Overview

City Name	Project Name	Tech Area	Budget for Solution	City Point of Contact
Glens Falls	Vertical Urban Farming	Smart Ag & Clean Food Solutions	$96,700	Jeff Flagg, jeffflagg@hotmail.com

Project Briefs

Project 1: Vertical Urban Farming

- **Project Scope. Please provide project narrative. Outline the problem that needs a solution and include high level timeline and end product. Be clear and succinct.**
  The City of Glens Falls is looking to develop and refine a self-contained, easily-replicable, scalable, transferable vertical farming system, designed to grow a wide variety of vegetables, herbs and plants at site-independent locations year-round. The goal of the Pilot program will be to create a business model that can be easily adapted to various sizes and styles of buildings with minimal alteration. The ideal solution will be a "box-in-a-box" design, one that can be sited in any structure with sufficient access to water and energy. This design will allow us to better control the necessary variables, including moisture, temperature and light, providing a straightforward means to collect the data necessary to assess the project. Our goal is to have the project up and running by June 1, 2021, which will allow four separate crop cycles over a 6-month period, leaving time to compile and report our results by December 2021.

- **Ideal Technology Solution**
  The City of Glens Falls is looking to leverage hardware and software technology to create maximum agricultural efficiency in a fully enclosed facility. The hardware components in the project will include high efficiency lighting, HVAC and moisture and circulation systems. The software solution will coordinate these inputs in order maximize productivity and energy efficiency while minimizing costs and emissions. The ideal solution will address the following metrics: Start-Up Costs, Energy Consumption, Assessment of Crop Types, Production Volume, Scaling Issues, Venture Capital Needs, Skilled Workforce Needs, Disruption to the Rural Sector, Transport Savings, and Local Market Assessment.

- **Required Cybersecurity and Privacy Standards**
  As this is not intended to be a networked municipal project, we do not anticipate any cybersecurity issues.

- **Project Funding: $96,700 for Solution**
  We are expecting the project to cost roughly $205,300 over a 1-year timeframe. In addition to $96,700 in support from ESD, we are able to commit $66,300 to the project on behalf of the municipality and our local partners and are looking for in-kind or monetary contributions from interested companies to fill the remaining portion ($42,300) of the budget.

- **Other Considerations & Helpful Info**
  The ultimate goal of this project is to develop a model of urban agriculture that can be easily extended to other Upstate NY communities. As such, it must accomplish several tasks. First,

create a modular, scalable model for growing year-round crops in northern climates. Second, provide an alternative model to traditional supply chains that rely on diesel trucks transporting fresh produce long distances in disposable plastic packaging. Third, offer communities alternative ways to use long-abandoned buildings and structures. Fourth, create new, temporary possibilities for communities seeking to fill empty commercial spaces vacated by COVID-related business closures. Fifth, create targeted job opportunities, in numbers that could easily be scaled up – or down – to suit the specific needs of communities, work forces and investors. And finally, provide opportunities for workers and entrepreneurs displaced by the COVID crisis to re-enter the workforce through an emerging technology industry focused on local, sustainable means and markets.