



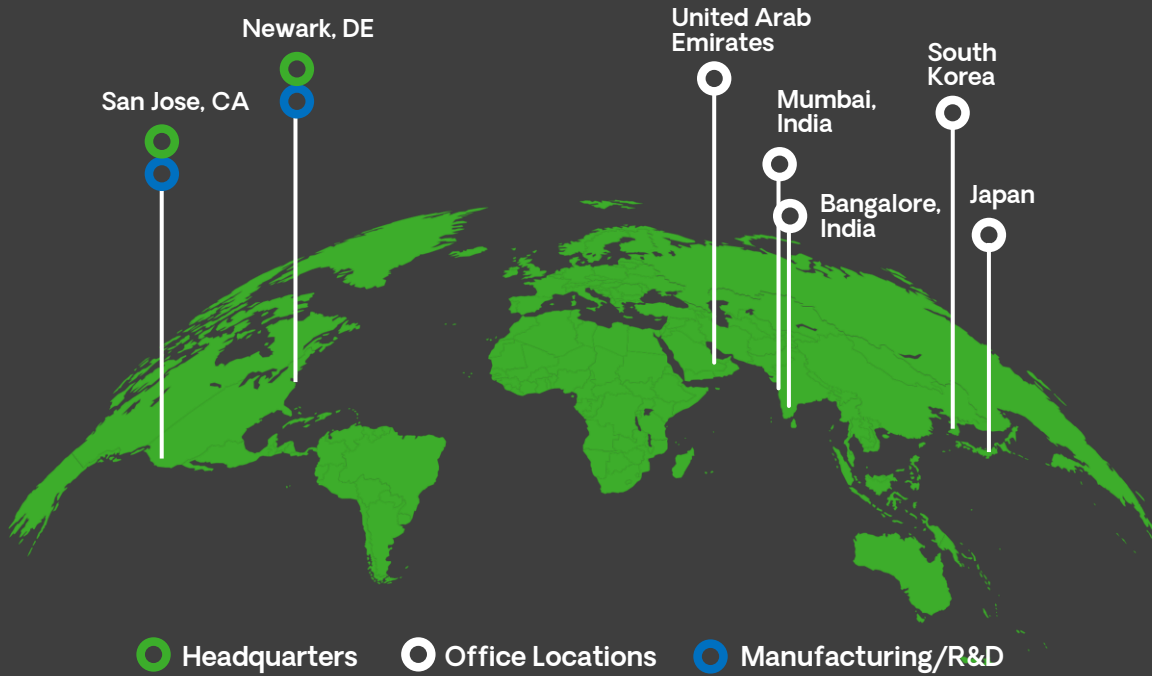
**Bloomenergy**<sup>®</sup>

## **Bloom Energy Overview & Hartford Microgrid Case Study**

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Senior Principal Engineer  
Advanced Sales Engineering

Bloomenergy

# Bloom Energy at a Glance



## Global Footprint

Our corporate, manufacturing, and R&D offices serve as a strategic global anchors to help organizations around the world reduce carbon emissions, enhance resiliency, and chart a path toward a net-zero future.

**\$1.19bn**

2022 Revenue

**30% CAGR**

Over last decade

**\$8.5bn**

Backlog

**>700MW**

Installed Base

**>364**

Issued Patents

**>\$1bn**

Cumulative R&D

# One Platform. Multiple Solutions.

Our future-proof energy platform unlocks multiple pathways to net-zero.



