

# UNIVERSITY OF HAWAI‘I SYSTEM ANNUAL REPORT



REPORT TO THE 2017 LEGISLATURE

Annual Report on Net-Zero Energy for  
the University of Hawai'i

HRS 304A-119

December 2016



# UNIVERSITY of HAWAI'I®

## Report to the Hawai'i State Legislature Pursuant to Act 99, SLH 2015 HRS 304A-119

The governor signed into law Act 99 (SLH 2015) which established a collective goal for the University of Hawai'i “*to become net-zero with respect to energy use, producing as much (renewable) energy as the system consumes across all campuses by January 1, 2035.*”

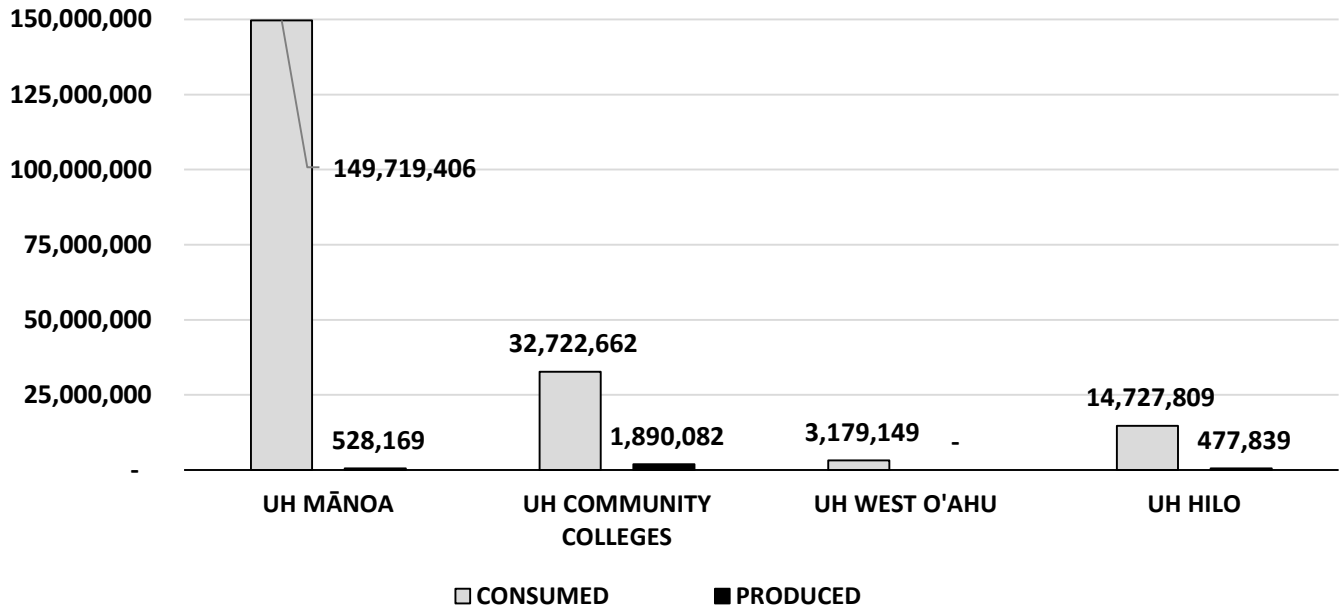
This report details the activities, plans, improvements made and overall progress made to advance the Net-Zero energy goal for calendar year 2016 compared to the baseline established in calendar year 2015; and supports proposed legislation that helps shape the energy landscape at UH in the 2017 legislative session.

NET-ZERO DASHBOARD <i>for 2016</i>	KWh
Total Energy Consumed <sup>1</sup>	200,877,194,620
Total Renewable Energy Provided	2,896,090

<sup>1</sup> Includes non-campus facilities



### 2016 Energy Consumption and Production by Campus (kWh)

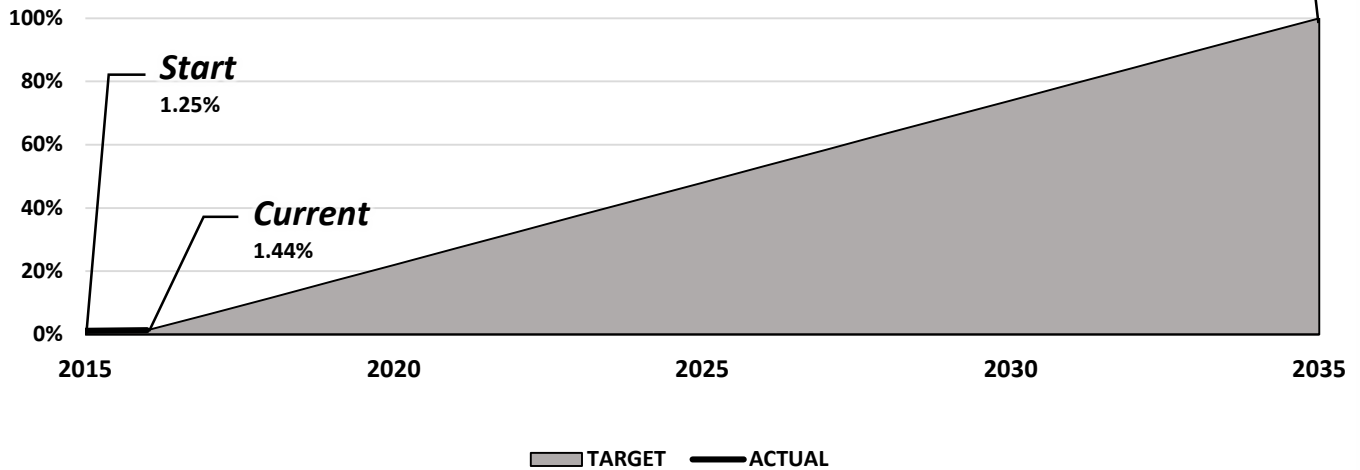


### Net-Zero Energy Goal Progress (Percent of UH Energy Usage Produced by UH)

**1.44% Net-Zero as of Jan. 2017**

**Target**  
100%\*

\*198MWh Consumed/  
Produced Per Year)



## PLANS AND ACHIEVEMENTS

There are four key components to reaching Net-Zero by 2035: Energy Management, Efficiency, Renewable Generation, and Social Initiatives including policy. Highlights of this year's achievements in these areas are listed below.

1. Energy Management:
  - Office of Energy Management established
  - Energy Management System (EMS) acquired; EMS currently being implemented across multiple campuses to measure and manage energy utilization and generation
2. Increase Efficiency:
  - “Mānoa Green Days” continue – building electricity is shut off over the weekends and during holidays
  - Space Utilization Assessment in progress to maximize efficient use of existing space
3. Expand Renewable portfolio (and Storage)
  - UH Hilo more than doubled energy production via additional PV
  - 100kW Power Purchase Agreement (PPA) awarded for the Institute for Astronomy on Maunakea.
  - 2MW PPA awarded for the UH Mānoa campus
4. Social Initiatives:
  - Green Revolving Fund (GRF) established to track and re-invest energy savings
  - Building Design and Performance Standards finalized for new construction and renovations
  - Student-driven Community Based Social Marketing pilot program established to foster sustainable behavior in office environments

## LEGISLATIVE OUTLOOK

The UH System continues to support legislative bills that help shape the energy landscape of the future. These measures include, but are not limited to, micro-grids, smart grids, wheeling, time-of-use pricing, and storage incentives.

UH urges appropriations efficiency and renewable generation as an upfront cost that pays for itself over the course of the life of the facility.