



Union of  
Concerned  
Scientists

## BURNING COAL, BURNING CASH

# North Carolina's Dependence on Imported Coal



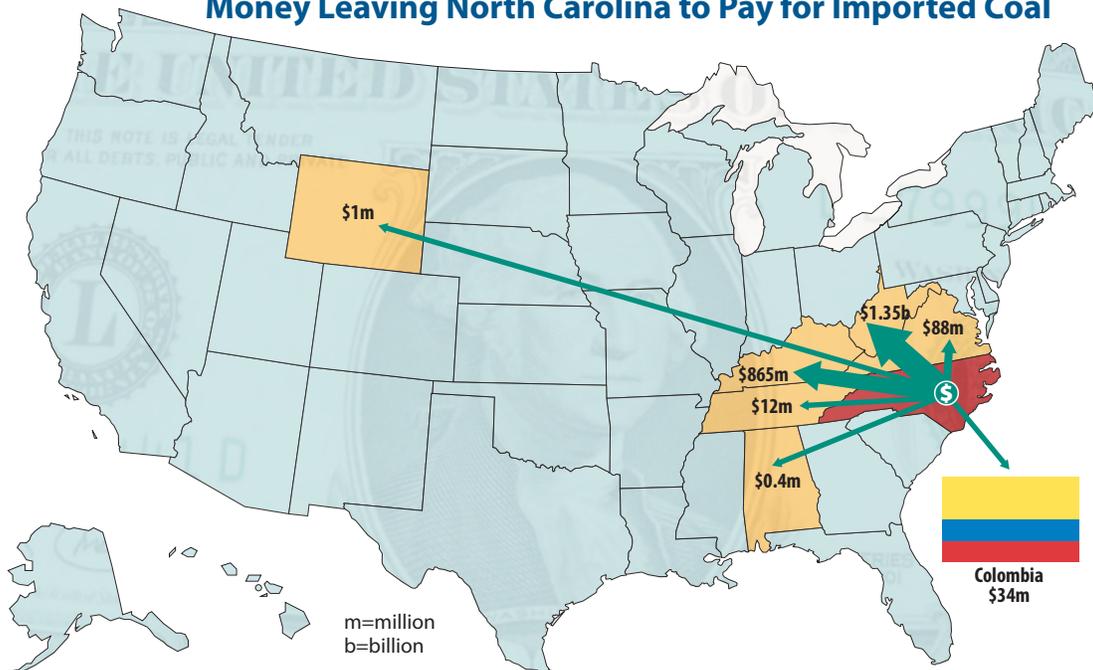
The cost of importing coal is a major drain on the economies of many states that rely heavily on coal-fired power. Thirty-eight states were net importers of coal in 2008, from other states and, increasingly, other nations. *Burning Coal, Burning Cash* ranks the states that are the most dependent on imported coal. This fact sheet shows the scale of this annual drain on North Carolina ratepayers, and discusses ways to keep more of that money in-state through investments in energy efficiency and home-grown renewable energy.

North Carolina imported all the coal its power plants burned in 2008—some from as far away as Wyoming and Colombia. To pay for those imports, North Carolina sent **\$2.35 billion** out of state. Duke Energy, North Carolina's largest provider of electricity services, purchased \$1.27 billion in coal imports—more than half the state's total, and more than any other power producer in the state. Progress Energy Carolina's Roxboro plant, in Semora, is the most import-dependent power facility in North Carolina, having spent \$550 million in 2008. The plant is also the twenty-sixth-largest source of carbon dioxide emissions (the main cause of global warming) among hundreds of coal plants nationwide.



**Charlotte, North Carolina.** The cost of importing coal is a drain on North Carolina's economy, which relies heavily on coal-fired power. Investments in energy efficiency and homegrown renewable energy can help stimulate the economy by redirecting funds into local economic development—funds that would otherwise leave the state.

