

## HYBRID BUILDING



Designed specifically for cannabis cultivation, the hybrid building combines the best of greenhouse and indoor cultivation, utilizing the sun as its primary light source but without sacrificing the advantages of growing indoors. This results in substantially lower energy use without the temperature and humidity swings inherent to traditional greenhouses, allowing cultivators to maximize production per square foot.

As with all Surna products, the hybrid building is designed for efficiency. Our building can save 50-75% of energy used in a comparably sized indoor facility\* through its patent-pending technology. The building is equipped with a full suite of efficient Surna climate control equipment, offering n+1 redundancy and additional dehumidification for ease in hitting "lights off" targets. Our hybrid building also features a transparent roof that allows sunlight into your cultivation area, providing the energy efficiency advantages of a greenhouse. A separate "attic space" allows for heat transfer from your cultivation area, offering

free cooling and heating without exposing your crop to the outdoors. Supplemental LED (other lighting options are available) lighting and light deprivation curtains give cultivators complete photoperiod control, adjusting LEDs in real time to ensure consistent light to the canopy without wasting energy. This building also offers condensate reclamation technology to reduce water consumption.

Surna's hybrid building is also designed for the flexibility cultivators need. All designs are modular, allowing owners to choose the appropriate square footage and add on as needed. The hybrid building can also include processing and office space within the building, eliminating the need for additional spaces and giving cultivators the option to include vegetative areas under the sun or in an enclosed area. And while the building has a steel exterior, owners can opt for whichever aesthetic they choose by easily covering it with brick, rock, stucco, etc.

## FEATURES AND BENEFITS

### **50-75% More Efficient**

The Surna Hybrid Building is 50-75% more energy efficient than a comparable indoor facility\*, saving considerable operating costs.

### **Sealed Environment**

Unlike greenhouses, the Hybrid Building is a completely sealed environment, giving cultivators complete control over the growing environment.

### **Turn-Key Facility**

Wind, snow and seismically rated for any environment and compliant with building codes, the Hybrid Building is pre-engineered and ready to go as soon as land is secured.

\*Third Party Isideo study - May 2016.  
Available upon request.

# TECHNOLOGY

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- **Redundancy:** Surna's chilled water cooling system provides inherent N+1 redundancy, allowing your facility to run 24/7/365, maximizing production and profits.
- **Lighting Accuracy:** Uses sunlight when available, saving on electrical costs, and offers LED lighting to supplement on overcast days.
- **Biosecurity:** Multiple distributed photo catalytic oxidation (PCO) units allow for air sterilization in a contained space without exposing plants and damaging terpenes.
- **Air Mixing:** Building includes vertical fans to promote destratification and ensure proper cooling, dehumidification and CO2 for your canopy.
- **Condensate Reclamation:** Unlike greenhouses, the hybrid building allows condensate to be reclaimed and reused, minimizing water consumption (often by more than 80%).
- **Automation System:** Full front-end control system to integrate irrigation, lighting, temperature control, and light deprivation into a single interface.