

---

---

# HOUSE CONCURRENT RESOLUTION

ENCOURAGING THE PUBLIC UTILITIES COMMISSION AND THE DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT, AND TOURISM TO CONTINUE ENERGY ADAPTATION EFFORTS TO ADDRESS PLANNING AND EFFICIENCY AS WIRELESS COMMUNICATIONS AND MOBILE ELECTRONIC DEVICES ALTER ENERGY CONSUMPTION AND DEMAND.

1 WHEREAS, analysts have estimated that current electricity  
2 consumption in the global information and communications  
3 technologies ecosystem ranges from 1,100 to 1,800 terawatt-hours  
4 per year; and

5  
6 WHEREAS, global electricity consumption by information and  
7 communications technologies today is the same as that used by  
8 lighting in 1985; and

9  
10 WHEREAS, per bit, data transmitted over a wireless network  
11 consumes more energy than when transported over a fiber optics  
12 network; and

13  
14 WHEREAS, migration from wired internet to the wireless  
15 internet through digital devices is happening fastest in  
16 emerging markets and worldwide, mobile data traffic has doubled  
17 in the past year and is forecasted to increase tenfold in the  
18 next five years; and

19  
20 WHEREAS, current estimates of global electricity used by  
21 digital devices in the global residential and commercial sector  
22 ranges from 460 to 550 terawatt-hours annually and is comparable  
23 to global electricity consumption by residential lighting or  
24 refrigeration; and

25  
26 WHEREAS, data created, used, and transported annually,  
27 known as the digital universe, is growing at a faster pace than  
28 at any time in history and in the near future, hourly internet  
29 traffic is expected to exceed the internet's annual traffic of  
30 the year 2000; and



1 WHEREAS, energy consumption in Hawaii is declining due to  
2 conservation efforts and adherence to the State's energy  
3 efficiency portfolio standard which was established by Act 155,  
4 Session Laws of Hawaii 2009, and set a goal of reducing  
5 electricity consumption by 4,300 gigawatt-hours by 2030; and  
6

7 WHEREAS, Hawaii will face an upward pressure on energy  
8 demand due to the rapid expansion of consumer oriented  
9 electronic technologies and the mass storage and dissemination  
10 of data; and  
11

12 WHEREAS, the Research and Economic Analysis Division of the  
13 Department of Business, Economic Development, and Tourism  
14 specializes in energy analysis and is capable of forecasting  
15 energy demand in Hawaii; and  
16

17 WHEREAS, population and economic growth are the driving  
18 forces in the world's need for energy and even with substantial  
19 gains in efficiency, global energy demand by 2030 will increase  
20 by an amount equivalent to adding two United States' worth of  
21 consumption; now, therefore,  
22

23 BE IT RESOLVED by the House of Representatives of the  
24 Twenty-seventh Legislature of the State of Hawaii, Regular  
25 Session of 2014, the Senate concurring, that the Public  
26 Utilities Commission and the Department of Business, Economic  
27 Development, and Tourism are encouraged to continue energy  
28 adaptation efforts to address planning and efficiency as  
29 wireless communications and mobile electronic devices alter  
30 energy consumption and demand; and  
31

32 BE IT FURTHER RESOLVED that certified copies of this  
33 Concurrent Resolution be transmitted to the Governor;  
34 Chairperson of the Public Utilities Commission; Director of  
35 Business, Economic Development, and Tourism; and head of the  
36 Research and Economic Analysis Division of the Department of  
37 Business, Economic Development, and Tourism.

