AEP’s Footprint

Eastern & Western Territories
AEP Generation Capacity

**East Capacity – 27,253 MW**
AEP Ohio, APCo, I&M, AEG, KPCo, Wind, Solar, Hydro

- Coal: 76%
- NG: 11%
- Nuclear: 8%
- Renewables: 5%

**Coal Source**
- NAPP: 46%
- CAPP: 30%
- PRB: 22%
- Others: 2%

**West Capacity – 11,677 MW**
PSO, SWEPCO, TNC, Wind

- Coal: 38%
- NG: 53%
- Lignite: 25%

Coal Source
- PRB: 75%
- Lignite: 25%

**Total coal generation: 25,150 MW**
Appalachian Power

- Total Customers: 1 million
- Generation: 9018.1 MW (APCo Owned 6,415 MW)
- Service Area Size: 9,195 miles
- AEP Employees: 3,489 (2,439 in WV)
- WV Wages: $199 million
- WV State & Local Taxes: $135 million
Pressure on Coal-Fired Generation

• Environmental regulations
• Cheap, abundant natural gas
• Rising coal prices

+ Never-ending pressure to provide our service at the lowest possible cost
New & Proposed EPA Rules

Cross-State Air Pollution Rule
- Rule Finalized July 2011

Regional Haze
- Assumed Rule Finalization Nov 2011

*Hazardous Air Pollutants (HAPS)
- Assumed Rule Finalization Dec 2011

Coal Combustion Residual (CCR)
- Assumed Rule Finalization Mid 2012

Sets state-specific SO₂ and NOₓ limits

Establishes SO₂ and NOₓ limits for Oklahoma and Arkansas

Sets:
- HCl limit at 0.002 lb/mmBtu
- PM limit at 0.030 lb/mmBtu
- Hg limit at 1.2 lb/TBtu

Requires lined wet ash ponds and/or conversion to dry ash handling

- Impingement requirements (2020)
- Entrainment requirements (varies)

Water (316b)
- Assumed Rule Finalization Mid 2012


* Units that will be retrofit are eligible for a one year compliance extension from the EPA

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Water (316b)


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Expected Unit Closures

Philip Sporn
1050 MW; Central Appalachian

Mountaineer
1300 MW; Central/Northern/Other

John Amos
2900 MW; Central Appalachian

Kanawha River
400 MW; Central Appalachian

Clinch River
705 MW; Colorado

Glen Lyn
335 MW; Central Appalachian
Expected Unit Closures

- **Philip Sporn**
  - 1050 MW; Central Appalachian

- **Mountaineer**
  - 1300 MW; Central/Northern/Other

- **John Amos**
  - 2900 MW; Central Appalachian

- **Kanawha River**
  - 400 MW; Central Appalachian

- **Clinch River**
  - Conversion to Natural Gas

- **Glen Lyn**
  - 335 MW; Central Appalachian
Cost to Build

Installation Cost Per kW

- Natural Gas Peaker
- Natural Gas Combined Cycle
- Wind
- Coal Ultra-Supercritical
- Coal IGCC with CCS
- Nuclear

Costs range from $0 to $8,000 per kW.
Cost to Operate

Cost of Electricity Per MWh

- Natural Gas Peaker: $700
- Natural Gas Combined Cycle: $100
- Wind: $200
- Coal Ultra-Supercritical: $300
- Coal IGCC with CCS: $400
- Nuclear: $500

AEP Appalachian Power®
Forecasted Coal Prices

Adjusted for Inflation

- PRB 8,800 0.8# SO2
- Napp 12,500 6# SO2
- Capp 12,000 1.67# SO2
- ILB 11,512 4.3# SO2
- Capp CSX 12,500 1.6# SO2
Forecasted Gas Prices

Adjusted for Inflation

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Conclusion

• Price of electricity demands least-cost option
• APCo & AEP value coal and will continue with significant burn
• Natural gas is the transition fuel and virtually every new plant will be natural gas
Questions?

www.appalachianpower.com