

# Mapping Out the Future: IN BRICK, SUN AND WIND

The Department is already engaged in policy initiatives to reduce its dependence on imported energy – as seen in the progressive targets mapped out for its Sustainability Policy 6710, which seeks to reduce the use of fossil fuel-based energy by 90% by 2040. The Energy Efficiency and Sustainability Master Plan (EESMP) encompasses all of these, and places them into a new transformative role.

The Plan aims to roll the various sustainability and energy measures and initiatives into an integrated whole, one that will deliver reduced utility bills, new revenue sources, and greater opportunities for the Department and its students. And a rejuvenated community – a reborn Ahupuaa – for all Hawaiians.

This will involve deploying solar PV on the roofs and car-parking lots at most schools, the installation of small-scale wind turbines, and even the harnessing of wave power, where local conditions allow. Provisional scoping of just the solar and wind resources available suggest that initially 100 MW of solar capacity, and 25 MW of wind capacity is feasible. Ultimately solar PV alone could generate 430 million kWh of electricity each year.

## OVERALL STATE SCORING ON ENERGY EFFICIENCY 2011

RANK	STATE	TOTAL SCORE (Maximum of 50 points)
1	Massachusetts	45.5
2	California	44.0
3	New York	38.0
...	...	...
<b>▲12</b>	<b>Hawaii</b>	<b>26.5</b>

Notes: ▲ denotes “most improved” states.

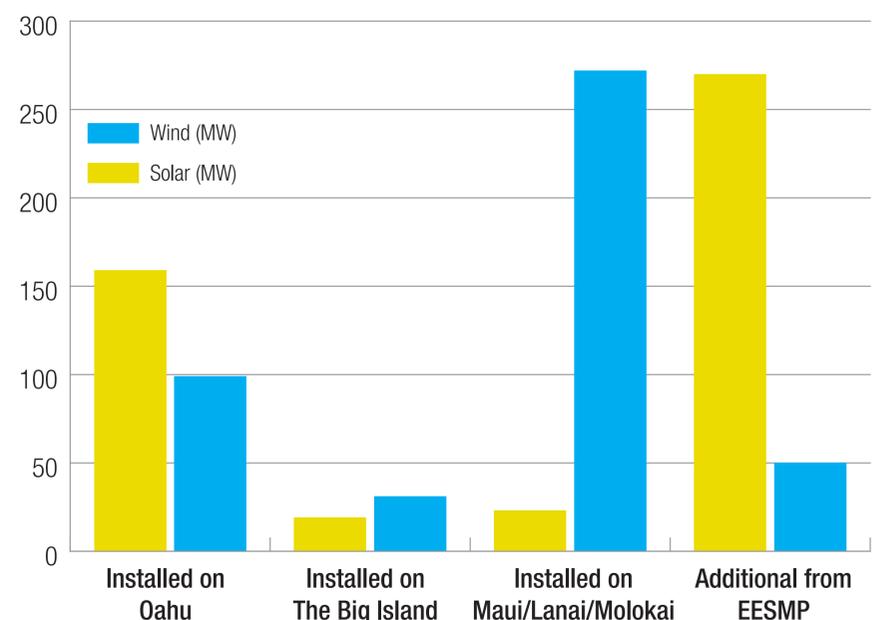
Source: <http://www.aceee.org/sites/default/files/publications/researchreports/e115.pdf> – Table ES1

The point of entry for the EESMP is energy conservation and demand reduction. It is fundamental to an holistic clean energy solution to first find ways to reduce energy demand through the integration of energy efficiency, conservation and management measures.

The aim is to make immediate, transformational and permanent changes to bring the Department’s energy costs to, and then below, U.S. averages, using an entrepreneurial approach and appropriately advanced commercially-available technology. A provisional target is to improve energy efficiency across the Department’s facilities by 20%.

With energy consumption engaged on a progressive downwards course, the next phase of the EESMP will be to furnish the Department’s 256 schools and 100 other buildings (including charter schools and warehouses) with appropriate, and locally-tailored, clean energy generation.

That would make the EESMP a significant contributor to Hawaii’s clean energy transformation:



Source: Hawaiian Electric Company, Inc (HECO). 2012. Clean Energy Update February 2012. pp3

This poster was donated to the Hawaii Department of Education by the Association of Energy Engineers (Hawaii Chapter) and R. P. Delio & Company.