



West Virginia Coal

Our Natural Advantage

Presented to the 2013 North Carolina Coal Institute
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Myrtle Beach, South Carolina



Presented by Chris R. Hamilton, Senior Vice President
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Historical Overview

Coal has been mined in West Virginia since the mid-1800s.

- Construction of the C&O and N&W opened the state's coalfields to rapid growth around 1900.
- Despite producing well **over 100 million tons almost every year since 1924**, West Virginia still has an **estimated 54 BILLION tons of recoverable reserves remaining.**



It may be hard to believe today, but the scenic New River Gorge area was once a major coal-producing area of the state, clearly showing that mining has a temporary impact on the environment.



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West Virginia Coal: Our natural advantage

Background:

Coal has long been one of the state's leading industries.

- Thousands of good paying jobs
- Millions of payroll and tax dollars for local and state economies
- Low cost, dependable electricity



West Virginia Coal: Our natural advantage

THE BASICS

- Second leading coal producing state
- Leading underground coal producing state
- Leading coal export state (@ 50 million tons)
- 70% of production shipped to 26 domestic states and 37 foreign countries.
- West Virginia coal powers 40% of the East Coast.



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Top 15 West Virginia Foreign Exports of Coal 2011/2012

2012 Rank	Country	Exports in U.S. Dollars		% Change 2011 to 2012
		2011	2012	
1	Netherlands	\$525,857,080	\$801,363,330	52.39%
2	Italy	\$581,295,247	\$697,805,582	20.04%
3	India	\$602,674,319	\$689,450,833	14.40%
4	China	\$93,418,770	\$567,685,012	507.68%
5	Brazil	\$546,916,319	\$558,017,763	2.03%
6	Korean Republic	\$266,901,592	\$520,296,435	94.94%
7	United Kingdom	\$287,517,238	\$456,904,185	58.91%
8	Turkey	\$276,079,423	\$403,039,403	45.99%
9	Japan	\$29,149,708	\$395,174,585	1255.67%
10	France	\$248,724,083	\$383,074,465	54.02%
11	Ukraine	\$499,430,818	\$358,450,642	-28.23%
12	Canada	\$201,896,245	\$272,030,245	34.74%
13	Germany	\$136,262,151	\$155,687,548	14.26%
14	Morocco	\$73,024,531	\$152,334,270	108.61%
15	Spain	\$52,280,137	\$151,692,138	190.15%

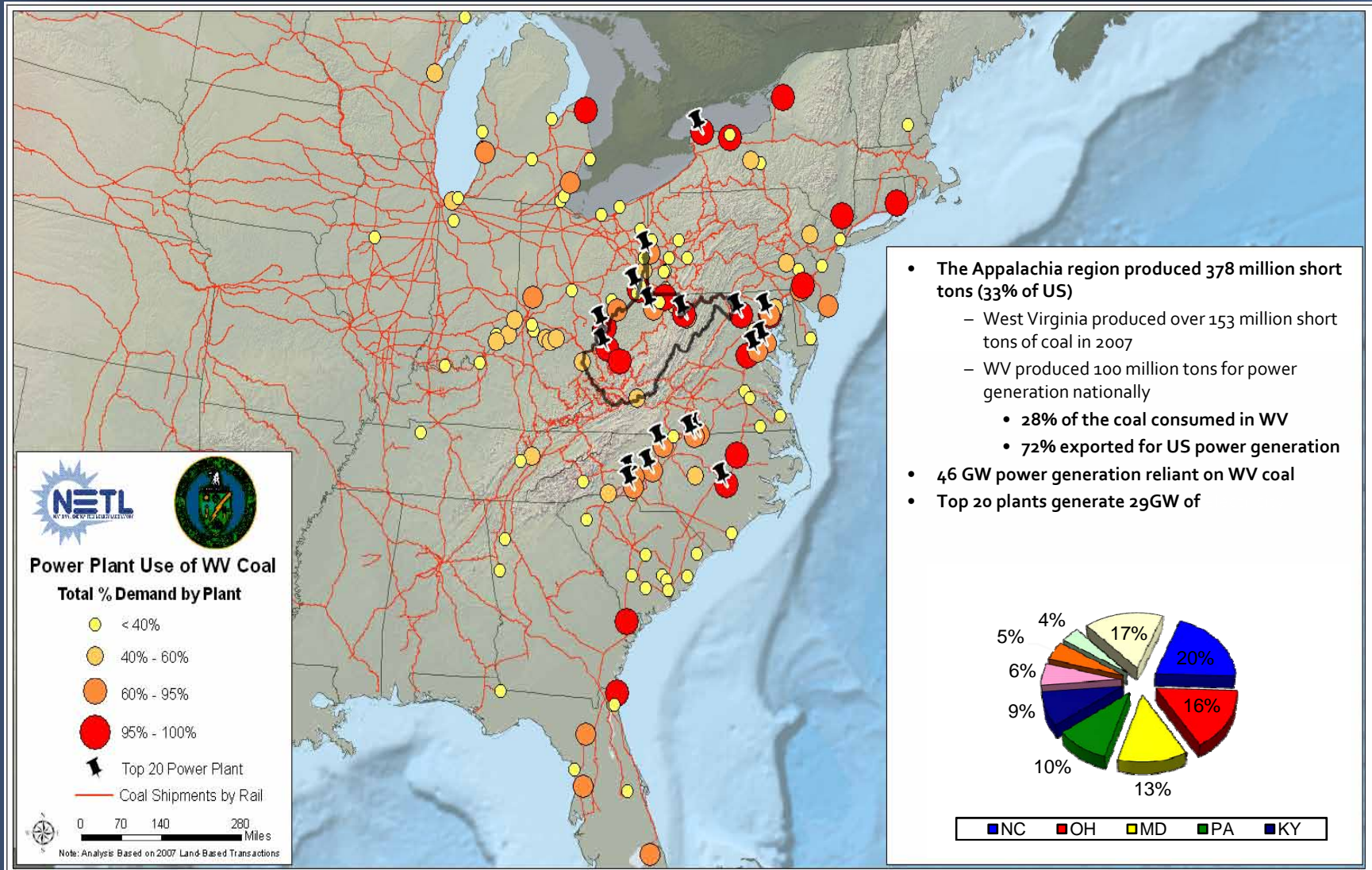
Data from Global Trade Information Services



