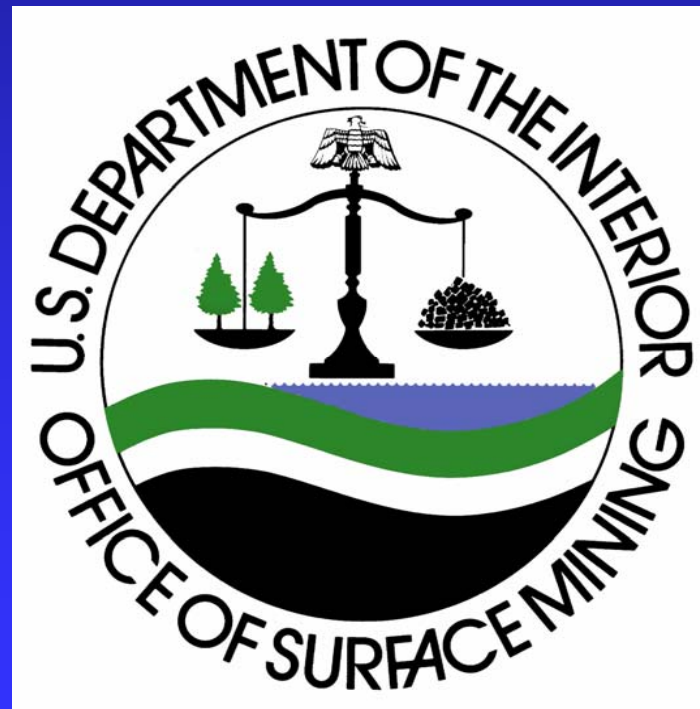
