

University of Connecticut

Carbon Neutral Task Force
Meeting #5

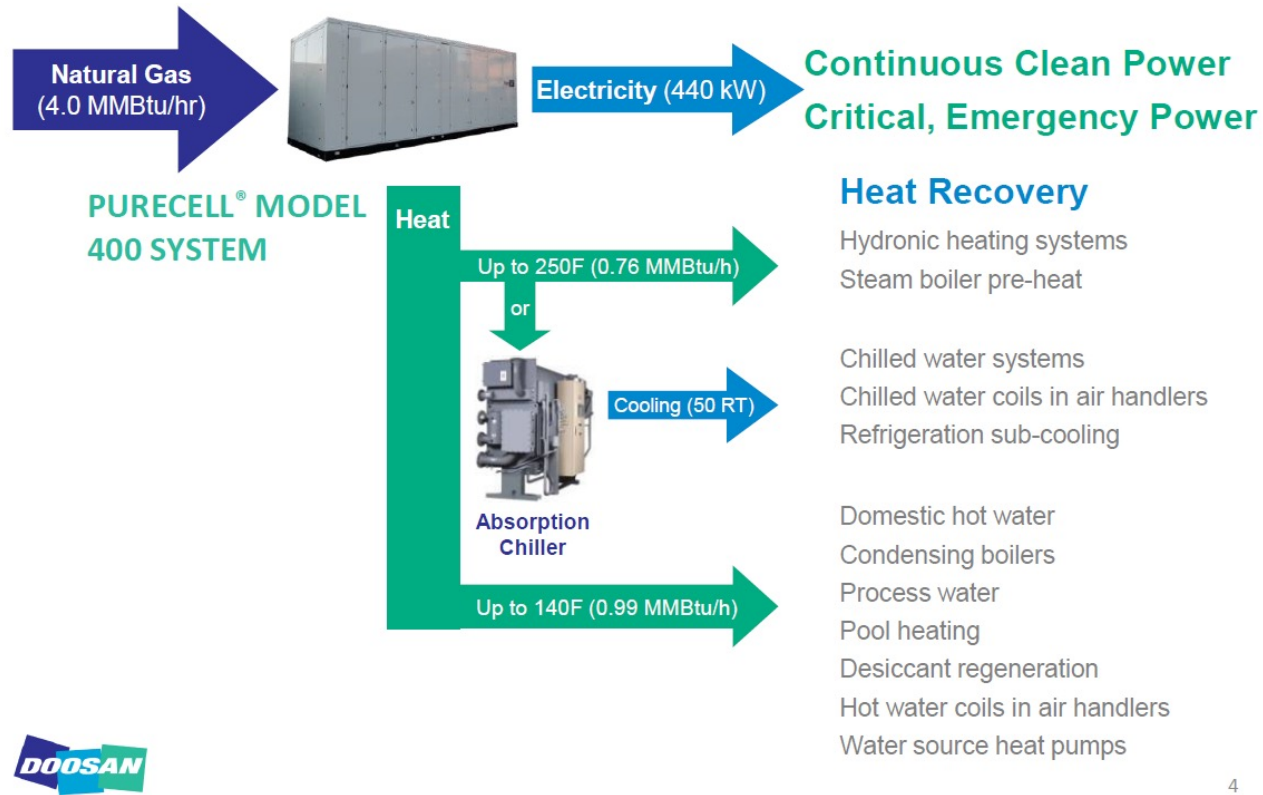
March 2023

Agenda

- Fuel Cell Project
- Existing Eversource/UConn Electrical Infrastructure
- Updates/Open Discussion



Fuel Cell – Energy Applications





PROJECT DETAILS

- 400 kW fuel cell installed 2012
- Continuous-duty baseload operation
- Heat recovery for space heating, space cooling, domestic hot water

2013 CT DEEP MICROGRID AWARD RECIPIENT

- Electrical gear upgrade to enable isolation of entire campus
- Fuel cell will work with solar PV and back-up gensets to power critical loads across multiple buildings

Fuel Cells – RFP LM090121



Campus	Building Name
Storrs	Innovation Partnership Building (IPB)
	Hilltop Residence Halls (HRH)
	Israel Putnam Refectory (PR)
	Hilltop Residence Halls (HRH) Ellsworth Hall
	Hilltop Residence Halls (HRH) Hale Hall
	Harry L. Garrigus Suites (GSRH)
	Peter J. Werth Residence Tower (WRT)
	Environmental Health & Safety Complex
	Environmental Health & Safety Office (EHSO)
	Museum Annex (MA)
	Modular Building #1 (MB1)
	Modular Building #2 (MB2)
	Modular Building #3 (MB3)
	Horsebarn Hill Sciences Complex (HHSC)
	Farm and Event Services (FES)
	Institute of the Environment (IOE)
	Kinesiology Building (KB)
Modular Building #5 (MB5)	
Data Centers	
Gant South Building (GS)	
Homer Babbidge Library (HBL)	
UCH	Building R - 400 Farmington Avenue Boiler Room E-Generator
	Building S - Outpatient Pavillion
	Building R - 400 Farmington Avenue Campus Utility Tie
	Parking Garage 1 Lawn

SCOPE OF WORK

The selected Provider will identify one or more fuel cell(s) at UConn Storrs. The fuel cell(s) to be located at each campus will generate electrical and/or Thermal energy to be consumed at the installation site and feed the UConn microgrid. Fuel Cell Combined Heat and Power or Micro-grid capable installations will be considered. The fuel cell(s) and all plant and infrastructure modifications necessary for fuel cell operation and system integration will be owned and operated by the Provider. The University of Connecticut will purchase the electricity and (if/when applicable) thermal energy generated from the fuel cell through an Energy Purchase Agreement with the Provider.