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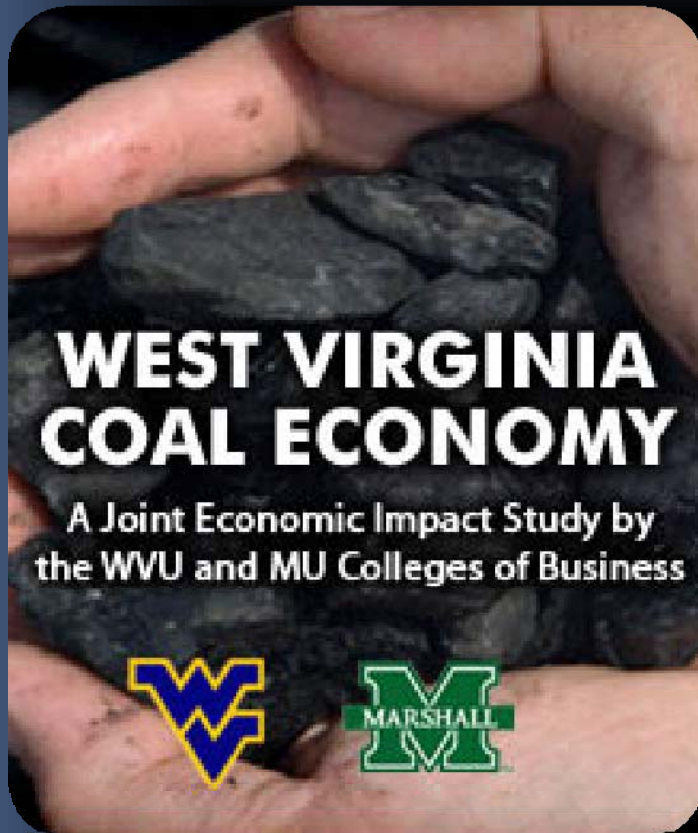
US Dependence on WV Coal For Electricity



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West Virginia Coal: Our natural advantage



KEY FINDINGS

<input type="checkbox"/> Payroll	\$3.6 Billion
<input type="checkbox"/> Severance	\$500 Million
<input type="checkbox"/> General Tax & Fe	\$490 Million
<input type="checkbox"/> TOTAL JOB IMPACT	63,000 JOBS
<input type="checkbox"/> TOTAL IMPACT	\$26 BILLION

