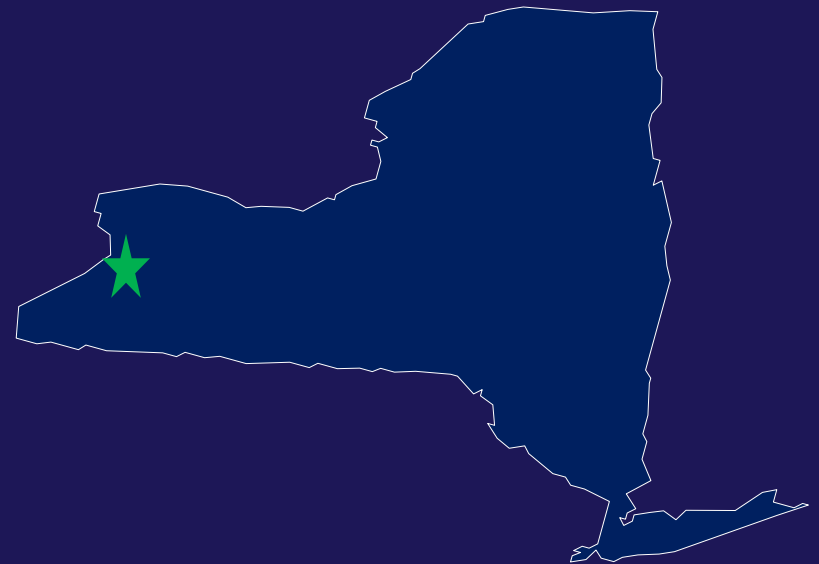


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The Fruit Belt Solar REV Demonstration Project



May 10, 2017



Our REV Demonstration Projects

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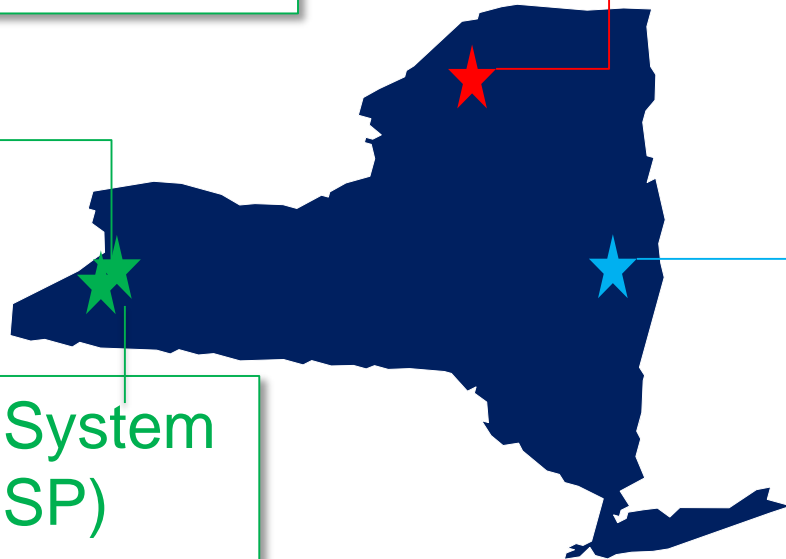
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Fruit Belt
Neighborhood Solar
Buffalo

Resiliency / Microgrid
Potsdam

Distributed System
Platform (DSP)
Buffalo

Smart Energy
Solutions
Clifton Park



Fruit Belt Neighborhood Solar: Buffalo

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- Utility-owned solar PV application
- Low-to-Moderate Income (LMI) community setting
- Connection is in front of the meter
- Benefits shared among hosts and non-host account holders.



**Fruit Belt Neighborhood
Solar Partnership**

POWER FROM THE SUN. SAVINGS FOR THE NEIGHBORHOOD.

Community-focused Project Objectives

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- Increase renewable energy use in an underserved market
- Increase residential energy efficiency
- Determine arrearage impact
- Increase green jobs for locals



Utility-Focused Project Objectives

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- Test utility-ownership model
- Test grid efficiency effects
- Determine arrearage impact



Project Technical Goals

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- Design goals
 - 500kW via ~100 Solar PVs
 - 150 bill credit recipients
 - 300 EE program enrollees
- Analysis goals
 - Determine 'use case' economic values
 - Determine concept scalability



What makes this a REV Project?

