



# *Coal Transport Discussion*

The Dalles City Council

June 4, 2012

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*BNSF Railway*



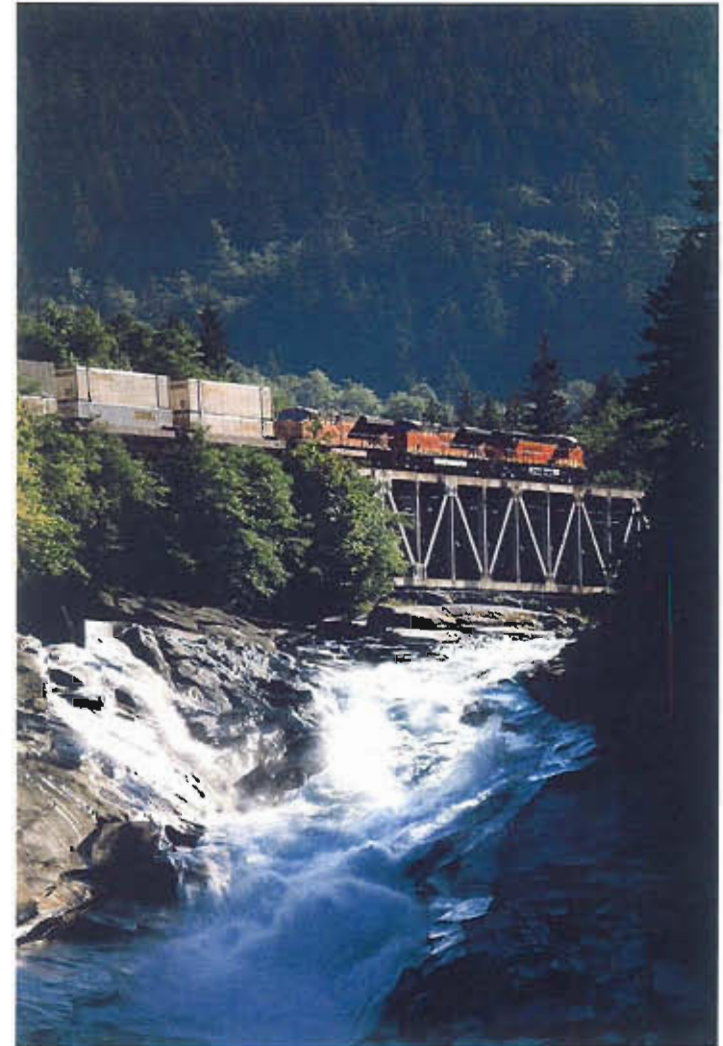
# ***BNSF Railway***

## **System Wide:**

- 40,000 employees
- 32,000 route miles
- 28 states, 2 Canadian Provinces
- 1,400 trains per day system wide
- 165 years old, over 330 predecessor railroads (GN, NP, SP&S, AT&SF)

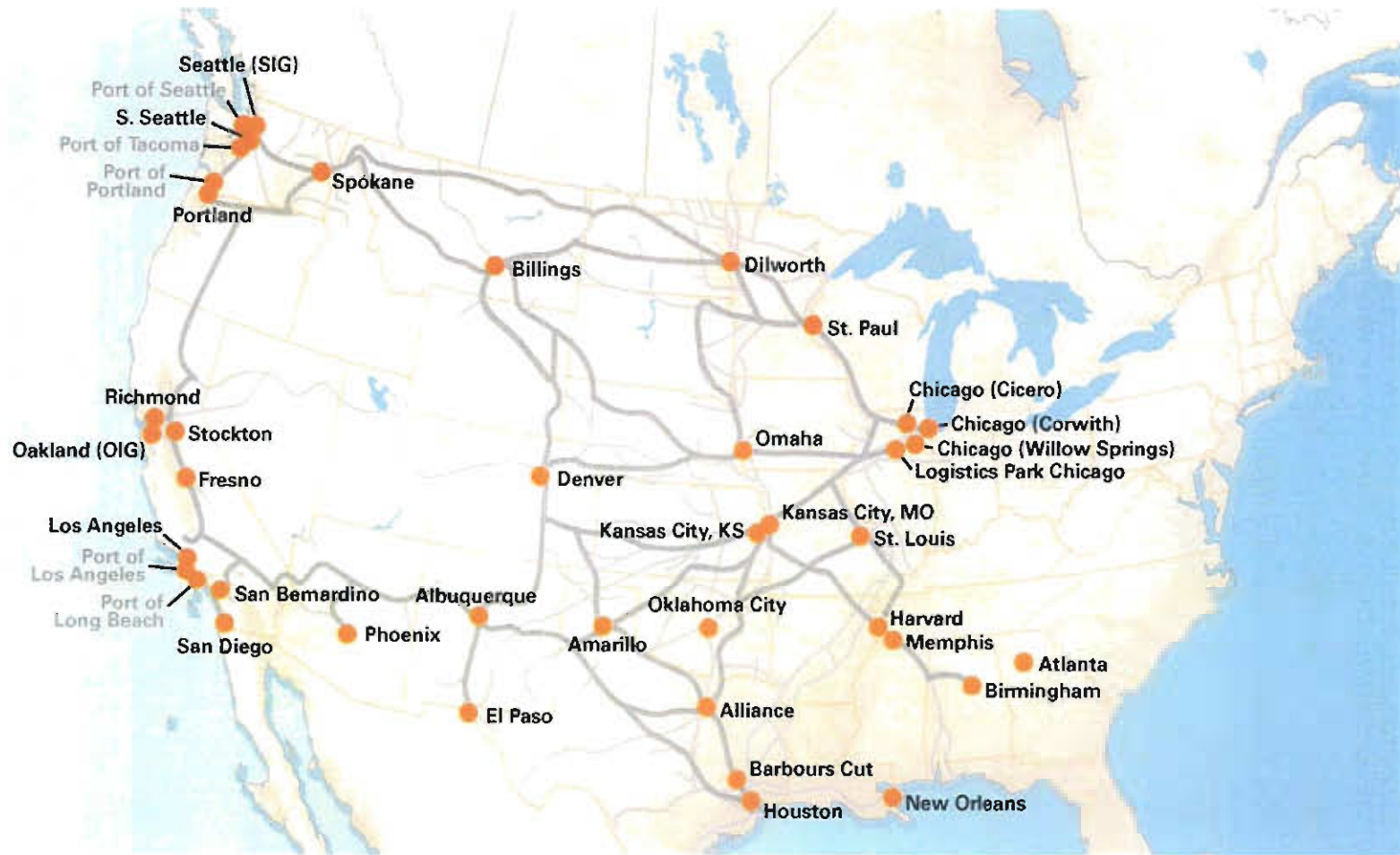
## **In the Pacific Northwest:**

- 4,100 employees
- 2,136 route miles
- \$275M annual payroll
- Over \$200M annual in capital investment
- Carloadings-  
621K (orig) / 2,815K (w/in) / 869K (term.)



