

AB ALEXANDER & BALDWIN, INC.



A&B Kauai Energy Opportunities

**Presentation to 2008 Kauai Renewable Energy Conference
September 8, 2008**

Context: Hawaii Primed for Renewable Energy



- Highest dependence on petroleum for electricity
- Highest electricity rates
- Among the highest gasoline prices
- Isolated
- Plentiful natural resources
 - Sun
 - Wind
 - Wave
 - Geothermal
- Still, progress to date has been limited
 - Emerging technologies
 - Permitting/funding challenges
 - Economics

Catalysts for A&B Energy Initiatives



- Extend A&B history with renewables
 - Over 100 years experience on Maui and Kauai
 - ▶ Biomass and hydro on Maui
 - ▶ Hydro continues on Kauai
- Ag to energy opportunities
 - Enhance profitability of existing ag operations at HC&S on Maui and Kauai Coffee
- Capitalize on rising energy prices
 - Shift to higher value products
 - Capture new sources of energy revenue
- Reduce carbon footprint, promote renewables



Benefits

- Take advantage of high energy prices
- Eliminate operating challenges
- Leverage a proven technology

Challenges

- Ethanol pricing volatile, well below gasoline
- Vinasse creates new operating challenges
- New technologies may enhance yields, returns
- Other uncertainties:
 - Water
 - Yields

Other A&B Energy Initiatives



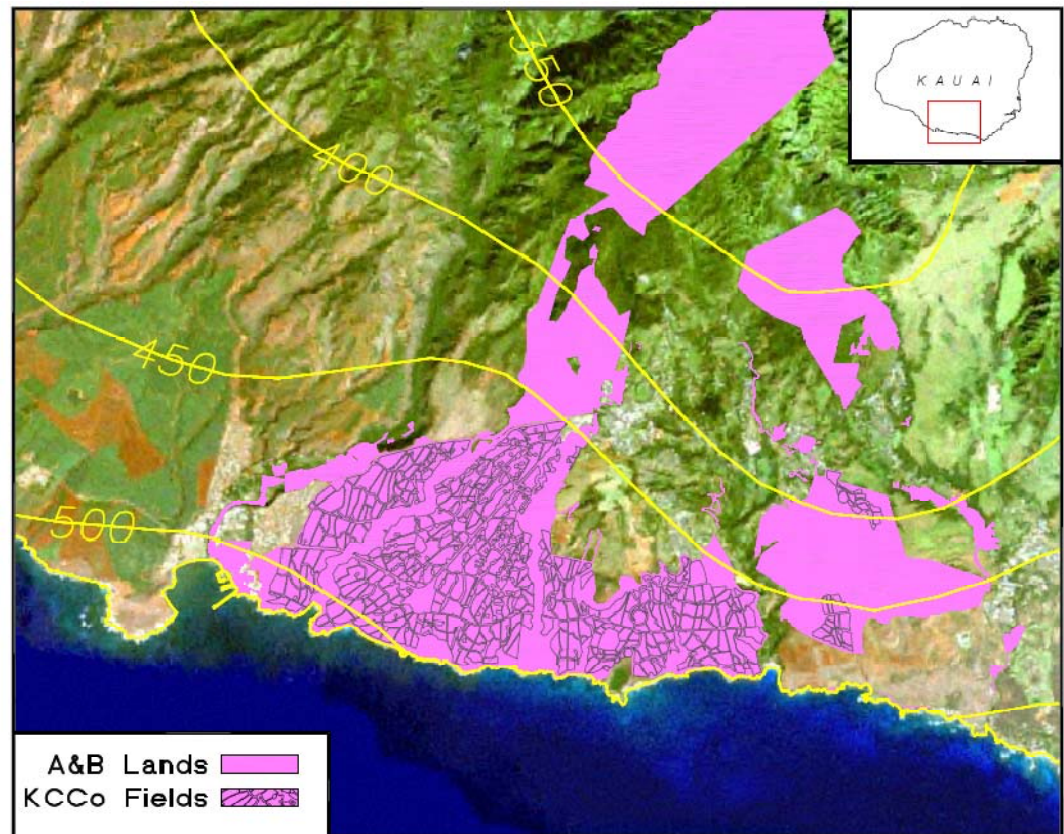
- Exploring/supporting many projects
 - Algae
 - Wave
 - Solar
 - Wind
 - Hydro
 - Gasification
- Highest priority placed on proven technologies
- Prioritizing areas where we can add greatest value
- Public company risk/investment profile influences role