Recommendation:

- IPB - 1.4 MW (FCE)
- HRH - 2x460kW (Doosan)
- EHS and HHSC Combined - 350kW (Bloom)
- Data Centers - 2x350kW (Bloom)



UConn/Eversource Electrical Infrastructure

UConn



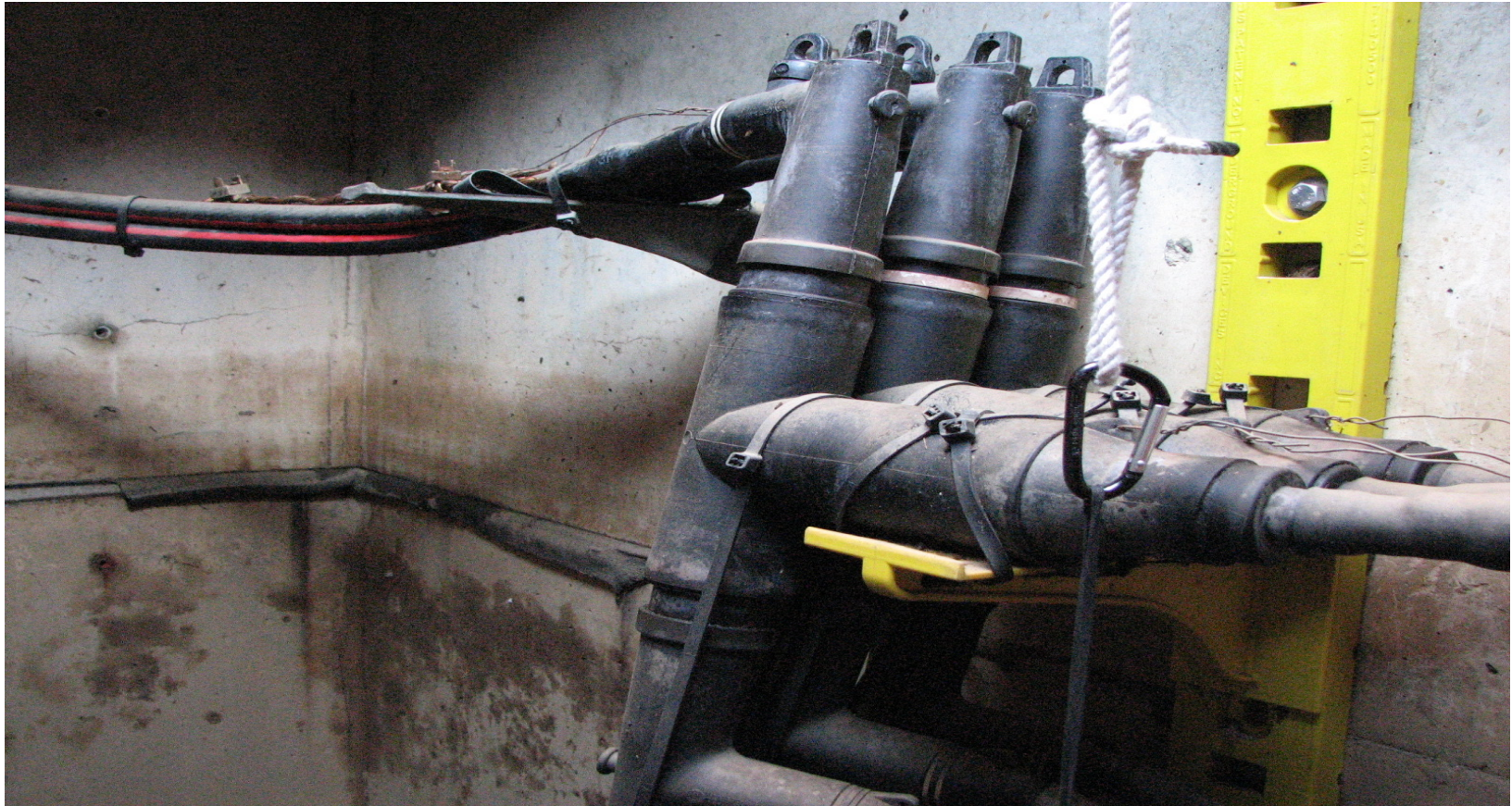


UConn/Eversource Electrical Infrastructure

UConn







UConn/Eversource Electrical Infrastructure

UCONN



Open Discussion

