

Throwing Big Coal Under the Busbar

by Protecting Clean Water, Clean Air and Public Health

IEEFA 2013 Coal Finance Advocacy Training Conference
March 18, 2013



Powder River Basin Coal Mine

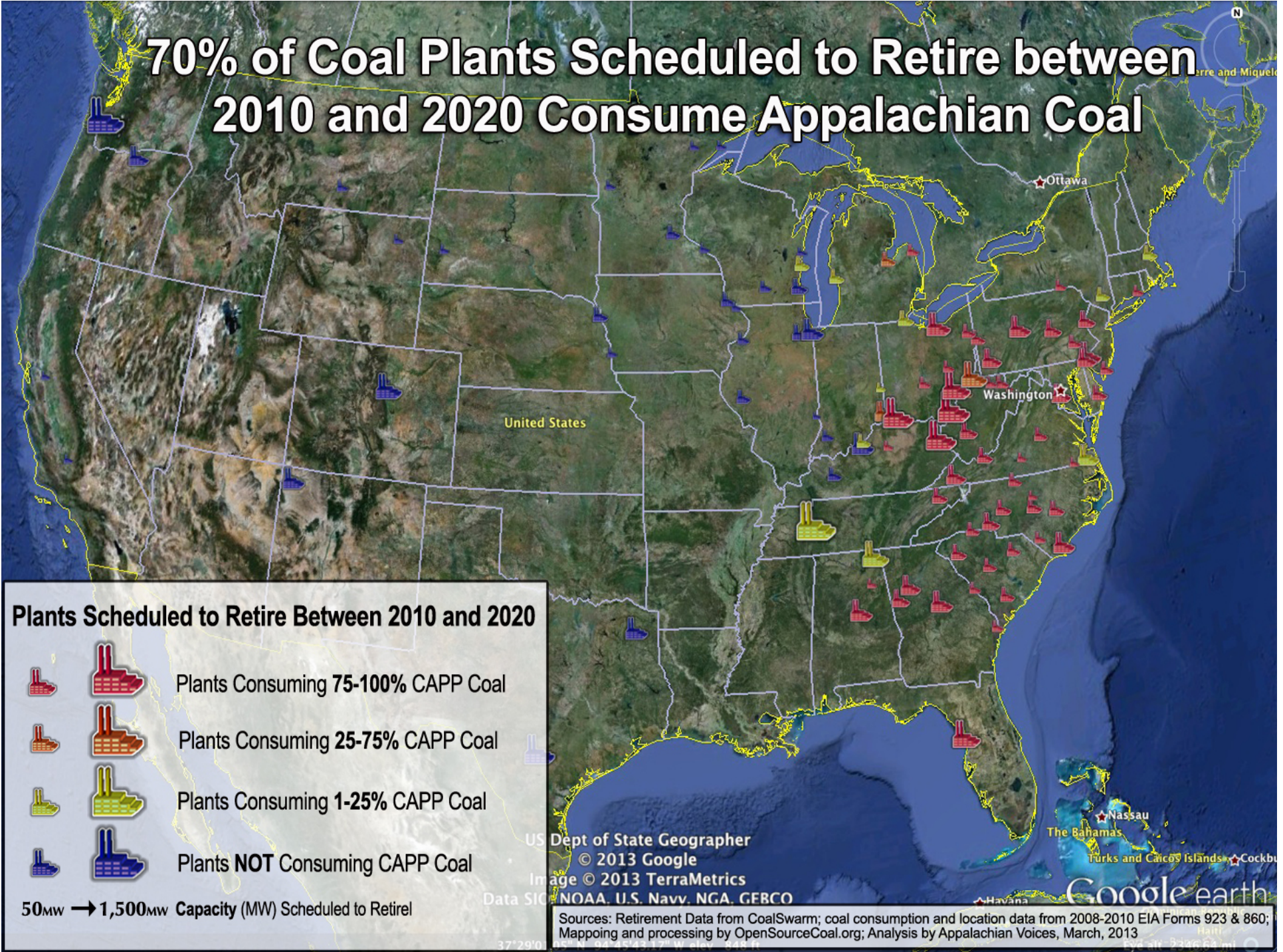


