

Tennessee's Dependence on Imported Coal

The cost of importing coal is a drain on the economies of many states that rely heavily on coal-fired power. Thirty-seven states were net importers of coal from other states and nations in 2012. The scale of Tennessee's annual coal import dependence is discussed here, along with ways to keep more of that money in-state through investments in energy efficiency and homegrown renewable energy.¹

Tennessee imported 18.4 million tons of coal from eight states in 2012, more than 99 percent of the coal its power plants used. To pay for those imports, Tennessee sent **\$1 billion** out of state. In-state mines supplied the remaining fraction of Tennessee's coal and also exported coal worth \$93 million to other states. As a result, Tennessee spent a net \$910 million on imported coal, which ranks ninth nationally.

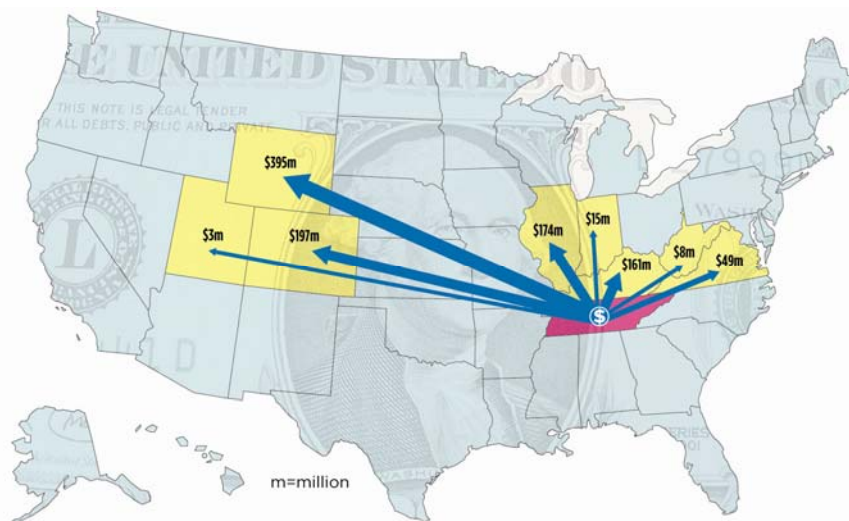
The Tennessee Valley Authority (TVA), a federally-owned corporation that produces electricity for Tennessee consumers, sent \$905 million out of Tennessee to purchase coal in 2012—91 percent of the state's total. In addition, TVA ranks third among all U.S. power providers for coal import dependency in 2012, having spent nearly \$1.4 billion on out-of-state coal across its

holdings in Tennessee, Alabama, and Kentucky.

Tennessee's dependence on coal generation and coal imports has recently declined primarily as a result of a shift toward generation from lower-cost natural gas. From 2008 to 2012, coal generation in Tennessee fell from 62 percent to 46 percent while natural gas generation increased from less than 1 percent to 10 percent (EIA 2013). During that time, expenditures on net coal imports declined by 25 percent. In addition, TVA has made decisions to either already retire or schedule for retirement 1,885 megawatts of old and inefficient coal generators in the state by 2017, and has set a goal of reducing coal to 20 percent of its power supply (TVA 2013a).

While switching from coal to natural gas offers some near-term air quality and cost benefits, there is growing evidence that an overreliance on natural gas poses significant and complex risks to consumers, the economy, public health and safety, land and water resources, and the climate (Fleischman, Sattler, and Clemmer 2013). A better solution for consumers and the environment would be to replace more coal generation with renewable energy and energy efficiency.

FIGURE 1. \$1 Billion Annually Leaving Tennessee to Pay for Imported Coal



The \$1 billion spent to import coal is a drain on Tennessee's economy, which relies on coal for 46 percent of its power generation. Investments in homegrown renewable energy and energy efficiency can affordably help redirect funds into local economic development—funds that would otherwise leave the state.

Note: Based on 2012 data. Not all these funds will necessarily land in the state 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. In addition, Tennessee spent more than \$2 million on coal imports from unreported sources.

Clean Energy Can Boost Tennessee's Energy Independence

Energy efficiency is one of the quickest and most affordable ways to cut coal-fired power while boosting the local economy. Yet Tennessee's energy efficiency potential remains largely untapped. The state achieved electricity efficiency savings of just 0.33 percent in 2011, ranking Tennessee thirty-first nationally (Downs et al. 2013). That year, Tennessee budgeted just \$9.01 per person on ratepayer-funded electricity efficiency programs—15 times less than what was spent on imported coal.

In 2011, TVA set a goal of achieving 3.5 percent by 2015, which is an improvement over previous years, but still well below the 1 percent or more annual efficiency savings targets established in 20 states (Downs et al. 2013). Leading states require annual cuts of 2 percent or more.

Investing in homegrown renewable energy is also a smart and responsible solution to reducing Tennessee's dependence on imported coal and keeping more money in the local economy. Tennessee has a wealth of renewable energy resources like sustainable bioenergy, solar, and wind; yet non-hydro renewable resources supplied 1.4 percent of the state's power in 2012 (EIA 2013).

TVA has embraced renewable energy in recent years by contracting for more than 1,500 megawatts (MW) of wind power capacity located in Illinois, Iowa, and Kansas (TVA 2013b). That is a positive step, as purchasing clean, renewable energy from out-of-state is a smarter choice than importing polluting coal, but TVA could do more to develop in-state wind resources as well. The 29-MW Buffalo Mountain near Oak Ridge is the only utility-scale wind facility in Tennessee. But thanks to recent reductions in costs and technology advances, wind energy is an affordable and viable option for the state.

As TVA works to develop its next long-term energy plan, the utility should increase its commitment to invest in renewable energy and energy efficiency. Doing so could further cut coal imports, spur local economic development, and reduce Tennessee's growing reliance on natural gas.



Tennessee has strong potential for developing in-state wind power and other renewable energy resources, which can help reduce the state's dependence on imported coal while creating jobs and other economic and environmental benefits. Photo Source: Brent Summerville/NREL

ENDNOTES

- 1 This fact sheet is based on the findings from an update of *Burning Coal, Burning Cash: Ranking the States That Import the Most Coal*, a 2010 analysis by the Union of Concerned Scientists. More information about our methodology and assumptions, as well as other state profiles, can be viewed at www.ucsusa.org/bcbc2014update.

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