



MEC 4722 RENEWABLE ENERGY CAPSTONE PROJECT

February 16, 2021

Mr. Luc Severi
Senior Energy Access Specialist
Sustainable Energy for All (SEforALL)
1750 Pennsylvania Avenue NW, Suite 300
Washington, DC 20006

Re: Healthcare Facility Electrification Data

Dear Mr. Severi,

The Vermont Technical College (VTC) and the Renewable Nations Institute (RNI) are co-managing an undergraduate, senior-level, renewable energy capstone project with the aim to provide students with the opportunity to gain knowledge in off-grid renewable energy systems design for healthcare facility electrification in deep-rural communities across the developing world.

The geographical focus of this Capstone Project is the Republic of Uganda for the following reasons:

- (i) Available scholarly research on healthcare facility electrification in Uganda, i.e., *Implementation research on sustainable electrification of rural primary care facilities in Ghana and Uganda* (published in *Health Policy and Planning*, 35, 2020);
- (ii) Available needs assessments for healthcare facility electrification in Uganda, i.e. *Health Facility Energy Needs Assessment: Uganda Country Summary Report* (published by the United Nations Foundation, 2015); and
- (iii) Additional project data, as available, from the *Sustainable Electrification of Health Facilities: Uganda* report (published by the United Nations Foundation and UKAID, 2016).

As the SEforALL Senior Energy Access Specialist, I understand that your involvement in the above referenced projects and publications may provide the VTC and the RNI with access to data across the healthcare facility sites.

This data would be critical to a key objective of the MEC 4722 Capstone Project, which is to assess the efficacy of a Work-College Consortium internship program to provide cost-effective, accurate, timely and scalable energy efficiency and renewable energy (EERE) project development and decision support services for deep-rural healthcare facility electrification. (See attached MEC 4722 Renewable Energy Capstone Project Description, page 2, item 1.3.)

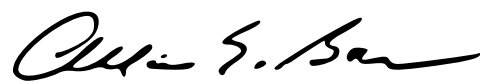
Specifically, the VTC and the RNI are seeking to secure “as-built” project data on the 35 sites referenced in the *Sustainable Electrification of Health Facilities: Uganda* report, including site energy production data, if feasible. The data would be used as a baseline to compare solar systems specifications and energy simulation modeling developed by the Capstone Project students with solar systems deployed in the field. Equally important is for the Capstone students to develop project specifications and bid documents for the electrification of additional sites, including an assessment of cold chain storage for COVID-19 vaccines.

Based upon successful outcomes of the MEC 4722 capstone project, the VTC and the RNI plan to scale the project to a multi-institutional Work-College Consortium with a full-time equivalent (FTE) enrollment of up to 100 students in academic year 2021-2022.

I would appreciate the opportunity to speak with you at your earliest convenience regarding the feasibility of obtaining information to support our capstone project objectives. I would also appreciate an opportunity for the students to speak with you directly by Zoom conference, as feasible.

Thank you for your timely consideration regarding this request.

Respectfully,



Allan E. Baer

Attachment: MEC_4722_26January2021_s.pdf

MEC 4722 Renewable Energy Capstone Project Coordinators:

Vermont Technical College

Department of Mechanical and Manufacturing

<https://www.vtc.edu/>

John N. Kidder, Jr., Ph.D.

Professor

Coordinator, School of Engineering and Computing

(802) 728-1783

jkidder@vtc.edu

For The Global Challenge Award, Inc.

d.b.a. The Renewable Nations Institute

<http://www.renewablenations.online>

Allan E. Baer

President & Founder

Renewable Nations Institute

(802) 279-7250

allanbaer@renewablenations.online

Student Roster:

- [1] Alex Bryan
- [2] Adam Dalterio
- [3] Jarratt Kneeland
- [4] Samuel Stocks
- [5] Devin Tingle
- [6] Tyler Yeager