

BENEFITS OF KAHEAWA WIND POWER

Kaheawa Wind Power is a renewable energy project that utilizes the wind passing over an airfoil (rotors) to turn a generator that outputs electricity. The project is connected to Maui Electric Company's island distribution grid. As the wind blows, the electricity that otherwise would have been produced by burning fossil fuels is now replaced by clean, renewable energy.

The Kaheawa Wind Power project provides a multitude of environmental and economic benefits, as well as some less tangible, but important benefits (see below.) Because of these benefits, there is tremendous public support for projects like Kaheawa Wind Power.

ENVIRONMENTAL BENEFITS

- Estimates show that Kaheawa Wind Power will eliminate the use of over 244,000 barrels of oil annually, by replacing the burning of fossil fuels at Maui's power plants with electricity produced by wind.
- Burning less fuel to produce power means there are reductions in the amount of gases emitted into the atmosphere. These gases are known to contribute to various undesirable environmental effects, including the growing concern of global warming.
- The reduction of fossil fuel burned at Maui's power plants will *eliminate the emission of approximately 170 million pounds of carbon dioxide annually* into our atmosphere.
- The reduction of fossil fuel burned at Maui's power plants will *eliminate the emission of approximately 1.3 million pounds of sulfur dioxide annually* into our atmosphere.

- The reduction of fossil fuel burned at Maui's power plants will *eliminate the emission of approximately 354 thousand pounds of nitrogen oxides annually* into our atmosphere.
- Kaheawa Wind Power is the first wind turbine project in the United States to complete a state and federally approved Habitat Conservation Plan. This plan is designed to protect and provide a net benefit to the endangered species that may be impacted by the project.
- The project also has a plan in place working with local community groups to reintroduce native plants to the project and surrounding area.

ECONOMIC BENEFITS:

Short Term (engineering and construction phase):

- Local jobs during design, development, and construction, resulting in approximately \$17M in site constructing contracts and services
- \$1.1M in state excise tax revenues

Long Term (operations phase):

- Estimated \$7M of lease revenue for land use
- \$3.8M in job-related income (plus the income tax revenues)
- \$1.9M of property taxes (0.2% per year over 25 yrs.)
- \$244M in imported fuel costs savings (based on oil at just \$50/barrel, over 20 yrs.)
- \$13.4M in ratepayer savings (based on 3.5%/year increase in MECO's avoided costs)
- The current price of energy offered to the utility by this project is

approximately 40% below current avoided costs.

- Since 70% of the energy produced by the project is sold at a fixed price, the pricing agreement with the utility is a hedge against rising crude prices now and in the future, reducing volatility for consumers.
- Local lender Central Pacific Bank is participating in the long term debt financing. This keeps the repayment currency circulating in our state.

SOCIAL/HUMAN IMPACT:

- Pride in our community's progress toward creating clean energy sources
- Satisfaction in improving our environmental legacy for future generations
- Utilizing our technological progress for the benefit of our society
- Improving our state and national security and energy independence
- Ecologically, providing a net benefit to four important species through the Habitat Conservation Plan
- Improved air quality, reduced respiratory illnesses and reduced health care costs