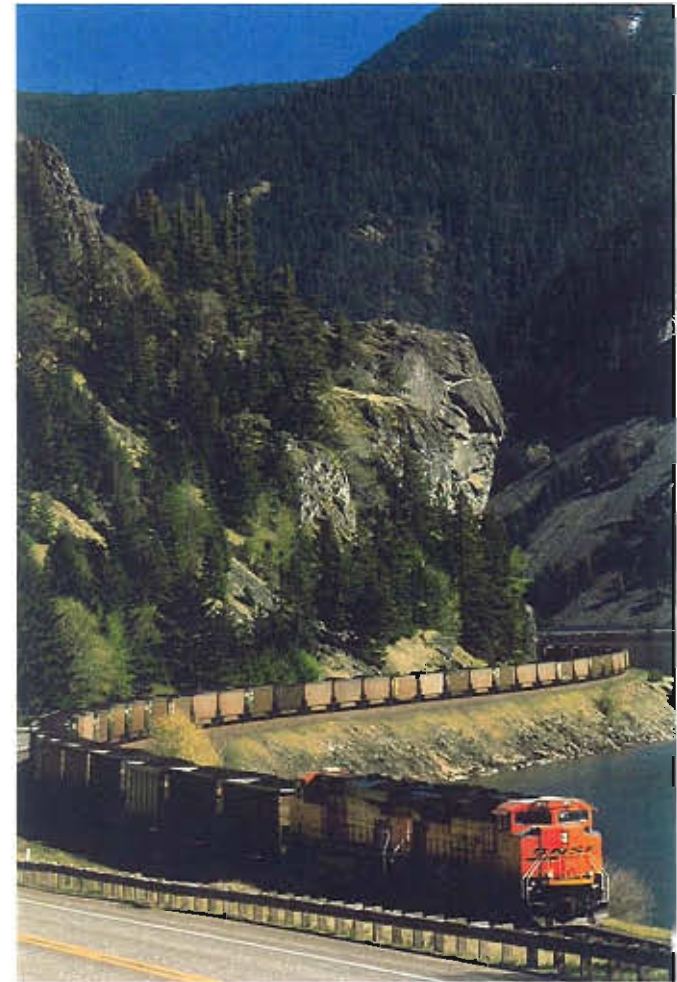
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# BNSF System