### Money Leaving North Carolina to Pay for Imported Coal

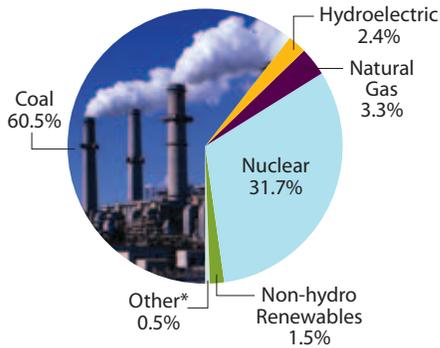


#### Compared with other states, North Carolina:

- Spent the 2nd most on total net imports: \$2.35 billion
- Spent the 3rd most on net imports per person: \$254
- Spent the 4th most on net imports relative to gross state product: 0.59 percent
- Imported the 7th most in net weight: 29.4 million tons
- Is the 10th most dependent on net imports as a share of total power use: 57 percent

Note: Not all these funds will necessarily land in the state or nation where the mining occurs. Mine owners may divert the profits to parent companies in other locations, for example. Amounts also include the cost of transportation.

### North Carolina's Mix of Electricity Sources (2008)



**Despite having no in-state coal supplies, North Carolina relies on coal for more than 60 percent of its in-state electricity generation.**

\* "Other" includes oil, municipal solid waste, tires, propane, or other manufactured and waste gases from fossil fuel.

**Investing in energy efficiency is one of the quickest and most affordable ways for North Carolina to reduce its dependence on imported coal while boosting the local economy. For example, improving insulation in existing buildings helps minimize heat and air-conditioning loss. North Carolina spent about 340 times less on ratepayer-funded electricity efficiency programs in 2007 than it spent on imported coal.**

Photos (top to bottom): Photodisc; NREL

### Clean Energy Solutions Can Boost North Carolina's Energy Independence

Investing in energy efficiency is one of the quickest and most affordable ways to replace coal-fired power while boosting the local economy. Yet North Carolina spent just 75 cents per person on ratepayer-funded electricity efficiency programs in 2007—about 340 times less than it spent on imported coal.

The state has taken a modest first step to exploit its efficiency potential by adopting a renewable electricity and energy efficiency portfolio standard. Utilities must expand their reliance on those resources to 12.5 percent of electricity demand by 2021 (efficiency can account for up to 5 percent). Twenty-two other states have adopted efficiency resource standards (though typically not combined with renewable electricity standards), with several committing to annual electricity savings of 2 percent or more. Twenty-eight other states and the District of Columbia have also adopted renewable electricity standards, with 17 states setting targets of 20 percent or more.

North Carolina's combined standard will also help the state reduce its dependence on imported coal by tapping its wealth of renewable energy resources, which could technically supply more than 2.5 times the state's 2008 power demand. Though economic and physical barriers may curb some of that potential, by-products from North Carolina's forestry industry can be harvested in a sustainable manner for use in stand-alone power facilities, or co-fired in power plants that now burn only coal, replacing imported coal.

Owners have already converted several small coal-fired plants to enable them to burn biomass. In Kenansville in 2008, for example, Coastal Carolina Clean Power began operating a biomass cogeneration plant (producing both electricity and useful heat) that supplies up to 32 megawatts of power. Besides biomass, North Carolina could also develop solar energy, small-scale hydropower, and wind power (land-based and offshore).



Citizens and Scientists for Environmental Solutions

This fact sheet is based on the findings of *Burning Coal, Burning Cash: Ranking the States That Import the Most Coal*, a report by the Union of Concerned Scientists. The fully referenced report, along with other state profiles, is available on the UCS website at [www.ucsusa.org/burningcoalburningcash](http://www.ucsusa.org/burningcoalburningcash).

The Union of Concerned Scientists is the leading science-based nonprofit working for a healthy environment and safer world.

Printed on recycled paper using vegetable-based inks.

© May 2010 Union of Concerned Scientists

**National Headquarters**  
Two Brattle Square  
Cambridge, MA 02238-9105  
Phone: (617) 547-5552  
Fax: (617) 864-9405

**Washington, DC, Office**  
1825 K St. NW, Suite 800  
Washington, DC 20006-1232  
Phone: (202) 223-6133  
Fax: (202) 223-6162

**West Coast Office**  
2397 Shattuck Ave., Suite 203  
Berkeley, CA 94704-1567  
Phone: (510) 843-1872  
Fax: (510) 843-3785

**Midwest Office**  
One N. LaSalle St., Suite 1904  
Chicago, IL 60602-4064  
Phone: (312) 578-1750  
Fax: (312) 578-1751