



# Coal Ash: An Environmental Windfall

## Coal

Abundant/Secure, Economic, & Environmentally Sound American Energy

Learn more about the economic benefits of CCP recycling. Order your copy of the ACC's 2010 Coal Ash Economic Assessment (<http://americancoalcouncil.org/storelistitem.cfm?itemnumber=1>)

Note: This fact sheet discusses the environmental benefits of using CCPs. For information on how CCPs are used, see our "Coal Ash: Beneficial Reuse" fact sheet.

## The American Coal Council

The American Coal Council (ACC) is the pre-eminent business voice of the American coal industry. The Association is dedicated to advancing the development and utilization of American coal as an economic, abundant and environmentally sound fuel source.

## It's not hazardous

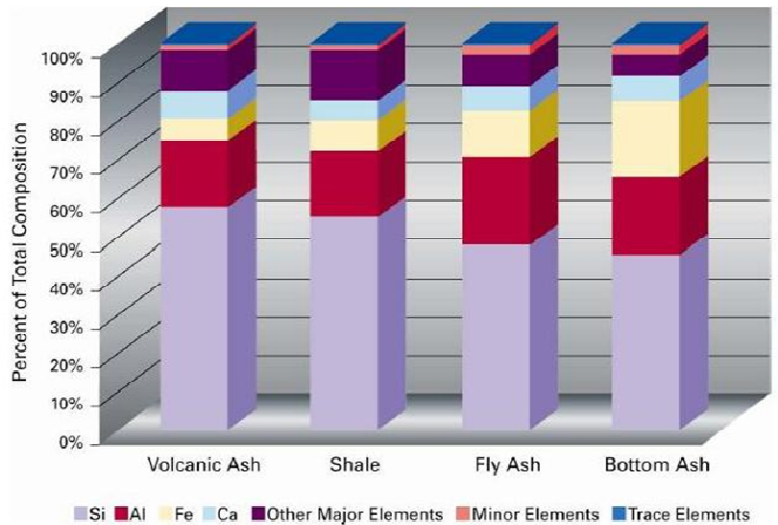
First things first, **coal ash is not "toxic."** We'll say it again ... **coal ash is not toxic.**

Coal ash has been extensively studied in government and academic research. Based on that research the **EPA** stated in 1993 and in 2000 that regulation of coal ash under Subtitle C of RCRA is "*unwarranted.*" In 2006, EPA stated that mercury is "*strongly retained by (CCPs) and is unlikely to be leached at levels of environmental concern.*"

## Like the dirt from your backyard

You often see frightening adjectives put before "coal ash" in editorials and you may have heard that government may regulate coal ash as "hazardous" waste. However, the chemical makeup of coal ash is typically very similar to the soil in your average American back yard.

The U.S. Geological Survey ruled in 1997 that coal ash is no more radioactive than other common concrete additives, like granite or red brick. Additionally, the leachate — the chemicals retained in water after it has passed through coal ash — is very near, or in most cases meets, drinking water standards.



Source: EPRI 2009

## Good for the environment

Using and recycling CCPs conserves natural resources, by replacing materials that would otherwise have to be mined. Each ton of fly ash recycled offsets a ton of cement production, which eliminates the release of a ton of CO<sub>2</sub>.

Just One Ton of Fly Ash Usage Equals...

**Landfill Space Conserved:** Enough for 455 days of solid waste produced by an average American

**CO<sub>2</sub> Emissions Reduced:** Equal to 2 months of emissions from an automobile

**Energy Saved:** Enough to provide electricity to an average American home for 24 days

A 2009 EPRI study demonstrated that the beneficial reuse of fly ash in concrete production reduced U.S. GHG emissions by 11 million tons, reduced energy consumption by 162 trillion BTUs, and reduced water consumption by 32 billion gallons in 2007.

CCPs recycled for industrial reduced landfill-related energy needs by a further 3.7 trillion BTUs



# American Coal Council Coal Ash: An Economic Windfall

## Over \$11 billion in economic benefits

There are three main areas in which economic benefits flow from the of recycling CCPs.

**Utilization Industry Economic Activity** relates to profits realized by the sale of CCPs by producers (usually utilities), profits made by marketing agents who brokered sales of CCPs, and those made by transportation providers who shipped CCPs to final users. Direct revenues in this area in 2007 were over \$1 billion per year.

**Avoided Costs of Disposal** relates to CCPs not going directly into landfills. EPRI research indicated that costs avoided in this area were as high as \$1.4 billion per year in commercial landfills.

**Savings from Use of Recovered Materials** were substantial when full life cycles were contrasted against conventional practices. EPRI research indicated that when energy use, greenhouse gas emissions, and water use were accounted for, annual savings resulting from avoided disposal were between \$5 billion to \$10 billion.

Together, recycling of CCPs add up to between \$6.4 billion and \$11.4 billion in direct economic gain to the American economy.

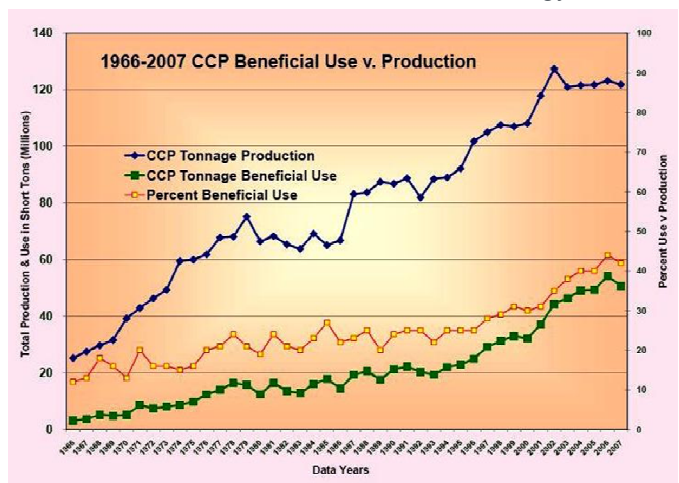
## CCP Utilization Trends?

Coal will continue to remain a primary energy supply choice well into the future. That use will ensure a continual supply of CCPs for recycling. Given the massive economic and environmental benefits of using CCPs (up to \$11.4 billion in economic benefits, reduced energy and water use, avoided disposal needs, etc.) use of CCPs is likely to continue to grow along with coal use.

Rates of CCP use have increased steadily over the past 40 years, with only a slight decrease in growth noticed in response to the recent economic downturn and decreased construction activity.

The current primary obstacle to the continued use of CCPs is the threat of impending EPA regulation, which

would contradict previous research and classify CCPs as "hazardous" waste. This would have the impact of stigmatizing CCPs and increasing the cost of their use at the same time as it reduced the economic and environmental incentives associated with their use. Such a reclassification would entail further expenditures on infrastructure and disposal and could heavily impact the use of this resource.



### Web Resources

American Coal Ash Association  
[www.acaa-usa.org](http://www.acaa-usa.org)

American Coal Foundation  
[www.teachcoal.org](http://www.teachcoal.org)

American Coalition for Clean  
Coal Electricity  
[www.cleancoalusa.org](http://www.cleancoalusa.org)

Coal Association of Canada  
[www.coal.ca](http://www.coal.ca)

Energy Information  
Administration  
[www.eia.doe.gov](http://www.eia.doe.gov)

National Energy Technology  
Laboratory  
[www.netl.doe.gov](http://www.netl.doe.gov)

National Mining Association  
[www.nma.org](http://www.nma.org)

World Coal Institute  
[www.worldcoal.org](http://www.worldcoal.org)



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