

## Recycling Coal Ash to Benefit Customers and Communities



Recycling coal ash protects the environment, turns a waste into a valuable construction material and lowers costs for customers.



### Coal Ash Recycling: Improving Our Communities, the Environment and the Economy by Putting Ash to Use

One way Duke Energy is creating a sustainable, smarter energy future is by recycling coal ash and other byproducts, such as gypsum, to help our customers and the environment. Coal ash, formed when coal is burned to generate electricity, can be used in a range of building products and as a structural fill material in place of soil or other mined materials. Gypsum, produced in the process to lower emissions from coal power plants, is recycled and used in wallboard for the construction industry, as a raw material in the production of cement or as a soil amendment and/or soil stabilizer in agriculture.

#### Benefits for Customers and Communities

Recycling coal ash and gypsum turns a waste into a benefit by:

- Reducing greenhouse gas emissions
- Building stronger structures
- Supporting local economic growth
- Lowering costs for customers compared to disposal in a new location

Coal ash is a valuable additive to cement and concrete, making bridges, roads and structures stronger and more durable. Many of the world's greenest and most energy-efficient buildings have been constructed with products containing coal ash.

Duke Energy's recycling projects have included using gypsum in wallboard manufacturing, using ash as structural fill for an airport in Asheville, N.C., and providing ash from our Dan River and Weatherspoon plants to regional cement manufacturing facilities. Since ash often needs additional processing to meet the specifications for concrete, we're also installing reprocessing units at our Buck, Cape Fear and H.F. Lee plants to help meet growing concrete demand in the region.

#### Finding Ways to Recycle Even More Coal Ash

Recycling is a priority at Duke Energy, so we're continually looking for new opportunities to recycle even more coal ash, including ash now stored in basins when doing so makes sense for our customers. We're partnering with technology companies, universities and industry organizations to explore new markets and innovative uses, such as road asphalt, blocks and pavers made with coal ash. It's all part of improving our communities, the environment and the economy.

*In 2018, systemwide, Duke Energy recycled ...*

**79% of the ash**

**95% of the gypsum\***

*... produced at our operating power stations*

\*beyond the gypsum produced at our plants, we harvested additional gypsum from landfills/stockpiles