Note: Coal and electric utilities account for [^] 60% of state business taxes

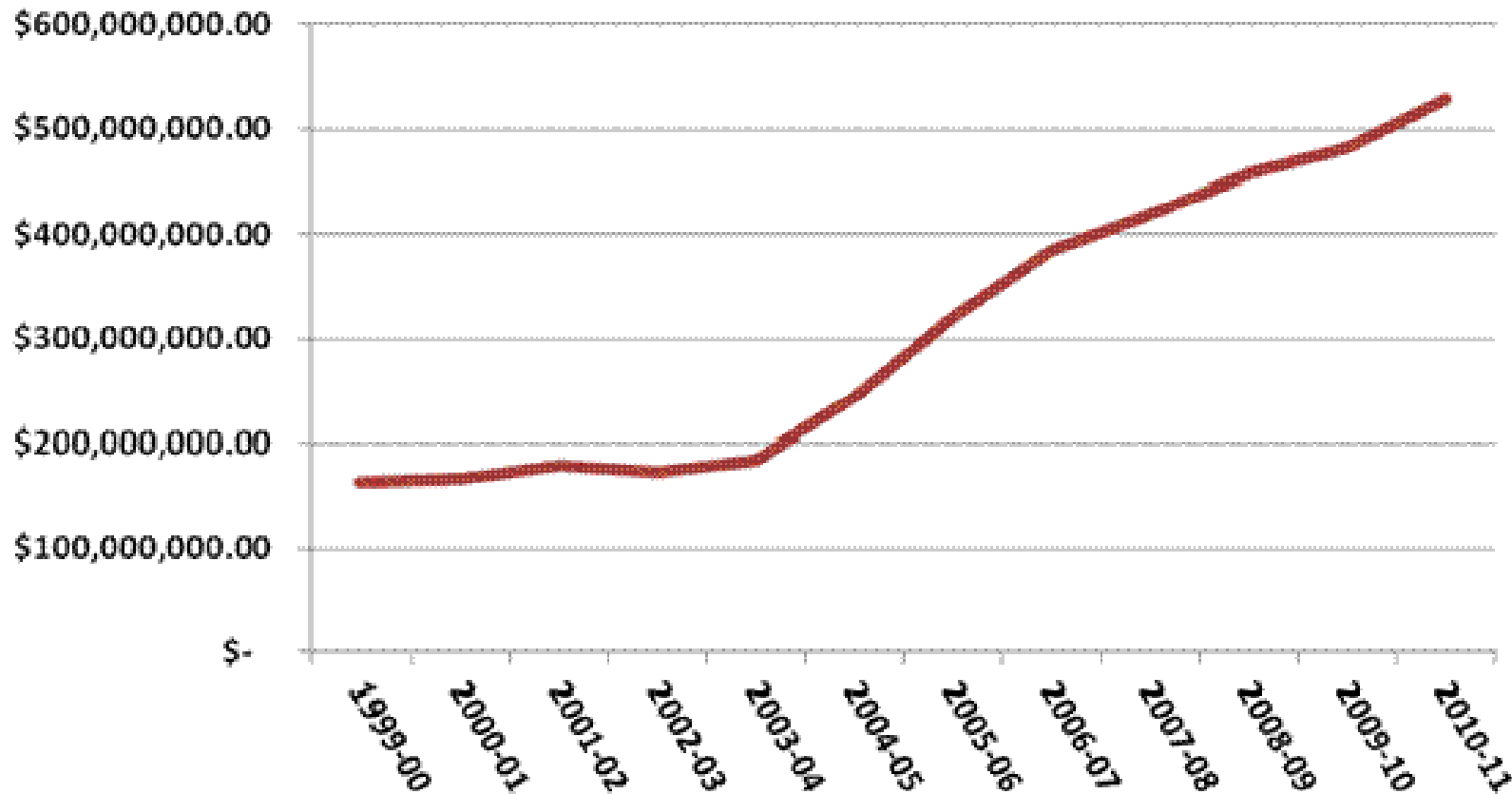


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Total Coal Severance Taxes 2000-2011



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Coal Severance:

Provides revenue for all 55 counties

First \$22 million dedicated to infrastructure projects

Primary uses: education, seniors, less fortunate

USES

Schools

Roads

Public Services

Water/Sewer



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The State of Coal 2012

Total Production (2012)	129,107,370
(2013 to date)	53,783,186
Underground	89,210,479
Surface	39,896,891
Coal Companies Operating in WV	231
Number of Mines	177
Underground	126
Surface	51
West Virginia Coal Employment	22,351 (UG+SU)
(2013 to date)	19,261
Underground	16,868
Surface	5,483
Coal Handling Facilities	2,150
Contractors	<u>2,100</u>
Total Coal Employment	26,601
Estimated Average Annual Coal Wage	\$68,500
Estimated Production Value 2012	\$7,746,422,200
Estimated Coal Severance Tax Paid	@ \$500 Million



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Today's Reality.....



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THE PERFECT STORM

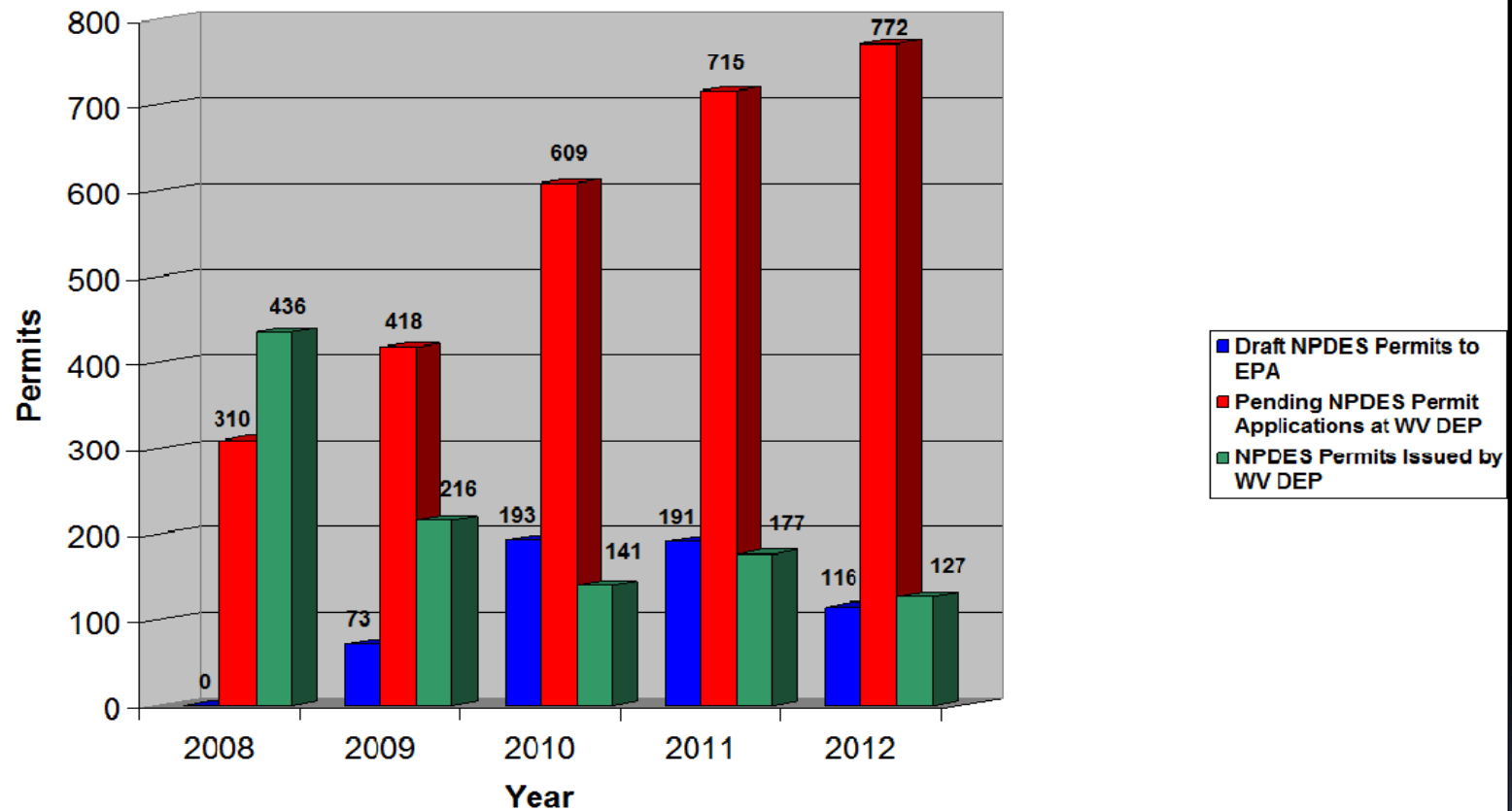
- Economic “uncertainty” –
 - America and worldwide
- Mild winter
- Natural gas prices
- Federal government – *“Encourage, not discourage”*
 - EPA
 - MSHA
 - OSM

