



ENERGY SECURITY
& SUSTAINABILITY
(ES²) STRATEGY



U.S. ARMY



Continental United States (CONUS) Interceptor Site

IAW FY13 National Defense Authorization Act Section 227

EVALUATION —Not later than December 31, 2013, the Secretary of Defense shall conduct a study to evaluate at least three possible additional locations in the United States, selected by the Director of the Missile Defense Agency, that would be best suited for future deployment of an interceptor capable of protecting the homeland against threats.

The Missile Defense Agency completed an evaluation of 457 sites in 19 states. The EIS analyzes three potential locations.



Approved for Public Release - 16-104-8718

- **Fort Custer Training Center**
Michigan Army National Guard
Augusta, Michigan **(TWO SITES)**
- **Camp Ravenna JMTC**
Ohio Army National Guard Portage
and Trumbull Counties, Ohio
- **Fort Drum**
Fort Drum, New York
**Preferred site selection pending
release of the Missile Defense
Review (MDR)*



Strategic Microgrid Controls for Closely Sited Military Facilities

Principal Investigator: Deborah Jelen
Electricore, Inc.

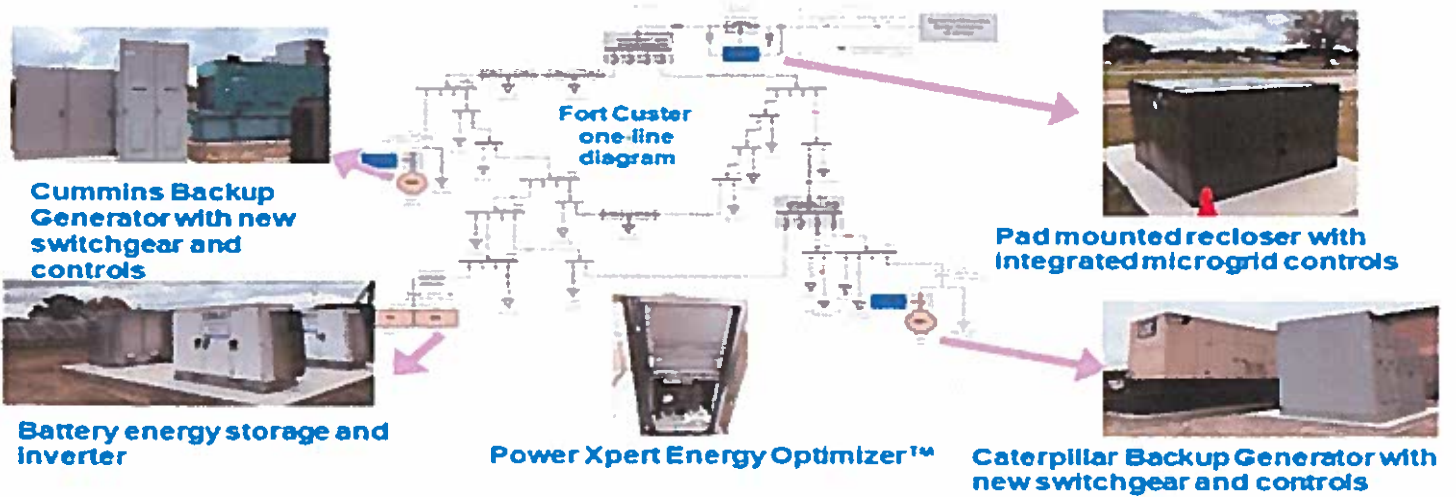


Project Team

- **Electricore, Inc. (Prime)**
 - ◆ PI: Deborah Jelen (jelen@electricore.org)
- **Eaton Corporation (Co-Performer)**
 - ◆ Co-PI: Edward Buck (edwardfbuck@eaton.com)
 - ◆ Co-PI: Vijay Bhavaraju (VijayBhavaraju@eaton.com)
- **Go Electric (Co-Performer)**
 - ◆ Mike Adams (MAdams@goelectricinc.com)
- **CERL (Co-Performer)**
 - ◆ Harold Sanborn (Harold.Sanborn@usace.army.mil)
- **Ft. Custer (Host Site)**
 - ◆ Col. Edward Hallenbeck - Director, Construction & Facilities Management Office (edward.h.hallenbeck.mil@mail.mil)



Technical Approach



Technical Approach

Energy Storage (2x200kW, 160kWh)



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Consumers Energy

"We're ready to go to work for you!"



Project Delta Force

Battle Creek, Michigan

May 10, 2018

For additional information please contact

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517-374-2321 ▪ timothy.voss@cmsenergy.com

Consumers Energy Business Center ▪ 800-805-0490
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NATURAL GAS SERVICE Battle Creek (Fort Custer)










ELECTRIC - HIGH VOLTAGE FACILITIES

Battle Creek (Fort Custer)



All existing facility locations are approximate and are not to be used for construction purposes. Always contact MISS DIG 811 before you dig.

LEGEND - Electric	
	Proposed Site
	138/46 kV Distribution Substation
	138 kV Distribution Substation
	46 kV Distribution Substation
	138 kV Lines
	46 kV Lines
	Electric Distribution Lines



Department of Energy
Washington, DC 20585

November 16, 2018

The Honorable Richard Snyder
Governor of Michigan
Lansing, Michigan 48909

Dear Governor Snyder:

I am pleased to inform you that the Department of Energy's (DOE) Office of Fossil Energy is interested in partnering with the Michigan National Guard to collaborate on an energy research project. Subject to appropriations and funding availability, we are planning on working together to develop sustainable modular options for the Guard's needs that build a resilient and reliable power base for the Guard and for Michigan. I believe that the Michigan National Guard is a logical partner for a variety of reasons.

