## **OMAO FARMS**

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AES DE Photovoltaic & Battery Energy Storage - FARM/SHEEP GRAZING OPERATION & AGRICULTURAL PLAN

Omao Farms is proposing a unique and mutually beneficial proposal to manage and maintain vegetation at AES DE solar facility in Lawai.

Our proposed maintenance plan to integrate sheep grazing throughout the solar facility has proven to be a safe and effective means for maintaining vegetation without harming the solar panels or the environment. The sheep grazing provides a unique opportunity because it not only reduces the use of manual labor, fossil fuels, and herbicides during ongoing maintenance, but also reduces potential damage to the PV panels that may be caused by mowing and weed eating. Manual labor and equipment will be used on an as needed basis for vegetative growth not contained by the grazing animals.

AES is developing a 28MW DC / 20MW AC / 100MWh energy storage solar farm project on approximately 196 acres of land to produce clean, low cost renewable energy for the island of Kaual while also supporting local agriculture with plans to graze sheep on pasture land.

The goals of the solar energy project are to have a compatible agricultural activity co-located with the solar farm and to control vegetation to prevent shading of panels by tall weeds and grasses. The goals for the proposed sheep operation are to utilize good pasture lands for grazing sheep and build a commercially successful agriculture enterprise. Co-locating sheep among the solar panels would be a mutually beneficial partnership that supports the generation of clean energy and the growth of local agriculture food production.

Omao Farms currently raises about 650 head of sheep on ranch lands adjacent to the proposed solar farm project. Also on the ranch is a 300 kilowatt solar farm that sells electricity to KIUC where sheep are grazed under and around the solar panels to keep the grass from shading the panels. Omao Farms also maintains and grazes sheep at KIUC's 67 acre solar facility in Koloa and Solar City Tesla 75 acre facility in Kapaia as part of a vegetative management plan.

Omao Farms uses a number of factors that will influence the number of sheep that can be pastured at the proposed AES project site. The arrangement of the solar panels, the resulting number of grazeable acres after the arrays are installed, and the placement of the exterior chain link perimeter fencing of the entire project site. A controlled grazing management system will be set up to strategically move sheep through multiple grazing units based on the nutritional needs of the animals and the general well-being of the forages been grazed.

The total Project site will be separated into several paddocks of varying sizes by electrified fences. The number of paddocks contained in a specific area is dependent upon several factors including the location of infrastructures (i.e. roads, inverter and battery housing, office buildings, storage). A schedule of rotating the herd from one paddock to another to ensure that the area is not overgrazed will be used. The goal is to keep the average grass to a few inches without overgrazing that creates sustainable forage in the paddocks to keep the animals healthy, minimizes runoff, and prevent shading of the solar panels.

Considering the factors identified above, a reasonable estimate for the number of sheep to pasture would likely fall within the range of 350-400 for the proposed project site.

Omao Farms understands the importance of vegetation control under and around the solar panels and throughout the facility and the challenges associated with that maintenance. It is a delicate and careful balance to maintain vegetative cover to prevent soil erosion during rainy events, while also not allowing the vegetation to grow too high and interfere with the solar panels to provide clean, renewable power to KIUC for integration into their distribution system, ultimately reducing the cost for electricity to Kauai consumers.

Please do not hesitate to reach out to me with any questions regarding the Agriculutural Plan for this site.

DARYL KANESHIRO Owner, Omao Farms

Example illustration of sheep grazing agricultural practices colocated in a solar farm:

