

# KIUC

## Programs for DSM & Efficiency



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# Contents

- Integrated Resource Planning process
- Demand Side Management (DSM)
  - Demand-Side Management Programs
  - KIUC DSM Programs
- The Commercial Retrofit Program
- Energy Conservation
- Energy Efficiency Programs
  - KIUC Energy Efficiency Programs

# Integrated Resource Planning Process

In Hawaii, the State Public Utilities Commission has established an Integrated Resource Planning (IRP) process

1. Requires utilities to forecast future demand for electric power
2. Requires utilities to thoroughly analyze ways to meet that demand in an efficient and reliable manner, and at the lowest reasonable cost

# Important Aspects of the IRP Process

- The process is thorough
  - It analyzes and assesses many different ways to meet the forecasted demand from both sides of the meter.
- The process considers not only direct costs, but also the impact on:
  - Utility's customers
  - The environment
  - Culture
  - Community lifestyles
  - State economy
  - Society
- The process includes community participation
- The process is Flexible
  - 20-year integrated resource plan and a 5-year implementation action plan, which is repeated on a regular basis to address changes in consumer needs and technology development

# Demand Side Management (DSM)

- Entails actions that influence the quantity or patterns of use of energy consumed by end users.
- Goals of the activities can include targeting
  - reduction of peak demand
  - valley filling
  - load shifting
  - overall energy use reduction

# DSM Programs

Demand-side management (DSM) programs consist of planning, implementing, and monitoring activities of electric utilities that are designed to encourage consumers to change their level and pattern of electricity usage. Utility DSM programs offer a variety of measures that can reduce energy consumption and consumer energy expenses. Electricity DSM strategies have the goal of maximizing end-use efficiency to avoid or postpone the construction of new generating plants.

# KIUC DSM Programs

- 69% of the electricity produced on Kaua`i is consumed by the Commercial rate class.
- A 2005 Energy Efficiency Potential study determined that Commercial customers have the greatest potential for contributing to cost-effective DSM applications on Kauai.

# KIUC Commercial Retrofit Program

1. KIUC performs a complete audit of the facility and identifies outdated or inefficient technologies in areas like lighting, cooling, motors, pumps and controls and makes cost-effective recommendations.
2. KIUC provides rebates of 50% to 100% for the installation of cost-effective, efficient technologies.

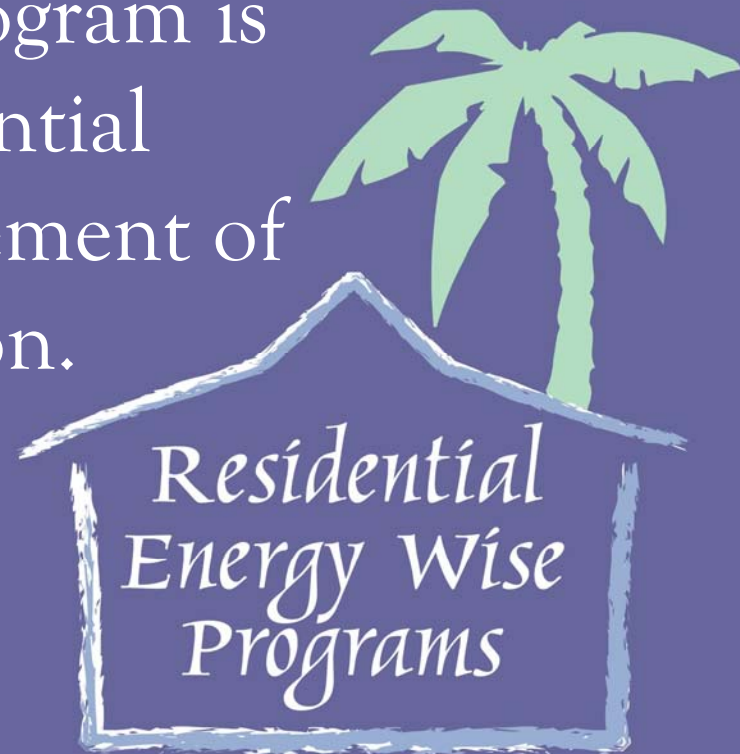
# Energy Conservation

*The practice of decreasing the quantity of energy used*

It may be achieved through efficient energy use, in which case energy use is decreased while achieving a similar outcome, or by reduced consumption of energy.

