnic residential segregation, particularly where the segregation stems from historic discrimination by government entities.
- Linguistic isolation.
- High housing cost burden and substandard housing.
- Distressed neighborhoods.
- High transportation cost burden and/or low transportation access.
- Disproportionate environmental stressor burden and high cumulative impacts.
- Limited water and sanitation access and affordability.
- Disproportionate impacts from climate change.
- High energy cost burden and low energy access.
- Jobs lost through the energy transition.
- Access to affordable healthcare.

Using these criteria, the City of Ithaca will assist the program manager in identifying underserved communities. The expectation is that the program manager, during the implementation of both Phase 1 and Phase 2, will prioritize energy assessment, financial support and interventions in these communities.

## 5. Local Workforce

The City of Ithaca recognizes the effects the pandemic has had on the city's economy, which has disproportionately affected disadvantaged communities, where unemployment or underemployment remain higher than in other groups. It is therefore the intention of the City of Ithaca to create a **Green Workforce Development Taskforce** to consolidate existing efforts and assist in the development and certification of local skilled workers.

The City of Ithaca also recognizes the existence of several local contractors and engineering firms specialized in energy efficiency retrofitting and electrification of thermal loads. Therefore, it is the expectation of the City of Ithaca that the program manager will **subcontract at least four local firms through an open competitive process**, while still **maintaining the role of program manager and main contractor** for the entire program. It should be noted that the program manager will remain **in charge of reporting progress**, as well as **guaranteeing the same quality of service and the lowest possible costs**, within the parameters to be agreed upon between the City of Ithaca and the program manager.

## 6. Financing

The goal of the **Energy Efficiency Retrofitting and Thermal Load Electrification Program** is to accelerate the decarbonization of the City's building stock. One of the main barriers remains access to finance. It is therefore

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<sup>7</sup> As in Executive Order 14008.

<sup>8</sup> Council on Environmental Quality (CEQ), National Climate Advisor, White House Environmental Justice Advisory Council, in accordance to Executive Order 14008.

the expectation of the City of Ithaca that the program manager will be able to create a financing facility through which it will provide **financial assistance to individuals and commercial entities**, in the form of **long-term (10 to 15 years), zero- to low-cost energy performance lending and operating leasing programs**.

Given the scale of the multi-year project, it is the expectation of the City of Ithaca that the program manager will be able to – either directly or through partnerships – **finance at least 1,000 residential and 500 commercial retrofitting and electrification projects, with an estimated cost of \$100 million, projected during Phase 1**. Therefore, the program manager is expected to **demonstrate corresponding financial capacity**.

The City of Ithaca strongly encourages potential program managers to propose innovative risk mitigating strategies aiming at reducing the cost of capital, including, but not limited to, loan loss reserve/credit enhancement or other forms of innovative insurance and financial products.

## 7. RFP Submission Requirements

The City of Ithaca encourages prospective program managers to submit the following documents, covering all aspects and requirements detailed in **sections 1 through 6 of this RFP<sup>9</sup>**. Each proposal will be evaluated based on the following documents and requirements. Notwithstanding the weight indicators below, the City reserves sole discretion to select the program manager.

- a) **Cover letter**. Please provide a cover letter<sup>10</sup> summarizing your qualifications, operational experience, financial backing and proposed approach to the execution of this project. **(Weight: 5%)**
- b) **Experience**. Please provide a detailed account of your experience in energy efficiency retrofitting and thermal load electrification projects, including examples of projects developed within the last three years. Please include aspects related to program management, partnerships, supply chain, assessment and monitoring software tools, cost structure and quality assurance. **(Weight: 30%)**
- c) **Financing**. Please provide a detailed description of your experience financing similar projects and recommend a financial structure for the execution of Phase 1, including strategies to minimize risk and reduce the cost of capital. Please include any innovative financial structure you want to discuss with the City of Ithaca, as well as all state and federal incentives you may rely on for the execution of this project and to further reduce overall project capital costs. To the extent the proposal requires City participation (e.g. grant application), please describe the City's proposed role in as much detail as possible. **(Weight: 30%)**
- d) **Disadvantaged Communities**. Please provide a detailed description of how you intend to support the City of Ithaca's strategy to redirect the benefits of this project to low- and moderate-income communities. Please include proposals for building selection, pricing, financing and execution. **(Weight: 10%)**
- e) **Job Creation**. Please provide a detailed description of how you propose to work with the City of Ithaca and other organizations in the development of a green workforce development program, including strategies to attract and train workers from disadvantaged communities. **(Weight: 10%)**
- f) **Economies of Scale**. Please provide a detailed description of how you plan to manage the scale of Phase 1 of this project, indicating how you plan to take advantage of the potential economies of scale

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<sup>9</sup> All requirements should be submitted as a single package. No corrections will be accepted after the first submission, unless explicitly requested by the City of Ithaca. Failing to submit any of the required sections will lead to disqualification. Selection criteria will be based on assessment of each section according to the established weight.

<sup>10</sup> Between 2 and 4 pages in length.

and bulk purchasing power, including direct relationships you may be able leverage with manufacturers. **(Weight 15%)**

- g) **Annexes.** Please include your expectations of the City of Ithaca as well as any other information you may consider important for the City to properly assess your proposal. **(Required)**
- h) **Contact information.** Please provide name, position, email and telephone number of at least two people, indicating who would be the main point of contact throughout the RFP process. **(Required)**

## 8. Important Dates

Publication of RFP	August 2 <sup>nd</sup> , 2021.
Zoom Q&A session <sup>11</sup>	August 11 <sup>th</sup> , 2021, at 2:00 PM EST.
Proposal submission deadline	August 27 <sup>th</sup> , 2021, at 12:00PM (noon, EST).
Selection of program manager	September 10 <sup>th</sup> , 2021.
Projected start <sup>12</sup>	Q4 2021.

## 9. Submission

Submissions will **only be accepted via email** using the following address and subject line:

[laguirretorres@cityofithaca.org](mailto:laguirretorres@cityofithaca.org)

**Subject line:** RFP Proposal Submission – [COMPANY NAME]

## 10. Next Steps

Following selection, the City of Ithaca intends to work with the program manager to define the terms of the exclusive, preferred partner agreement, including the definition of a workplan, including milestones and deliverables for **Phase 1** and potentially **Phase 2**.

## 11. Contact information

All questions and communications should be in writing and sent via e-mail. Questions and requests for clarifications related to definition or interpretation of this RFP shall be submitted in writing as an attached PDF document prior to 5 PM EST on August 10th, 2021:

**Luis Aguirre-Torres**  
Director of Sustainability  
[laguirretorres@cityofithaca.org](mailto:laguirretorres@cityofithaca.org)

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<sup>11</sup> If you wish to participate in the Zoom Q&A call, please email [laguirretorres@cityofithaca.org](mailto:laguirretorres@cityofithaca.org) informing the City of Ithaca of your intent to participate, including a PDF document with your questions, prior to 5PM EST on August 10<sup>th</sup>, 2021. In response, a Zoom link to participate will be distributed prior to the date and time stipulated in this RFP.

<sup>12</sup> Subject to negotiations with the program manager.