Virginia Coal Mine

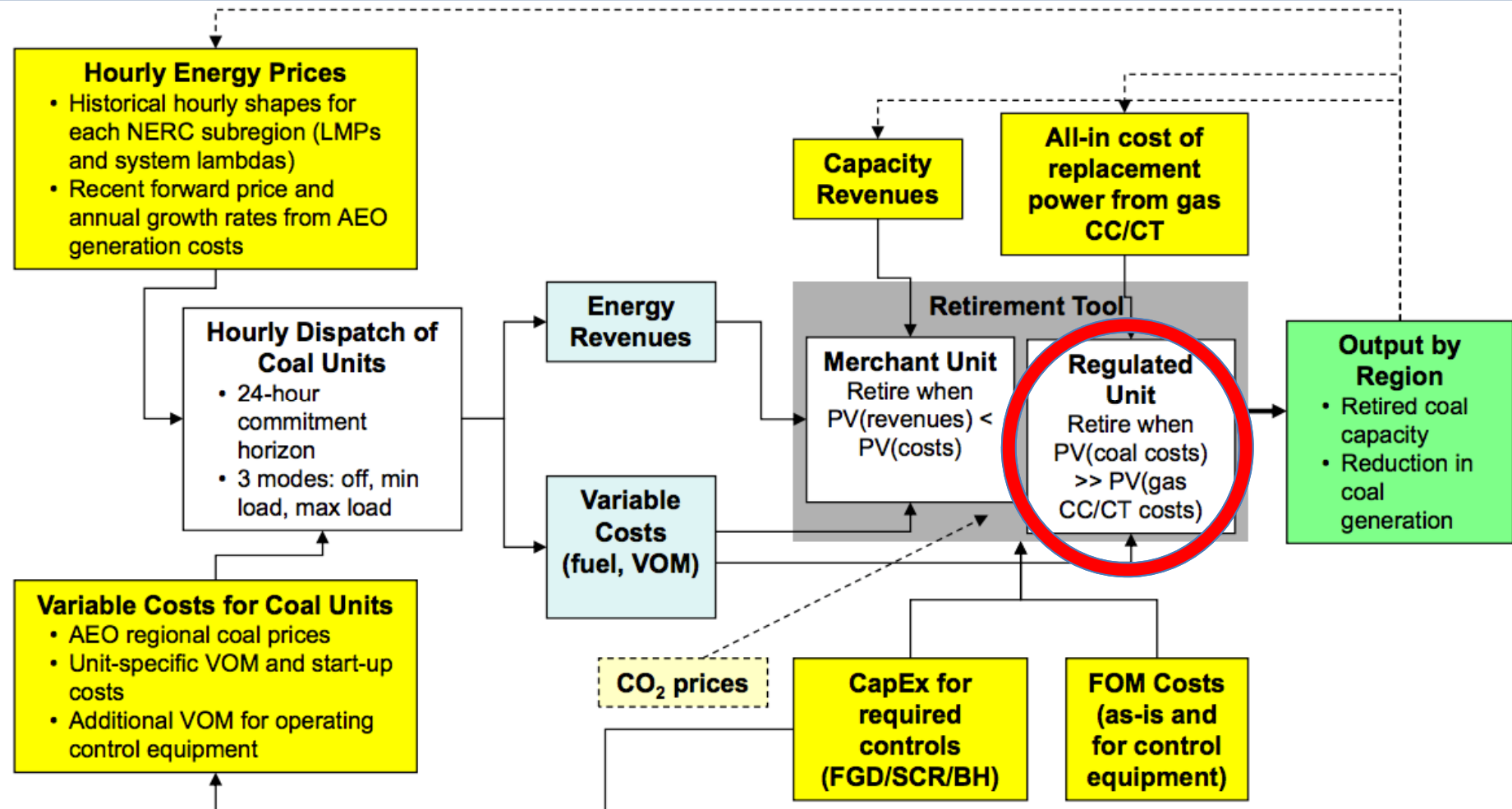


Matt Wasson, Ph. D.
Director of Programs
Appalachian Voices

70% of Coal Plants Scheduled to Retire between 2010 and 2020 Consume Appalachian Coal

