

Attachment 2

Part 2 of 9

Minnesota Power's response to DOC discovery related to rail delivery issues.

State of Minnesota
DEPARTMENT OF COMMERCE
DIVISION OF ENERGY RESOURCES

Utility Information Request

Docket Number: E999/AA-14-579

Date of Request: March 18, 2015

Requested From: Xcel, MP, IPL, OTP

Response Due: March 30, 2015

Analyst Requesting Information: Craig Addonizio

Type of Inquiry: Financial Rate of Return Rate Design
 Engineering Forecasting Conservation
 Cost of Service CIP Other:

If you feel your responses are trade secret or privileged, please indicate this on your response.

Request No.	
26	<p>Reference: Impacts of Delivery Delays</p> <ul style="list-style-type: none">a. Please provide a detailed discussion of any coal transportation delays the utility has experienced since January 1, 2013, and the impacts those delays have had on the utility's coal inventories.b. Please describe any actions the utility has undertaken to conserve coal in response to any coal transportation delays it has experienced.c. If the utility limited production at any of its coal plants in order to conserve coal, please specifically explain how the Company achieved this reduction (e.g. a change in the plant's offer price in the MISO market, an artificial limit on available capacity, etc.).d. If the utility limited production at any of its coal plants in order to conserve coal, please explain why the utility thought this action was necessary, and provide copies of any and all analyses the utility relied upon in deciding to limit energy production (e.g. quantitative or qualitative cost-benefit analyses, etc.). If the utility was concerned that a plant's coal inventory would fall below a predetermined minimum, please explain how the minimum inventory was determined. <p style="text-align: right;"><i>Continued on next page</i></p>

Response by: Kathy Benham
Title: Director - Fuel Strategy & Sourcing
Department: Strategy and Planning
Telephone: 218-313-4402

List sources of information:

- e. Please state whether the coal conservation efforts described in response to parts (b) and (c) have ended or are ongoing.
- f. To the extent that the utility reduced production at its coal plants, please estimate the incremental costs associated with the replacement energy purchased from the MISO market or produced at one of the utility's other generating plants.
- g. To the extent that the utility reduced production at its coal plants, please explain any steps the utility took to protect ratepayers from higher costs associated with the replacement energy. If the utility took no steps, please explain why.

RESPONSE:

a.

Boswell Energy Center ("Boswell"):

For the purpose of these discussions, a train set consists of 115-123 cars, which hold approximately 120 tons of coal per car (or 13,800-14,760 tons of coal per train). For Boswell, one unit train equals just slightly more than one day's burn. The coal transportation delays that Minnesota Power experienced since January 1, 2013 were significant and due to a variety of issues. The primary causes are due to high volumes on BNSF Railway Company's ("BNSF") rail lines, crew and locomotive shortages, a derailment in December 2013, and various weather events throughout BNSF's system. These events all contributed to the delays that Minnesota Power has experienced and resulted in significant shortages to coal inventory which resulted in the need to back down generation in an effort to conserve coal. The detail below is a summary and timeline of events during the period of June 2013 through present.

On June 25, 2013, a letter was received from Minnesota Power's BNSF marketing representative stating that their customer feedback indicated inventory concerns. They asked for inventory updates and indicated they would be doing so on a weekly basis for a while to prioritize their customers and keep them from running out of coal. At this time, our inventory had declined to 26 days' burn at Boswell. Minnesota Power diverted a train from Midwest Energy Resource Company ("MERC") (for shipment to Taconite Harbor Energy Center ("Taconite Harbor")) to Boswell to help maintain inventory levels. By June 27th, BNSF had pulled one train set from service (from 6 sets to 5).

Minnesota Power's inventory levels continued to decline in July 2013 and by the end of month, Boswell was at 19 days of burn. This was an indicator of potential delays and/or BNSF's unwillingness or inability to provide service. By mid-August, BNSF pulled another train set from service (down to 4 sets) and indicated that we should expect to have 4 sets in service for the foreseeable future.

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By mid-August Boswell's inventory was at 17 days' burn and continued to fall to 12 days by the end of the month. BNSF indicated that availability of train sets was extremely tight. Efforts were made to coordinate with BNSF on longer trains to get more coal to the facility; however, BNSF was unwilling to do so at that time. A coal conservation strategy was developed by mid-August to assist with low inventory levels. By the end of August, BNSF dropped another train from Boswell service to 3 sets despite Minnesota Power's repeated requests for additional train sets. August 2013 was Minnesota Power's lowest month of deliveries at 349,000 tons total to all facilities, which was 186,000 tons lower than Minnesota Power nominated.

