

# Mountain Top Removal

A Case for Divesting from Destruction

# Terms and Definitions

- Mountain Top Removal (MTR) Coal
  - Surface-mined coal by removing the tops of ridges by use of explosives and heavy machinery
- Valley Fill Coal
  - Also Called “Hallow Fill”
  - Where most of uneconomic sediment is placed
- Deep Mine Coal
  - Mining by traditional excavation process
- Central Appalachia Coal
  - Traditional heart of coal industry
  - Where most MTR is practiced
  - Valued for its low-sulfur coal
- Northern Appalachia Coal
  - Higher sulfur
  - Also related to Illinois Basin and Powder River Basin (PRB)

# Market Factors

- Price
- Labor Costs
- Technology
- Regulations
- Delivered Costs
- Alternative Fuels/Coals
- Productivity of Reserves
- Export demand

# Environmental Factors

- Buried more than 2000 miles of headwaters (EPA)
- Loss of 1.2 million acres of forest
  - Replaced by non-native grass land of poor quality
- One of most biodiverse regions in US under threat
- Bird, fish and indicator species all under extreme stress due to habitat changes

# Social Impact

- Areas in which MTR is practiced suffer from the poorest health in the nation
  - WV-03 ranks 432/435 counties
  - KY-05 ranks 435/435 counties
  - Both MTR counties
- Residents near MTR sites are frequently affected by water contamination
- Fly-rock and debris damage property
- Toxic byproduct is impounded in unsafe holding areas
  - 2000 Martin Co. Failure
  - Dumped greater than 300 million gallons toxic sludge
  - 30x greater than Exxon Valdez
  - Killed all aquatic life in Big Sandy River for 70 miles down stream

# Markets for Central Appalachian Coal

- Steam Coal
  - Used to produce electricity
- Metallurgical Coal
  - Also called “Met” coal
  - CAC dominant source of met coal nationally
    - 85% of all met coal nationally between 2004-2008 (EIA 2010)
    - 55% of US export coal
  - Little competition
  - Price is driven by demand for commodity

# CAC Steam Coal

- 83-87% of all production
- Faced with heavy competition from other energy markets
- Benefit is low-sulfur content and high heat ratio
- Now less competitive due to emissions controls implemented by many plants
- Most productive reserves have been depleted

# MTR vs Deep-Mined Coal

- Deep-mined coal is able to replace MTR with very little impact on price
- West Virginia Reserves (2007)
  - Underground: 15,395 million short tons
  - MTR: 2,274 short tons
- Delivery infrastructure already in place
- Deep-mined coal has proven economic benefits to region and labor force



# Summary

- Market is already shifting away from Central Appalachian coal, especially as extracted through the MTR process
- Underground reserves are significantly higher than MTR sources
- Central Appalachian steam coal faces significant economic competition from a variety of fronts

# Potential Rate Impact Per Month (over projected 2014 purchases)

Usage (kWh)	2.5%	5%	7.5%
1000	\$0.34	\$0.69	\$1.04
1500	0.51	1.04	1.56
30,000	10.20	20.70	31.20
430,000	146.20	296.70	447.20

# Policy Recommendation

- Direct the city attorney to draft a resolution stating that the Gainesville City Commission opposes extraction of natural resources by using any technique associated with mountain top removal (MTR) and the resulting environmental, social and economic devastation incurred by such practices.
- Direct the general manager of Gainesville Regional Utilities (GRU), in cooperation with the city attorney's office, to draft a policy that states that GRU will no longer purchase coal sourced from mountain top removal (MTR) operations, and will from the effective date forward only purchase performance or compliance coal from the Central Appalachian region from deep mine operations. GRU may also purchase coal from the Illinois Basin region. Furthermore, if GRU feels that after receiving bids for a coal purchase and the price differential for deep mine coal is greater than 5% than that of MTR coal, the purchase will be brought before the city commission for a vote to temporarily suspend the policy and allow for the purchase of surface-mined coal. The commission will need to approve the suspension of the policy by a 5/7<sup>th</sup> vote of the full commission.