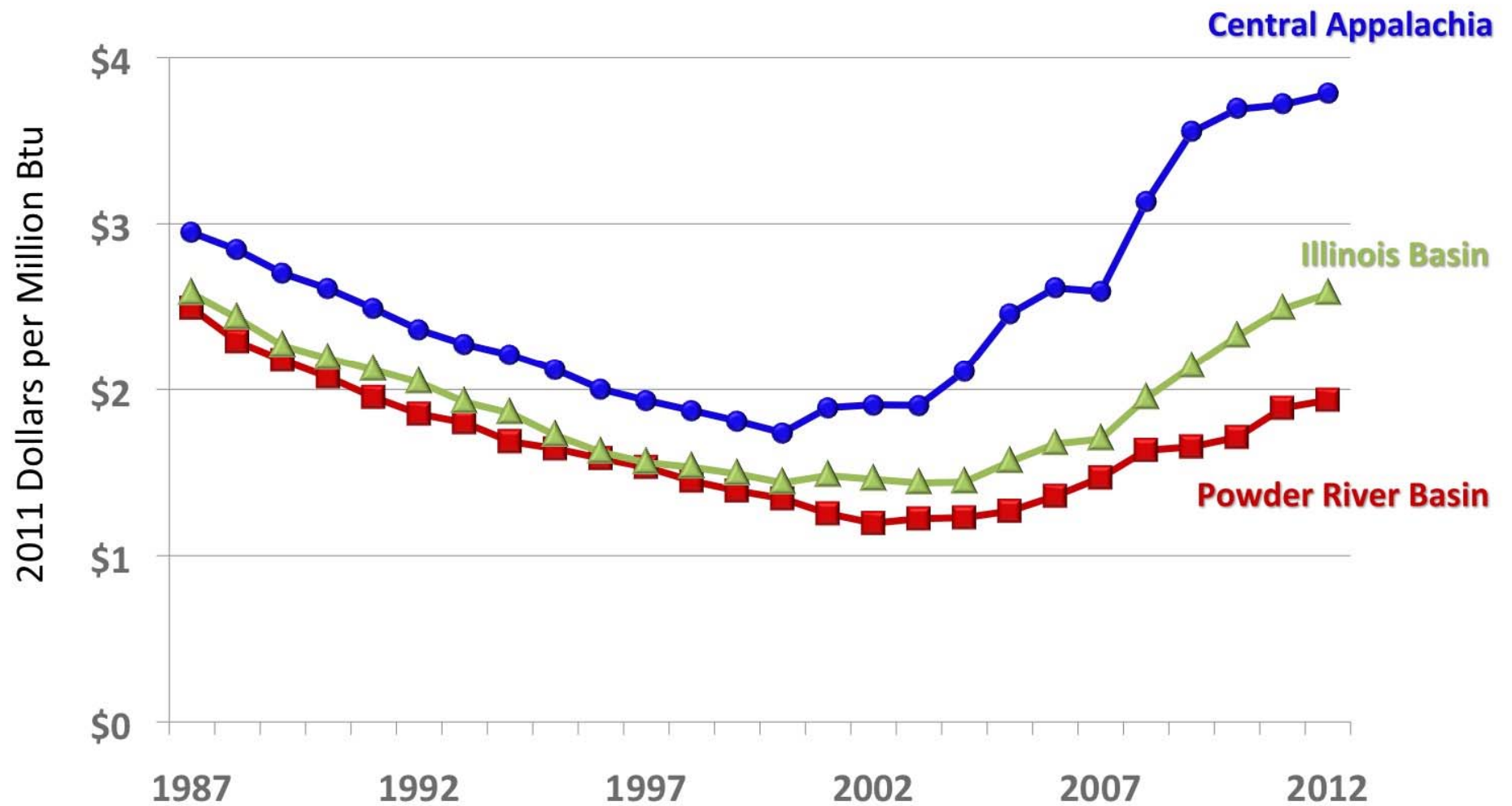


Brattle coal plant retirement screening tool – details



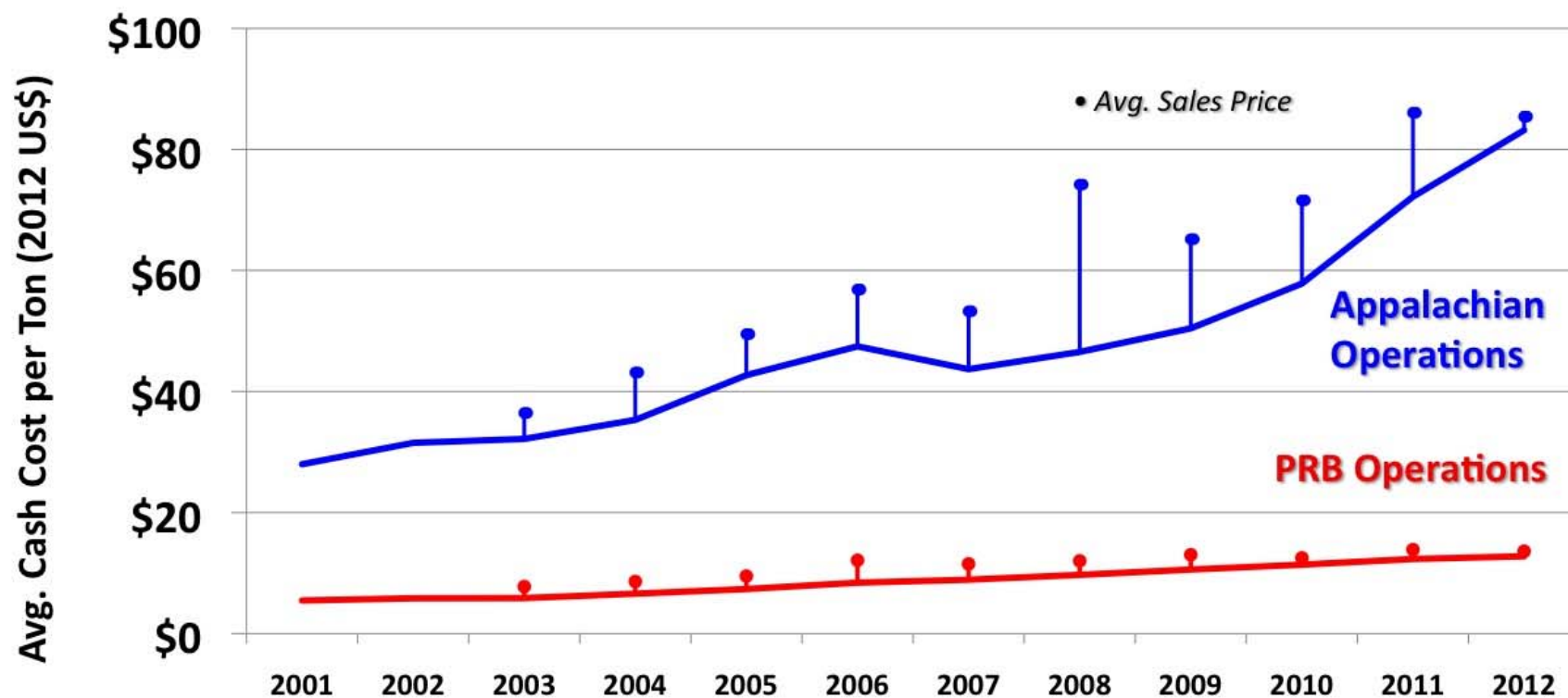
Note: Dashed lines and boxes represent factors and feedback effects that are planned to be incorporated into the model.

Delivered Cost of Coal to Regulated Utilities from 3 Major Coal-Producing Regions over the Last 25 Years



