Rail Service 101

MEDC Spring Conference
June 10, 2014
Today’s Panelists

- Kevin McIntosh, Asst. VP – State/Local Relations
  Kansas City Southern
- Barb Moore, Regional Mgr. – Ind. Development
  Union Pacific
- John Rider, Regional Mgr. – Econ. Development
  BNSF Railway
- Jake Weir, Manager – Industrial Development
  Norfolk-Southern
Today’s Topics

- Overview of rail service in U.S. and Missouri
- Benefits of rail
- Key railroad terms
- Intermodal vs. Trans-loading
- What makes for a good “rail-served” site?
- What’s it take to get rail service?
- Advice for economic developers
Disclaimer
In this presentation, there will be no discussion of the following:

- Prices, discounts and credit terms, and procedures offered to or by any rail shipper or receiver;
- Standardizing or stabilizing prices among competitors;
- Contract provisions in general or for particular shippers or receivers;
- Boycotts or discussions of suppliers’ pricing or marketing practices; and
- Any other subject or topic which applies to a particular company or supplier and which would give the appearance of a discussion of prices or other practices of any particular meeting participant
Overview of Rail
Over 140,000 miles of track
Over 165,000 employees
Aggregate freight revenue of nearly $57BB
40% of all freight moved in the U.S. (more than trucks, boats, barges or planes)
70% of all U.S. automobiles produced move by rail
30% of all U.S. grain move by rail
60% of all U.S. coal (produces 40% of U.S. electricity)
Enough wheat moved to provide every person with a loaf of bread 6 days a week
Enough concrete moved to build 45 miles of highway every day

Source: BNSF Railway Company
Backbone of U.S. Freight Transportation

Source: BNSF Railway Company
Rail in Missouri

U.S. Freight Railroad Industry Snapshot

Missouri Snapshot

- Number of Freight Railroads: 17
- Freight Railroad Miles: 3,958
- Freight Railroad Employees: 7,017
- Avg. Wages & Benefits Per Freight Railroad: $112,640
- Railroad Retirement Beneficiaries: 18,612

One train can carry as much freight as several hundred trucks. It would have taken approximately 24.2 million additional trucks to handle the 436.1 million tons of freight that moved in Missouri by rail in 2011.

Starting in Missouri

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<td>Cement</td>
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<td>Chemicals</td>
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<td>Other</td>
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Ending in Missouri

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<tr>
<td>Chemicals</td>
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<td>3.3%</td>
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<tr>
<td>Food products</td>
<td>1,783,000</td>
<td>2.4%</td>
</tr>
<tr>
<td>Intermodal</td>
<td>1,604,000</td>
<td>2.2%</td>
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<tr>
<td>Chemicals</td>
<td>5,637,000</td>
<td>7.8%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>72,377,000</td>
<td>100.0%</td>
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Source: Kansas City Southern
Rail in Missouri
Union Pacific in Missouri
BNSF Railway in Missouri
Norfolk Southern in Missouri
Why Rail?
Why Ship by Rail?

- **Fuel efficiency**
  - 4x more fuel efficient versus trucks

- **Reduction of highway congestion**
  - 1 freight train = 280 trucks off the roads

- **Cost efficiency**
  - Lowest cost vs. other surface transportation

- **Environmental impact**
  - Only 2.1% of transportation-related greenhouse gas emissions (43% of freight)

*Source: BNSF Railway Company*
Why Ship by Rail?

Economies of Rail

Cost

High

Low

COST

SERVICE SPEED (Door-to-Door)

Faster

Steady

Barge/Short Sea

Rail Carload

Intermodal

Truckload

LTL

Air

Source: BNSF Railway Company
Why Ship by Rail?

When does shipping by rail make sense?
- Types of industries
- Types of products
- Types of projects
Key Rail Terminology
Types of Railroads

Class 1
- Operate between 3,200~32,500 miles of track
- Annual revenues of $340 million or more
- Seven Class 1 railroads in North America

Regional
- Operate at least 350 miles of track
- Annual revenues of $40 million or more
- 33 regional railroads
Types of Railroads

Local line-haul
- Operations of less than 350 miles of track
- Less than $40 million in annual revenue
- 324 local line-haul railroads

Source: BNSF Railway Company
Other Key Rail Terms

- Siding vs. Rail spur vs. Passing siding
- Short line railroads
- Switch carriers, e.g. TRRA, KCT
- Main line vs. Branch line/Industrial lead
- Switch/turnout
- Derail (safety measure)
- At-grade crossing vs. Grade separation
- Types of rail cars (box, tank, flat, hopper, intermodal, double-stack)
Types of Railcars

- Double-stack in well car
- Hopper car
- Boxcar
- Flatbed
- Tank car
- Intermodal
Intermodal vs. Trans-loading
Intermodal vs. Trans-loading

Intermodal

- Definition: Transportation by more than one form of carrier during a single journey, such as truck trailers or containers shipped by rail
- Advantages: Faster than standard rail service; cheaper than standard truck service and rail service; no double-handling or product; intermodal facilities typically railroad-owned and operated
Intermodal vs. Trans-loading

Trans-loading

- Definition: Transfer of a shipment from one mode of transportation to another, e.g. from rail to truck or from truck to rail
- Advantages: Enables non-rail-served companies to access rail service through short-haul truck and long-haul train service; consolidation and distribution (e.g. 4 truck trailers’ worth of volume per rail car)
Transloading
Transloading
Transloading
Team Track / Public Use Track
Good Rail Sites vs. Challenging Rail Sites
What Makes a Good Rail Site?

- Existing sites
  - Site or facility was formerly served by rail; service has since been de-activated
  - Site or facility currently served by rail

- Greenfield sites
  - Site or facility has good potential to be served by rail
Proposed rail service at existing site (new switch) – Good example

CONCEPTUAL
(NOT FOR CONSTRUCTION)
Proposed rail service at greenfield site – Good example
Proposed rail service at greenfield site – Good example
Proposed rail service to greenfield site – Good example
Proposed rail to greenfield site – Good example
Proposed rail to greenfield site – Good example
Proposed rail to greenfield site – Good or challenging example
Proposed rail to non-rail-served building—Challenging example
Proposed rail to greenfield – Challenging example
No Matter How Good A Site Looks...
You’ve Got To Get The Big Picture.
Getting Rail Service to Your Site
What’s Involved in Getting Rail Service?

■ Type of rail line
■ Engineering feasibility
■ Cost feasibility
■ Timing
■ Financial and technical resources for assistance
Advice for Economic Developers
What Do You Need to Know?

- How to confirm who your rail service provider is (hint: check the signal bungalow)
- Get the rail providers involved early and often
- Rail service can be the most restrictive factor in developing an industrial site
Your Missouri Railroad Contacts

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Thank you!