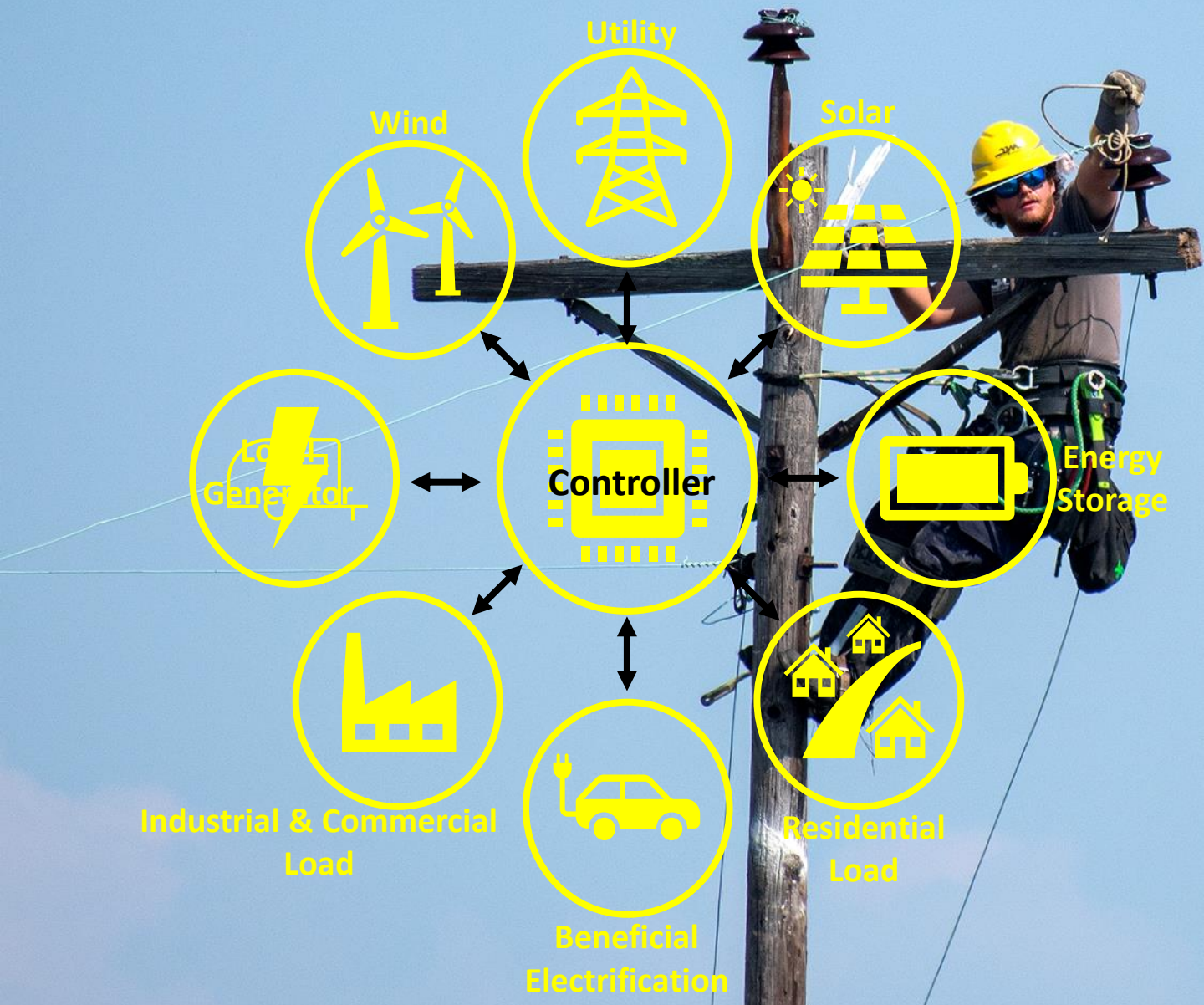
SMALL MICROGRID DEMONSTRATION FOR REMOTE RURAL AREAS AND ISLANDS



EASTERN SHORE OF VIRGINIA (ESVA) MICROGRID DEMONSTRATION TEAM

SMALL MICROGRID DEMONSTRATION FOR REMOTE RURAL AREAS AND ISLANDS

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PRIMARY LOCATION

Smith Island
Somerset County
Maryland
21824-9712

ADDITIONAL BENEFITING LOCATIONS

Eastern Shore of Virginia
(remote unserved and islands)
Folly Creek/Cedar Island VA
Eastern Shore Community College

PROJECT DESCRIPTION AND SCOPE

The Small Microgrid Demonstration for Remote Rural Areas and Islands proposal is multi-phase project to introduce, educated, evaluate, and develop preliminary engineering concepts for the implementation and construction of a microgrid to serve the electrical needs of two islands in the Chesapeake Bay – Smith Island MD and Tangier, VA. This technology can be duplicated to serve other remote rural locations where traditional electricity distribution practices are problematic.

The desired prize funds will be used to: (see https://youtu.be/eviZXZnI_dg for project video)

Phase 1: Investigate the application of small microgrid technologies and develop a portable microgrid demonstration exhibit, in cooperation with Eastern Shore Community College that will be used to educate the community and train students on the operation, applicability, and benefits of microgrid technology. Preliminary engineering for Phase 2 will be completed.

Phase 2: Complete the detailed engineering as developed in Phase 1 to construct a small scale microgrid (<20 KW) on Cedar Island, VA to serve a facility used for various environmental/marine studies by Old Dominion University/Maracoos and other related purposes. The proposed microgrid will be used as a 'lab" to better understand microgrid technology and will be open to educational and other community groups for demonstration. Phase 2 will also fund the preliminary engineering for the larger microgrid project on Smith Island and Tangier. Other grant funds will be identified for implementation of that project.

PROJECT MEMBERS

TEAM LEAD: TECHNOLOGY AND CONSTRUCTION
Leo Radkowski
ANEC Strategic Engagement Leader (Acting)
Redbeard Energy Solutions LLC – Managing Member
Industrial, commercial, and utility energy technology management

TEAM MEMBER: EDUCATION LIAISON
Curtis Taylor
ANEC Coordinator-Environmental, Health, and Safety
Trades and technology education; health, safety, and environment specialist

TEAM MEMBER: MEMBER AND GENERAL PUBLIC COMMUNICATIONS
Jay Diem
ANEC Coordinator-Communications & Public Relations
Photography, written communications, web-site development and operations

TEAM MEMBER: PROCUREMENT/LOGISTICS/PROJECT MANAGEMENT
Patrick Radkowski
Redbeard Energy Solutions LLC – Project Manager
Procurement, expediting, logistics, project tracking and management

TEAM MEMBER: FOLLY CREEK SITE OPERATIONS
Jim Outland
Folly Creek Corp. - President
Overall site operations and maintenance

TEAM MEMBER: TRADE AND TECHNOLOGY EDUCATION
John Floyd
Eastern Shore Community College (ESCC) – Educator
Trades and technology education and coordinator

OTHER ENGAGED PARTNERS

ESCC
Dr. James Schaffer –President
Dr. Raymond Burton –Interim Vice President
Eva Belote –Sponsored Programs Officer
Matt Almeda –Faculty Member – Electric Technologies

MARACOOS/OLD DOMINION UNIVERSITY
Teresa Updyke – MARACOOS Program Manager