H.B. NO. 810

A BILL FOR AN ACT

RELATING TO ELECTRIC SYSTEMS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. Hawaii's progress toward the widespread use of renewable energy requires modernized electrical infrastructure supported by nimble, robust technology capable of servicing the evolving needs of the grid. Advanced grid modernization technology offers numerous benefits in the face of heavy renewable energy penetration that include increased electrical system reliability and operational efficiency from enhanced system responsiveness and interoperability at the transmission level and below, as well as improved customer energy efficiency practices encouraged by the availability of timely end use energy information. In addition, the increased scale, speed, and accuracy of the information provided by advanced grid infrastructure systems can better support initiatives to break the State's petroleum dependence, such as increased distributed generation and demand response programs. Electricity providers on Maui and Kauai have already begun deploying advanced residential metering technology with the support of substantial federal funding, but the State lacks a unifying policy for the

implementation of advanced grid modernization technology. The State's achievements in strengthening the Hawaii electric system - including the continued development and potential delivery of increased renewable energy resources across the islands, as well as the ongoing creation of transparent, effective system rules - must be accompanied by policies for a comprehensive enhancement of all aspects of the system, including the implementation of advanced grid modernization technology.

The purpose of this Act is to establish a policy for the State of Hawaii in support of the implementation of advanced grid modernization technology.

SECTION 2. Chapter 269, Hawaii Revised Statutes, is amended by adding to part IX a new section to be appropriately designated and to read as follows:

"**§269- Advanced grid modernization technology; principles.** The commission, in carrying out its responsibilities under this chapter, shall consider the value of improving electrical generation, transmission, and distribution systems and infrastructure within the State through the use of advanced grid modernization technology in order to improve the overall reliability and operational efficiency of the Hawaii electric system."

SECTION 3. Section 269-141, Hawaii Revised Statutes, is amended by adding a new definition to be appropriately inserted and to read as follows:

""Advanced grid modernization technology" means equipment, facilities, and associated processes that individually or collectively function to improve the reliability, resiliency, flexibility, and efficiency of the Hawaii electric system. Advanced grid modernization technology provides functional characteristics that improve the operational capability of the Hawaii electric system, including but not limited to automatic restoration of electrical service in response to power disturbance events, greater enabling of participation in utility customer programs, resilient operation against both physical and cyber-based attacks, the ability to satisfy power quality requirements of new technologies and end users, accommodation of energy generation and storage choices, enabling of innovative products and services in electricity markets, improving customer energy efficiency practices encouraged by the availability of timely energy use information, and optimization of assets and improving the operational efficiency of the Hawaii electric system."

SECTION 4. New statutory material is underscored.

SECTION 5. This Act shall take effect upon its approval.

INTRODUCED BY: _____

BY REQUEST

JAN 22 2013

H.B. NO. 810

Report Title:
Grid Infrastructure Modernization Technology; Electric Utilities; Electric Systems; Public Utilities Commission

Description:
Authorizes the Public Utilities Commission to consider the value of implementing advanced grid modernization technology in the State.

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.

HB 810

JUSTIFICATION SHEET

DEPARTMENT: Budget and Finance

TITLE: A BILL FOR AN ACT RELATING TO ELECTRIC SYSTEMS.

PURPOSE: To authorize the Public Utilities Commission ("Commission") to consider the value of implementing advanced grid modernization technology throughout the State.

MEANS: Add a new section to part IX of chapter 269, Hawaii Revised Statutes, and amend section 269-141, Hawaii Revised Statutes.

JUSTIFICATION: Advanced grid modernization technology provides both system operators and consumers with multiple benefits that include increased system reliability and efficiency, better support of renewable energy integration, more detailed electrical use information for better system planning and electricity use reduction, and ultimately lowered operating costs and customer bills. This bill makes it clear that the Commission is authorized to consider the value of using such technologies throughout the State as a means to improve our electrical system.

Impact on the public: The impact on the public will be positive. This bill specifically directs the Commission to consider the increased renewable energy integration, operational efficiency, and energy use reduction benefits noted above in its deliberations.

Impact on the department and other agencies: Minimal impact is expected on the Commission, the Department of Budget and Finance, or other agencies.

New Day Plan Association: This bill supports the goal of increasing the

deployment of renewable energy resources throughout the State. A benefit of using advanced grid modernization technology is improved responsiveness and reliability of the larger electrical system to a degree not previously available. With the use of these kinds of technology, it is anticipated that the system will be able to better respond to the integration of high amounts of renewable energy resources, particularly intermittent resources like wind and solar energy.

GENERAL FUNDS: None.

OTHER FUNDS: None.

PPBS PROGRAM DESIGNATION: BUF 901.

OTHER AFFECTED AGENCIES: None.

EFFECTIVE DATE: Upon approval.