

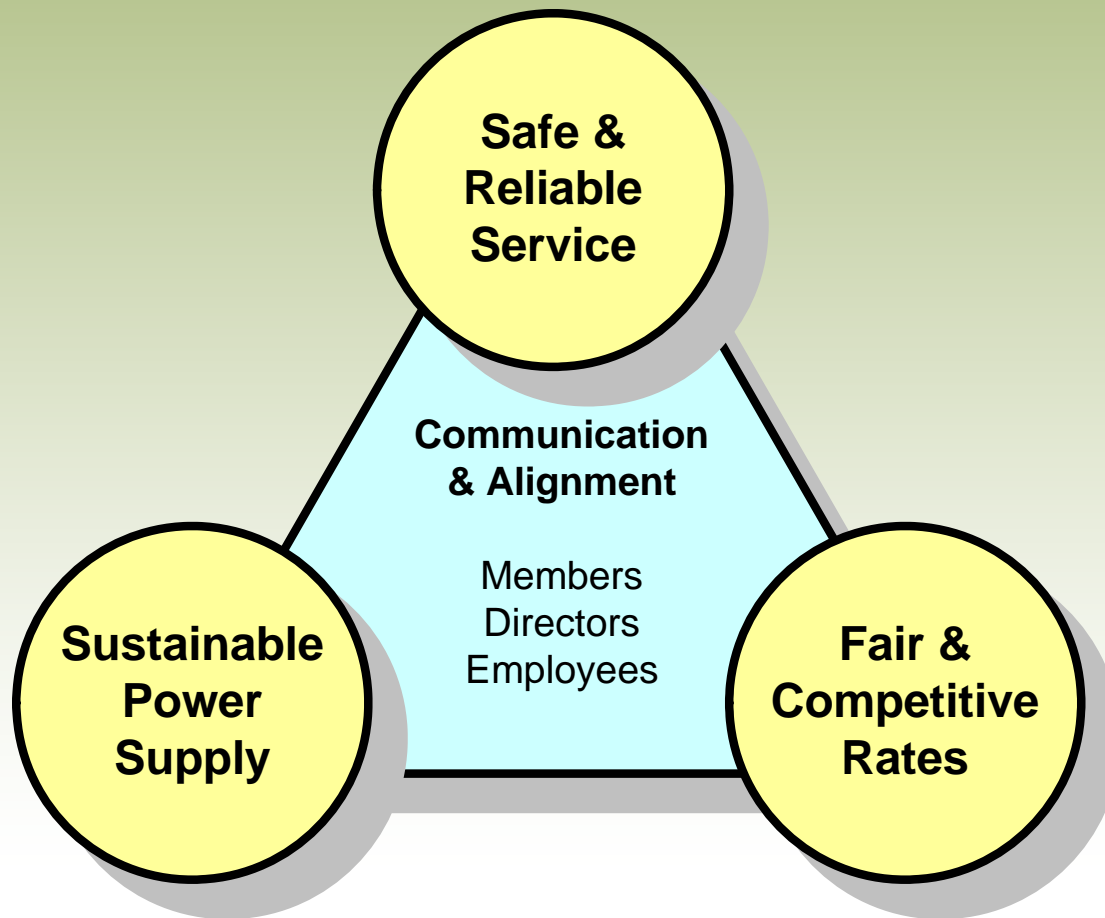
Hawai`i Clean Energy Initiative



Kaua`i Planning & Action Alliance

February 10, 2009

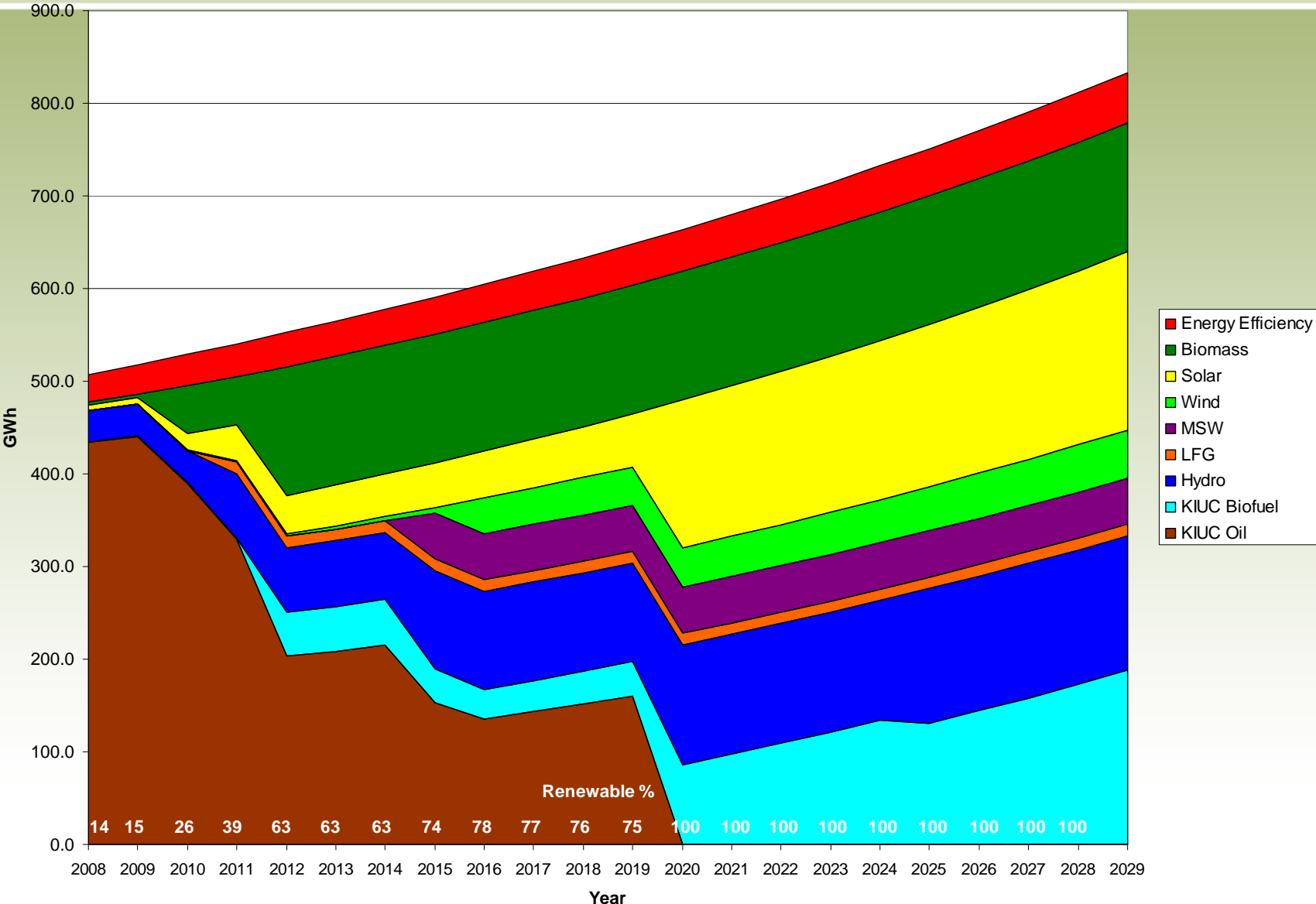
Strategic Plan 2008 - 2023



Increase Sustainable Power Supply

- Significantly exceed Hawai`i Renewable Portfolio Standard (RPS)
- Reduce electric power sector Green House Gas (GHG) emissions to 1990 levels
- Increase energy diversity so that no one source amounts to 50% or more of total energy supply
- Increase conservation and demand-side management

Energy Supply



HCEI & Kaua`i

HCEI

- 40% RPS by 2030
- limits amount of biofuel
- Clean Energy Scenario Planning (CESP) to replace Integrated Resource Planning (IRP)

KIUC

- 1990 GHG by 2023 = 50% Renewable
- Replace fossil fuels with biofuels as supplies develop, grid stability
- Follow KIUC's recently completed IRP until CESP developed

HCEI & Kaua`i

HCEI

- Retire oil-fired units to transition away from fossil fuels.
- No fossil fuel based unit additions

KIUC

- All KIUC units are or can be made biofuel capable. Unit retirement should be based on economics.
- Quick start high efficiency units needed for reliability coverage. Fossil/biofuel capable.