EPA Interference

- Formal objections to mine permits (404 and 402)
- Interagency MOU- Revise permitting and policy
- Enhanced Coordinated Review Process
(Enhanced Permit Delay)
- Nearly All Permits Held Hostage
- Ecological Assessment
- Suspension of NWP 21
- Revocation of Spruce Fork Permit
- Targeting All Mining

Permitorium

Impacts of EPA Involvement in NPDES Permitting (New Permits, Reissuances and Modifications)



EPA's Interference (Air)

- **CSAPR** 4.8 GW

- \$2-3 billion annually
- SO₂
- Nox

- **HgMACT** 10 GW

- \$10-11 billion annually
- PM?

- **NAAQS**

- SO₂, NO_x, PM, CO, Ozone, Lead
- Initial Cost = \$1.5 billion annually
- \$19-25 billion annually by 2020.
- SO₂
- Ozone
- PM?

- **GHG NSPS**

- **No New Coal Plants**
- Requirements applied to existing plants per NSR
- **Technology Does Not Exist**

- **COAL ASH**

- RCRA Hazardous Waste
- \$1.5 billion annually
- WV Amendment-Transportation

- **TOTAL PROJECTED IMPACT**

- \$22.5 billion - \$40.5 billion

OSM Interference

- More federal inspections
- Direct federal modifications to state issued permit
- OSM becomes the “co-regulator” of mining without regard to state primacy
- Direct reporting by mining companies to OSM
- Proposed regulations- Stream Buffer Zone and Approximate Original Contour, etc.

West Virginia Coal: Our natural advantage

The National Agenda is "Out-of-Whack!"

- Global climate change
- Carbon Tax legislation
- Increasing renewable portfolio
- EPA's assault on coal
- War on mountaintop mining

The current agenda is regressive, punitive and will displace workers.



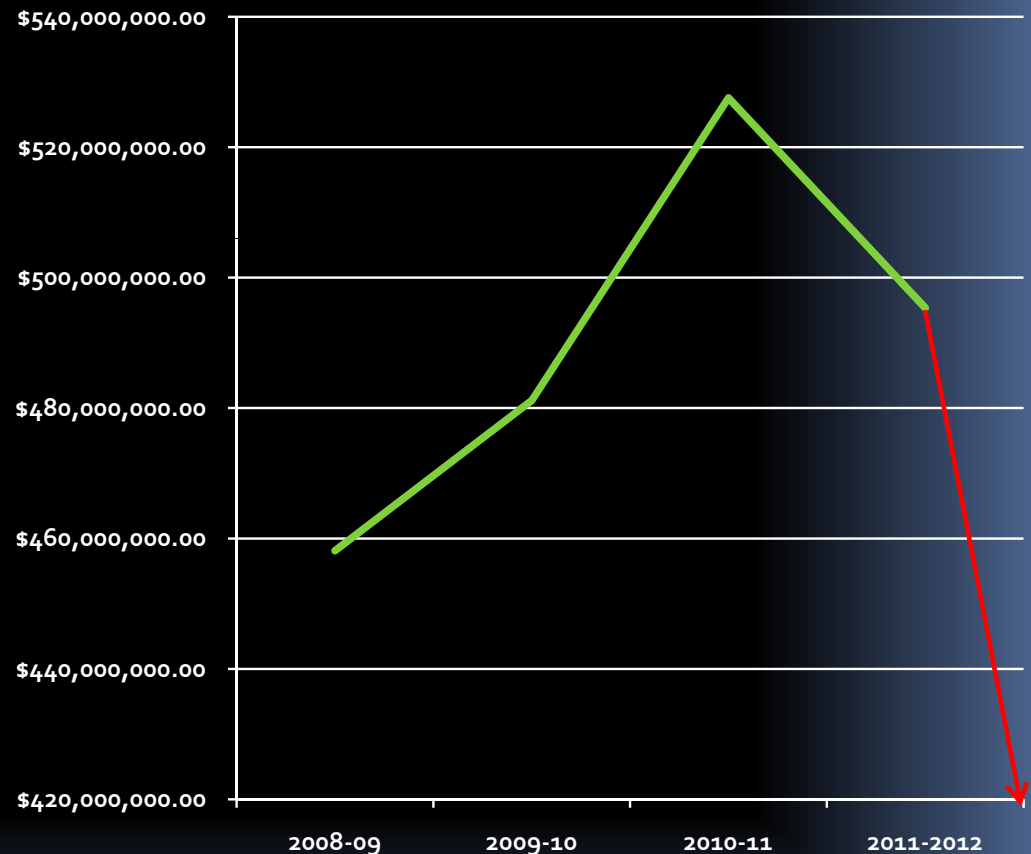
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Today's Reality.....

