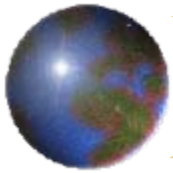


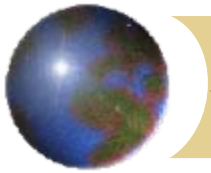
Best Practices Sub-committee

RETAC Update June 11, 2009



Best Practices Sub-committee Members

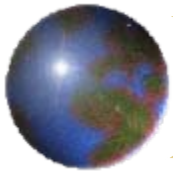
- ❑ Susan Arigoni, Xcel Energy, Inc.
- ❑ Alan Shaw, Norfolk Southern RR
- ❑ Kent Smith, Arch Coal
- ❑ David Rohal, RailAmerica
- ❑ Henry Rupert, CSX Transportation



Best Practices Sub-committee Goal

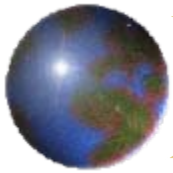
The goal of the Best Practices Sub-committee is to identify best practices in the energy supply chain that promote the efficient and reliable delivery of energy resources.

- Best Practice: An activity, process or investment that results in improved reliability, lower operating expense, increased productivity or lower risk for the supply chain.



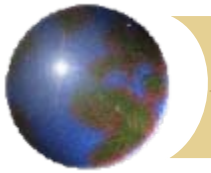
Best Practices Sub-committee

The current condition of the supply chain is sub-optimal because a common understanding of business practices between participants is not shared, and the benefits across the supply chain are not recognized.



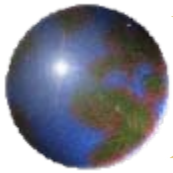
Best Practices Alignment Matrix

	<i>Best Practice</i>	<i>Operating Practices</i>	<i>Physical Infrastructure</i>	<i>Communication & Tactical Execution</i>	<i>Commercial Practices</i>
Receiver	Adequate receiver stockpile targets				■
	Receiver unloads upon arrival	■	■		
	Diversified supply sources	■			■
	Receiver employs strong traffic team	■			
	Preventive maintenance on coal handling equipment	■			
	Adequate space for stockpile		■		
	Receiver communicates lead time on incidents restricting delivery		■	■	■
	Balanced purchasing month-to-month				■
Railroad	Railroad maximizes slots	■	■	■	
	Efficient ratable railroad network	■		■	
	Capacity supply/demand balance			■	■
Producer	Mines load on arrival 24/7	■	■		
	Adequate pile or uncovered coal at mine	■	■		
	Mine computerized batch weigh		■		
	Coal marketing balances production and sales			■	■



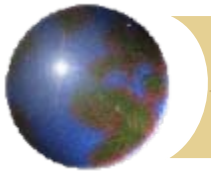
Progress since last meeting

- ⊕ Reviewed work with other RETAC members
- Completed next item for white paper report
 - ▣ Item F – Consensus and Perspectives



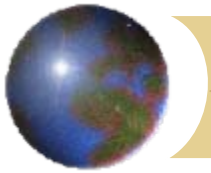
Consensus Achieved on the Following

- Best practices that impact reliability can be identified for each of the participants within the energy supply chain
- Optimization occurs when individual participants work together to improve reliability of the overall supply chain
- Implementation of best practices should lead to lower direct or indirect costs for participants
- Identification of best practices is easier than practical application – this will take commitment from participants ushered through forums like RETAC and other industry-wide groups.



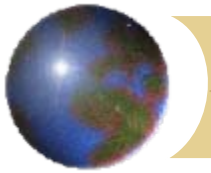
Implementation of Best Practices

- ⊕ Improved reliability of energy products
- ⊖ Decreased direct costs of supply chain
- ⊙ Communication and tactical execution
best practices may be easiest to
implement



Implementation Issues

- ⊕ Cost and benefits may be unaligned
- ⊖ Implementation of a practice that benefits one participant at the expense of others
- Knowledge and awareness of best practices

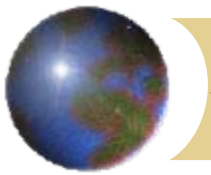


Railroad Perspective

The three railroad best practices and implementation difficulty are:

A.

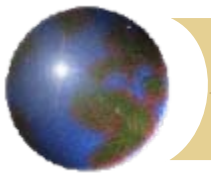
- **Maximize Slots** - The ability of transportation providers to maximize capacity is dependent on overall demand other limiting factors such as sidings, grade and traffic density. Railroads maximize capacity by operating the largest trains possible in each available slot. Customers help by scheduling and operating the large trains possible for the slot.
- **Efficient Railroad Network** - Efficiency is improved by effective execution of operating plans, having sufficient resources to support business levels and maintaining the physical plant in good operating condition. As an open enterprise, efficiency is impaired when demand increases rapidly or during period of high volatility.
- **Capacity Supply/Demand Balance** - Unplanned shifts in demand that impact the density of traffic either result in inefficient operations or stranded assets. Long term forecasts and business are important to insure sufficient physical plant is available. Joint tactical planning and order management activity are also important.



Producer Perspective

The four producer best practices and implementation difficulty are:

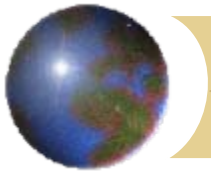
- **Mines load on arrival 24/7** - For larger mining operations this can be accomplished fairly easily however smaller operations can be constrained by manpower or budget issues.
- **Adequate pile or uncovered coal at mine** - Usually directly related to the mining region. In the PRB adequate amounts of pit inventory are fairly simple to maintain. In other regions topography can severely limit the amount of inventory space available. Increasing the storage capacity can require major capital investments. The predictable, ratable deliveries of rail equipment can assist mining operations in maintaining adequate levels of inventory.
- **Mine computerized batch weigh** - Typically simple to implement however some operations may have difficulty obtaining an adequate return on the capital required to install a system. Topography can also have a major impact on the capital required.
- **Coal marketing balances production** - fairly easy to accomplish however even mines with extensive exploratory drilling often encounter geological issues that can alter production.



Receiver Perspective

The eight receiver best practices and implementation difficulty are:

- **Adequate stockpile targets** – Can be modeled using plant specific variables such as cycle time, outage rates
- **Receiver unloads upon arrival** – Difficult or easy based on crew schedules and permits
- **Diversified supply source** – Ideal but may not be cost effective
- **Employs strong traffic team** – Easy with training and experience
- **Preventative maintenance on coal handling equipment** – Subject to budget constraints
- **Adequate stockpile space** – Dependant on plant location and available space
- **Communicate lead time on incidents restricting delivery** – Easy if communication processes between parties are clear and followed
- **Balanced purchasing month-to-month** – Easy to plan, sometimes difficult to implement due to generation uncertainty



Next Steps

- ➊ Complete last steps for white paper
- ➋ Circulate to RETAC co-leaders and members
- ➌ Present draft at fall RETAC meeting