- 2005 study identified “promising” renewable projects
 - Wainiha hydropower, 4.0 MW capacity
 - Kalaheo wind project, 6.6 MW capacity
- Solar energy ranked “less attractive” in study
 - Primarily due to high cost of energy
 - Good resource potential
- Future opportunities for A&B

Exploratory Stage: Solar

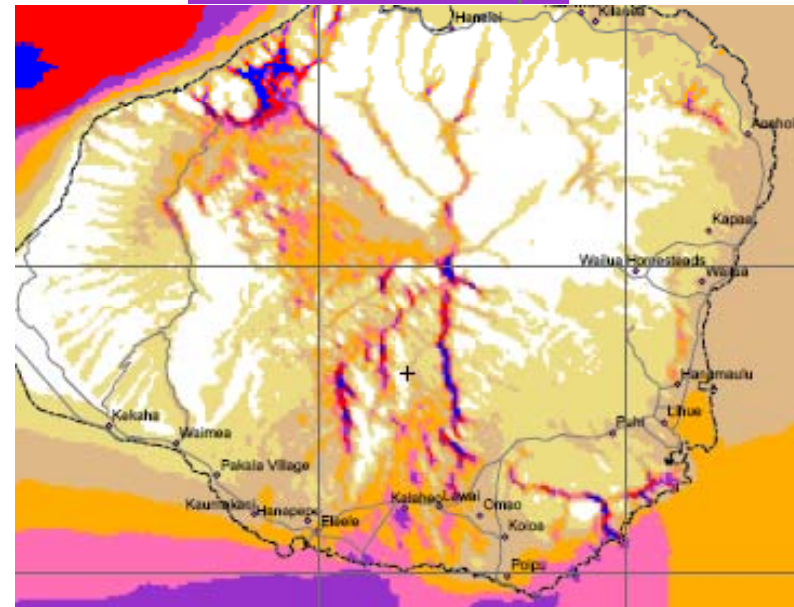
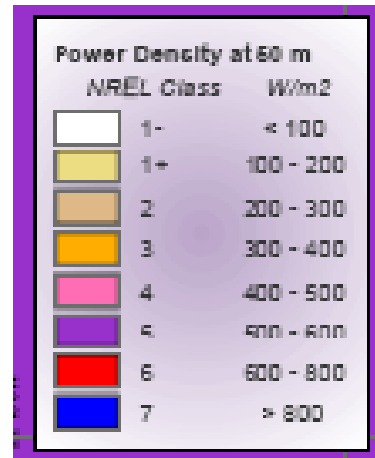


- Kauai Coffee in good solar radiation area
- 450-500 cal/sq cm/day
- Solar energy facility only on marginal ag lands class D or E



Exploratory Stage: Wind

- A&B lands located in good wind regimes, Class 3-5
- Ranked high priority site in B&V study
 - Rated good for constructability and transmission access
- No restrictions on ag lands
- Consideration for viewscapes, bird habitat, and grid impact



Time to Revisit Wainiha Hydro Expansion?



- Existing Wainiha plant built in 1906, 3.6 MW capacity
- Upper power plant project studied in 1983
- Project plant 4 MW capacity, 20 million kWh annually
- Decision made not to proceed because of escalating capital costs and lower energy prices
- Most promising hydropower prospect from B&V 2005 study for KIUC
 - Significantly lower levelized energy cost compared to KIUC avoided cost

Wainiha Hydro Issues



- Issues:

- EIS needs to be updated, last EIS conducted in 1983
- Site location has limited, restrictive access
- Development cost related to location and installed cost per KW is high
- Long lead times anticipated for permit approvals

- Favorable actions:

- Well defined criteria from permitting agencies at all government levels will help in decision to start project
- Greater comfort level that project can be completed without more conditions added after initial approval