PRIMARY  
POWER



ALWAYS ON  
MICROGRIDS



ELECTROLYZERS



Solid Oxide Platform



HYDROGEN



BIOGAS



CERTIFIED GAS



MARINE  
TRANSPORTATION



CARBON  
CAPTURE

# Diverse Customer Ecosystem

## Cloud Services & Technology



## Consumer Retail, Food & Beverage



## Telecom, Media, & Entertainment



## Hospitals & Healthcare



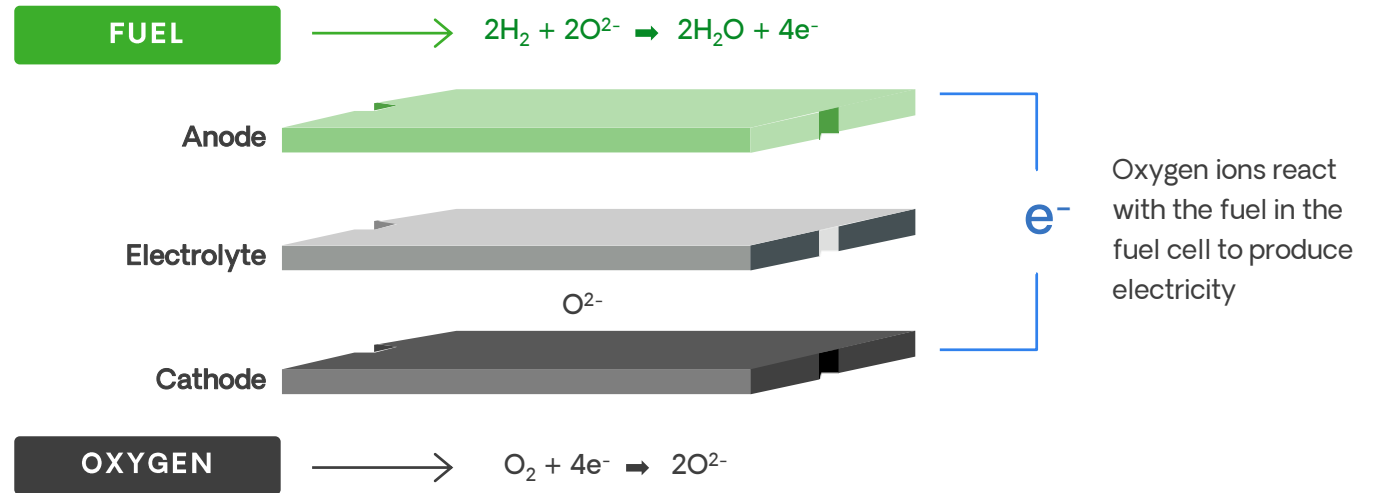
## Higher Education



# Fuel Cell Basics

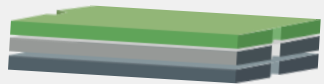
## 1. How it Works

Solid oxide fuel cells convert fuel into electricity without combustion.

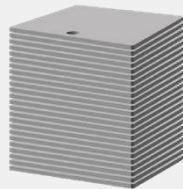


## 2. Cell to Server

The building blocks come together to form the Bloom Energy Server platform.



