CalPlant I LLC, which formerly operated under the name CalAg LLC, will be constructed on a 276-acre parcel of land in Willows, California, in the heart of rice-growing country. The total capital requirement for the facility is approximately $315 million, with a process machinery package being provided by Siempelkamp, the world's premier supplier of MDF-manufacturing equipment. At full capacity the plant will produce an annual output of approximately 140 million square feet on a 3/4" basis.

Why our MDF?

MDF is an important raw material commonly used to make furniture, kitchen cabinets, store fixtures, doors, mouldings and flooring substrates. A proven composite building product, MDF panels have traditionally been produced by pressing wood fibers together, under heat and pressure, utilizing a urea formaldehyde resin system.

CalPlant I's MDF will be manufactured using post-harvest rice straw and a formaldehyde-free resin system, and will compete directly with wood-based MDF in the marketplace. One hundred percent of production will easily meet impending Federal TSCA Title VI regulations for reduced formaldehyde emissions in composite wood products, modeled after regulations approved in 2007 by the California Air Resources Board (CARB).

History

This enterprise was launched in 1996 by longtime rice farming and agriculturalists Jim, Phyllis & Suzy Boyd and Jerry Uhland. The two families had been seeking alternative uses for rice straw soon after the State of California mandated the phasing out of field-burning, beginning in 1991. Currently, the most common practice of straw disposal is to initiate a decomposition process by flooding rice fields after the annual harvest. This practice uses a large volume of incremental amounts of precious water.

After years of extensive agrifiber research and privately funded development, the company was awarded a U.S. process patent (2003) for the conversion of rice straw to industrial grade MDF. The Willows, California, plant will be the first MDF facility of its kind in the world.
The Willows facility will be state-of-the-art in technology, energy-efficiency, environmental protection and safety.

Environmental Benefits

- Reduction of volatile organic compound (VOC) emissions from operations. CalPlant I’s operations will produce significantly less VOC emissions due to its feedstock and is expected to be a minor source of emissions under EPA rules.

- Significant savings of water annually, including incremental water that would be used to flood fields to decompose straw.

- Reduction of fall water diversions from the Sacramento, Yuba and Feather Rivers, which will help protect river flows for Chinook salmon, steelhead, striped bass and California fisheries.

- Production of an MDF panel that won't negatively impact indoor air quality due to its no-added-formaldehyde construction.

FAQs

- Where is CalPlant I being built?
  CalPlant I is located in Willows, California, on the I-5 corridor, approximately 85 miles north of Sacramento.

- When is the scheduled start-up for CalPlant I?
  January of 2020.

- What is unique about CalPlant I MDF?
  It is a premium, no-added-formaldehyde MDF manufactured with annually renewable rice straw fiber, a byproduct of the rice harvest each season.

- Where is the fiber harvested?
  All fiber for the operation will be procured annually within 15-25 miles of the plant location.

- Who will supply the MDF production line?
  Siempelkamp, a global leader of composite panel manufacturing technology, is the equipment designer, manufacturer and installation supervisor during plant construction.

- What thickness range will CalPlant I offer?
  2 mm to 30 mm

- What density range will CalPlant I offer?
  Ultralight to HDF

Economic Benefits

- The CalPlant I operation will revolutionize the composite panel industry by converting post-harvest rice straw into a high performance, environmentally preferable and sustainable building product.

- The plant will have 115 full-time employees, with an additional 450 part-time jobs created during the straw collection period.

- The annual payroll is expected to exceed $11 million.

- The State of California has estimated more than 800 ancillary jobs will be created.

- Savings to Sacramento Valley rice farmers has been estimated at up to $20 million annually.

The Sacramento Valley produces 20% of the nation’s rice and over 1.5 million tons of rice straw every year – a steady, homogenous source of fiber for CalPlant I.