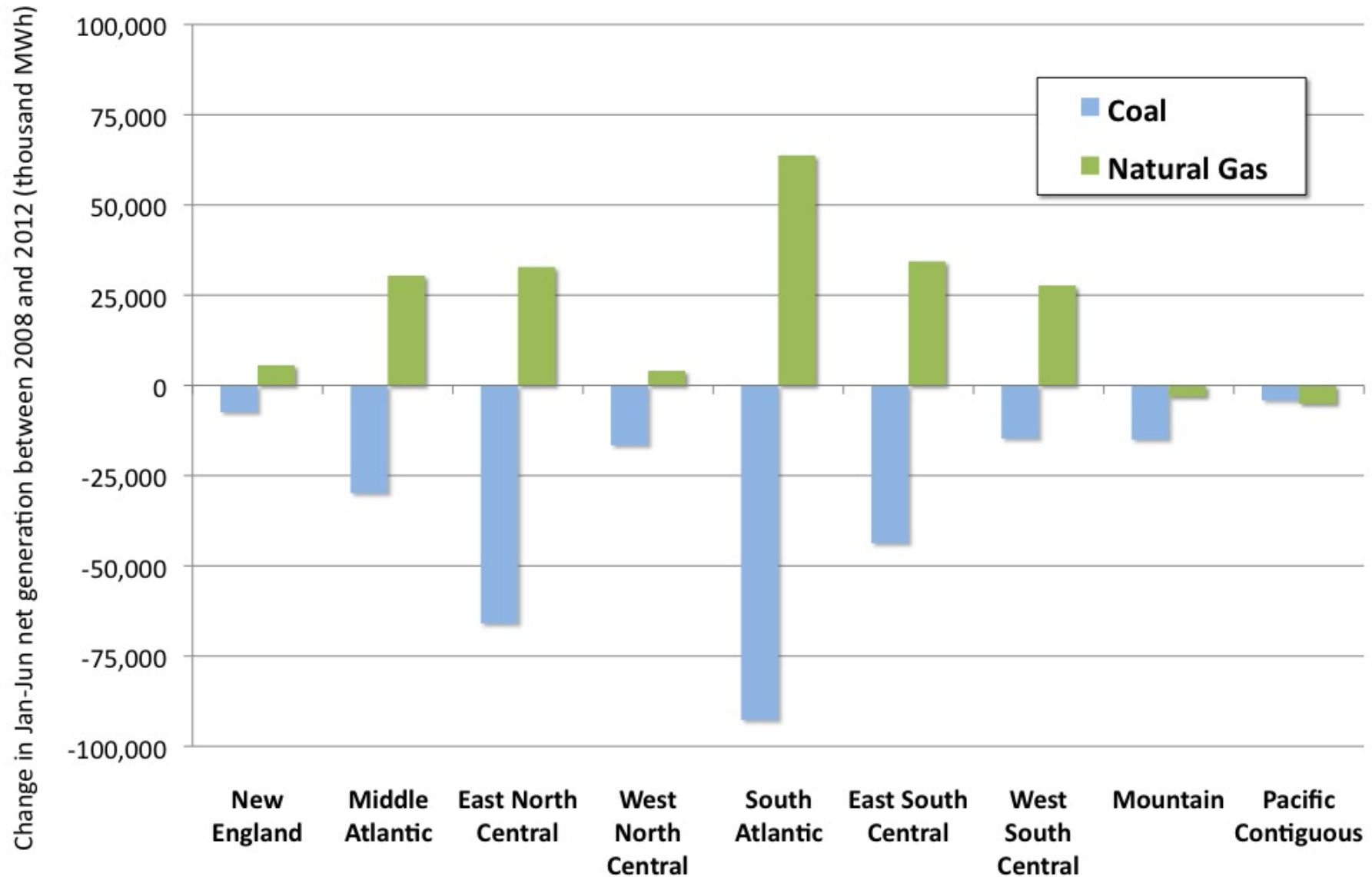
Sources: EIA Form 923 (and predecessor forms); Conversion to 2011 dollars from US Budget Section 10 - Gross Domestic Product and Implicit Outlay Deflators. Analysis by Appalachian Voices, March, 2013

