



WEST KAUA'I ENERGY PROJECT

Hawaiian Homestead Commission Briefing

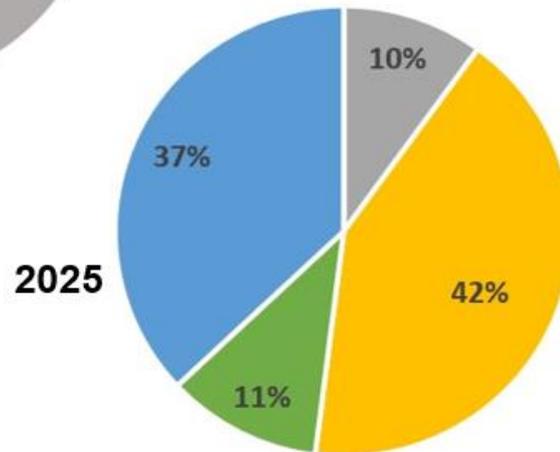
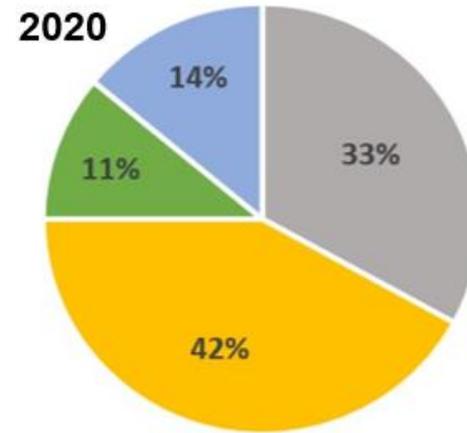
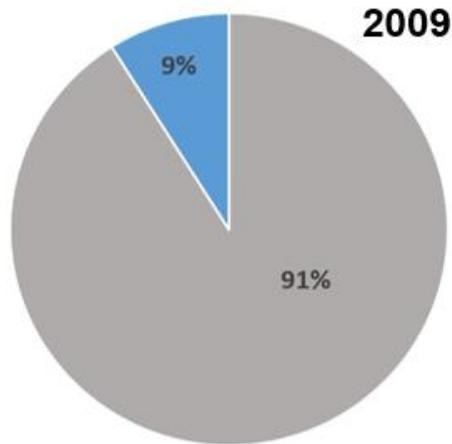
August 2021

Kaua'i's 100% Renewable Challenge

- 100% of Kaua'i's daytime demand for electricity routinely met by renewables
- Solar and battery limitations
 - Sun dependent
 - Short duration storage
- Long-duration storage needed to achieve 100% renewable at night and during prolonged periods without solar



KIUC Fuel Mix



■ Fossil Fuel ■ Solar ■ Biomass ■ Hydro

WKEP Supports Existing HHC/DHHL Plans

- Ho‘omaluō (2009): Energy Policy
 - Facilitate the use of diverse renewable energy resources
 - Pursue the leasing of those lands that are identified as suitable for renewable energy projects

- West Kaua‘i Regional Plan (2011): Priority Projects
 - Development of renewable energy projects compatible with agriculture
 - Maintain and rehabilitate Pu‘u ‘Ōpae reservoir and irrigation system

- Modified Petition for Reservation of Surface Water (2017)
 - 6.9.9 MGD from Kōke‘e Diversions for use in Waimea, Kaua‘i Hawaiian Home Lands

- Pu‘u ‘Ōpae Kuleana Homestead Settlement Plan
 - 1,421 acres on mauka Waimea lands
 - HHC accepts final EA in July 2020

Waimea River Mediation Settlement

- Petition filed in July 2013 by Earth Justice on behalf of Pō‘ai Wai Ola and West Kaua‘i Watershed Alliance
 - Complaint filed against ADC and KAA for alleged waste of water on ditch systems
 - Amend interim instream flows