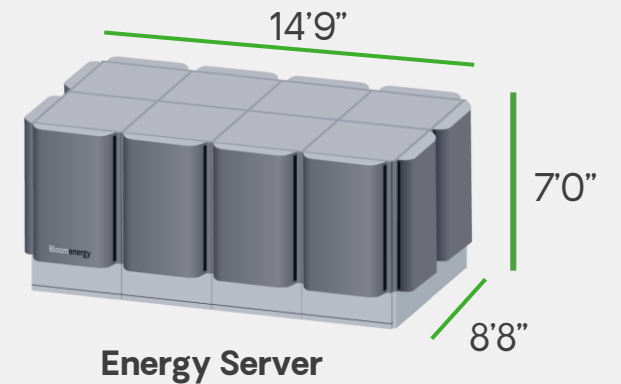
Fuel Cell



Stack



Power Module



# Flexible and Scalable Design

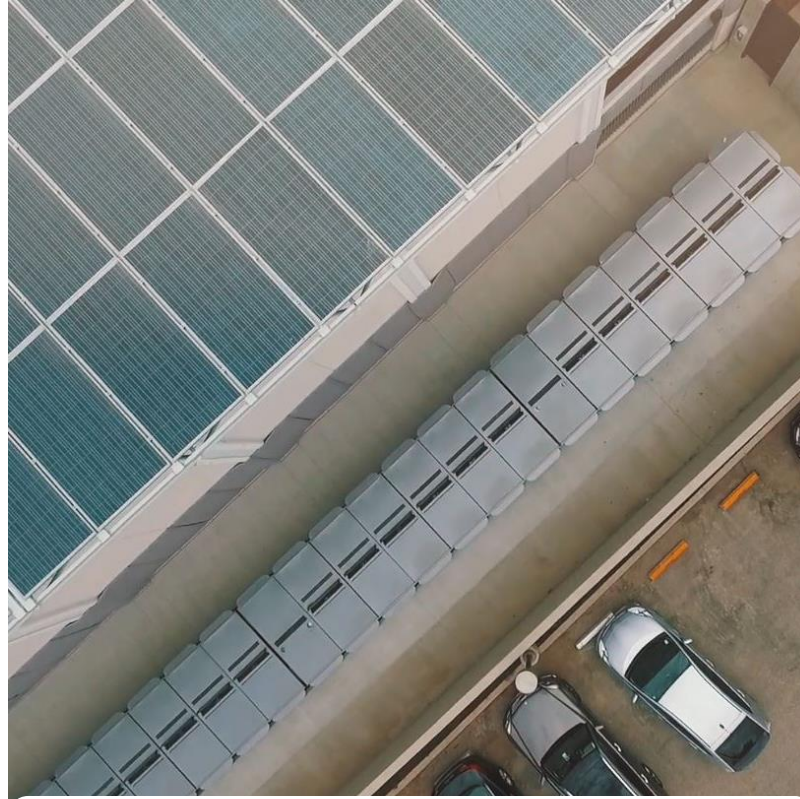
From KW To MW Scale Solutions



**Semiconductor Microgrid**  
2.5 MW Installation



**Healthcare Data Center**  
4.75 MW Installation



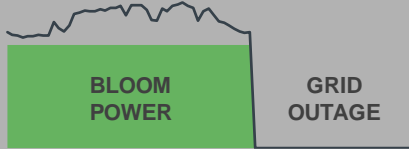

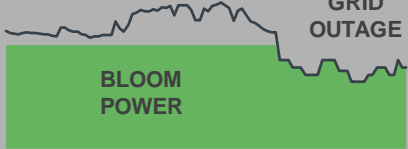


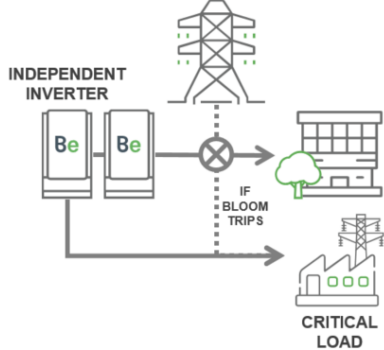
**University Campus**  
2.2 MW Installation



**Constrained Space Power Tower**  
8.35 MW Installation

# Bloom Solutions

## Microgrid Technical Offering

	Primary Power	Bloom Microgrid	Bloom Microgrid – Advanced
Value Proposition	<b>Baseload Power</b> Low cost, clean, onsite	<b>Resilient Power</b> Power through grid outages	<b>Uninterrupted Power</b> Premium power quality
Key Capabilities / Use Case	Lower CO <sub>2</sub> emissions and near zero criteria emissions, up to 20% savings on electricity	Low cost, clean power to support business critical loads through extended grid outages	Complete protection for sensitive loads from grid outages and disturbances
Profile Schematic			
Architecture			