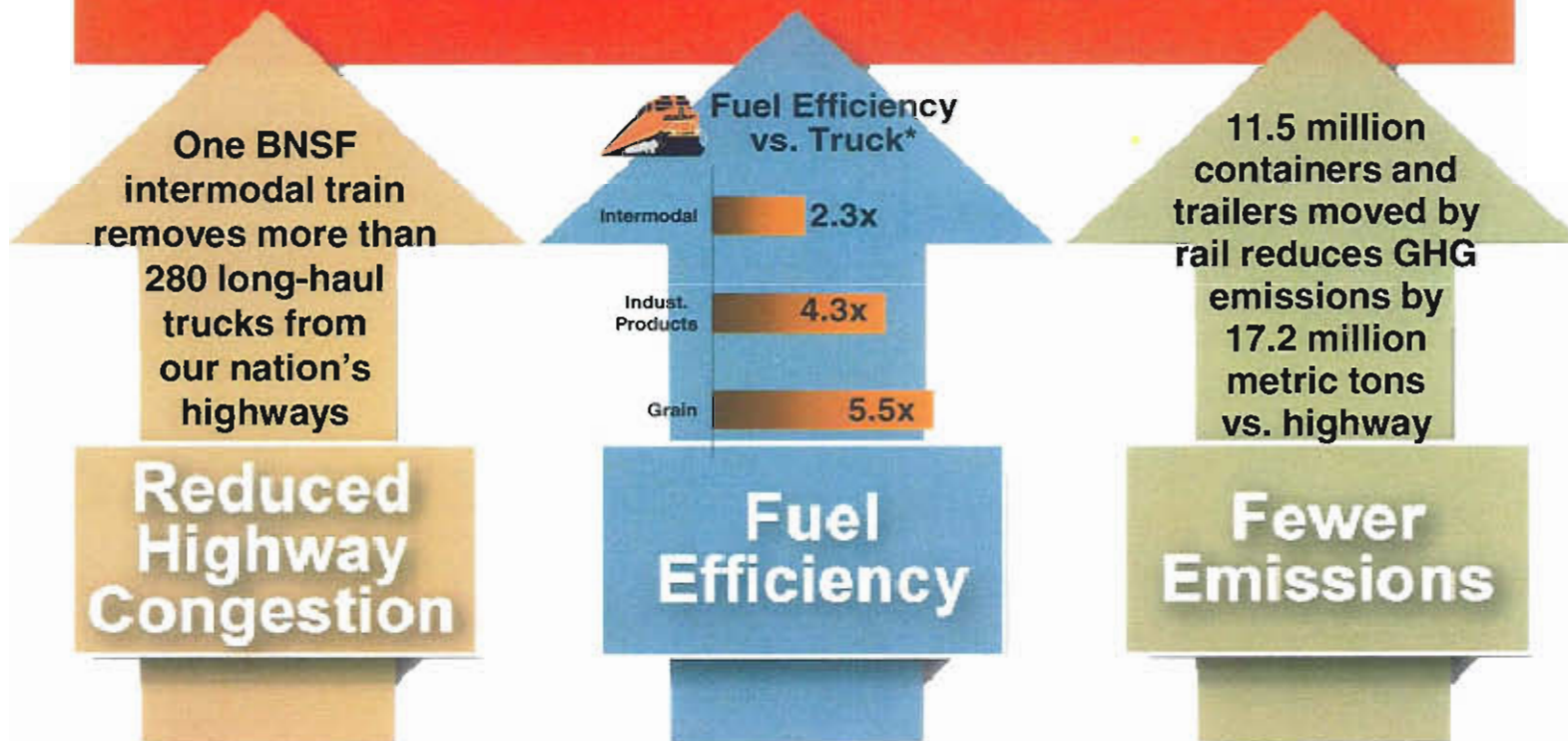
# ***BNSF Facts***

- BNSF hauls enough grain annually to supply 900 million people with a year's supply of bread.
- BNSF hauled enough coal to generate nearly 10 percent of the nation's electricity last year.
- BNSF moves enough sugar to make more than 3 million batches of cookies a year.
- BNSF transports more than 1 billion cans of canned goods each year.
- BNSF transports enough lumber each year to build more than 600,000 homes.
- BNSF transports enough newsprint each year to print 1 billion Sunday newspapers.



# Freight Rail Works

## Rail's Environmental Value



From an environmental, economic, congestion and safety perspective, rail is the best way to move goods – today and in the future

\*Based on a 1,500 mile truck haul

**BNSF**

## Investing in Green Technology

# Facility and Equipment Updates

### Liquefied Natural Gas Locomotive



- BNSF operates the only four environmentally friendly liquid natural gas locomotives that reduce emissions and fuel consumption
- 1200 sustainable horsepower, spark ignited

### Rail-Mounted Wide-Span Electric Cranes



- Span multiple loading / unloading tracks
- Powered by electricity vs. diesel hydraulic
- Advanced anti-sway systems
- Reduced switching & vehicle container transfers
- Increased inventory capacity; utilizes footprint more efficiently
- Low energy consumption and noise level thanks to advanced drives and power regeneration

### Automated Gate Technology



- Digital cameras record images of container, chassis, tractor, & unit #'s
- Images retained for one year for damage
- Drivers identified by biometric and unique pin ID
- Reduced liability and improved safety
- Reduces truck idling and increases facility throughput



The cleaner road ahead.

**BNSF**

# Investing in Green Technology

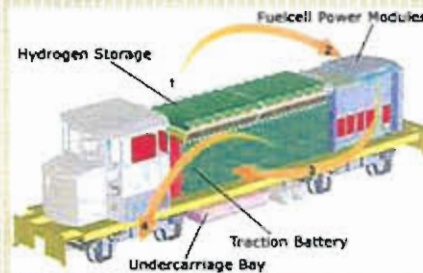
## Facility and Equipment Updates

### Switch Engine with Diesel Particulate Filter



- Joint BNSF/UP initiative to test new emissions reduction technology
- 5-year, \$5 Million R&D project
- Two 1500 horsepower prototype switch engines equipped with DPF technology
- R&D work being performed by Southwest Research Institute through Association of American Railroads

### Hydrogen Fuel Cell Switch Locomotive



- First railroad in the world to develop an experimental hydrogen fuel cell switch locomotive
- Not dependent on oil for fuel
- Debut test run in mid-2008
- Phase II –Advanced batteries & increased hydrogen storage

### Multiple GenSet Locomotive



- Powered by multiple diesel GenSets with truck-like engines
- 700 sustainable horsepower from each GenSet
- 80 to 90% reduction in emissions
- 15 - 25% improvement in fuel efficiency



