Why the Proposed U.S. Coal Plant Build-out Failed

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Proposed U.S. Coal Build-Out


• Sierra Club has identified a total of 249 proposed coal projects.
What Happened?

The Fate of the 249 Proposed Coal Projects Identified by the Sierra Club

- Cancelled: 183
- Operating: 22
- Not Cancelled Yet, Even if Nothing Has Happened or are on Life Support: 44
Why Were So Many Projects Cancelled (1)

1. Proposed plants became too expensive due to
   • Skyrocketing construction costs.
   • Fear that U.S. Congress would put a price on CO$_2$ emissions.
   • Collapse of natural gas prices in 2008.
   • Concern that there would be more stringent regulation of non-greenhouse gas emissions.
   • Fear of rising coal prices.
   • Fear that higher or imprudent costs would be borne by plant owners, not consumers.
Why Were So Many Projects Cancelled (2)

2. Many proposed coal plants not needed:
   • Demand for power was flat or declining in many states even before Great Recession in 2008.
   • States began to adopt policies promoting increased use of energy efficiency and renewable resources.

3. Widespread citizen opposition to new plants.

4. Increasing concern by investors.
   
   Cancellation became the prudent business decision
Soaring Coal Plant Construction Costs – Duke Energy’s Cliffside Project

North Carolina Utilities Commission approved only 1 unit of the Cliffside Project

Billions of Dollars

- Summer 2006
- Fall 2006
- Winter 2007
- Spring 2007

Unit 2
Unit 1
Soaring Coal Plant Construction Costs - Prairie State Energy Campus

- Original Estimate in 2004: $1.8 billion
- Estimated Cost in 2007: $4.1 billion
- Estimated Cost in 2010: $4.9 billion
- Actual Completed Cost: ?

Source: Institute for Energy Economics and Financial Analysis (IEEFA.org)
Why Did Coal Plant Construction Costs Increase So Rapidly?

![Bar chart showing average annual price escalation for different industries.](chart.png)

- **Nickel**: 60.30%
- **Copper**: 69.20%
- **Cement**: 11.60%
- **Iron & Steel**: 19.60%
- **Heavy Construction**: 10.50%

**Legend**:
- Green: Average Annual Escalation from 1986-2003

*Source: Institute for Energy Economics and Financial Analysis (IEEFA.org)*
Natural Gas Prices Collapsed in 2008, Making Coal the More Expensive Option
Utility Loads Flattened by 2006-2008, Some Even Declined

![Graph showing utility loads from 1997 to 2011. The loads peak around 2005 and then decline slightly by 2011.](chart)
Lower Forecasts of Future Power Demands Meant Less Need for Proposed Plants