Scheduled weekly calls with BNSF began in September of 2013. BNSF reported major maintenance activity on the northern corridor which caused delays. In addition, flooding in the Powder River Basin ("PRB") caused a delay for trains loading. On 9/28/2013, Minnesota Power identified trains sitting in locations for two days with no movement; this is an example of items Minnesota Power communicated to BNSF.

The pace of incoming trains declined and Minnesota Power communicated with BNSF that the current number of train sets allocated to our service was not enough to maintain inventory. BNSF later increased the set count and by mid-October, the set count was back to 8 for Boswell. At this point, inventory was at 10 days. In October of 2013, Minnesota Power communicated to BNSF that at a pace of 5 trains per week, Boswell would run out of coal by the end of December.

An 11/12/2013 Argus Coal Daily article reported that "BNSF's rail service on its single-track route across North Dakota and Montana is sputtering under the strain of a surprisingly strong grain harvest, priority crude train service and backlogged coal shipments. The railroad is cancelling maintenance-of-way projects to reduce delays, is adding crews and locomotives to the area and is taking the unusual step of selectively re-routing trains to avoid congested corridors and aid transit times. Among the causes cited were floods in Colorado in September and a blizzard that hit Colorado and the PRB in October."

By end of November, Boswell was at 11 days burn.

By mid-December, the train tender (number of cars on a train) decreased significantly (from 115-car unit trains to 108-cars; this means every train that was short 7 cars was carrying 840 tons less than a full train would have shipped). At this time, BNSF was unwilling to slow the trains down to add the additional cars needed. BNSF reported having volume and crew issues. They moved other customer sets to the central corridor to improve traffic. Extreme temperatures and snow at this time was an area of concern due to added delays. At this time, they reported getting more locomotives. There were 8 sets in service at this time. There was approximately 7 days burn at Boswell. By 12/27/2013, Minnesota Power reported a 4 day gap with no deliveries; after repeated communications, BNSF swapped sets to load trains at the mines sooner. On 12/30/2013, a derailment occurred in Casselton, ND. This

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interruption occurred on the northern corridor which is the main line that Minnesota Power uses for its deliveries. Shipments needed to be re-routed through South Dakota to keep the trains moving.

By 1/2/2014, Boswell was at 5 days burn and the Casselton lines reopened. This derailment caused a "significant impact" to the east/west traffic. Individual trains sat for at least 4 days due to the derailment. At the same time, Boswell experienced an unloading delay of 23 hours due to a motor failure in the unloading system. BNSF confirmed strong demand across all commodities, including energy. January brought extreme cold temperatures and three trains had to be parked due to high wind conditions, which delayed their movements by 24 hours. BNSF ensured that Minnesota Power will not drop below a minimum of 10 sets. With the large number of sets in service, several trains were staged along the way to allow trains to pass. Two trains per day at Boswell was the primary focus at this time. By end of month, inventory increased to 9.3 days' burn.

During the month of February, BNSF continued to have weather delays and crew shortfalls across the system. The extreme cold weather conditions affected operating capabilities. Cold temperatures affected the ability to keep air on the trains, which is needed to stop and start trains. BNSF also experienced higher than normal failure rates on locomotives. A derailment at the Jamestown sub (which is a point along the BNSF Northern Corridor, the line on which Minnesota Power trains operate) on February 10, 2014 was noted to have major impacts to crews and basically everything on that line stopped (See schematic referenced in IR-22-a). At this time, BNSF noted that there were not enough places to stage the trains and doing so continued to eat up resources. One train had to be dug out of the snow due to snow drifts, causing delays. By month end, Boswell's inventory was at 10.6 days' burn. (See Attachment 26-a: MISO January 2014 Extreme Weather Event).

Mid-March weather improved but BNSF gave guidance not to expect dramatic changes in cycle times. BNSF experienced a rockslide at their Forsyth sub in Montana along the Northern Corridor. A gap in trains on 3/12/14 was explained to be due to BNSF crew shortages. Snow in Wyoming was reported to slow the mines loading the week of 3/21/2014. Minnesota Power's unplanned outage this week caused inventory levels to climb to 11.9 days. By end of month, Boswell inventory was at 15.2 days.

April 2014 operations brought some congestion in Forsyth due to a blizzard. Rail gangs (railroad track maintenance crews) continued to work in Forsyth and Dickinson. Boswell Inventory was at 15.2 days (as of 4/3/14) and Minnesota Power/BNSF began meeting every other week.

By May 22, 2014, Boswell's inventory was at 34 days with all units operating. Planned unit outages during the month of April and May were the main contributors to the improved inventory levels. Inventory continued to climb through end of May; at that point, inventory once again began to decline. The average train pace was 1.0 train per day.