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- Provides renewable energy choice access
- Demonstrates clean energy innovation
- Decreases demand for carbon-emitting generation
- Increases energy efficiency
- Creates green jobs



Fruit Belt Neighborhood Solar Partnership

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NEW YORK
STATE OF
OPPORTUNITY™

**Reforming the
Energy Vision**

Project Setting

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- LMI neighborhood
- 0.4 square miles
- Mix of owner-occupied and rental properties



Solar System Components

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260W Solar PV panel

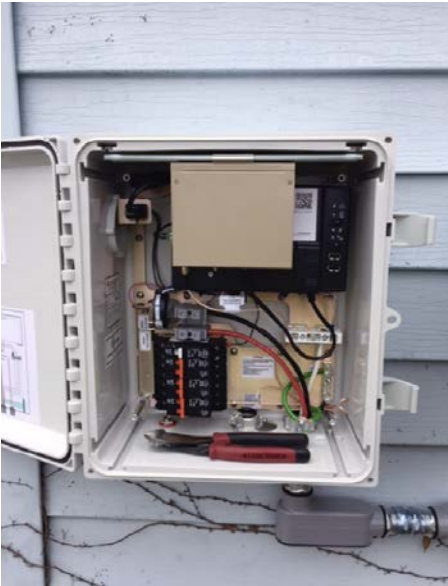


Microinverter capable of generating reactive power

Solar System Components

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Combiner box containing the modem and breakers



Modem



AC Disconnect containing redundant breakers

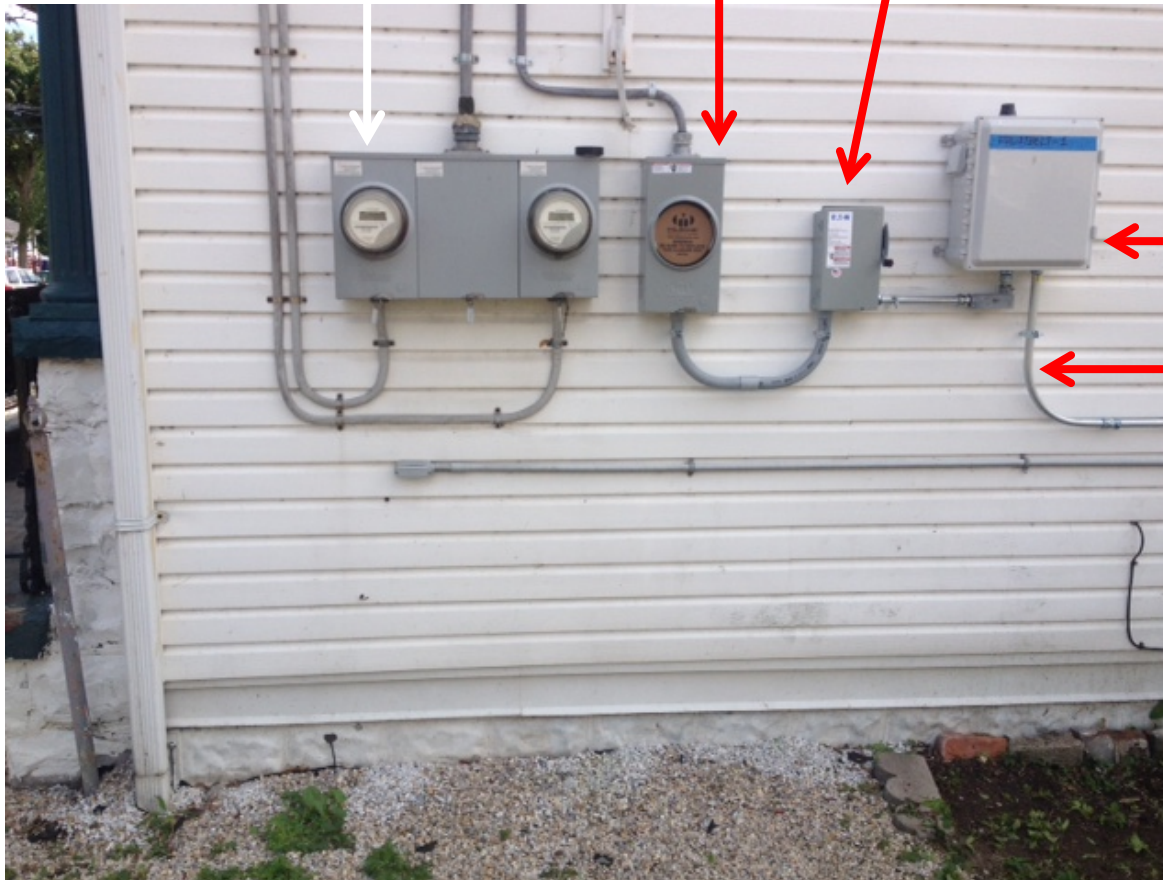
Residential
meter
system
(unchanged)

