CSXT and Energy Transportation
– We move coal

RETAC Committee Meeting
March 6, 2008
Discussion Topics

• CSXT coal movements at a glance

• Discussion of capacity as it relates to infrastructure and service

• Describe some of the processes for planning and scheduling
CSX Coal at a Glance

• 21,000 Mile network
• Originate 162 M annual Coal tons
• Receive 20 M annual Coal tons
• 80% of all Coal to Utility markets
• 130 Active Mines
• 137 Specific Served Destinations
• 300 Unit Trains Originated Coal per week
• 40 Unit Trains Received Coal per week
Central Appalachia

- Load 40 trains/day
- Tough geography
- No loop tracks
- Significant grades
- Limited passing sidings
- Limited expansion options

Source: Coal Service Planning
Discussion Topics

• Discussion of capacity as it relates to infrastructure and service
What is Capacity?

Rated Capacity

- 24-30 trains per day
- Number of trains per day operating over a specific line segment

Slack

Stress
CSXT is investing in capacity to meet future business needs

- Investments are based on strong business case and anticipated economic returns

- Managing growth requires a disciplined process and multi-year time horizon

- Long lead time associated with infrastructure and equipment purchases
Railroad is inherently a rigid network

- Constructing and maintaining reserve capacity is expensive
- Reserve capacity is limited – there is no “peaker equivalent” or rate based return
- Infrastructure and equipment have long asset lives

“It is easier to arbitrage coal than transportation”
String-line
Each Additional 1 Million Tons has a significant impact

- Cars (200 cars to support two running train sets)
- Locomotives (2 locomotives per set)
- Capacity (crews, passing sidings, terminal, etc)
- Net Impact 1 million tons requires 100 incremental trains per year
Utility stockpile activity from 2005 through May 2007

Eastern Utility Coal Stocks And Burn

Days of Burn

44.4 M ton growth in 28 months
CSX has responded to market growth

Delivered Coal Tons – Millions & Average Trains per Week

Coal Tons (MM)

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<th>Year</th>
<th>Tons (MM)</th>
<th>Trains per Week</th>
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Today we face an Export spike of 11 M year over year tons in 2008

Export Tons (MM)

Export spike will amount to approximately 1,100 incremental trains in 2008

That is over 50% of the Eastern stockpiles at CSXT served utilities
Capacity

- Infrastructure Based on business case
- Anticipate adequate returns
- There is science around the definition of capacity
- Railroad network is fairly rigid
- Maintaining excess capacity is costly
- Volume spikes can challenge quality of service
Discussion Topics

• Describe some of the processes used for planning and scheduling
Planning – longer term

Receiver Nominations

Producer Production Intent

Planning
- Long term (5 years)
- Annually
- Monthly

Infrastructure planning
- Resources – crew and railcars
- Tactical allocation – “now” focus
Scheduling – near term

Equipment is matched to a load usually within the week of actual loading

Scheduling (Reservations)

- **Monthly**: Scheduled developed from receiver input
- **Weekly**: Actively begin matching assets with scheduled loadings
- **Daily**: Focus on execution – make adjustments
Daily Tactical Operations

Cycle Time – Sum total of the efficiency of both the RR performance and the coordination between all three parties

- Unloading efficiency
- Unloading hours
- Unload speed
- Breakdowns
- Limited unloading times
- On site blending
- Out of spec coal
- Maintenance conflicts
- Weather

- Crew availability
- Power availability
- Equipment availability
- Trains ahead
- Weather
- Derailments
- Breakdowns
- Congestion
- Execution

- Available inventory
- Storage constraints
- Coal quality conflicts
- Train sequencing
- Breakdowns
- Weather
- Loading efficiency
- Maintenance conflicts
- Weekend loading
Rail Service is just one aspect of the Energy Supply Chain

Increase

- Balanced purchasing
- Adequate stockpiles
- Unlock upon arrival
- Diversified coal supply
- Employ strong traffic team
- Preventative maintenance

Supply/demand balance

- Sufficient resources
- Execution
- Ratable shipments
- Maximum tonnage slot
- Efficient Scheduled Network

Balanced business book

- Load on arrival 24/7
- Sufficient stocks/versatility
- Computerized Batch weigh

Decrease

- Coal not available
- Spikes in demand
- Shift coal sources
- Forced outages
- Limited Unloading Hours
- Equipment breakdowns

Scheduling conflicts

- Source change/lane shift
- Lane congestion
- Lack of resources
- Mechanical issues
- Curfews
- Interchange coordination

Production Problems

- Staging Limitations
- Coal Quality
- Coal availability
Improving the supply chain is highly dependent on the parties working together

- **Increasing productivity**
  - Eliminate dwell and dead time
  - Train size; maximize tons per available slots

- **Increasing alignment**
  - Synch loading operations with unloading operations
  - Smoother purchasing and stockpile practices

- **Improve Communications and use of technology**
  - Orderly business book – don’t plan for failure
  - Increase visibility among parties
The Energy Supply Chain is more complex and interdependent than commonly recognized

• Railroads are largely dependent on business decisions and performance of all of the parties in the energy transportation network

• CSXT is committed to the industry and to the committee to explore ways of improving the reliability of our service as part of that chain
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