# Energy Efficiency Programs

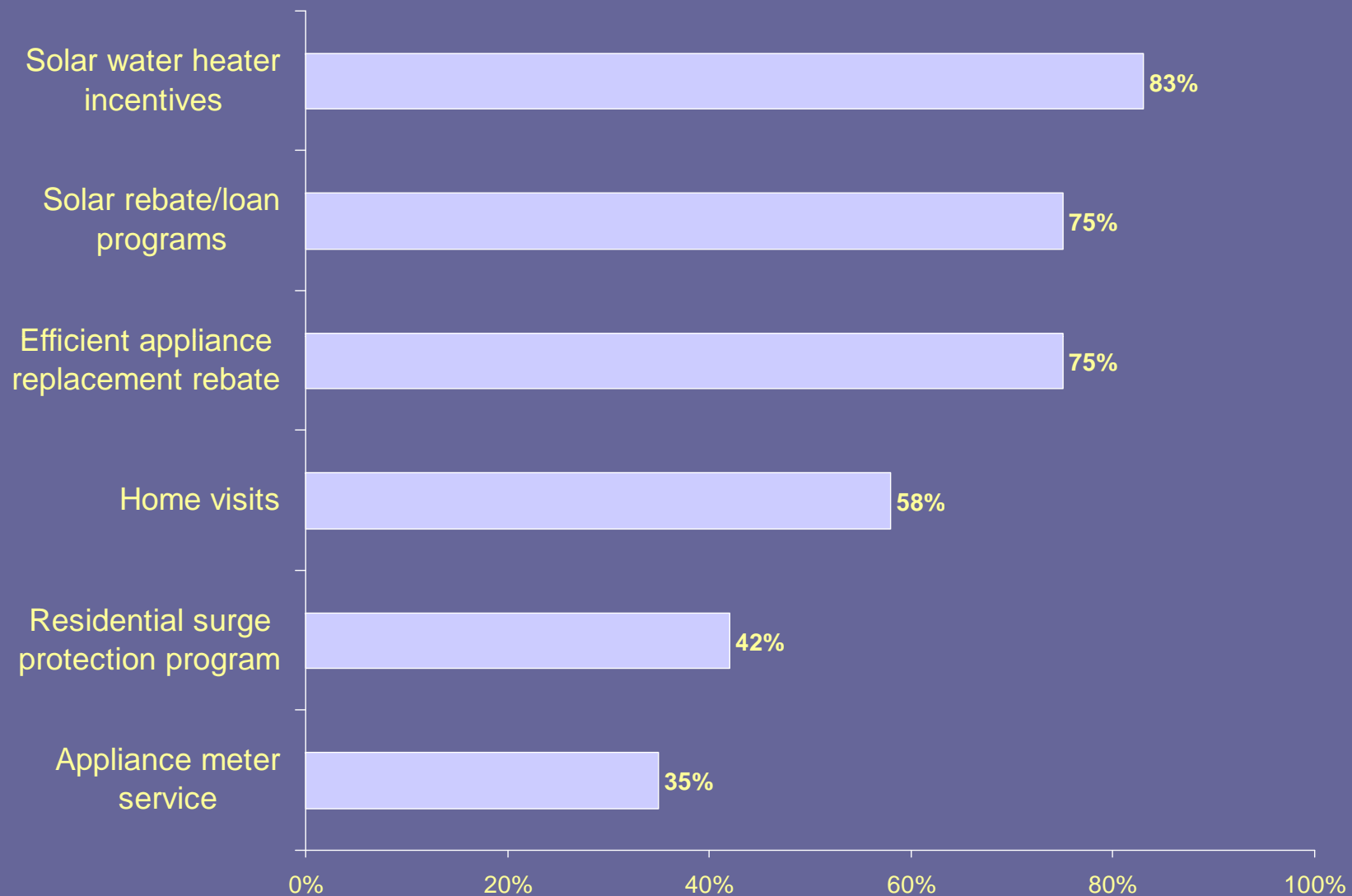
An Energy Efficiency program is designed to assist residential customers in the management of their electric consumption.



