Utility Update
Surface Transportation Board
Rail Energy Transportation Advisory Committee Meeting

April 6, 2017
Topics for Discussion

• A macro view at trends in US coal consumption
• Current challenges for coal
Trends in US Coal Consumption

![Bar chart showing trends in US coal consumption from 1980 to 2016. The chart indicates a decline in coal consumption starting around 2008.]
Trends in US Coal Consumption

- US Coal Consumption – 900 million tons or greater for 21 straight years (1990 – 2011)
Trends in US Coal Consumption

- 900 million tons or greater for 21 straight years (1990 – 2011)
- Consumption has fallen by more than 100 million tons three times since 2008
Trends in US Coal Consumption

- 900 million tons or greater for 21 straight years (1990 – 2011)
- Consumption has fallen by more than 100 million tons three times
- In 2010 and 2013 consumption recovered. In 2016 it continued to fall.
  - A 20% drop in consumption from 2014 to 2016.
  - 50 million tons/year since 2008
• 900 million tons or greater for 21 straight years (1990 – 2011)
• Consumption has fallen by more than 100 million tons three times
• Only in 2015, did consumption continue to fall
  • A 20% drop in consumption from 2014 to 2016.
  • 50 million tons/year since 2008
• What happens in 2017 and beyond?
1. **Locational pricing of natural gas**
   - Henry Hub is the natural gas price we talk about
   - In many regions, local prices are lower than Henry Hub
   - Local/regional natural gas prices drive commitment and dispatch decisions for coal and gas resources.
   - One example below.

---

**Natural Gas Prices (Past and Future)**

- **Dominion South Point**
- **Henry Hub**

---

**Ohio Generation Cost in 2016**

- **Nuclear**
- **Combined Cycle**
- **Illinois Basin**
- **NAPP**
- **PRB**

- **Fuel Cost**
- **Variable O&M**
- **Market Price**

Market Price = AEP Dayton, Around the Clock Price
Current Challenges for Coal

2. Market Dynamics are Shifting

Renewables, natural gas, and uneconomic nuclear displace coal generation

Source: Bloomberg
3. State and Federal subsidies undermine the effectiveness of competitive markets

**Nuclear Subsidy States**
- Illinois (approved)
- New York (approved)
- New Jersey (pending)
- Connecticut (pending)
- Ohio (pending)
- Pennsylvania (pending)

Current market prices are not sufficient to cover the fixed and operating costs of some nuclear plants in these states. These State subsidies keep uneconomic nuclear plants operating and displace coal and gas generation.
Utility Update

Surface Transportation Board
Rail Energy Transportation Advisory Committee Meeting

April 6, 2017