Coal combustion products (CCPs) are created in the electricity generating process at coal-fired power plants. We Energies CCPs have gained an international reputation for quality, performance, value and environmental benefits.

**We Energies produces three types of CCPs:**
- Fly ash
- Bottom ash
- FGD gypsum

### Fly ash

**Description**
Fly ash is fine powder collected from power plant flue gas and comes in two classes: Class C and Class F. We Energies produces both materials and consistently meets ASTM C 618 quality-control standards. Fly ash particles are spherically shaped and have an average diameter of approximately 10 microns.

**Uses**
Contractors and suppliers use We Energies fly ash for:
- Concrete (cement replacement)
- Grouts and mortars
- Structural fills
- Controlled low-strength material (flowable fill)
- Asphalt
- Mudjacking
- Roller-compacted concrete
- Soil stabilization

**Benefits**
- Improved workability and reduced heat of hydration
- Increased strength, durability, and acid and sulfate resistance
- Reduced cost, water demand, segregation and bleeding of fresh concrete
- Reduced permeability, corrosion and alkali-aggregate reactions of hardened concrete

**Available products**

#### Class C fly ash
- **Chemical:** High lime content
- **Distribution:** By tanker truck or rail from southeastern Wisconsin (Pleasant Prairie and Oak Creek) and northern Michigan (Presque Isle)
- **Color:** Buff

#### Class F fly ash
- **Chemical:** Low lime content
- **Distribution:** By tanker truck or rail from southeastern Wisconsin (Oak Creek)
- **Color:** Tan

### Notable projects
- 311 S. Wacker Dr., Chicago
- Milwaukee Art Museum
- Bradley Center, Milwaukee
- General Mitchell International Airport, Milwaukee
- Miller Park, Milwaukee
- Marquette Interchange, Milwaukee
- More than 50 percent of all concrete placed in southeastern Wisconsin uses We Energies Class C fly ash

The Milwaukee Art Museum was constructed using We Energies fly ash. Paul Owen
**Bottom ash**

**Description**
Bottom ash is a coarse to fine-grain, sand-like material collected from the bottom of coal-fired boilers. Bottom ash has a unit weight typically less than 90 lbs/ft³ and compacts like sand. Screening operations for specific grain size distributions also are available. Bottom ash is distributed from power plants located in Oak Creek and Kenosha, Wis., and Marquette, Mich.

**Uses**
Contractors and suppliers already use bottom ash for:
- Structural fills
- Backfill
- Road bases and sub-bases
- Drainage media
- Aggregate for concrete, asphalt and masonry
- Abrasives/traction

**Benefits**
- Increased economy
- Low-density fill
- Replaces natural quarried sand and gravel, making it a green construction material

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**FGD gypsum**

**Description**
FGD gypsum is produced from forced oxidation wet scrubber emissions control technology. We Energies FGD gypsum is of the dihydrate variety (CaSO₄·2H₂O) and has a free moisture content of approximately 8 percent. FGD gypsum is produced and distributed from power plants located in Oak Creek and Pleasant Prairie, Wis.

**Uses**
- Raw ingredient for products such as wallboard and plaster
- Cement manufacturing and concrete production
- Agricultural soil amendment and source of plant nutrients, calcium and sulfur

**Benefits**
- Replaces mined gypsum with local source
- Preserves natural sources and offsets greenhouse gas emissions associated with transportation and mining
- Controls time of set in concrete and improves soil structure, producing healthier plants and increasing crop yield

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**Try a sample and see for yourself**
We are so convinced our products will benefit your projects, we will provide samples upon request. Call the appropriate number below for more information.

**Distribution and sales**

**Fly ash**
Lafarge North America
800-323-5949

**Bottom ash**
A.W. Oakes & Son
262-886-4474
(Southeastern Wisconsin)

Lafarge North America
800-323-5949
(Northern Michigan)

**FGD gypsum**

*Agricultural use:*
Beneficial Reuse Management
866-497-7645

*Other uses:*
Bob Paulson
414-221-3948
E-mail: robert.paulson@we-energies.com

**www.we-energies.com/environmental/recycle_coalash.htm**