# City of Hartford Case Study

## A Fuel Cell Community Microgrid





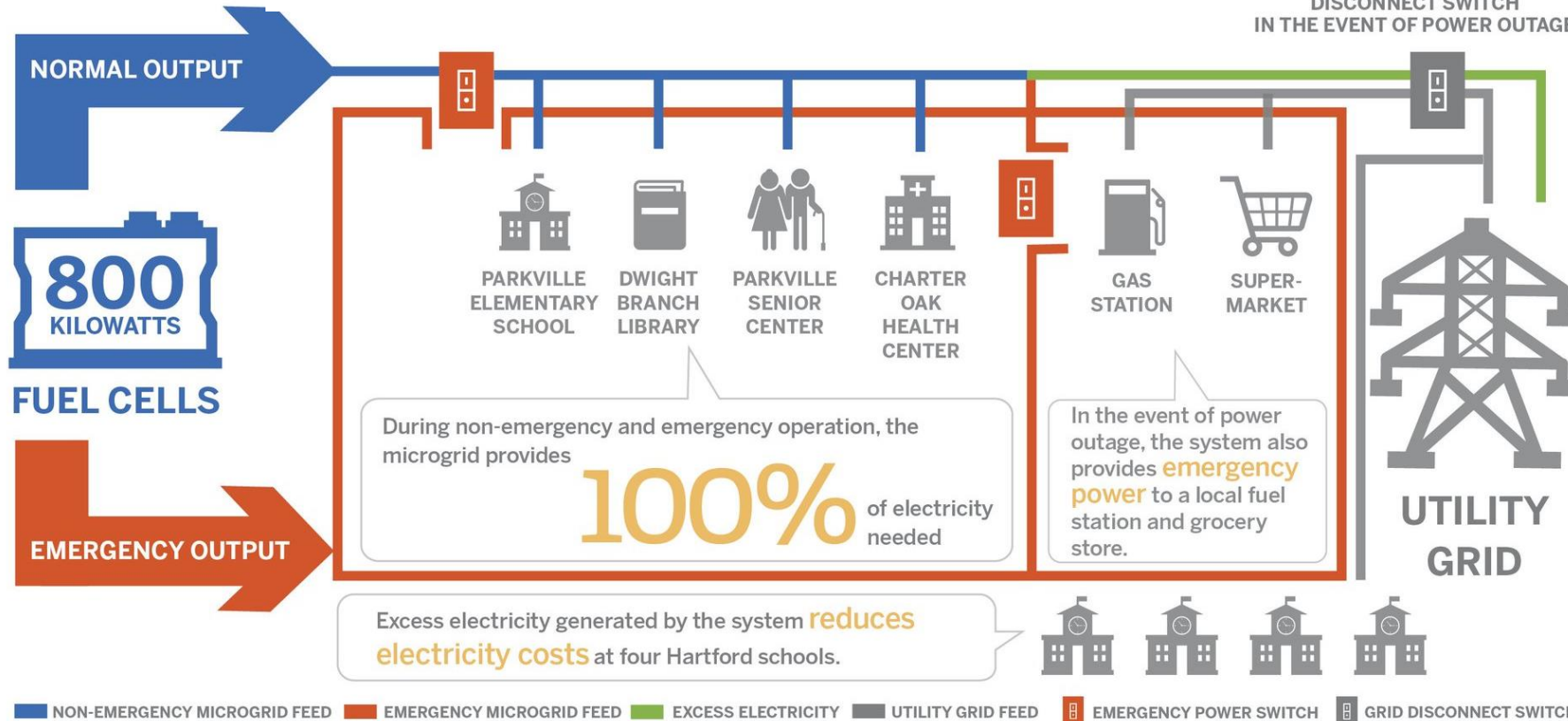
# City of Hartford Case Study

Overview



## MIGHTY MICROGRID

AN 800-KILOWATT FUEL CELL-POWERED MICROGRID HELPS HARTFORD REDUCE POWER COSTS AND PROVIDES EMERGENCY POWER FOR PARKVILLE'S NEIGHBORHOOD