- 25 % Lost Production (165m/tons in 2008 to 129m/tons in 2012).
- 3,000 Lost Jobs in West Virginia and 5,000 Lost Jobs in Region.
- Downward Trending Coal Prices and Mine Efficiencies
- Closure of Coal-Fired Power Plants
- Lost Revenues to Communities and States
- **Lost Coal Severance Revenues**

The War on Coal Takes Hold: **Total Severance Collections 2008-2012**



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Trends: The Forecast Appears Bleak

West Virginia Coal Production

Annual Production Tonnage



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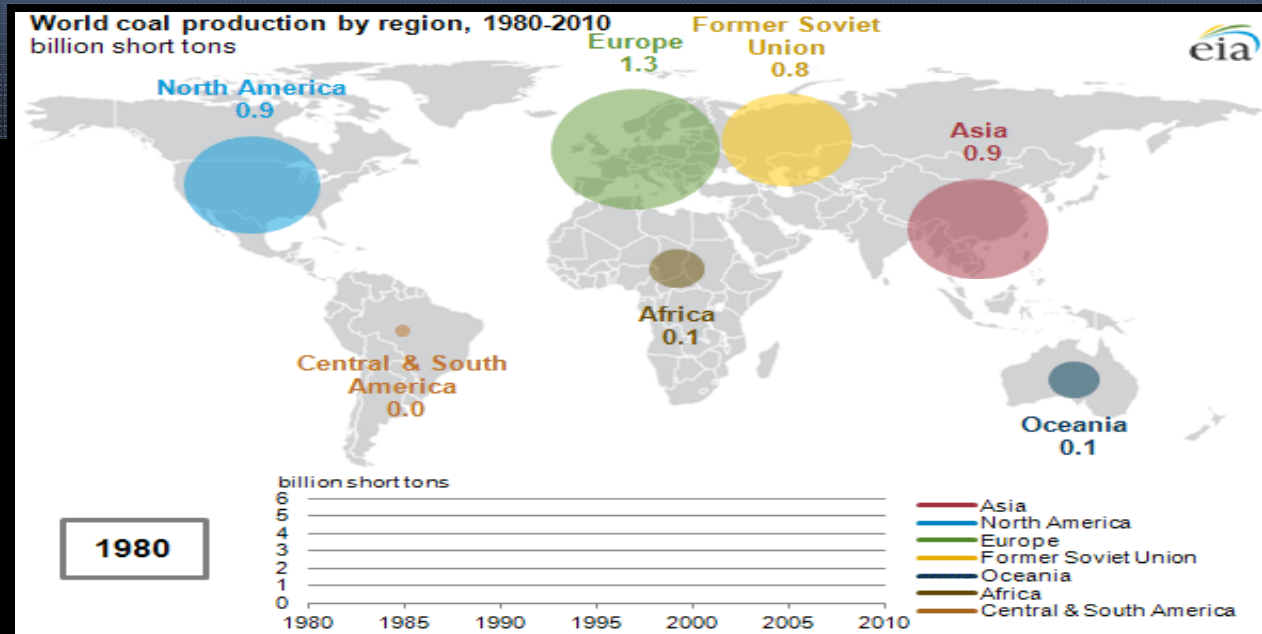
BUT.....



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Trends: Opportunity Abounds



- **Increased Production in Asia, Europe and Australia, but**
 - China, India, Australia, Indonesia and other Pacific rim nations have abundant domestic coal but are growing at such a rate demand still outpaces capacity.
 - European nations are turning to coal and Russia is increasing production but much of the European reserve base has been depleted.
- **Growth of demand in Asia and Europe**
 - China, India and the Asian rim nations are expanding their economies.
 - European nations are turning away from sustainable energy and nuclear projects back to coal.
 - As economic recovery occurs, so will energy demand increase.