Cost of Coal Sales Reported by Arch Coal, 2001-2012

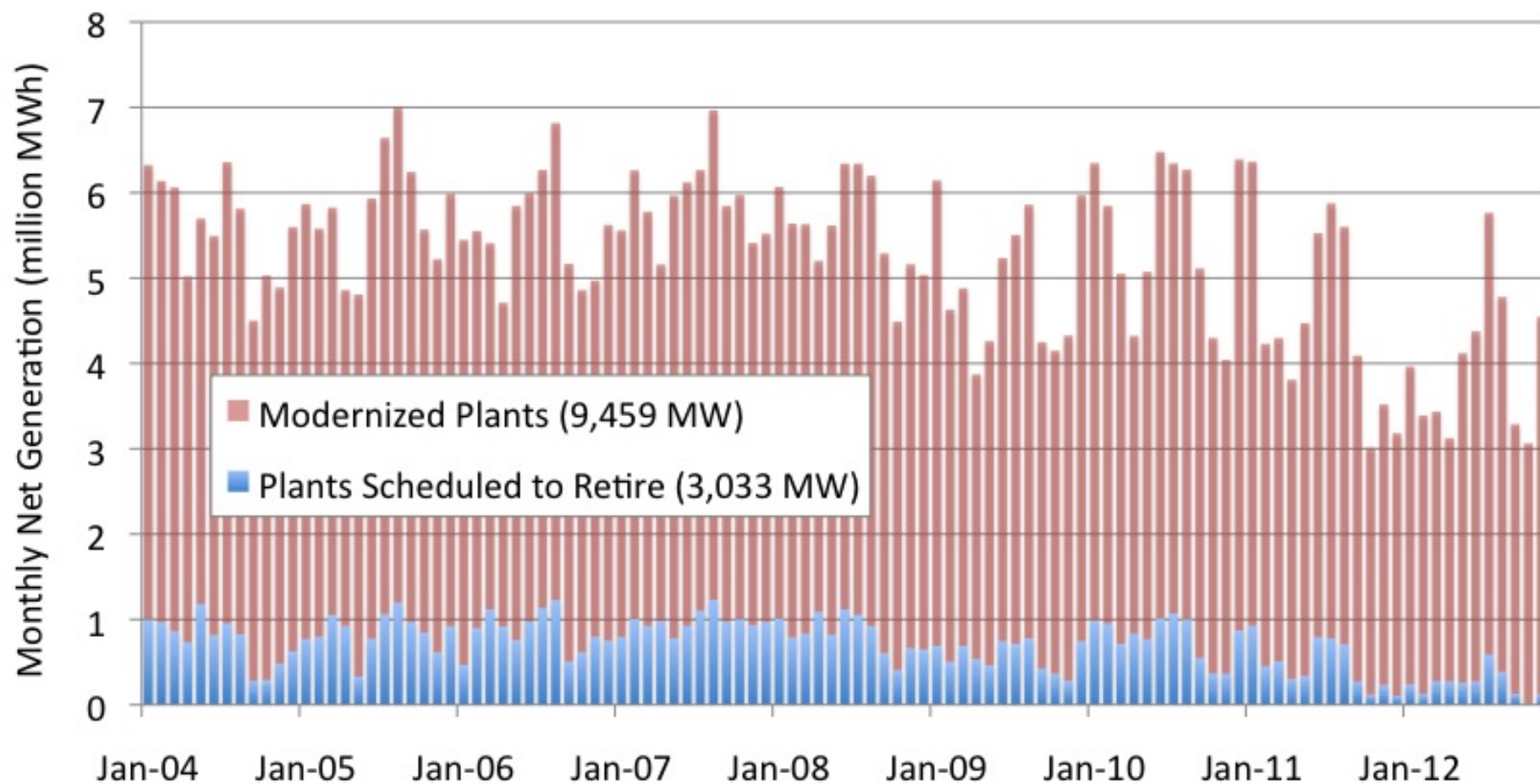


Source: 2012, 2009, 2007, 2005 and 2003 SEC Form 10-K Filings by Arch Coal, Inc. and US Budget FY2013, Section 10: "Gross Domestic Product and Implicit Outlay Deflators." Analysis by Appalachian Voices - March, 2013

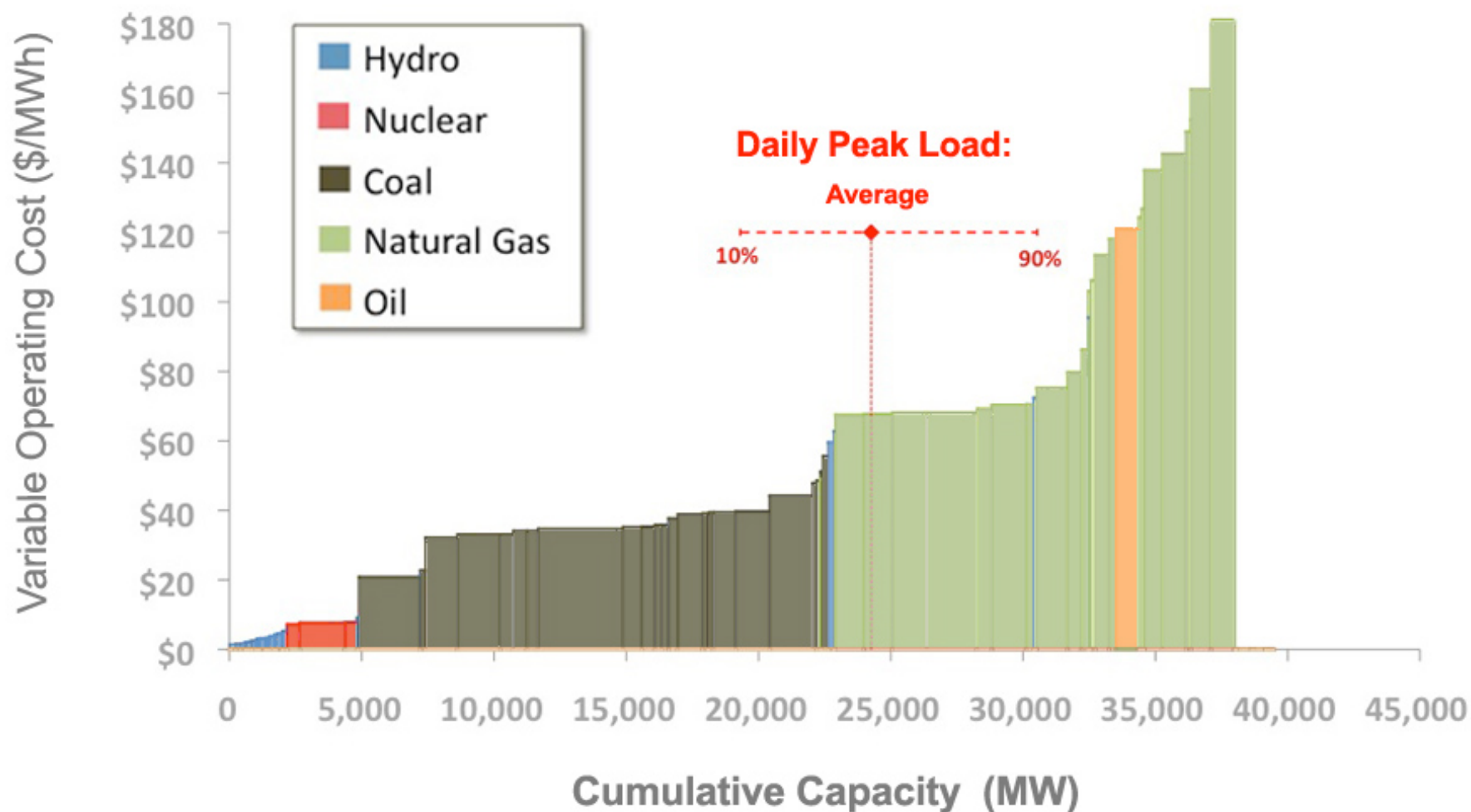
Displacement of Coal by Gas for Electricity Generation between 2008 and 2012 (Jan-Jun only)



