



The dome's ability to keep moisture out was a major selling point in this coal storage project.



An innovative material-handling system moves product faster in and out of the DomeSilo™.



As a result of its geometry, a dome can support sizable structures like a headhouse and conveyors at the apex.

## 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
- Explosion Relief Installation
- Additional Steel & Concrete Construction
- None    Some    All

## Overview:

When Dome Technology CEO Bradley Bateman met with China Coal management, it was clear what the company wanted: a high live-reclaim system at an economical price.

China Coal sought storage facilities for both its Hulusu and Menkeqing coal mines, located 24km (15mi) apart in north China's Inner Mongolia province. Based on "their ability to keep out moisture," Bateman said a series of domes was a more economical solution than traditional silos. And in the land of the yurt, another factor "was the aesthetics; it was the way they look," he said.

Today visitors to one mine will see three domes housing 60,000 metric tons of coal apiece and in the distance three identical domes at the other mine. An innovative material-handling system gives China Coal the ability to move product fast. Inside each dome, a full hopper system similar to a series of funnels situated side by side allows coal to flow through the structure under its own weight rather than by loader.

Other design details also add value, especially since the possibility of coal self-igniting in the dome was one of China Coal's main concerns, said Zhao Jiapeng of China Coal. The exterior PVC membrane prevents moisture from contributing to spontaneous combustion. Secondary explosions are less likely because the domes have no ledges for dust to build up. China Coal can also render the pile of coal inert by sealing the dome and pumping nitrogen to lower the oxygen level.

This was a true joint effort between China Coal and Dome Technology. "The achievement from the Menkeqing and Hulusu projects belongs to both of our corporations," Zhao said.

"For nearly four decades we've relied on a collaborative approach with companies—they're in the driver seat, and we help navigate. In every project Dome Technology incorporates innovative technology to maximize storage capacity and system performance with an economical solution," Bradley Bateman, CEO, Dome Technology.



Read more about this project at: [link.dometechnology.com/3431](http://link.dometechnology.com/3431)

## Storage & Reclaim:

- 6 Domes: 54m (177ft) Wide x 59m (194ft) Tall
- 360,000 Metric Tons (Total), Coal
- 3 Tunnels, 100% Live Reclaim

