



VERBENA HEMP COMPANY

AGRIVOLTAIC INNOVATION FOR
REGENERATIVE DEVELOPMENT

Driven by Love for the Earth

At a Glance

Pilot Site: 10 Acres, Colusa, CA
Focus: Industrial Hemp+ Solar Energy
Model: Regenerative Agrivoltaics
Launch Goal: Spring 2026

Verbena Hemp Company: Agrivoltaic Innovation for Regenerative Development

Executive Summary

Verbena Hemp Company (VHC), a subsidiary of Verbena Projects LLC, proposes the establishment of a 10-acre pilot agrivoltaic hemp farm in Colusa, California. This initiative integrates industrial hemp cultivation with solar energy generation, regenerative soil systems, and a local workforce training program. The project's purpose is to demonstrate how hemp-based agriculture and renewable energy can coexist symbiotically—producing carbon-negative materials for sustainable construction while generating clean power for local use.

Project Vision

VHC envisions the Colusa pilot farm as a living laboratory for regenerative design—where sunlight, soil, and community work together to create a closed-loop ecosystem. The long-term goal is to scale this model across future Verbena Projects developments, including London Drove and Crockettsburg, serving as a proof-of-concept for sustainable, self-sufficient communities powered by hempcrete and solar synergy.

Technical Integration

The pilot site will combine elevated bifacial solar panels with rows of industrial hemp (*Cannabis sativa* L.) cultivated for fiber and hurd. Solar structures will be arranged to maintain partial shade—enhancing soil moisture retention and crop resilience during heat events. Rainwater collection and drip irrigation systems will reduce water consumption by up to 40%, while native plant buffers will enhance biodiversity. Power generated will feed into the farm's processing and training facilities, with surplus sold back to the local grid.

Economic & Environmental Benefits

Carbon-Negative Output

Hemp absorbs 2–3 tons of CO₂ per acre, offsetting emissions from energy and construction.

Renewable Energy Revenue

Solar generation provides steady revenue and offsets operational costs.

Job Creation

Workforce training in hemp processing, solar maintenance, and regenerative agriculture.

Soil Health & Water Conservation

Improved organic matter, reduced runoff, and 40% less irrigation demand.

Supply Chain Development

Creates regional capacity for hempcrete blocks, panels, and bio-based composites.

Funding & Partnership Opportunities

The pilot aligns with multiple public and private funding mechanisms, including USDA's Rural Energy for America Program (REAP), NRCS Conservation Innovation Grants (CIG), and California's Go-Biz Green Business Incentives. Potential partnerships include solar technology providers, hempcrete manufacturers, universities, and regenerative agriculture NGOs.

Next Steps

1. Conduct site survey and soil analysis for optimal panel placement and crop selection.
2. Engage with solar and irrigation vendors for cost estimates.
3. Apply for USDA REAP and CIG grants.
4. Develop partnership MOUs with research and workforce training institutions.
5. Begin hemp crop trials by Spring 2026 with integrated solar installation by Q3 2026.

This agrivoltaic pilot project exemplifies Verbena Projects' mission: to harmonize technology, ecology, and human potential. By merging clean energy generation with regenerative agriculture, Verbena Hemp Company aims to pioneer a replicable model for the green infrastructure of tomorrow.