

UNIVERSITY OF HAWAI‘I SYSTEM ANNUAL REPORT



REPORT TO THE 2019 LEGISLATURE

Annual Report on the
University of Hawai'i Green Special Fund

HRS 304A-2181

December 2018

**Report to the Hawai'i State Legislature
Pursuant to Act 186, SLH 2017
HRS 304A-2181**

The governor signed into law Act 186 (SLH 2017) which established the University of Hawai'i Green Special Fund (GSF) "to collect and expend revenues that will harness savings realized from energy efficiency investments and other sources of revenue to reinvest into further measures to reduce energy consumption and operating costs towards achieving the University of Hawai'i's net-zero energy goal."

This legislation established an innovative and proven mechanism for universities and other large institutions to reduce operating costs and environmental impact while promoting education and engaging stakeholders, commonly referred to as a "Green Revolving Fund".

The GSF provides a framework for capital to be invested in energy efficiency, renewable energy, and other sustainability projects that generate cost savings. These savings are tracked and used to replenish the fund for the next round of green investments, thus establishing a sustainable funding cycle to improve energy efficiency and reduce environmental impact. To date, the GSF has not been directly funded by the legislature or the University; instead its only source of funds currently are energy rebates and realized energy savings.

This report details the activities of the GSF as required in accordance with HRS §304A-2181, including:

1. An explanation of how savings were calculated;
2. A review of all the revenues deposited;
3. A review of the rebates, grants, or incentives received; and
4. A review of any other funds that may have been transferred.

SUMMARY OF 2018 ACTIVITIES

This report covers activities from January 1, 2018 – December 31, 2018. During its second year of operation, the GSF demonstrated the University's capacity to conduct measurement & verification (M&V) of energy savings from Energy Conservation Measures.

Summary of Green Special Fund Activity for Period 1/1/18-12/31/18:

Account Summary	Amount
Beginning Balance 1/1/18	\$87,237.75
Closing Balance 12/31/18	\$52,228.09
2018 Total Expenditures	\$(41,313.88)
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UltraLow Temp Freezer Replacements	\$41,313.88
2018 Total Deposits	\$10,521.22
Rebates	\$6,304.22
Realized Energy Savings	\$4,217.00

REVENUES

In calendar year 2018, the following revenues were collected into the GSF:

Rebates, Grants & Incentives Received for Period 1/1/18-12/31/18:

Project Name	Amount	Received From
PBRC Lab Freezers	\$3,220.22	Hawaii Energy
Physical Plant Building LEDs	\$3,084.00	Hawaii Energy
Total Rebates, Grants & Incentives Received	\$6,304.22	

Revenues from Realized Energy Savings for Period 1/1/18-12/31/18:

Project Name	Amount	Received From
UltraLow Temp Freezer Replacements	\$4,217.00	UHM
Total Realized for Energy Savings Received	\$4,217.00	

The University of Hawai'i Office of Energy Management (OEM) installed plug-level energy monitors on two of the 4 existing ultra-low temperature research freezers to be replaced, which were monitored between 10/03/17 and 12/31/17 to establish a baseline of existing freezer energy consumption.

This monitoring of a 50% sample, along with third party verification from Hawai'i Energy, validates the energy savings of the more efficient model; energy savings for the

replacement units were determined to be 60 kWh/month. Monthly energy recharge charge rates ranged between \$ 0.201934 – \$0.23275/kWh in FY18. Monthly energy recharge charge rates from June – December 2018 have not been published as of this report, and will be utilized to reconcile actual energy savings realized in calendar year 2018.

GSF revenues from realized energy savings in 2018 are projected to be \$4,217 from the ultra-low temperature freezer replacement project.

Full documentation of M&V protocols including baseline data gathered, project summary, financial analysis and technical specifications are held on file.

EXPENDITURES

In 2018, the following expenditures were made from the GSF on energy-saving projects:

Project Name	Amount	Recipient
1x UltraLow Temp Freezer Replacement	\$10,783.34	HNEI
3x UltraLow Temp Freezer Replacement	\$30,530.54	PBRC
Total Funds Expended for Period 1/1/18-12/31/18	-\$41,313.88	

Full documentation of the ultra-low temperature research freezer replacement project including baseline data gathered, project summary, financial analysis and technical specifications are held on file.