HCEI & Kaua`i

HCEI

- Remove Cap on Net Metering
- Feed-in Tariff
- Time of use
- Clean energy infrastructure surcharge
- Maintain Cost Adjustment Clause

KIUC

- Concerned that non-net metered members subsidize NEM
- Potential benefit
- Potential benefit, requires AMI
- Potential benefit
- Maintain cost adjustment Clause but eliminate efficiency incentive

HCEI & Kaua`i

HCEI

- Decoupling – ensures utility remains financially sound
- Advanced Metering Infrastructure, AMI

KIUC

- TIER based rates, ensures financial stability for co-op
- KIUC currently performing AMI selection analysis, necessary for load control & smart grid applications

HCEI & Kaua`i

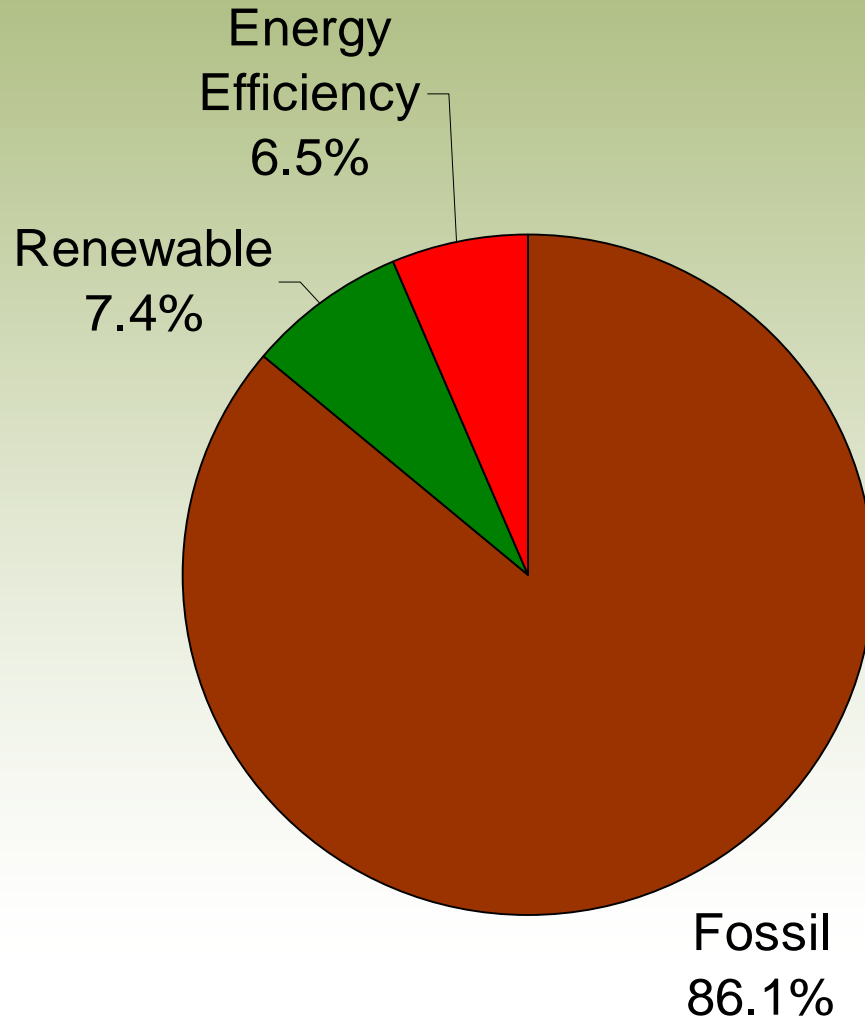
HCEI – HECO

- Undersea Cable, links and enables transfer of energy between Oahu, Maui, Molokai & Lanai

KIUC

- Not feasible for Kaua`i in the near future.
- Requires storage and transmission infrastructure for high penetration of renewables.
- Kaua`i will need to maintain adequate firm capacity by itself.

2008 Energy



Customer Sited Renewable Generation

- 93 systems installed in 2008 with a generation capacity of 1,859 kWdc
- 170 systems installed since 2001 with a total generation capacity of 2,800 kWdc

2008 Solar Hot Water Programs

- 87% increase of installed systems
- KIUC Rebate Program installed 174 systems
- KIUC Zero Interest Loan Program installed 43 systems
- KIUC Solar Water Heating Savings Pilot Program 53 applications requested, 1 returned to KIUC, 0 installs

Renewable Projects

- Pacific West Energy, LLC – 20 MW biomass facility
- Kekaha Solar projects
- Hydroelectric Projects Kitano, G&R
- Green Energy 130 kW hydro electric unit scheduled to be online in 2009.
- Wind generation challenged by avian and siting issues.
- 6.4 MW Green Energy Biomass online in 2010.
- Kekaha Landfill Gas - County & PMRF project

KIUC – HCEI Agreement

- KIUC has participated in HCEI Working Groups and Integration Committee
- KIUC was not aware that an HCEI Agreement was being worked out with HECO
- KIUC operates on a not-for-profit, member owned, cooperative business model
- KIUC currently working on a HCEI Agreement

Mahalo!