Dedicated PV
Meter Channel

AC Disconnect

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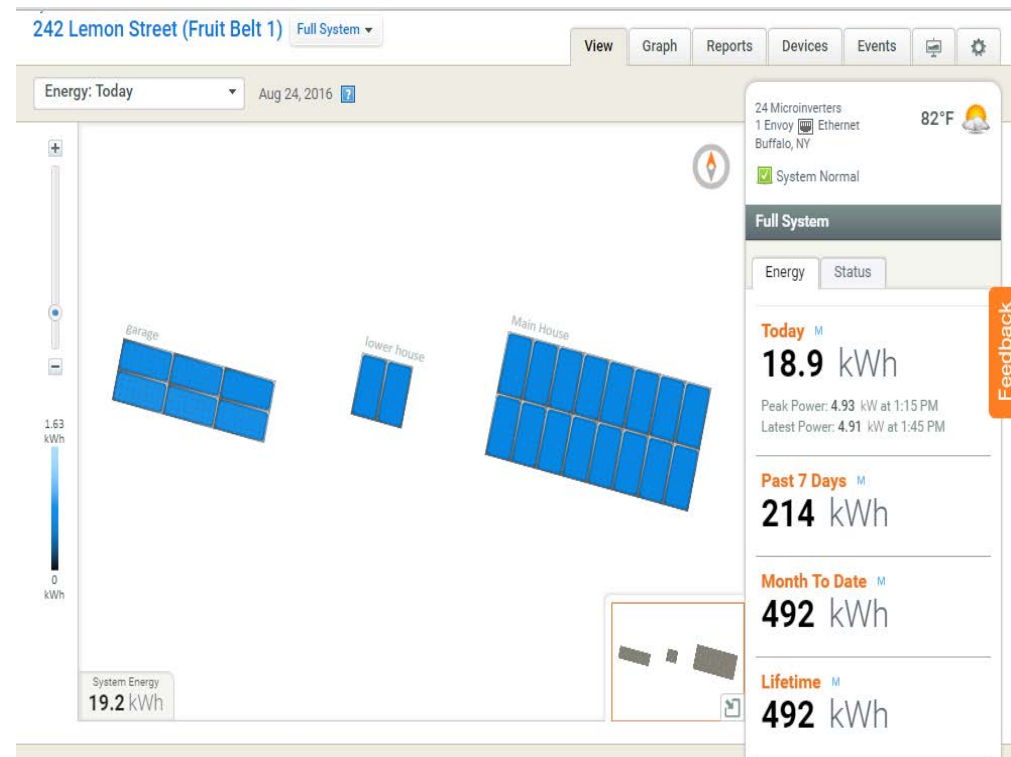
AC Combiner
Box

Incoming
PV-
generated
transmission
conduit

'In Front of the Meter' Wiring Configuration

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Grid Efficiency Analysis

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- 3 Use cases
- Studying best use of microinverter ability to introduce VAR



Customer Financial Benefits

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- Monthly bill credit
 - Could yield arrearage decrease
- Solar readiness financial assistance
- EE Implementation Opportunity
- Increased home value
 - Owners
 - Landlords



Video

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Next Steps

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- Complete Installations
- Implement EE measures
- Conduct grid efficiency analysis
- Evaluate arrearage impact
- Determine scalability



Questions?