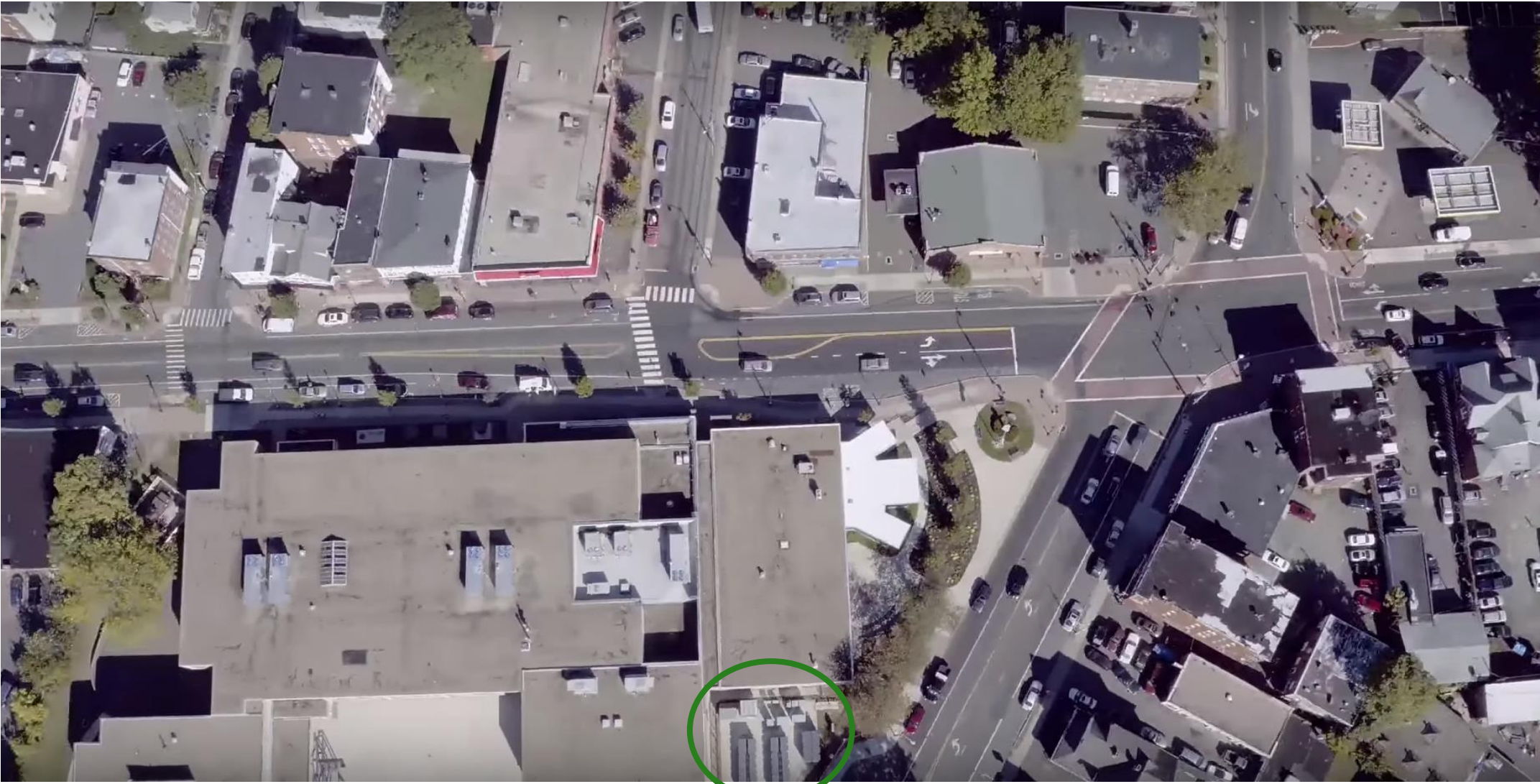
Bloomenergy®



**Constellation.**  
An Exelon Company

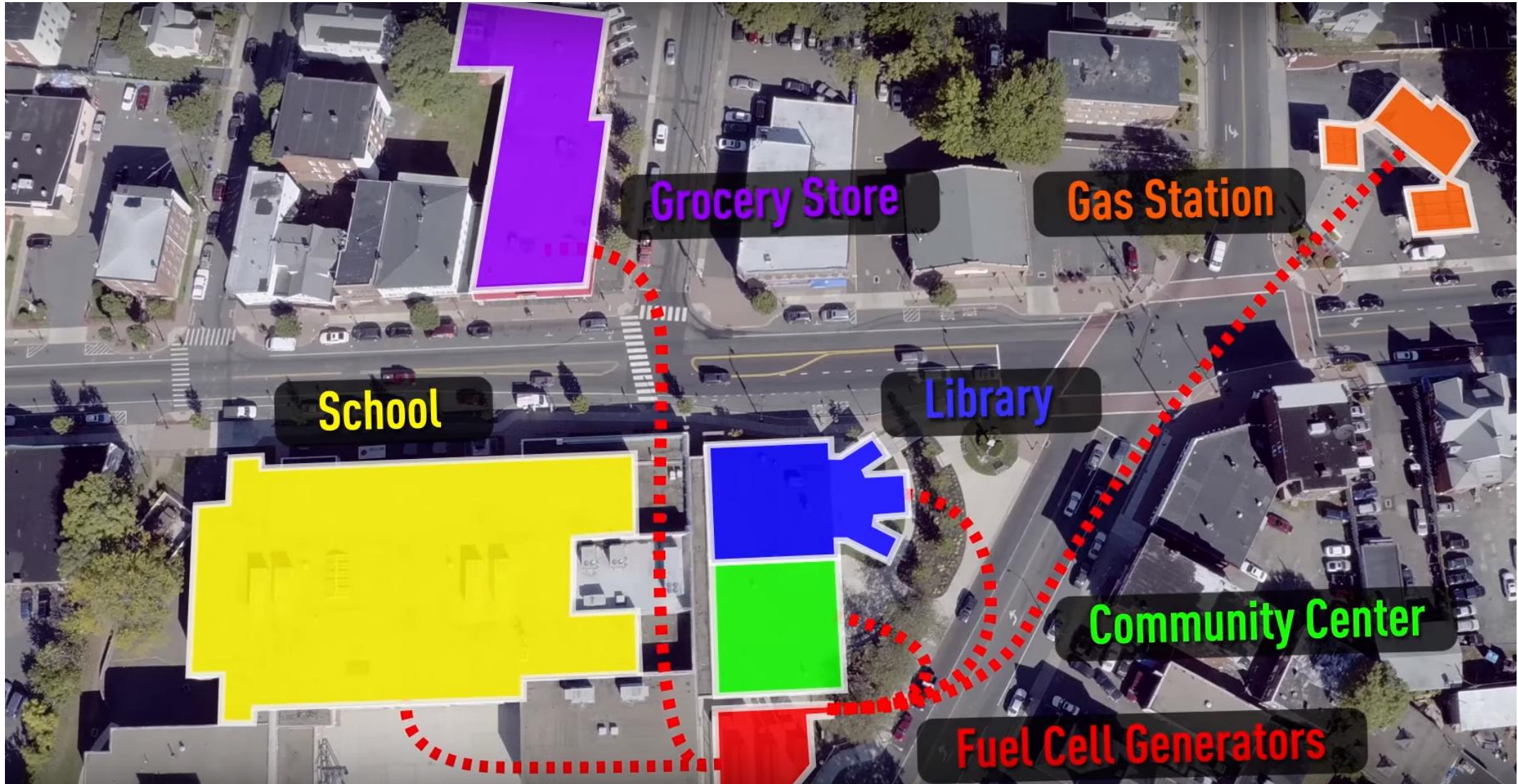
# City of Hartford Case Study

Location



# City of Hartford Case Study

Location



# City of Hartford Case Study

## Benefits

- 800 kW
- 15 Year PPA
- Small Footprint
- 40% CO<sub>2</sub> reduction compared to Utility
- Zero SO<sub>x</sub> and NO<sub>x</sub> emissions
- Baseload power 24x7x365 in non-emergency mode
- Power during grid outage for core services
- Underground electrical conduits





Bloomenergy®

What  
Powers  
You