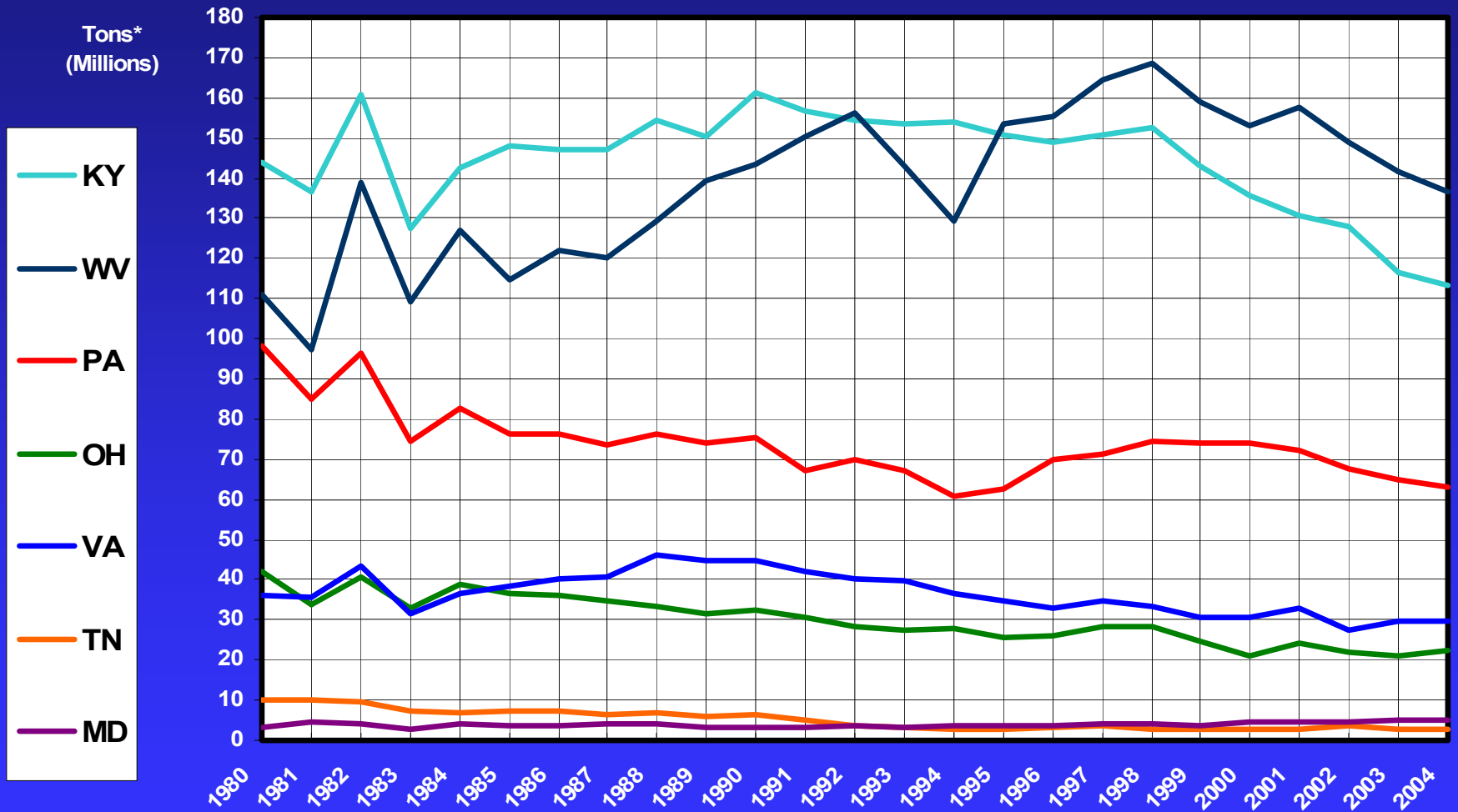