West Virginia Coal: Our natural advantage

Energy Forecast



Coal continues to gain more of the world's energy share

Coal's Share of Global Energy Market

In 2000



In 2011



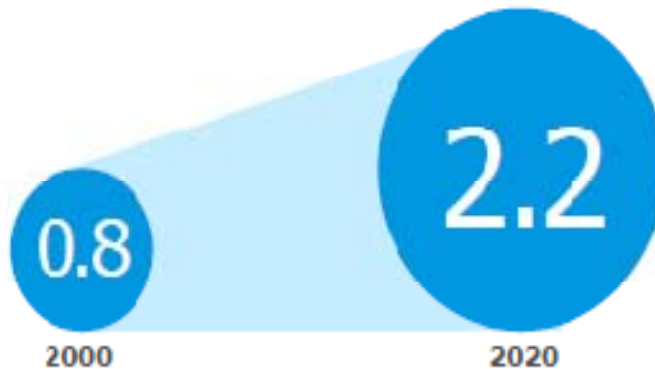
● Coal
● Other

- Coal has been the largest and fastest-growing major fuel source for power generation in the world
- Coal is projected to supplant oil as the world's most prominent energy source by 2015
- By 2020, coal consumption should increase 2 billion tons if trends continue ... and could increase 4 billion tons if some forecasts prove true

West Virginia Coal: Energy Forecast

We expect continued strength in met coal markets – based on projected growth in global steel consumption

World Steel Production
(in billions of tons of crude steel)



World steel consumption is projected to increase more than 50 percent from 2011 levels of 1.4 billion tons

Global Metallurgical Coal Use
(in billions of tons of coal)



Demand for met coal is driven by increased utilization at existing steel plants and a build-out of new steel capacity



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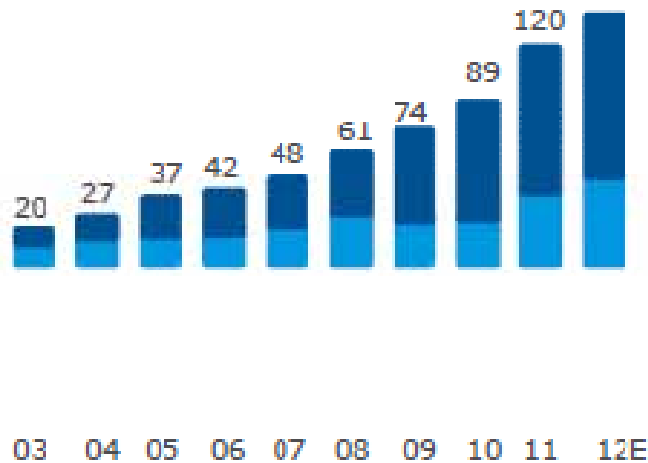


West Virginia Coal: Energy Forecast

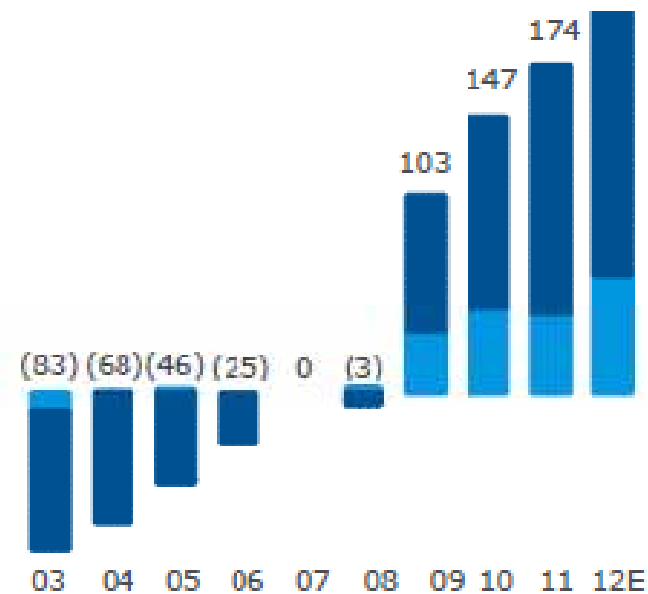
The trend line in seaborne coal demand is clear ... with little reason to believe it will change soon

India net imports
(in millions of tonnes)

■ Thermal
■ Met



China net imports
(in millions of tonnes)

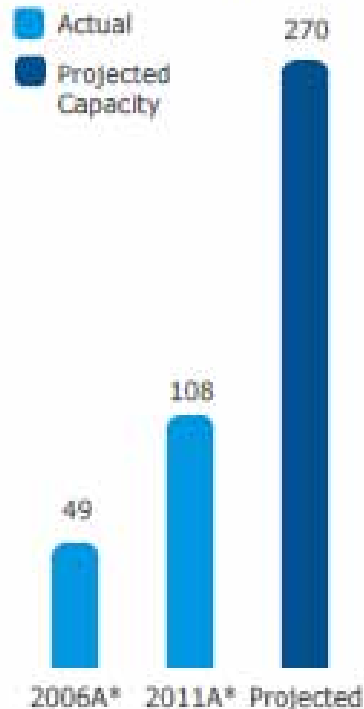


West Virginia Coal: Energy Forecast



Planned U.S. port expansions will support a more than doubling of coal exports over the next five years or so

U.S. Exports
(in millions of tons)



West Coast	
50	
Ridley**	4
Westshore**	4
MBT	15
SSA Marine	15
Other Northwest	10
CA	2

East Coast	
100	
NS/Lamberts	32
DTA	20
CNX Marine	16
Pier IX	14
PA	9
CSX/Curtis Bay	9

Southwest	
15	
Deepwater	10
Other Texas	5

Midwest	
8	
Great Lakes	8

Gulf Coast	
66	
IMT	17
United	11
Burnside	10
Convent	8
Mid-streaming	20

Southeast	
31	
Mobile	18
Other AL	5
Charleston	8



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Energy Forecast

World energy needs and coal usage will increase.

