Agricultural Summary
Kaukonahua Solar and Sheep Farm

1. **Primary Ag activity on the Villa Rose property:** egg farm
2. **Current Ag use on the remaining useable land**: grazing cattle and horses
3. **Highest and best Ag use**
   - **a.** The situation at the Villa Rose property is unique due to the egg farm.
     1) Food crops are unacceptable because they attract animals (birds, rats, mongooses and pigs) that pose risks to the chickens (diseases and predators) However, animal grazing to help control vegetation is acceptable.
   - **b.** The highest and best agricultural use of the sub-property is a dual-use solar/sheep farm that will locate a 60-acre solar farm and a 60-acres sheep farm within the same 60 acres.
     1) Grazing by the sheep will keep the solar panels clear of vegetation.
     2) The solar farm will provide ideal conditions for the sheep: (1) security; (2) shelter for the sheep under the solar panels; (3) increased forage growth because water will condense on the panels and drip onto the ground, and the shade from the panels will reduce evaporation.
     3) Oʻahu Grazers will derive revenues from 2 sources: (1) selling lambs and (2) grazing payments paid by Nexamp.
     4) Without expensive modifications to the solar farm, cattle cannot be used because they are too large to fit under the solar panels. Goats cannot be used because they eat wires and jump on and damage the panels.
     5) Compared to a typical cow-and-calf operation, the sheep farm will result in nearly 50% more meat (7,000 lbs of lamb vs 4,800 lbs of beef), and nearly an 8-fold increase in revenues from selling lambs and grazing payments ($76,000/yr from lambs vs $9,600/yr from beef)
     6) In addition, rent payments paid by Nexamp to Villa Rose will contribute to the financial success of the egg farm.
4. **Major new Ag activity**
   - **a.** The Olsens (Oʻahu Grazers) recognized and acted upon the opportunity of operating sheep farms within solar farms, and have the needed expertise for success.
   - **b.** Including the Kaukonahua Solar/Sheep Farm, they will run sheep on about 900 acres within 5 solar/sheep farms, and eventually produce <u>prime</u> meat from about 3,000 lambs/yr.
   - **c.** This acreage and production will grow as more solar farms are developed on Oʻahu.
   - **d.** The grazing payments from solar companies will enable Oʻahu Grazers to sell their meat at prices competitive with imports, and ensure profitability.

e. In short, the Olsens are in the process of building a major new agricultural activity on O‘ahu.

5. **Marke**t: the demand for lamb meat on O‘ahu far exceeds the projected local supply
   a. Demand
      1) About 50 grocery stores on O‘ahu and about 300 restaurants (including about 65 high-end restaurants) sell lamb meat.
      2) The total annual demand for meat requires about 30,000 or more lambs/yr.
   b. Supply
      1) At full operations, O‘ahu Grazers will supply about 3,000 lambs/yr (about 10% of the demand).
      2) About 200 lambs/yr will come from Kaukonakua Solar/Sheep Farm (less than 1% of the demand).

6. Benefits and impacts

a. Locally produced clean energy at a discount.

b. A financially stronger egg farm.

c. A new sheep industry that will help diversify the economy.

d. More meat produced in Hawai‘i and greater food self-sufficiency.

e. Jobs involved with producing and processing lambs.

f. No loss of useable farmland for growing crops since crops are unacceptable on the Villa Rose property.