

## Estimated Energy Usage

### Assumptions

This evaluation of process equipment/building loads uses the published data from Santa Barbara County of Santa Barbara Cannabis Energy Conservation Plan Electricity Use Calculation Form<sup>1</sup> for these types of facilities.

### Energy Use Calculations

SECTION 4 - ESTIMATING ELECTRICITY USE		
G. Estimated annual quantity of kWh reduction required: <u>2,290,295</u> kWh (from Section 1, 2 or 3)		
Use the formulas below to estimate future electricity use, or provide an alternative methodology with supporting information for that alternative methodology.		
For each one square foot of cultivation area, the estimates <sup>1</sup> below may be used:		
Indoor Cultivation (200 kWh/sf/year)	<u>0</u> sf x 200 =	<u>0</u> kWh/year
Mixed-Light Cultivation (110 kWh/sf/year)	<u>0</u> sf x 110 =	<u>0</u> kWh/year
Outdoor Cultivation (20 kWh/sf/year)	<u>113,256</u> sf x 20 =	<u>2,265,120</u> kWh/year
<i>Example: If the proposed operation includes 40,000 sf of outdoor cultivation, the multiplication factor is 20, resulting in an estimate of 800,000 kWh per year.</i>		
For each one square foot of operations space, the estimates <sup>2</sup> below may be used:		
Manufacturing and Testing (17 kWh/sf/year)	<u>667</u> sf x 17 =	<u>11,339</u> kWh/year
Storage for Distribution (6 kWh/sf/year)	<u>2,306</u> sf x 6 =	<u>13,836</u> kWh/year
<i>Example: If the proposed operation includes 2,000 sf of manufacturing space and 1,500 sf of storage space, the equation would be: (2,000 x 17) + (1,500 x 6), resulting in an estimate of 43,000 kWh/year.</i>		

Notes: Barn conversion will include storage and office uses. Cultivation to take place in hoop houses.

### Site Lighting

Exterior lighting is proposed only at the building entrances and along the drive for security. The drive lights will be designed to minimize outdoor environment impact. As such, the design criteria will be:

- 100' spacing along drive fence
- 10' mounting height, pole mount (in-line with fence).
- Two (2) directional light fixtures per pole and cameras to match light coverage.
- Light fixtures aimed downward and shielded to eliminate off-site glare and meet dark sky performance criteria.
- Motion sensor activated.
- No more than 10 foot-candle intensity at ground level average.

Note - Applicant plans to install solar panels to generate some, if not all, of their own electricity.

<sup>1</sup> <http://cannabis.countyofsb.org/asset.c/86>