The real question is not whether coal will continue to be used but rather where will it come from?

- East of the Mississippi River
 - 40 percent of the nation's output
 - 80 percent of mining jobs
- Western Coal
- Illinois Basin
- Foreign Imports



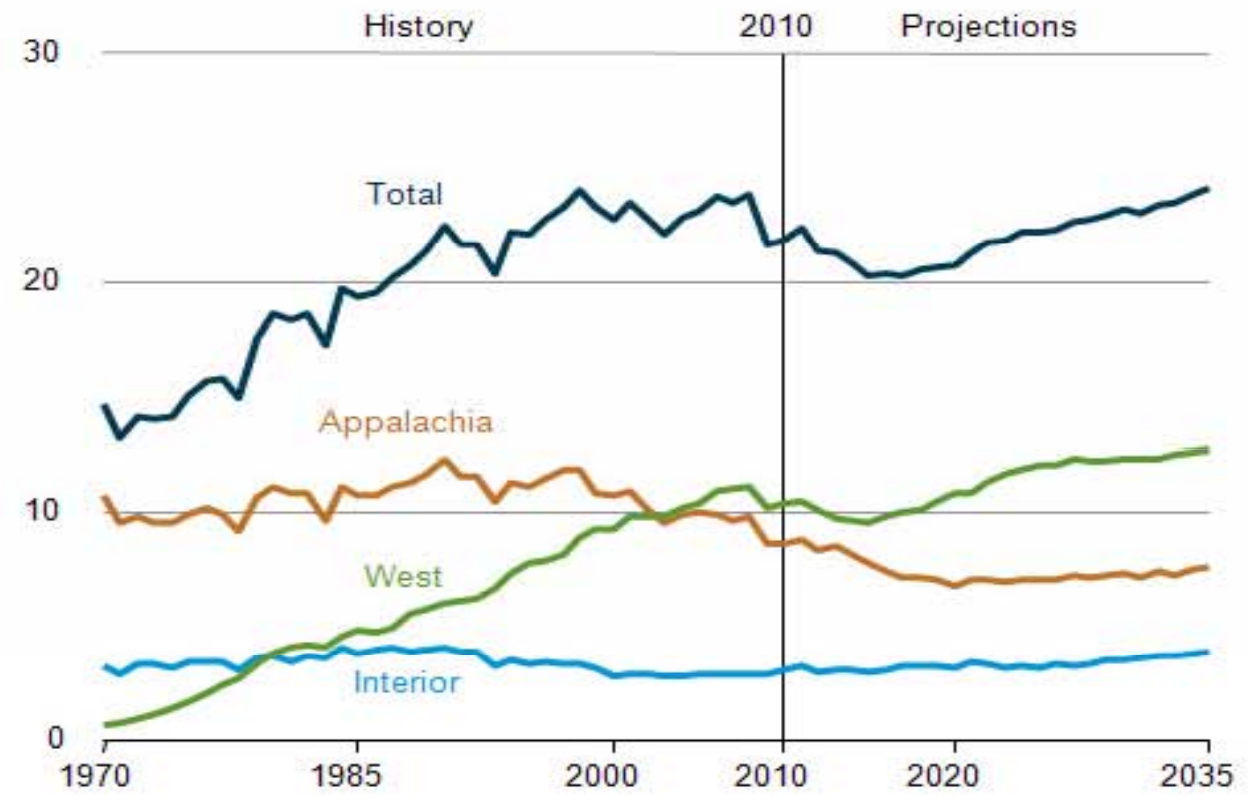
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West Virginia Coal: Energy Forecast

Appalachia's share of the national coal market is projected to decline while the western region (Powder River) continues to climb.

Figure 118. Coal production by region, 1970-2035
(quadrillion Btu)



Competitive Forces



A Powder River, Wyoming Coal Seam



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By Comparison ...



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Regional Challenges

- Increased Mining Cost:
 - Thinner, Deeper Seams
 - Higher Ratios
- Litigation
- Geological Challenges
- Manpower Needs



West Virginia Coal: Our natural advantage

Poised for the Future:

The West Virginia coal industry is well-poised on high-growth opportunities as the country pursues energy independence and economic growth from a strong domestic energy industry

- The industry has great capacity
- Committed management teams in place
- Aggressive business plans
- Qualified, experienced workforce
- Strong will to succeed



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National Agenda Should Be:

- National Security & Defense
- Energy Independence
- National Energy Policy
- Coal to Liquids Reality
- Mine Production & Combustion Technologies
- Natural Resources as Assets



Summary

- **West Virginia/Central App is Changing.**
 - Mid- to long-term prospects are questionable
 - Production is down to @ 129 million tons but appears to have stabilized.
 - Export markets are particularly attractive (China, India, Asia).
 - World coal use is growing (Opportunities Abound).
- **Coal Remains Vital to the Economy**
 - Key for energy independence
 - Provides a transition fuel for the future
 - Abundant , Affordable and Reliable
- **Coal Infrastructure Well Established (Production to Consumption)**
 - Rail, river, truck, port facilities, industrial, electric power, end user and consumer.