- Parties: Pō‘ai Wai Ola and West Kaua‘i Watershed Alliance/Earth Justice, ADC, KAA, DHHL, and KIUC

- Mediation Settlement approved by Commission on Water Resource Management on April 18, 2017

- Unprecedented resolution of a water dispute in Hawai‘i

Mediation Settlement Points

- More water for streams and Waimea River
 - Required instream flow releases and modifications to diversions
 - Phase One IIFS
 - Phase Two IIFS
- Installation of monitoring equipment and stream flow data collection
- Water for DHHL lands
- Water for KIUC project
- Timeline with required action items

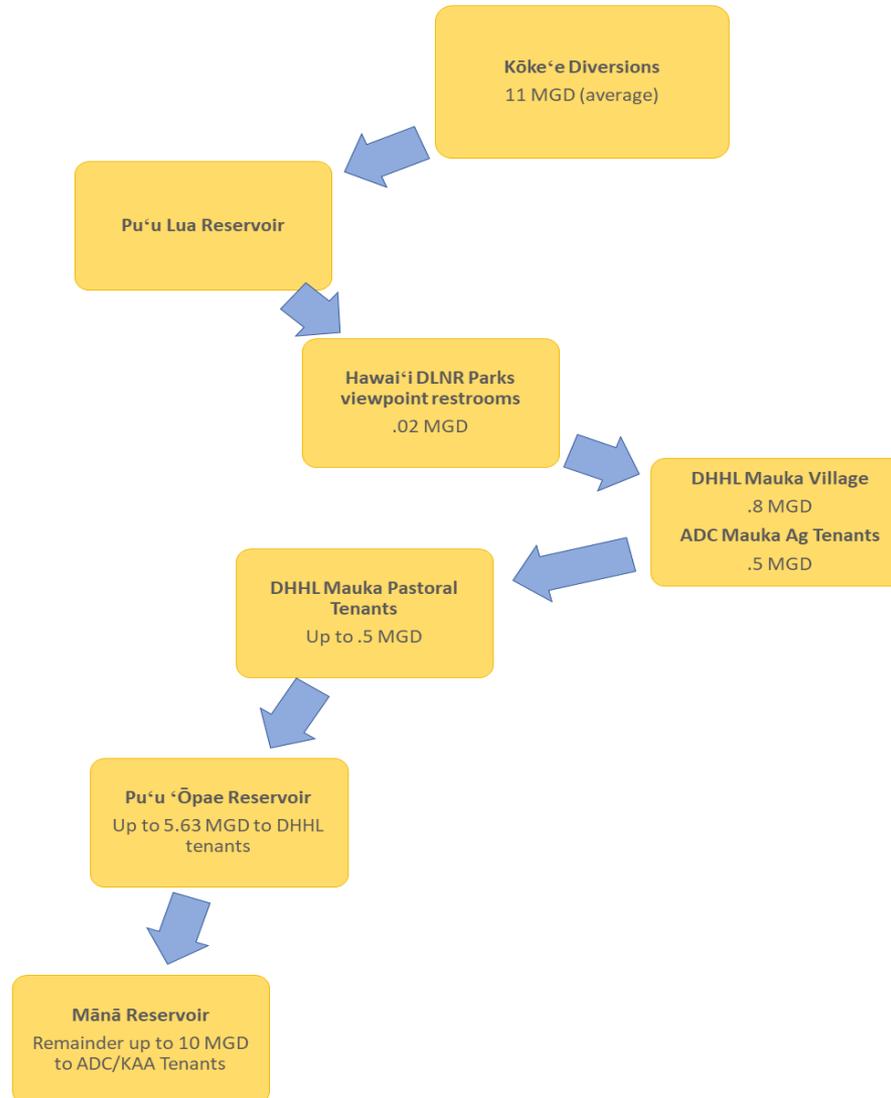
Integrated Energy Project Proposal

- Renewable energy resource for island of Kaua‘i
 - 24 MW of pumped storage hydro
 - Solar used as power source for pumping
 - Store and release hydro

