



NY-REFC³

NY – Renewable Energy and
Fuel Cell Commercialization Center

An open-source facility for academic
and industrial communities

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History: Commercial building in Brighton, NY leased and used by GM and then Delphi for Fuel Cell development, prototyping and testing for more than 20 years.

Present: Delphi is vacating the building, creating an opportunity to repurpose the existing test lab infrastructure.

Vision: A cost-effective, open-source lab space for commercialization work, academic research, and vocational training in three areas:

1. Fuel Cell

- stack performance and durability testing
- component testing: reformers, heat exchangers, air/fuel metering, emission control, etc.

2. Renewable Energy System integration with renewables, storage, and distributed generation technologies.

3. Qualified Facility to demonstrate the export of renewable and hydrogen energy to the grid (when it adds value).

Delphi's Leased Test Facility 285 Metro Park in Brighton, NY

U of R



MCC



RIT



Brighton Henrietta Town Line Road

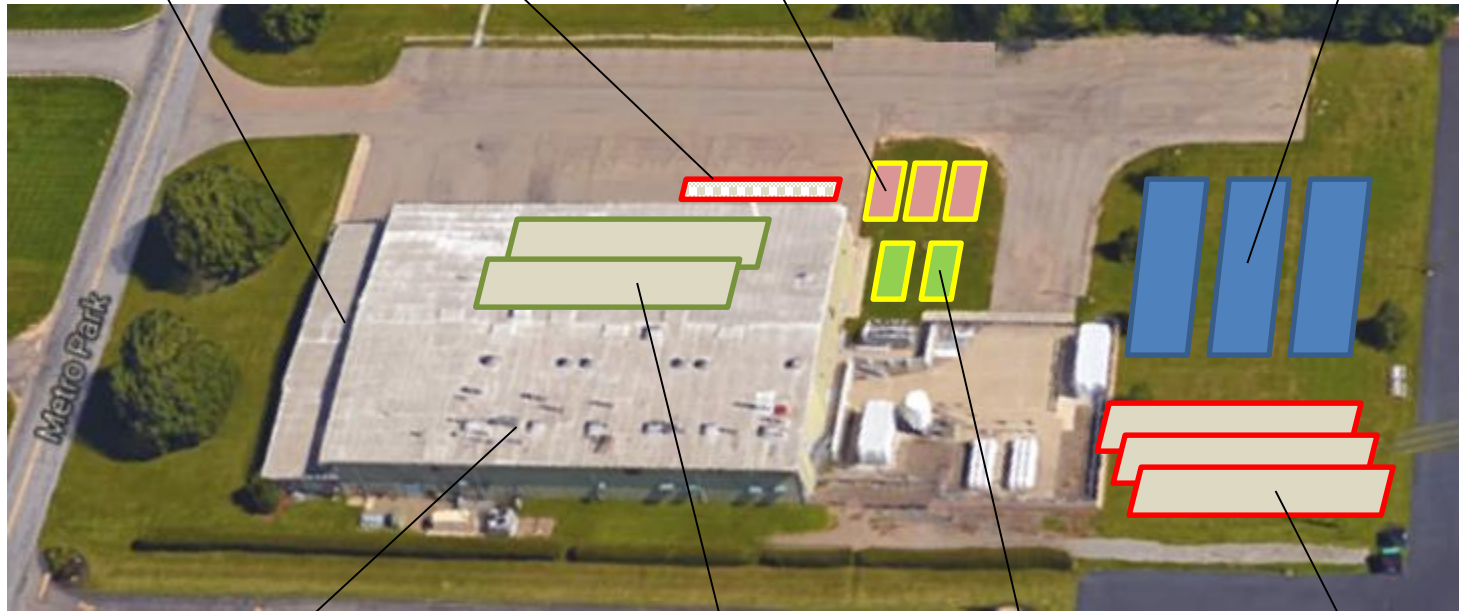
VISION – Open Source Site

Offices /
Classroom /
Meeting Space

EV/PHEV V2G
Interface

Battery Storage
Farm

Fuel Cell and Hybrid
Generator Systems Farm



Fuel Cell Stack and
Component Test Labs

Solar Thermal

Solar PV

Thermal Storage Farm

NY- REFC³ – Potential Stakeholders

WNY Start-up Companies & Interest Groups

- AMERICAN FUEL CELL
- MICRO-ERA POWER
- SOLID CELL
- The Standard Hydrogen Corporation

USA fuel cell, battery, solar PV companies & interest groups

- BLOOM ENERGY
- DELPHI
- FUEL CELL ENERGY
- GENERAL ELECTRIC
- LG FUEL CELLS
- NEXCERIS
- OHIO FUEL CELL COALITION
- REDOX POWER
- SAFCeLL
- St GOBAIN

NY- REFC³ – Path Forward

- AHEAD Energy to identify stakeholders and prepare a Proposal
- Work with Property Owner, Delphi, and DOE to transfer or donate building, infrastructure, test equipment, supplies, and furnishings
- Solicit Support of “Rochester Area Colleges” to join initiative
- Secure NYS and Monroe County R&D and economic development support with \$2 million retooling of center for open source use.
- Firm up Participation of WNY Start-up Companies, for example:
 - AMERICAN FUEL CELL - MICRO-ERA POWER - THE STANDARD HYDROGEN CORP.
 - SOLID CELL
- Promote services to other fuel cell, battery, solar PV companies in USA
 - REDOX POWER - St GOBAIN - FUEL CELL ENERGY
 - GENERAL ELECTRIC - BLOOM ENERGY - DELPHI
 - LG FUEL CELLS - NEXCERIS - SAFCeLL

CALL TO ACTION

- **SCHEDULE A SITE VISIT** for your interested cohort / stakeholders
 - Ellie Rusling, AHEAD Energy Board Member
 - emr@merrillrusling.com / 585-749-2716, mobile
- **TIME-SENSITIVE** – Identify Stakeholders; Engage in Conversation; Generate a proposal by end of March 2016
- **SHARE THE PLIGHT** with individuals or organizations who may value & support preserving this resource as an Open Source Lab
- **ENVISION & SUPPORT ROCHESTER** continuing as a leader of Technology and Clean Energy development

AHEAD Energy* 501(c)(3)

PREMISE: ACCESS to energy is a key factor in economic development

Not for Profit formed at the University of Rochester in 1988

- **PHASE 1** Help Mozambique develop natural gas infrastructure.

- **PHASE 2** Support projects in Uganda, Ghana, Mozambique, Kenya - renewable energy for schools, orphanages, clinics:

- Photovoltaic
- Wind Turbine
- Bio-digester
- Small-Scale Hydroelectric



- **PHASE 3 (current): Promote Climate Friendly Energy Systems:**
 - Promote Hybrid Power Systems at UNFCCC (Renewable + Storage + Clean Fossil)
 - Assist in demonstration/testing/validation of Low Cost/Low Carbon systems
 - Support research, education, vocational training and technical exchange



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