Winter 2014 RETAC Meeting
Electric Segment Report

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Dynamic Markets Persist

Present

• Cold winter
  – Nationwide below average temperatures = high residential demand for electricity and gas
  – Significant impact to southeast because of combined gas price and load changes
  – Gas storage levels below 5-yr average

• Volatile natural gas prices
  – Significant price spikes in Jan/Feb; backwardated forward curve
  – Bituminous coal becomes more economical, especially in the southeast

• Load growth on a slow upward trajectory
  – Increased load demand has increased overall coal utilization more than gas prices
Prices Buoyed by Weather/Storage

NYMEX Natural Gas Prices

Source: EIA & Nymex
Comparison of Coal & Gas

Actuals Ending February 2014

$/MMBtu

Jan-07 Jul-07 Jan-08 Jul-08 Jan-09 Jul-09 Jan-10 Jul-10 Jan-11 Jul-11 Jan-12 Jul-12 Jan-13 Jul-13 Jan-14 Jul-14 Jan-15 Jul-15 Jan-16

Sources:
The Coal prices contained in this report are obtained through contractual agreement with ICAP and should not be shared with external parties.
Prices represent monthly averages. Transportation cost to the plant are not included.
The Gas prices in this report are obtained from Platts and should not be shared with external parties. Prices represent monthly averages. Transportation cost to the plant are not included.
Electric Utility Response

Present: adapting our business in real time

• Dispatching flexibility: coal shifting between base load, intermediate, and peaking

• Planning: scenario-based, coal volumes extremely unpredictable

• Purchasing: expanding optionality in coal contracts and increasing the use of spot coal purchases

• Negotiating: managing transportation contracts toward more competition between rail partners and expanding optionality
Electric Utility Response

Near Future

• MATS
  – Effective compliance date of April 2015

• Retiring: oldest, most inefficient coal units

• Controlling:
  – What suite of controls is absolutely necessary?
    – Are there combinations of coals and controls that achieve results?

• Converting: utilize gas in coal boilers

• Switching: seeking savings from cheaper coal basins
Evolution of Coal Production

Actuals

Projected

Source: Energy Venture Analysis
Questions for Electric Utility Partner

Can railroads and coal producers adapt their business models for less predictable coal burn?

Present

• How are railroads and producers responding to increased demand?
• Should railroads carry surge capacity?
• Have railroads experienced any challenges in service levels?

Near Future

• Are railroads and producers seeing the same future as utilities?
• Is resource and infrastructure planning underway for volume and basin shifts?
• Are there opportunities for more contract flexibility if planning is better coordinated? Utilities would value term and volume optionality.
RETAC Utility Survey - General Trends

• 13 utilities participated
  – Majority are regulated
  – Represents ~ 214 million tons of coal received in 2013
    – 66% from western sources and 34% from eastern sources

• Rail service levels have struggled to respond to demand
  – Expect delivery challenges in 2014 – some utilities running out of coal
  – Weather challenges have further compounded already declining service levels
    – BNSF service levels not acceptable & continues to decline
    – NS service level acceptable
    – CSX service level has varied
    – UP service level relatively good

• Some utilities are switching between coal basins
  – Based on results, do not see strong 2 basin trend similar to Southern
RETAC Utility Survey - General Trends

• Some critical inventory conditions do exist
  – Curtailment plans have been activated at some sites to preserve inventory
    – For example, one utility has structured a plan as follows:
      I. Above 30 days – no action
      II. Less than 20 days – adjust market offers
      III. Less than 10 – Curtail on a weekly basis
  – Some utilities have opportunity to switch from rail to barge

• Utilities are seeing slight increases in delivery needs compared to 2013 and previous projections
  – Additional increase expected as inventories are burned

• As expected, sites with multiple transportation modes/carriers are more competitive
  – Innovative rates structures make plants more competitive
Back Up
Rail Carloads Per Week

Average weekly U.S. rail carloads of crude oil and petroleum products

- Number of rail carloads per week
- Million barrels per day

- 2014 Forecast

2013

2012

2011

2006-10 range