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BUT.....



Is the glass half-empty or half-full?

Mountaintop Development



13,000 JOBS CREATED ON FORMER SURFACE MINE SITES IN WEST VIRGINIA

“With some areas of our state having little flat land for development, the use of surface mined lands has been critically important to providing land for new industry and facilities for use by the general public,” said former Division of Energy Director Jeff Herholdt. *“In addition to the flat land, many projects are able to take advantage of infrastructure, roads, and electric service used during coal mining.”*

Opportunity---Alternate Post-Mining Land Use



- **MINING** creates level land, land that has the potential for many other uses. **Properly planned -- mining can truly be “building a new West Virginia.”**

- **DEVELOPED SITES**

- **West Virginia:**

- Joint Base West Virginia – Tyler-Morgan, Fola, Logan
- Bechtel Summit Boy Scout Complex – Fayette
- Mingo Central High School
- King Coal Highway
- Mingo County Regional Airport
- Twisted Gun Golf Course
- Hatfield-McCoy Trail System
- The City of Weirton
- Pete Dye golf course
- Mount View High
- Robert Byrd High School
- Logan County Airport
- Anker Sports Complex
- Beckley YMCA Soccer Complex
- FBI Complex
- Mylan Park
- Bright Mountain Subdivision



Chief Logan Hotel and Convention Center
Located on a former surface mine near Logan, WV, this is a clear example the myriad uses for former surface mine land.

Mountaintop Development

The Rest of the Story

Former surface mines can provide the flat land so essential to industrial and community development



Earl Ray Tomblin Hotel and Convention Center

Located on a former surface mine near Logan, WV., this is a clear example the myriad uses for former surface mine land.



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Mountaintop Development

Mingo Central Comprehensive High School is a consolidated high school which resulted from Burch, Gilbert, Matewan and Williamson High Schools. Mingo Central opened its doors to new students in August 2011. Mingo Central is a Comprehensive 9-12 high school on a beautiful 90 acre site along the King Coal Highway overlooking the mountains of Mingo County. It is a 172,535 square foot school containing approximately 60 classrooms.



Mountaintop Development

The Rest of the Story

Mylan Park in Morgantown is built on a former surface mine site.



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Mountaintop Development

Mingo County Mountaintop Post-Mine Land Use Projects



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Mountaintop Development

The Rest of the Story

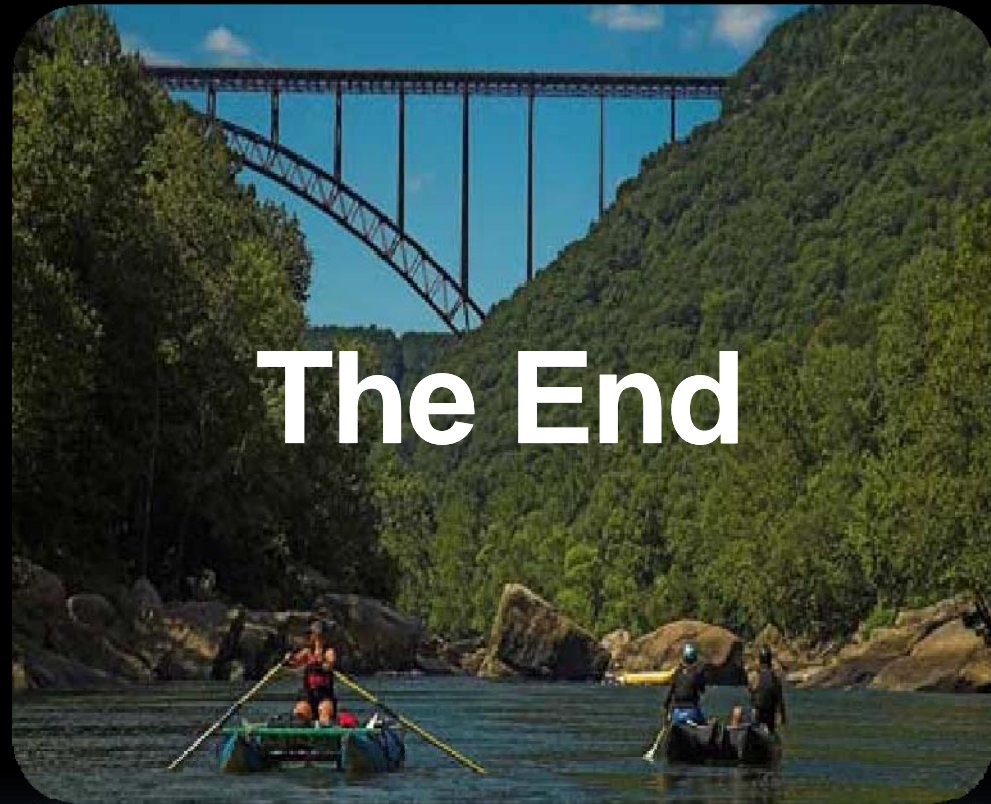
A shopping mall in Bridgeport shows the wide range of development made possible across the state by the cooperation of mining and local planners.



West Virginia Coal: Our Natural Advantage

We Can Have Both!

West Virginia demonstrates every day that we can have a thriving industrial base and robust tourism while protecting our natural environment.



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Oh, I almost forgot Obama's "Climate Change Initiative"

