

## **California Custom Processing awarded \$3.9 million from the California Energy Commission to process almonds with a Sunvapor steam generator**

MADERA, Calif., June 15, 2020 – California Custom Processing (CCP) announced the approval by the California Energy Commission (CEC) of its project to install a zero-emissions Sunvapor steam generator. The CEC has awarded the project a \$3.9 million Food Production Investment Program (FPIP) grant. CCP is a custom almond processor that provides processing services to the snack, bakery, butter, confection, plant-based milk, and alternative flour markets. As an organic processor, CCP uses steam instead of chemicals for blanching, scalding, and pasteurizing of raw almonds.

Currently, CCP's process steam is generated in natural gas boilers. After the project is completed, nearly 100 per cent of the steam will come from Sunvapor's solar steam boiler when operating at full capacity. "While the Energy Commission gives preference to projects for processors in capped facilities emitting greater than 25,000 metric tons of greenhouse gases, the CCP-Sunvapor project stood out for its uniquely high sustainability impact", said Kevin Uy, Team Lead with Energy Commission's R&D Division.

Sunvapor's steam generator achieves an industry-leading 75 per cent thermal conversion efficiency of sunlight to process steam. Such a high efficiency enables the CCP plant to operate on solar steam alone in sunny conditions. In comparison, a photovoltaic system feeding an electric boiler would be capable of producing only one quarter of the steam demand on the same parcel of land.

In Sunvapor's patent-pending process design, parabolic trough collectors track the sun and concentrate the sunlight on specially-coated tubes through which pressurized water circulates in a closed loop. The heat gained by the flowing fluid is supplied to a heat exchanger to generate 100 psig steam pressure, identical to the steam conditions produced in the existing natural gas boilers, except with zero greenhouse gas emissions. Conventional parabolic trough systems use flammable, non-food grade thermal oil instead of water as the heat transfer fluid.

"Our growth has been driven by our discerning customers from the United States and abroad who value our organic and conventional processing of almonds. Many of them have sustainability goals that are demanding reductions in greenhouse gases from their suppliers. Sunvapor's technology provides the best solution for us, and we would be excited to serve as a showcase for other processors to follow our lead", said Grant Willits, co-owner of CCP.

"In food processing, like many other manufacturing industries, the demand for heat far outweighs the demand for electricity, and is more difficult to decarbonize. The FPIP program provided an ideal opportunity for us to help a forward-looking company disrupt business-as-usual energy practices", said Philip Gleckman, CEO of Sunvapor.

### **About FPIP**

The California Energy Commission's Food Production Investment Program (FPIP) provides grants to California's food processing industry to reduce greenhouse gas emissions associated

with energy use. The goals of the program are to accelerate the adoption of advanced energy efficiency and renewable energy technologies, and demonstrate their reliability and effectiveness for food processors.

#### About California Custom Processing

CCP is one of San Joaquin Valley's leading almond producers. In 2016, CCP designed and built a 57,300-sq.-ft. food safety processing facility in a prime location local to various almond packers. CCP holds SQF, HACCP, Kosher and Organic certifications.

#### About Sunvapor

Sunvapor is a technology and project development company based in Pasadena, CA focused on delivering turnkey solutions to decarbonization challenges. Sunvapor has received \$7 million from the US Department of Energy for research and development related to low-cost energy storage, collector design, and automated manufacturing. Sunvapor has developed a solar steam facility for a biofuels production plant in California.

For more information: [www.sunvapor.net](http://www.sunvapor.net), [www.californiacustomprocessing.com](http://www.californiacustomprocessing.com)

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