OSM UPDATE ON MINING, RECLAMATION AND ACID MINE DRAINAGE

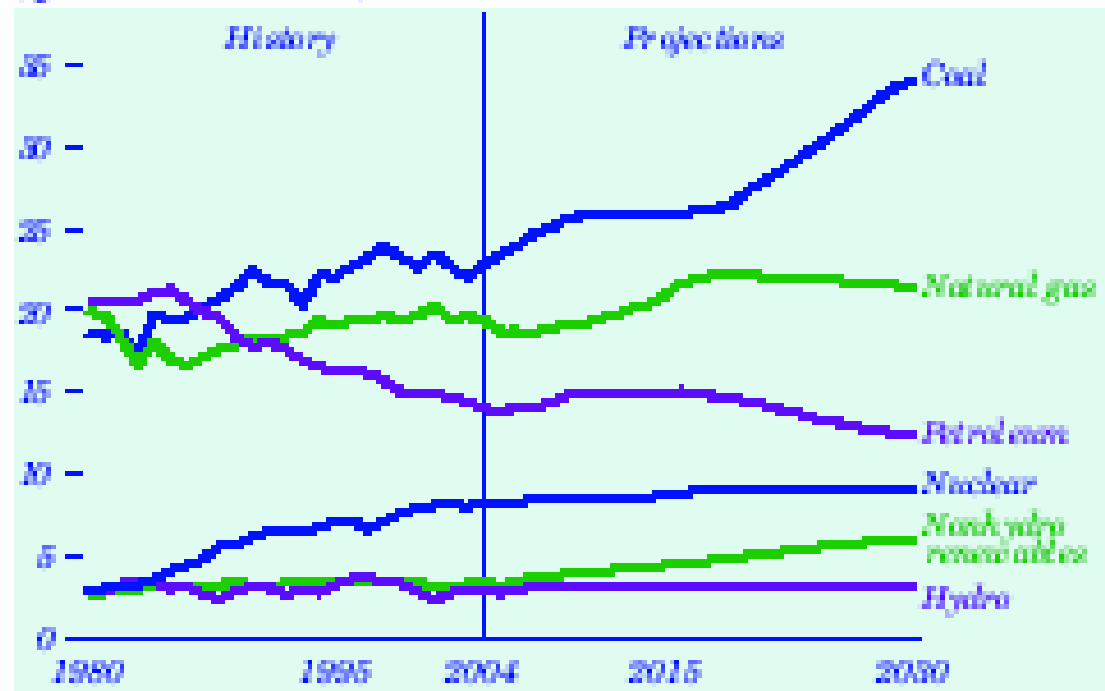


Appalachian Region: Total Coal Production 1980-2004

