



## Scope of Work

- FEED Study
  - Value Engineering
  - Geotechnical Analysis
  - Material-Handling Systems Engineering
  - Structural Engineering
  - Mechanical Engineering
  - Electrical Engineering
  - Procurement & Subcontract Management
  - Dome Construction
  - Tunnels Construction
  - Material-Handling Systems Installation
  - Additional Steel & Concrete Construction
- None    Some    All

Albioma chose round explosion vents for Reunion Island, the same design they used in Martinique.

To construct a dome, a PVC airform is inflated to provide the shape; concrete is applied to the interior using the shotcrete method.

The two domes are the storage centerpiece of the Bois-Rouge cogeneration unit.

## Storage & Reclaim

- 2 domes: 32m (105ft) wide × 26m (85.3ft) tall
- 9,500 cubic meters each, wood pellets
- 100 percent live reclaim

## Overview

Repeat customer and independent renewable-energy provider Albioma contracted with Dome Technology to build two identical DomeSilos for storing wood pellets at its Bois-Rouge cogeneration unit on Reunion Island. "This is another impressive project for Albioma," Dome Technology CEO Bradley Bateman said.

The design-build project also facilitates responsible energy usage and reduced greenhouse-gas emissions. Albioma leadership committed to fully abandon coal usage at their site; by the middle half of 2023, the power plant will operate completely on biomass.

The domes are 105 feet in diameter and 85.3 feet tall with a capacity of 9,500 cubic meters apiece. Pellets are stored and burned on site to produce electricity for the island. A Vibrafloor system was chosen for reclaim.

DomeSilos are ideal storage structures for areas prone to natural disaster and can withstand windborne debris, projectiles, and 250-mph winds. According to the Dome Technology site-construction team, the domes weathered two cyclones during construction.

Dome Technology's scope of work included excavation, foundation, concrete work, tunnel installation, mechanical and electrical work, and commissioning. Another important player was Canada-based CIMA+, which assisted Dome Technology in many aspects of the project, from French point of contact and design management with equipment suppliers to construction support and commissioning.

Albioma required an inerting system to limit temperature increases in the pile, and the internal climate is regulated with temperature cables. Another company must-have was round explosion venting, a model Dome Technology pioneered. These vents were installed in the company's DomeSilo in Martinique in 2016 and are ideal because round panels have no sharp corners for stress concentration. Whether a pre-manufactured rectangular panel or a metal cladding piece, a squared-off panel creates a weak spot. The proprietary explosion vents are comprised of a circular geodesic steel lattice covered with the same PVC fabric used in the dome construction process.

Read more about this project [here](#).

