A Utility Perspective on Coal Utilization and West Virginia’s Electric Infrastructure

James R. Haney
VP, Compliance and Regulated Services

December 10, 2012
About FirstEnergy (FE)

- Headquartered in Akron, Ohio
- One of the largest investor-owned electric systems in the U.S. based on six million customers served
- Nearly $47 billion in assets
- $16 billion in annual revenues
- Approximately 20,300 megawatts of generating capacity
- 10 electric utility operating companies in six states
- 65,000-square-mile service territory
- 20,000 miles of high-voltage transmission lines and approximately 281,000 miles of distribution lines
FirstEnergy Diverse Generating Sources

<table>
<thead>
<tr>
<th>Power Source</th>
<th>MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supercritical coal</td>
<td>9,791</td>
</tr>
<tr>
<td>Subcritical coal</td>
<td>2,517</td>
</tr>
<tr>
<td>Nuclear</td>
<td>3,991</td>
</tr>
<tr>
<td>Gas/Oil</td>
<td>1,745</td>
</tr>
<tr>
<td>Renewables</td>
<td>2,308</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20,352</strong></td>
</tr>
</tbody>
</table>
Coal in WV

- Contains more than 500 mines
- Provides more than 63,000 direct and contract jobs
- Pays $3.4 billion in annual payroll and hundreds of million dollars to state and local governments in taxes and contributions
- Accounts for one-third of the nation’s total energy production
- Source of 40-50 percent of the electricity generated nation wide
- Accounts for 90 percent of America’s fossil energy reserves

Source: WV Coal Association 2011 Coal Facts with adjustments
Industry Challenges

- **Environmental Regulatory Issues**
  - Hazardous Air Pollutants Regulations (MATs)
  - Cooling Water Intake Regulations (Clean Water Act §316(b))
  - CAIR Replacement Rule
  - Coal Combustion Residue Regulations
  - Revised Wastewater Effluent Guidelines
  - National Ambient Air Quality Standards (NAAQS)
  - Greenhouse Gas Regulation (NSPS)

- **Shale Gas**
  - Advanced drilling methods
  - Hydraulic Fracturing
  - Abundant supplies
  - Sold at historic lows during 2012

- **Price of natural gas largely sets wholesale electricity prices**

- **Wind PTC**

- **Energy Policies (up for discussion)**
  - Clean Energy Standard
  - Carbon Tax
FirstEnergy Coal Use

- 33 million total tons of coal purchased by FE annually
- 16 million tons purchased from WV mines annually
  - $850 million
- 4.5 million tons used by Mon Power annually
Mon Power Regulated Generating Sources

- **Fort Martin Power Station** (100% Mon Power)
- **Pleasants Power Station** (7.69% Mon Power)
- **Harrison Power Station** (20.54% Mon Power)
- **Bath County Pumped-Storage Hydro** (16.25% Mon Power)

- Supercritical Coal
- Renewable
Need for Additional Capacity

- Mon Power’s expected capacity shortfall is 938 MW in 2013.
- Shortfall will increase to over 1,400 MW by 2026, representing approximately 40% of Mon Power’s projected capacity needs.
- In its 2012 Resource Plan, Mon Power identified cost effective ways of meeting the Company’s projected needs.
Proposed Generation Transaction

- **Mon Power will purchase AE Supply’s interest in Harrison Power Station**
  - Transaction will make Harrison 100% owned by Mon Power
  - Harrison generates 1,984 MW of electricity
  - Plant uses more than five million tons of coal annually

- **Mon Power will sell its interest in the Pleasants Facility to AE Supply**
  - Transaction will make Pleasants 100% owned by AE Supply
  - Pleasants generates 1,300 MW of electricity
  - Plant uses more than 3 tons of coal annually
The proposed transaction is the most economic alternative to reliably serve Mon Power’s long term requirements.

<table>
<thead>
<tr>
<th>Alternative Type</th>
<th>Levelized Cost per MWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repurpose Subcritical</td>
<td></td>
</tr>
<tr>
<td>Albright Switch to Biomass</td>
<td>$268</td>
</tr>
<tr>
<td>Albright Switch to Gas</td>
<td>$164</td>
</tr>
<tr>
<td>Gas Combined Cycle at Albright Site</td>
<td>$112</td>
</tr>
<tr>
<td>Construct New Plant</td>
<td></td>
</tr>
<tr>
<td>New Coal</td>
<td>$107</td>
</tr>
<tr>
<td>New Nuclear</td>
<td>$153</td>
</tr>
<tr>
<td>New Gas Combined Cycle</td>
<td>$115</td>
</tr>
<tr>
<td>Purchase Existing Generation</td>
<td></td>
</tr>
<tr>
<td>Harrison Acquisition</td>
<td>$74</td>
</tr>
</tbody>
</table>
Benefits

- Capacity and energy self sufficiency
- Stabilize retail rates
- Provides continued support of West Virginia coal industry
- Simplifies and centralizes control and ownership of Harrison
- Proven and reliable super-critical asset
- Located in the heart of the Mon Power/PE WV territory
Questions & Answers