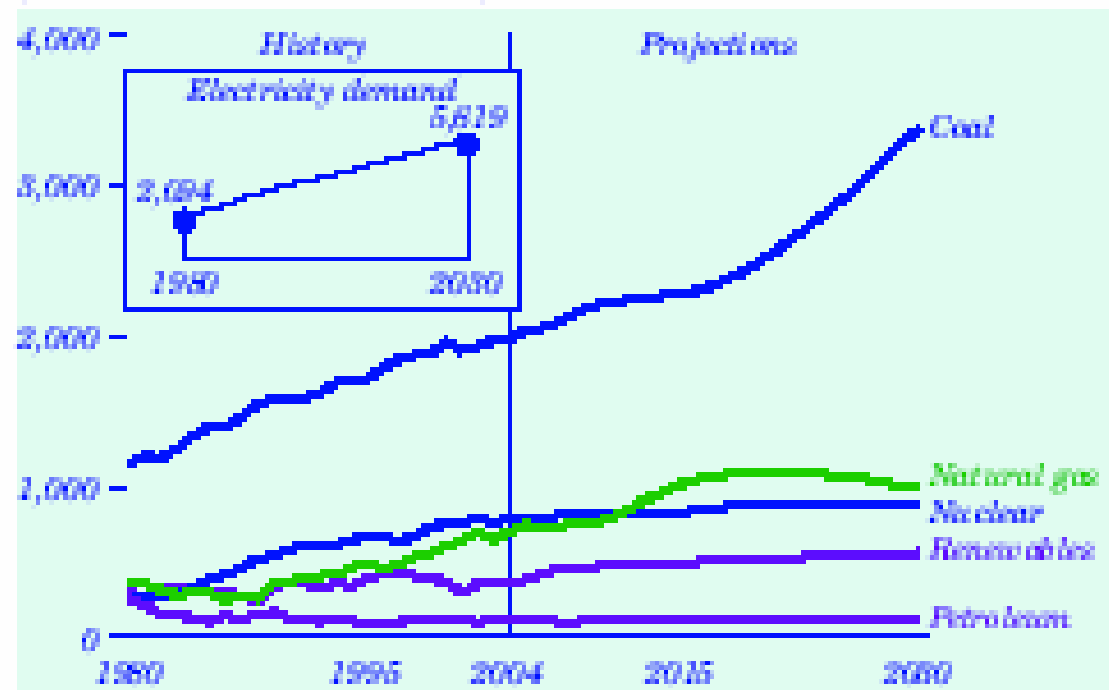


*Tonnage is from AML Fee Data by Fiscal Year

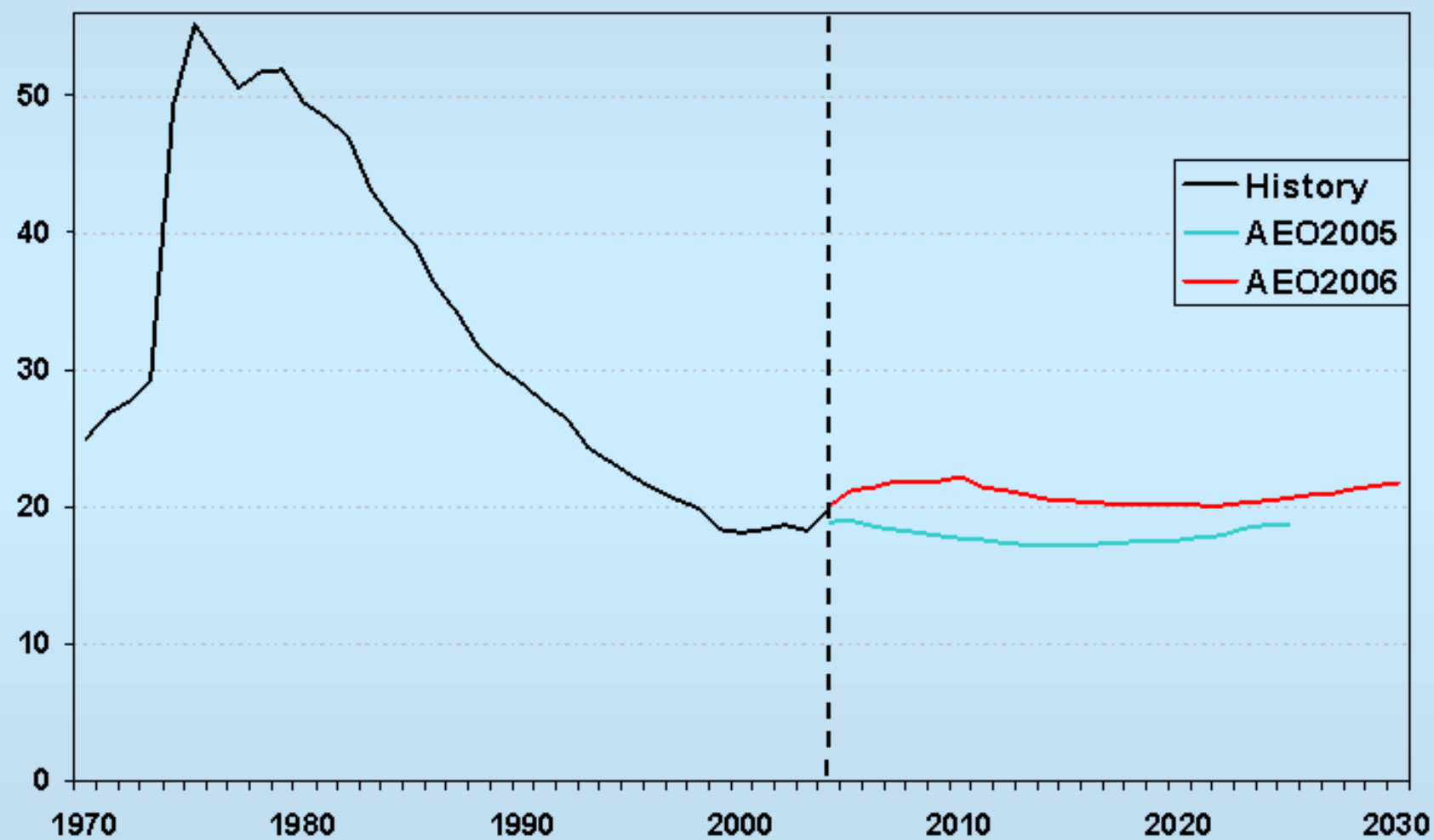
Energy Production By Fuel 1980-2030 (quadrillion Btu)