My team recently met with leadership from the Michigan National Guard who expressed an interest in supporting this important project. DOE is working collaboratively with the Michigan National Guard to publicly announce this partnership as soon as possible.

Should you have any additional questions, please contact my Chief of Staff, Ken Vincent, at (202) 586-6244, or Mr. Douglas B. Little, Deputy Assistant Secretary for Intergovernmental and External Affairs, Office of Congressional and Intergovernmental Affairs, at (202) 586-3600.

Sincerely,

A handwritten signature in black ink that reads "Steve E. Winberg".

Steven E. Winberg
Assistant Secretary
Office of Fossil Energy

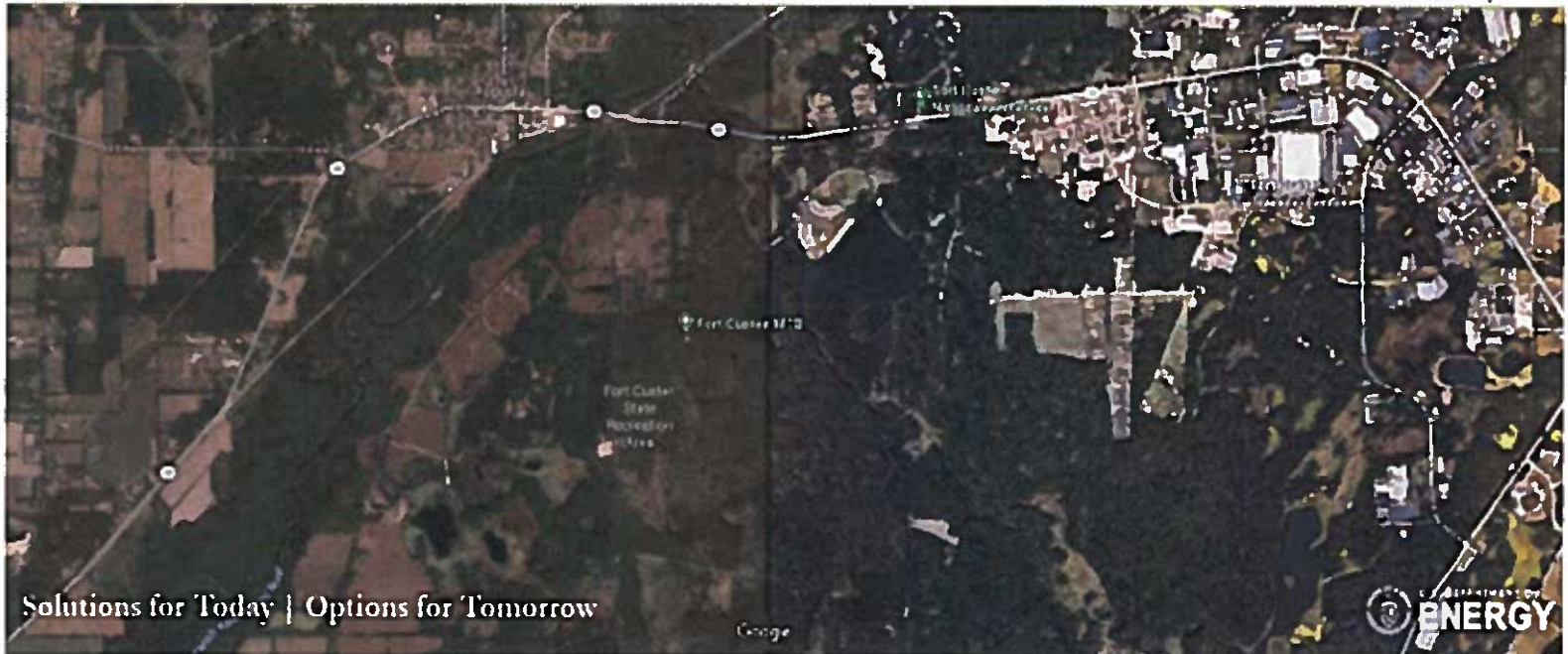


Activity 201.019 Fort Custer sCO₂ Power Plant Study – Black & Veatch

Kickoff Presentation

INTERNAL USE ONLY - NOT APPROVED FOR PUBLIC RELEASE

April 201



Solutions for Today | Options for Tomorrow

Activity 201.019

Black & Veatch Scope Overview

• Statement of Work

- The purpose of this project is to evaluate the total scope, cost, schedule and risk involved in installing a supercritical carbon dioxide (sCO₂) power plant on the Fort Custer base near Battle Creek, Michigan. If the installation is feasible, it will improve the resiliency of the Fort Custer Army base and improve its chances to be awarded the Continental US Interceptor Site (CIS).
- Black & Veatch will evaluate the previously selected Echogen technology for generating power with a supercritical Brayton Cycle power plant, and develop an overall conceptual design, cost estimate, and schedule, resulting in a pre-Feed Study.
- The proposed plant consists of 5MW of reliable power using off-the shelf gas turbines and 2.5MW of power from the supercritical Brayton Cycle power plant using the sCO₂ Echogen process.
- Tasks under this scope of work include evaluation of the technology, evaluation of plant siting, study of permit requirements, and development of cost estimates and a project schedule.