Monthly Net Generation in North Carolina from 6 Coal Plants Scheduled to Retire vs 6 Plants Upgraded with Pollution Controls

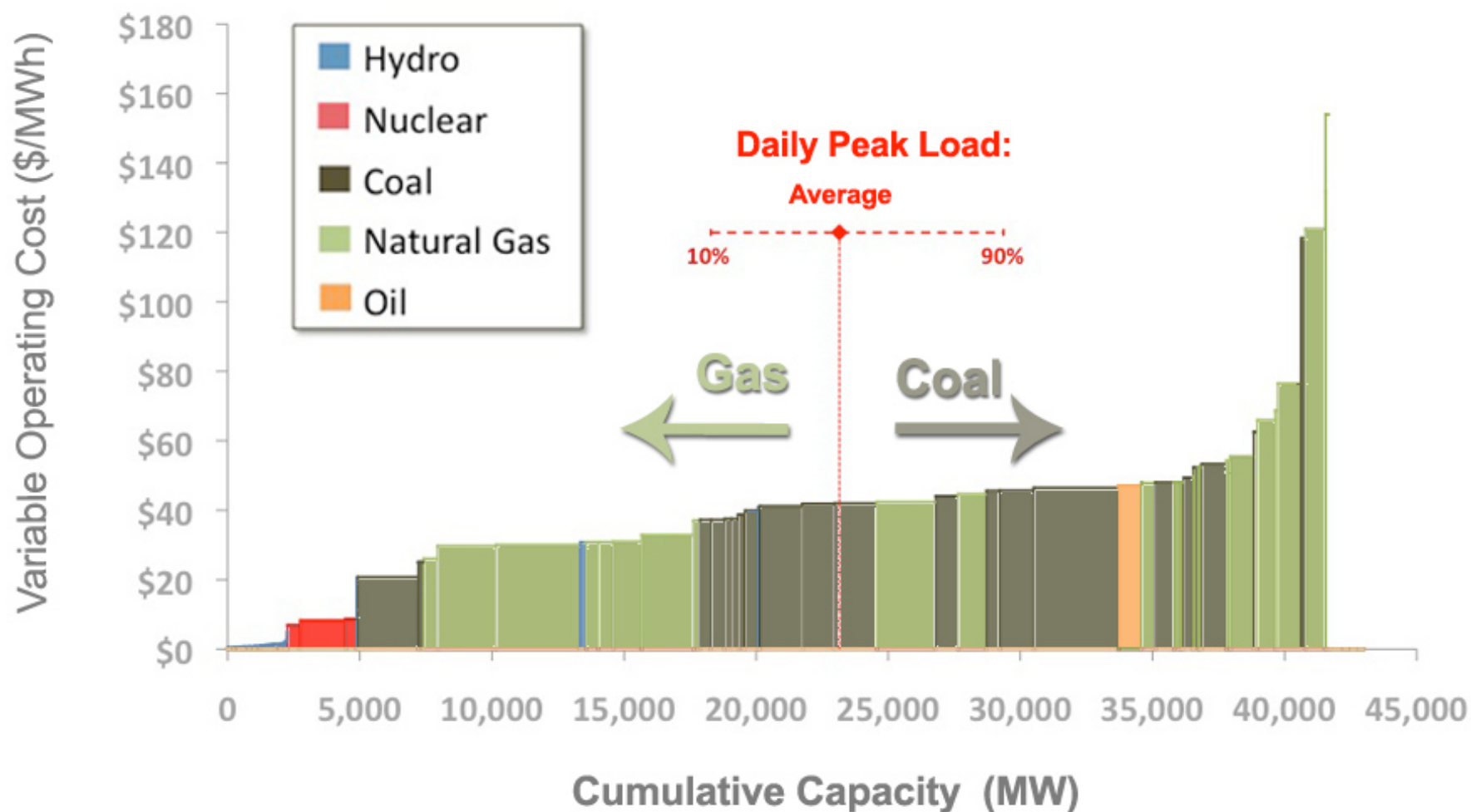


2008 Average Dispatch Order for Southern Co. Plants



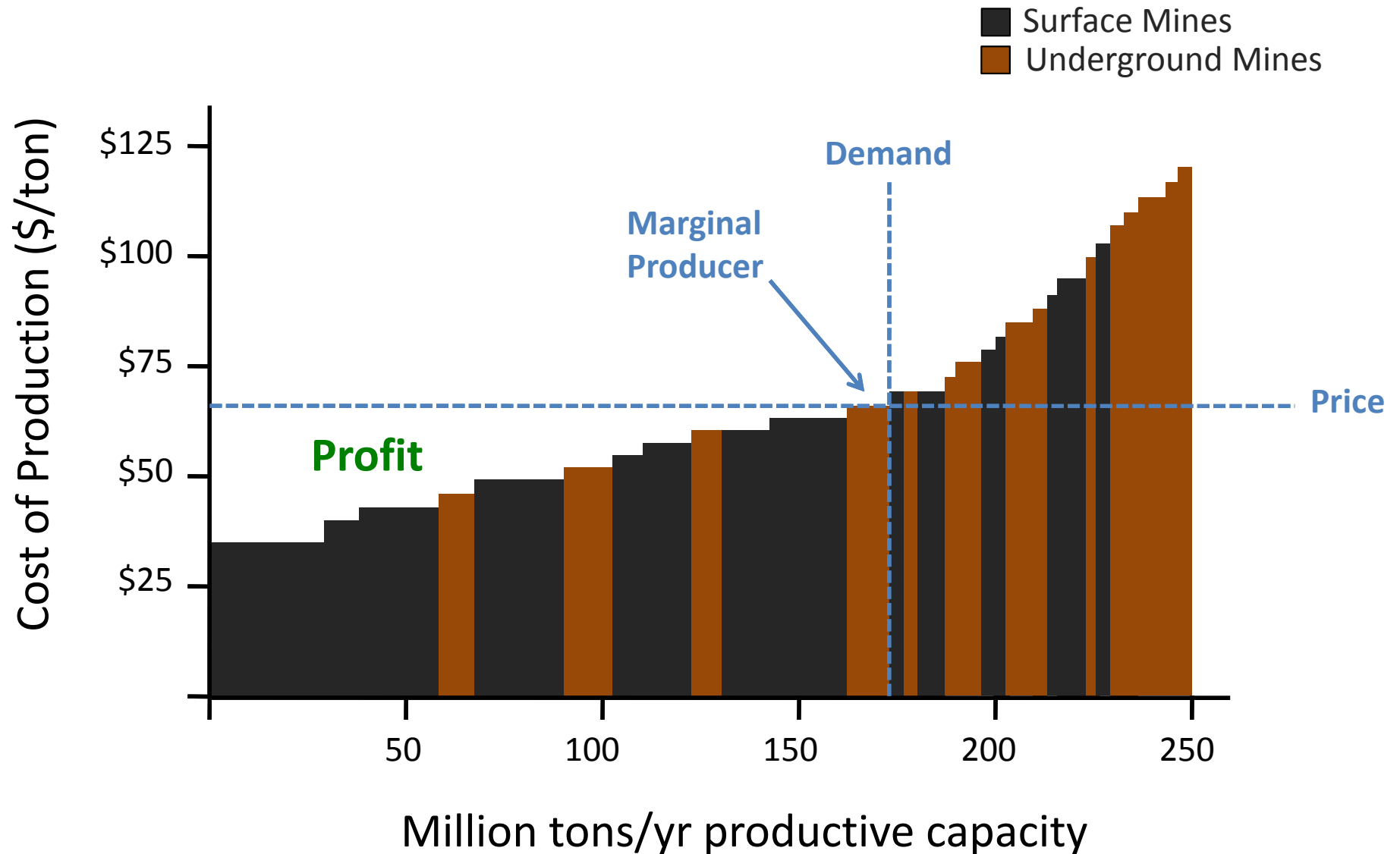
Sources: data from SNL Briefing Book; Graphics and analysis generated by the SimpleDispatch model produced by Appalachian Voices.