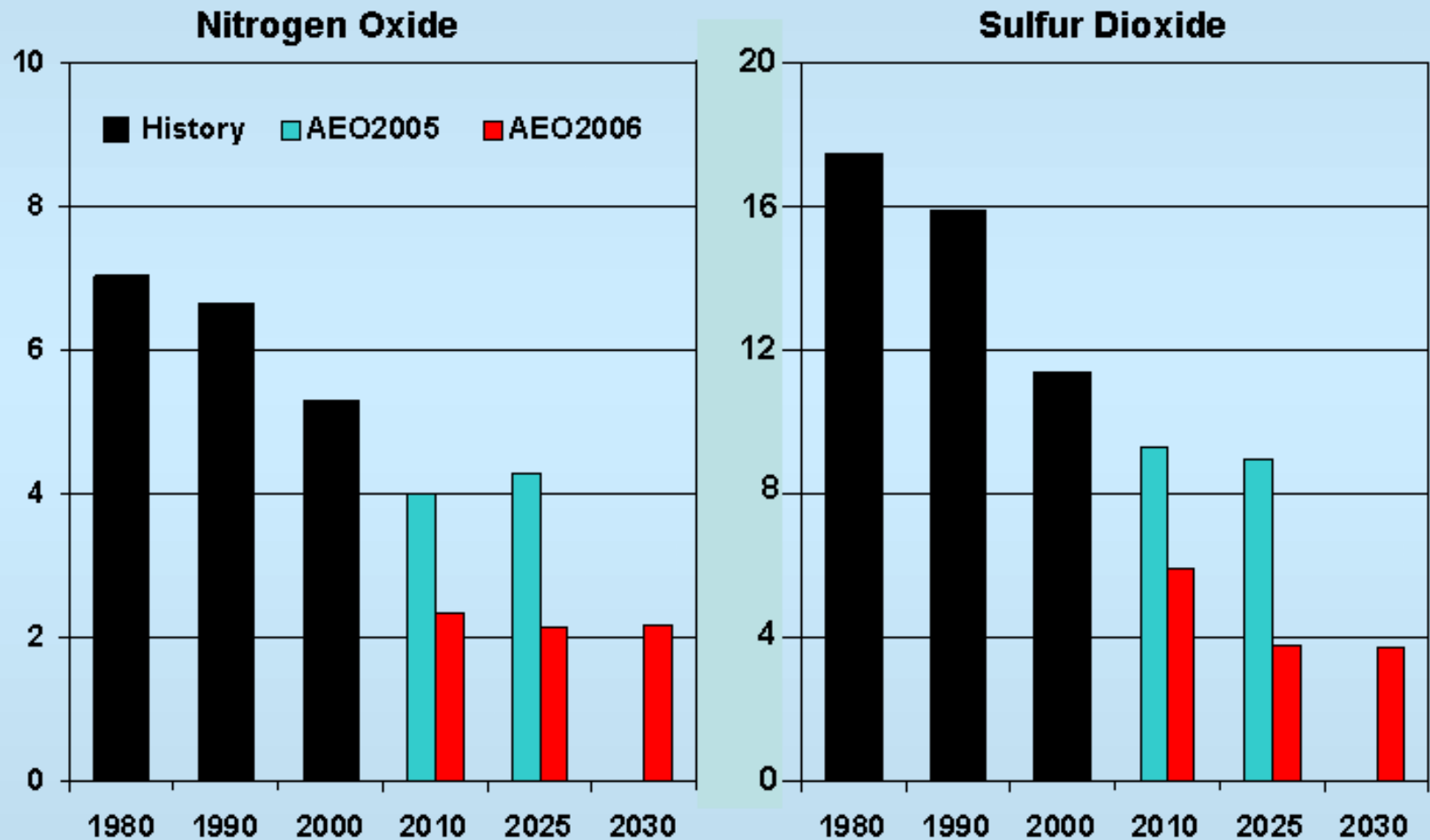
**Figure 5. Electricity generation by fuel, 1980-2030
(billion kilowatthours)**