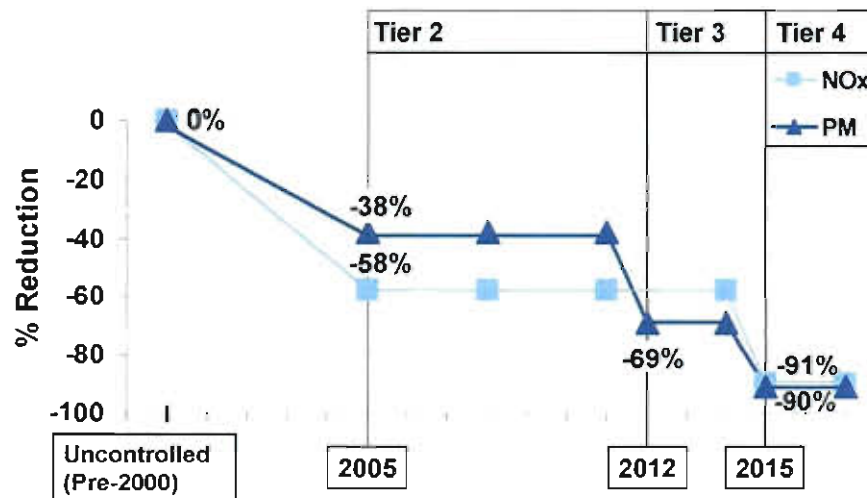
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# Improving Air Quality

## Locomotive Fleet Status

**EPA Line-haul Locomotive Standards**  
(% Reduction from Uncontrolled Levels)



Prepared by California Environmental Associates

- Total locomotive fleet = 6300
- Locomotives w/ idle control technology = 5500+
- 2012 \$1.1B rolling stock purchase, with most for energy efficient “Tier 3” locomotives that compared with pre-2000 units:
  - Cut NOx by 60%
  - Cut particulate matter 69%



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# *Export Facilities*

- Powder River Basin coal, from Wyoming and Montana, has been, and will continue to be, exported for many years through Roberts Bank (Vancouver, BC)
- There are a half dozen export proposals, some may proceed to design, some to environmental review / permitting, some possibly to construction – but each one must stand on its own merits
- Commerce flows are dynamic, with many variables: different customers, commodities (grain, coal, aggregates, etc), routes, market demand, etc



# Coal Transport Issues

Despite decades of coal transport through the PNW with no known concerns or complaints ...

- Coal Dust: Yes it was an issue *in proximity to the mine loading area*, but nowhere else.
  - Train Traffic: Wildly exaggerated assumptions about more trains per day – in the Gorge and around the PNW.
  - Rail Capacity: Unfounded assertions of insufficient capacity for current customers, despite constant planning, investment.
  - Air Emissions: Freight rail is the greenest mode of surface transport; 4X's more efficient and lower emission.
- ✓ RR's first to discover, require surfactant.
  - ✓ Treated loads, virtually no measurable dust.
  - ✓ Current freight and passenger train counts vary daily; any growth will be a fraction of total PNW trains per day.
  - ✓ Capacity is sufficient because we regularly invest over \$200M per year to preserve, grow our PNW track/facilities.
  - ✓ Newest locomotive fleet, major capital investment in EPA Tier 3 locomotives, retrofits, idle reduction technology.

# Let the Process Work...

- President's national goal is to double exports in 5 years.
- Environmental review, permitting has many hurdles, is costly, and takes years... For Gateway Pacific Terminal, there are 19 permits from 8 different agencies. *Is anyone suggesting the process isn't thorough or rigorous enough?*
- Opponents are seeking special treatment, to change the rules and depart from established federal/state environmental process; proponents just want the process executed fairly.
- We are proud of our environmental stewardship; BNSF was recognized in 2011 with an environmental award from the Gorge Commission.
- We will meet our obligations of the environmental review process – as we did with the Lyle Siding and other projects... *All we ask is to let the process work.*



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## RAILWAY

