WHEREAS, analysts have estimated that current electricity consumption in the global information and communications technologies ecosystem ranges from one thousand one hundred to one thousand eight hundred terawatt-hours per year; and

WHEREAS, global electricity consumption by information and communications technologies today is the same as that used by lighting in 1905; and

WHEREAS, per bit, data transmitted over a wireless network consumes more energy than when transported over a fiber optics network; and

WHEREAS, migration from wired internet to the wireless internet through digital devices is happening fastest in emerging markets and worldwide, mobile data traffic has doubled in the past year and is forecasted to increase tenfold in the next five years; and

WHEREAS, current estimates of global electricity used by digital devices in the global residential and commercial sector ranges from four hundred sixty to five hundred fifty terawatt-hours annually and is comparable to global electricity consumption by residential lighting or refrigeration; and

WHEREAS, data created, used, and transported annually, known as the digital universe, is growing at a faster pace than at any time in history and in the near future, hourly internet
traffic is expected to exceed the internet's annual traffic of the year 2000; and

WHEREAS, energy consumption in Hawaii is declining due to conservation efforts and adherence to the State's energy efficiency portfolio standard which was established by Act 155, Session Laws of Hawaii 2009, and set a goal of reducing electricity consumption by four thousand three hundred gigawatt-hours by 2030; and

WHEREAS, Hawaii will face an upward pressure on energy demand due to the rapid expansion of consumer oriented electronic technologies and the mass storage and dissemination of data; and

WHEREAS, the Research and Economic Analysis Division of the Department of Business, Economic Development, and Tourism specializes in energy analysis and is capable of forecasting energy demand in Hawaii if provided with appropriate funding; and

WHEREAS, population and economic growth are the driving forces in the world's need for energy and even with substantial gains in efficiency, global energy demand by 2030 will increase by an amount equivalent to adding two United States' worth of consumption; and

WHEREAS, the Public Benefits Fund, overseen by the Public Utilities Commission and containing the fees collected pursuant to section 269-121, Hawaii Revised Statutes, has funds that could support energy forecasting efforts by the Research and Economic Analysis Division to gauge whether Hawaii's reduced demand for energy resulting from the energy efficiency portfolio standard compliance will be offset by the growth in energy consumption from technological innovation; now, therefore,

BE IT RESOLVED by the House of Representatives of the Twenty-seventh Legislature of the State of Hawaii, Regular Session of 2014, that the Public Utilities Commission and the Department of Business, Economic Development, and Tourism are requested to collaborate on developing a forecasting program
using moneys from the public benefit fund and other sources to align efficiency efforts and the growth of renewable energy with technological innovation that may increase energy demand; and

BE IT FURTHER RESOLVED, that the Public Utilities Commission and the Department of Business, Economic Development, and Tourism are requested to submit a report on their findings and recommendations, including proposed legislation, if any, on how to develop a forecasting program using moneys from the public benefit fund and other sources to align efficiency efforts and the growth of renewable energy with technological innovation that may increase energy demand, to the Legislature no later than twenty days prior to the convening of the Regular Session of 2015; and

BE IT FURTHER RESOLVED that certified copies of this Resolution be transmitted to the Governor; the Chairperson of the Public Utilities Commission; the Director of Business, Economic Development, and Tourism; the Public Benefits Fee Administrator; and the head of the Research and Economic Analysis Division of the Department of Business, Economic Development, and Tourism.

OFFERED BY:  

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