

Development of Representative Microgrids Test Cases and Study of Selected Operational Scenarios in the Island of Puerto Rico

SAND2020-5132PE

**Fabio Andrade, Agustin Irizarry, UPRM
Robert Broderick, Sandia National Laboratories**

Jayuya, noviembre 2017
Foto: Borintek



Sandia National Laboratories is a multimission laboratory managed and operated by National Technology and Engineering Solutions of Sandia LLC, a wholly owned subsidiary of Honeywell International Inc. for the U.S.

Department of Energy's National Nuclear Security Administration under contract DE-NA0003525.

SAND2020-XXXX



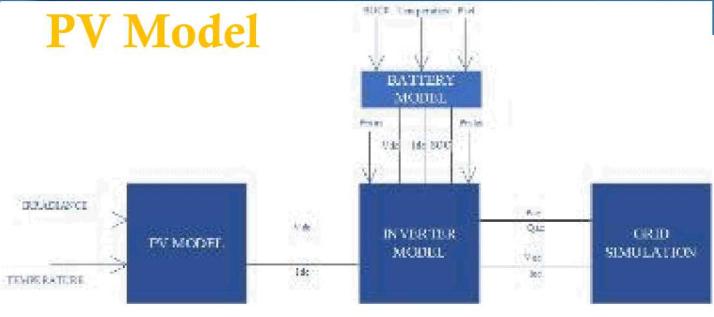
**Sandia
National
Laboratories**

We propose to define and develop representative test cases to study the behavior of selected renewable energy microgrids described in the PREB Microgrid Rule. The models will be based on models of the electric elements within the microgrid and models of the electric power grid, or other microgrids, to which the test case microgrid may be connected.

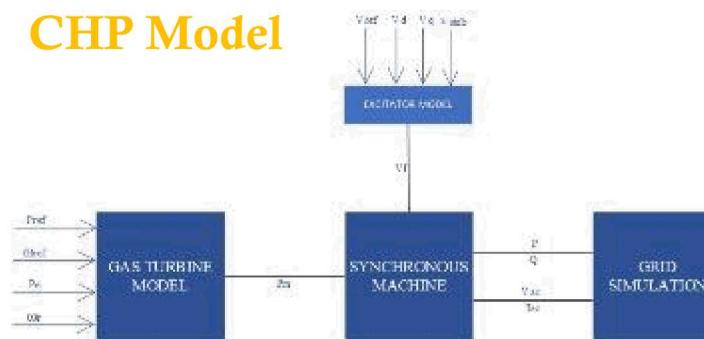
Development of Representative Microgrids Test Cases and Study of Selected Operational Scenarios in the Island of Puerto Rico

OPAL Models

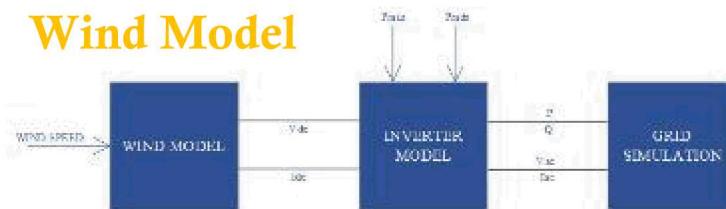
PV Model



CHP Model



Wind Model



22.05.2020