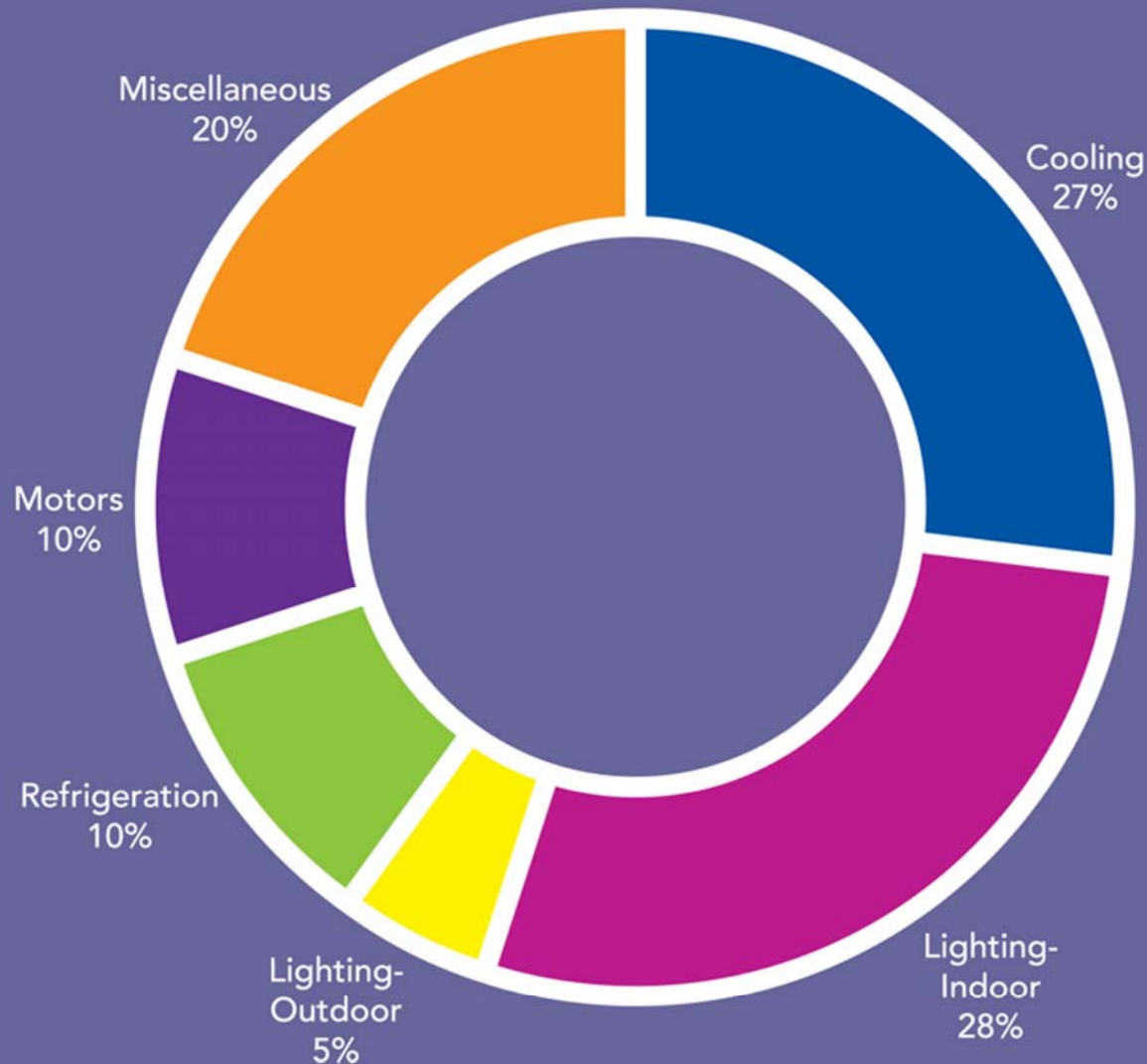
# KIUC Energy Efficiency Programs

- Solar Water Heating Loans
- Solar Water Heating Rebate
- Efficient Appliance Replacement Program
- Qualified Member Appliance Replacement Program
- Appliance Metering (Educational)
- Residential Home Visits (Educational)
- New Member Lighting Program

# Awareness of Energy Services



# Commercial End-Use Composition - Energy



# Residential End-Use Composition - Energy