- Irrigation water delivered through ditch and project pipeline to DHHL lands and ADC/KAA

- Primary project components
 - Koke‘e ditch repairs and upgrades
 - Rehabilitation of Pu‘u Lua, Pu‘u ‘Ōpae, and Mānā reservoirs
 - Two new sections of buried pipeline
 - Two new powerhouses

Flow of water from Kōkeʻe diversions with volume use at various points on the system



DHHL Benefits

- ✓ Delivery of DHHL water reservation of 6.9 MGD to DHHL lands
- ✓ Enables the development of DHHL's Pu'u 'Ōpae Kuleana Homestead Settlement Plan
 - ✓ Water delivery
 - ✓ Road improvements and maintenance
 - ✓ Electrical power available at Pu'u 'Ōpae
- ✓ Water delivery and new storage tank for DHHL pastoral lots
- ✓ Water delivery to KHHA licensed area
 - ✓ KIUC provides pump, power for pump and repairs/replacement to pump
- ✓ Annual lease payments to DHHL

DHHL Benefits

- ✓ Rehabilitation and maintenance of Pu‘u Lua Reservoir
 - ✓ Provides irrigation storage buffer that will increase water availability to DHHL lands during the dry seasons.
- ✓ Repairs/upgrades and maintenance and operation of Koke‘e ditch
 - ✓ The only mechanism providing water to DHHL lands, improved and more reliable water delivery throughout the project life.
- ✓ Collaboration with KHHA on seed banking program and reserving wood for designated purpose
 - ✓ Koa tree located on dam embankment and must be removed for dam safety requirements
 - ✓ Will continue to collaborate with KHHA on wood use/purpose and seed banking
- ✓ Increased wildfire protection

Benefits to KIUC Members

- Partnership with DHHL and other agencies to reduce the impact of climate change by eliminating usage of more than 8 million gallons of fossil fuel per year with an estimated annual reduction of 80,000 tons of CO₂e.
- Member-owned legacy project that provides long-duration storage, improved reliability and rate stability
- Capable of meeting up to 25% of island power needs
- Generates when solar isn't available
- Increased number of jobs available during the construction phase

WKEP Project Status

- 2013 – present: ongoing outreach with beneficiaries, beneficiary organizations and the community at large
- August 2017: Beneficiary consultation report accepted by HHC
- May 2018: Right of entry executed between KIUC and DHHL
- June 2020: 60% engineering complete, including repairs and new infrastructure on DHHL land; report shared with DHHL
- July 2020: HHC accepts final EA for Pu‘u ‘Ōpae Homestead Settlement
- December 2020
 - KIUC signed development/construction/operation agreement with AES
 - Power Purchase Agreement filed with Hawai‘i Public Utilities Commission

WKEP Project Status

- March –April 2021: Virtual Community Meeting and Open House held
- June 2021: DHHL offered pre-review of Draft EA and opportunity to comment
- July 2021: KIUC met with beneficiaries in Kekaha at invitation of DHHL
- August 2021: Draft WKEP EA to be published by OEQC
- September 2021: Monthly community outreach meetings to commence in Kekaha and Waimea

Role of AES

- Development/Construction/Operation
- AES is proven partner of KIUC
 - Presence in Hawaii for more than 25 years
- AES is a world leader in renewables; experience with similar projects
 - 6,379 MW of hydro capacity in Central and South America
- Financial risk shifted from cooperative to development partner
- AES can take advantage of federal and state tax credits; maintaining the cost of the project which translates into rate savings for KIUC members

Pu'u Lua Reservoir - Current



Pu'u Lua Reservoir after Rehabilitation



Pu'u 'Ōpae Reservoir - Current



Pu‘u ‘Ōpae Reservoir – During Sugar Operation



Mahalo and Questions



KIUC meeting with
DHHL/Beneficiaries July 2021