2009 Average Dispatch Order for Southern Co. Plants

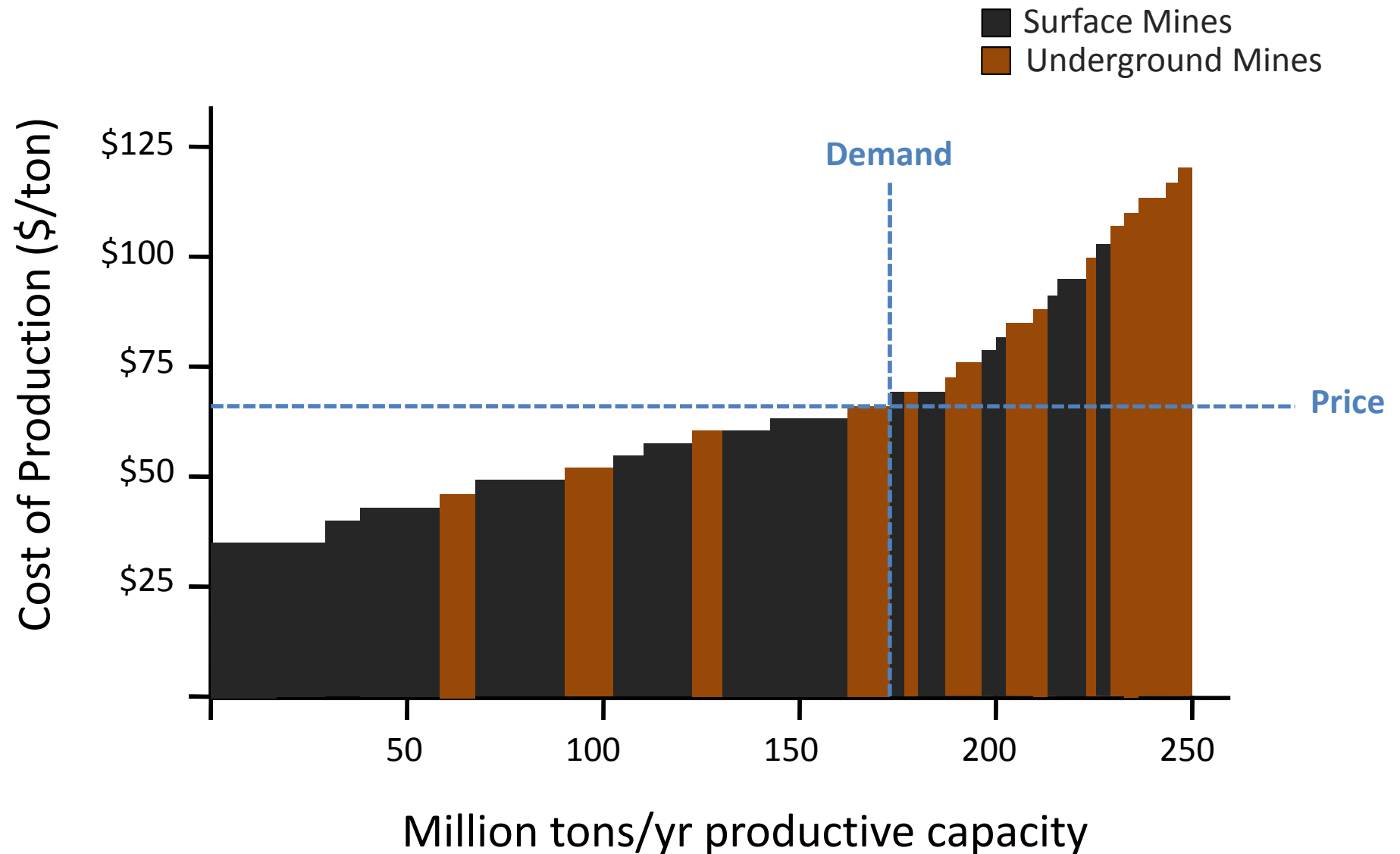


Sources: data from SNL Briefing Book; Graphics and analysis generated by the SimpleDispatch model produced by Appalachian Voices.

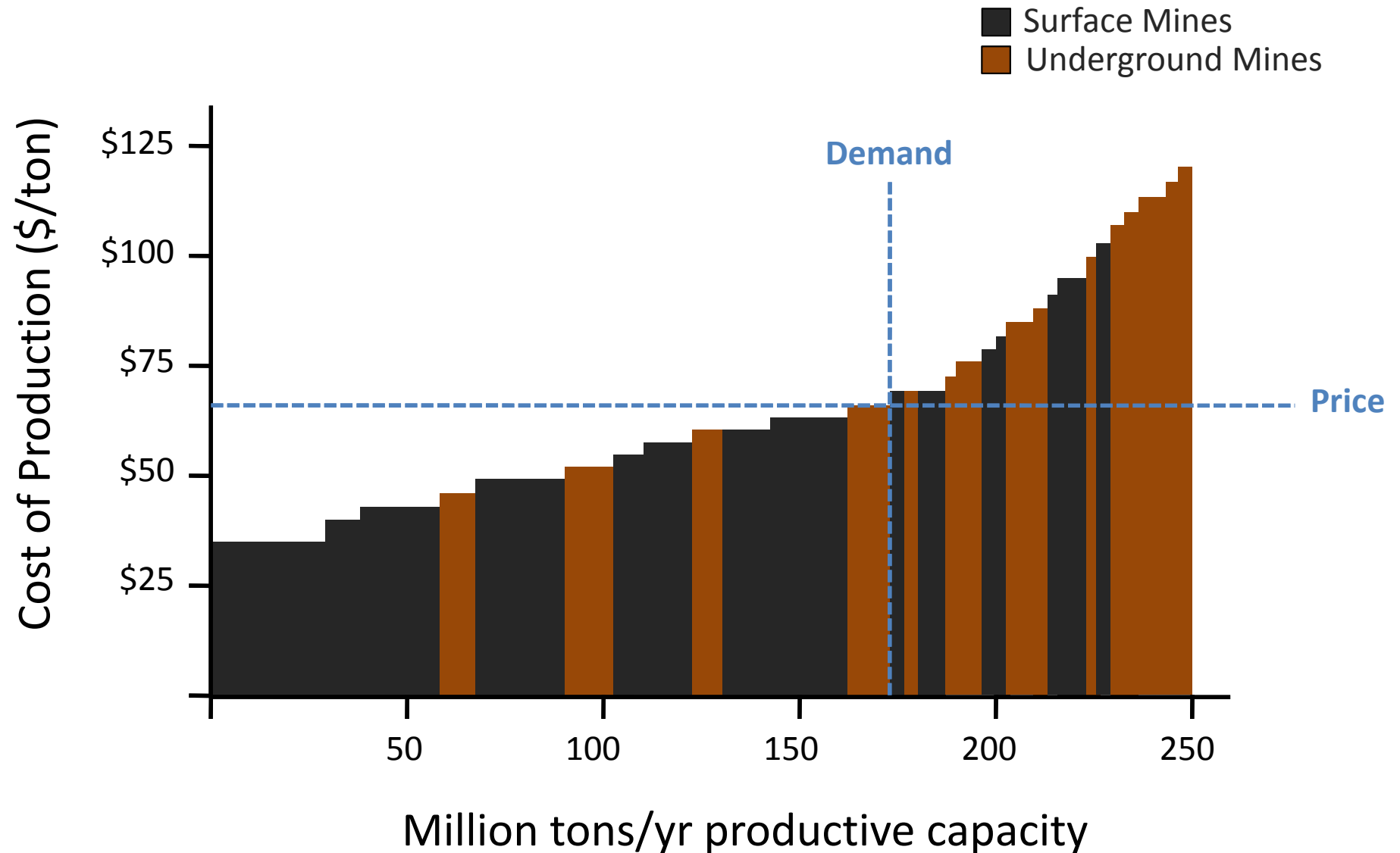
Simplified Appalachian Coal Mine Cost Curve



Simplified Appalachian Coal Mine Cost Curve



Simplified Appalachian Coal Mine Cost Curve



Impending Rules that Could Impact the Life-Cycle (“Busbar”) Cost of Coal

Mining



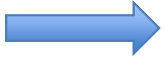
EPA: Standards for Conductivity & Selenium (No schedule)

Processing



OSM: Stream Protection Rule (2013-2014)

Transportation



White House: NEPA Guidance on Greenhouse Gases (Soon?)

Combustion



EPA and States: MACT, CSAPR, NSPS, BACT, NAAQS, etc...

Waste-Disposal



EPA: Effluent Limitation Guidelines (April, 2013)

EPA: Coal Combustion Residuals Rule (2014?)

OSM: Minefill Rule (2014?)

+ Lawsuits!!!

GOP Gained in 95% of Coal Counties From 2008 to 2012

