



ACAA

Beneficial Use Case Study

Duke Energy Center

Coal Combustion Product Type

Synthetic Gypsum from Duke Energy Used to Make Gypsum Board

Project Location

Charlotte, North Carolina

Project Participants

National Gypsum, Duke Energy, Wells Fargo, tvsdesign, Gensler

Project Completion Date

2010

Project Summary

Duke Energy relocated its headquarters to the second-tallest building in Charlotte, North Carolina. The energy giant's building contains wallboard that started at its own power stations just across the river. The wallboard was made of by-product gypsum from four Duke steam stations—Marshall, Allen, Cliffside, and Bellews Creek—at National Gypsum's Mt. Holly, North Carolina, plant. The building is owned by Wells Fargo.

Project Description

The owner, Wells Fargo, committed to setting new standards for energy efficiency and minimizing the impact of such a monumental structure. Early on, LEED platinum was the goal. When Duke Energy signed on as a primary tenant, there was an opportunity not only to use recycled content for the gypsum board but to also use material produced as a by-product in Duke Energy power plants. National Gypsum's Mt. Holly plant uses by-product gypsum from four Duke Energy power plants.

The architect and contractor required chain-of-custody documentation that all gypsum board would come from National Gypsum's Mt. Holly plant. The gypsum raw material used at Mt. Holly is derived exclusively from Duke Energy power plants as a by-product of coal combustion. The power plants are within 95 miles of Mt. Holly, which is 17 miles from the project site—easily qualifying for regional materials credit for manufacturing and extraction.

In addition to the distinction of LEED platinum for the building, Wells Fargo required all tenants to achieve LEED certification. Duke Energy Center is the largest office building in the world with this requirement. The architect for the tower was tvsdesign. Gensler's Charlotte office designed the interior spaces for Duke, which occupies 21 of the 48 floors.



Source:Wikimedia Commons