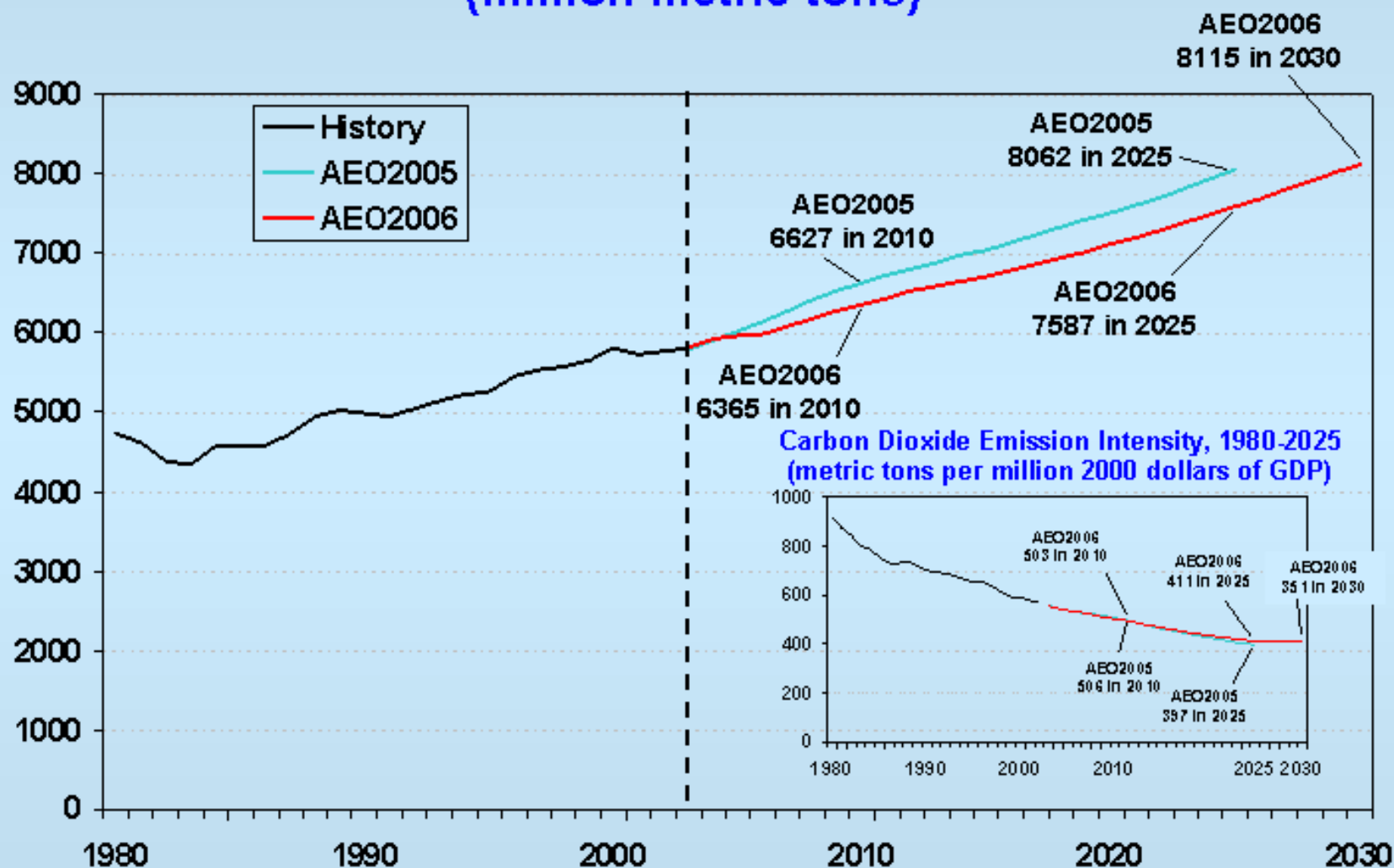
Coal Minemouth Price, 1970-2030 (2004 dollars per ton)



Emissions in the Electric Power Sector, 2010, 2025, and 2030 (million tons)



Total Energy Related Carbon Dioxide Emissions, 1980-2030 (million metric tons)



Treatment of Post-Mining Discharges

- In 1998 Pennsylvania amended its program to include trust funds and annuities for long term treatment of discharges. Pennsylvania has successfully executed 8 trust fund account agreements involving 35 treatment facilities. There are 45 additional agreements in various stages of processing.
- Following Pennsylvania's approach, OSM published a proposed rule in April 2006 that would allow the Tennessee federal Program to establish interest-bearing accounts for financial assurance where AMD occurs.

AMDTreat v4.0

New and Enhanced!

- OSM and our development partners – WVDEP and PADEP have completed a major new update to AMDTreat.
- This upgrade includes:
 - Significant time saving features,
 - New cost modeling modules, and
 - New and enhanced scientific and financial tools.
- The new version is available free on our website and at our booth at this conference.
- <http://amdtreat.osmre.gov>

Appalachian Regional Reforestation Initiative



Trees for Appalachia's Future

GOALS OF THE INITIATIVE

- Plant more high-value hardwood trees on reclaimed surface mined lands in Appalachia
- Increase the survival rate of the planted trees
- Increase growth rates and productivity from the surviving trees
- Expedite the establishment of forest habitat through natural succession

Statement of Mutual Intent

- The 161 signatories collected to date represent 77 different organizations:

- 27 Government Agencies
- 20 Environmental Groups
- 16 Industry Organizations
- 9 Academic Institutions
- 5 Citizen Groups



- Kentucky Governor Ernie Fletcher signed on 8/17/05
- The National Mining Association signed on 9/20/05

Mineland Reforestation- Starfire Mine, KY



1 yr



3 yr



7 yr



Non-compacted Site



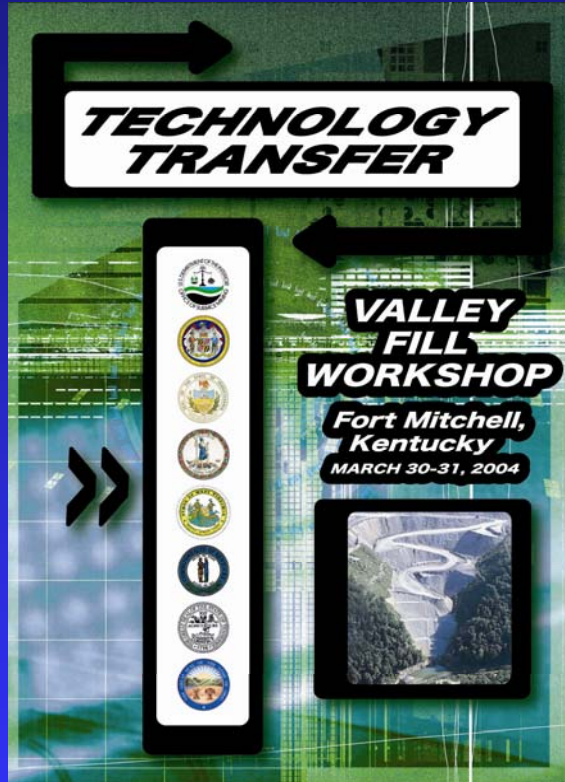
Compacted Site

NATIONAL ACADEMY OF SCIENCES

“MANAGING CCRS IN MINES”

- A Congressionally-mandated report on the health, safety, and environmental risks from placement of Coal Combustion Residues (CCRs) in coal mines
- CCRs are being placed in surface & underground mines with AMD mitigation as a key benefit
- Major Findings & Recommendations
 - Research is needed on potential ecological & human health effects
 - Enforceable federal standards should be established under SMCRA, RCRA or combination
 - Placing CCRs in coal mines as part of the reclamation process is viable: however;
 - Little is known about the potential to degrade ground and/or surface water

Appalachian Region Technology Transfer Workshops/Conferences



OSM Technology Transfer 2006 Events

- Stream Loss & Restoration Workshop, Pittsburgh, PA May 2-4
- Indiana Bat & Coal Mining Workshop, Indianapolis, IN July 18-19
- Slurry Injection Workshop, Morgantown, WV July 25-26
- FGD Placement at Mines & NAS CCR Report Forum, Columbus, OH November 14-16

2005 APPLIED SCIENCE PROJECTS

- **Twelve projects totaling ~ \$624,000** (\$489,000 OSM monies) including:
 - reforestation,
 - mine-pools,
 - headwater stream restoration,
 - carbon sequestration,
 - GIS mapping,
 - stream ecology,
 - lab method for overburden leaching,
 - stream dewatering and underground mining,
 - CCB use in reclamation,
 - prime farmland reclamation, and
 - revegetation habitat analysis.
- **Performing Organizations:** West Virginia University; University of Kentucky; Virginia Tech; Wilkes University; Pennsylvania Dept. Environmental Protection; University of Illinois; Montana State University and Montana Department of Environmental Quality; American Geological Institute.

2006 APPLIED SCIENCE Request for Proposals

- The Request for Proposals for OSM's 2006 Applied Science Projects was released December 19, 2005 and closed March 31, 2006.
- \$900,000 in OSM funds available.
- 60 proposals have been received.
- The National Technology Transfer Team will meet May 31 – June 1 to make the final ranking and recommend projects for funding to OSM management.

Questions/Remarks