

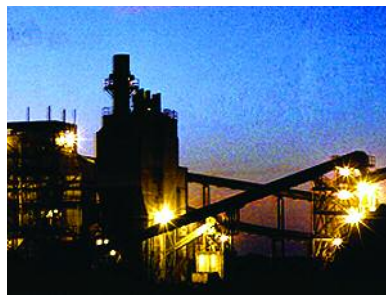
## FAIRHAVEN BIOMASS POWER PLANT *Eureka, CA*

MARUBENI SUSTAINABLE ENERGY, INC. - CASE STUDY

The Fairhaven biomass power plant is an 18 MW renewable energy generation facility on the Samoa Peninsula surrounded by the Pacific Ocean, 5 miles from downtown Eureka in Northern California. The plant was designed and constructed by Atlantic-Gulf Company and went into commercial operation in February 1987.

The Fairhaven biomass power plant sits on 56 acres of industrial land along a ten mile long peninsula that forms Humboldt Bay. The towns of Fairhaven and Samoa were created with the construction of large pulp mills that process timber from the heart of California's largest timber region. The plant is a critical source of local generation for the community and the utility because the entire region has significant transmission/distribution limitations for the importation of power from generation stations hundreds of miles away.

For the past 18 years, the Fairhaven biomass plant has provided a consistent, economical and viable wood waste disposal alternative with recognized environmental benefits to the region. Fairhaven's fuels are sourced from wood waste of various forms including bark, sawdust, wood chips and wood shavings. The Fairhaven power plant is certified by the State of California as a renewable energy generator.



Since acquiring the facility, Marubeni Sustainable Energy Inc. has invested a significant amount of capital to support increased availability and lower emissions. To achieve this, we replaced a large percentage of boiler tubes and aging fans and installed a modern overfire air system. The facility is currently operating at its highest performance level in decades. All of the power generated at the Fairhaven biomass plant is sold to Pacific Gas and Electric Company (PG&E) under a long-term Power Purchase Agreement that extends to 2017.

### Summary facts regarding the Fairhaven Power Company:

- *120,000,000 kWhrs/year are generated annually*
- *Produced by some 260,000 green tons/year of wood waste*
- *The plant is located in an area designated by the California Independent System Operator (CAISO) as transmission constrained*
- *Reliability/availability of this plant has averaged among the highest of all wood-waste power plants in the region over the past decade*

### About Marubeni Sustainable Energy, Inc.

Marubeni Sustainable Energy Inc., a subsidiary of Marubeni Corporation, owns and operates renewable generation plants and on-site cogeneration and district plants for a range of utility, industrial, commercial, and manufacturing facilities throughout the U.S. Our power plants deliver lower cost energy providing our customers a competitive advantage by controlling their long-term energy sources and costs. Marubeni Sustainable Energy Inc. was established in 2006 in part through the acquisition of assets previously owned by DG Energy Solutions LLC. We are headquartered in San Diego, CA and have a regional office in Medford, New Jersey.

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