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June 2014 brought additional weather-related delays (storms/flooding), causing rerouting of trains. The volume of trains moving in through Forsythe and Glendive along BNSF's Northern Corridor was an area of concern. BNSF cancelled planned rail maintenance across the northern corridor to free up traffic. There was a derailment which impacted velocity near the end of the month. The train pace at this time was averaging .7 of a train per day.

By the beginning of July, inventory at Boswell was at 28 days' burn. Minnesota Power lost 10 days inventory in a one month period (6/9-7/9/14). During this time, BNSF reported 40-45 trains holding, and crew availability continued to be a concern. A derailment in Anita, MT on 7/10/2014 delayed two Minnesota Power trains. Five major projects occurred on BNSF lines. The sidings were expected to be completed in the next month. The current train pace was averaging .6 of a train per day.

By mid-August, trains continued to be held waiting for crews. Maintenance continued on BNSF lines. This created some impact but it was mainly volume-driven. The average train pace was 0.7 of a train per day. August 2014 was again Minnesota Power's lowest month of deliveries in 2014 with deliveries at 364,000 tons to all facilities, which was 204,000 tons short of the amount nominated.

By the beginning of September, inventory fell back to 10 days with the low point at 8.3 days on 9/20/2014. A train was spotted sitting in Deer River for a week due to locomotive problems. The average train pace was 0.8 of a train per day.

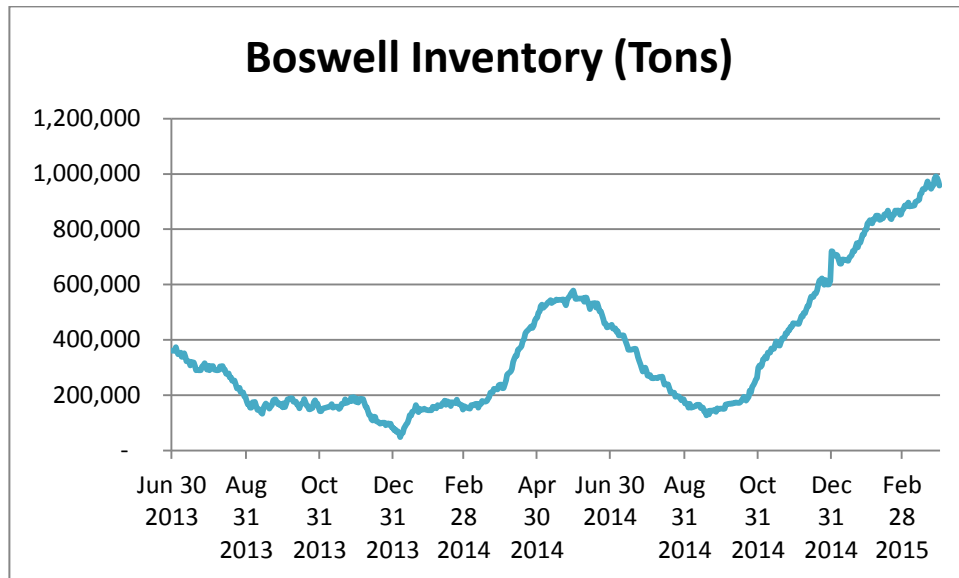
Maintenance continued on BNSF lines through Thanksgiving. On 10/20/2014, a minor derailment occurred on Boswell's loop track, causing a 2-day delay to incoming trains.

By mid-November, the train pace picked up considerably, pacing an average of 1.4 trains per day for the remainder of the month (1.0 trains per day in October and first half of November), bumping up to 1.5 trains per day for most of December.

By year-end, Boswell's inventory was at 46 days' burn.

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Taconite Harbor Energy Center:

As mentioned above, Minnesota Power’s strategy was to divert as many trains as possible from Taconite Harbor to Boswell, in order to ensure Minnesota Power’s lowest cost unit was able to sustain supply. This diversion strategy began in late June 2013 and continued through 2014 as necessary to ensure Boswell did not run out of coal, which would have had much broader fuel cost implications. Most of the delays noted above are the same, regardless of the destination facility as the coal travels along the same route to the MERC destination for furtherance to Taconite Harbor. However, Taconite Harbor was impacted greatly since it’s trans-shipment of coal via vessel from the MERC terminal to Taconite Harbor required that the trains be at MERC prior to the end of the shipping season.

Because of the BNSF train delays, in July of 2013, Minnesota Power took one train of Black Butte coal transported via Union Pacific to the KCBX dock in Chicago in order to supplement the inventory at the facility. This movement was more costly than its normal PRB deliveries, but more cost effective than running out of coal. Minnesota Power attempted to get additional deliveries of Black Butte Coal, but UP and KCBX also had delivery challenges and were unable to accommodate additional trains.

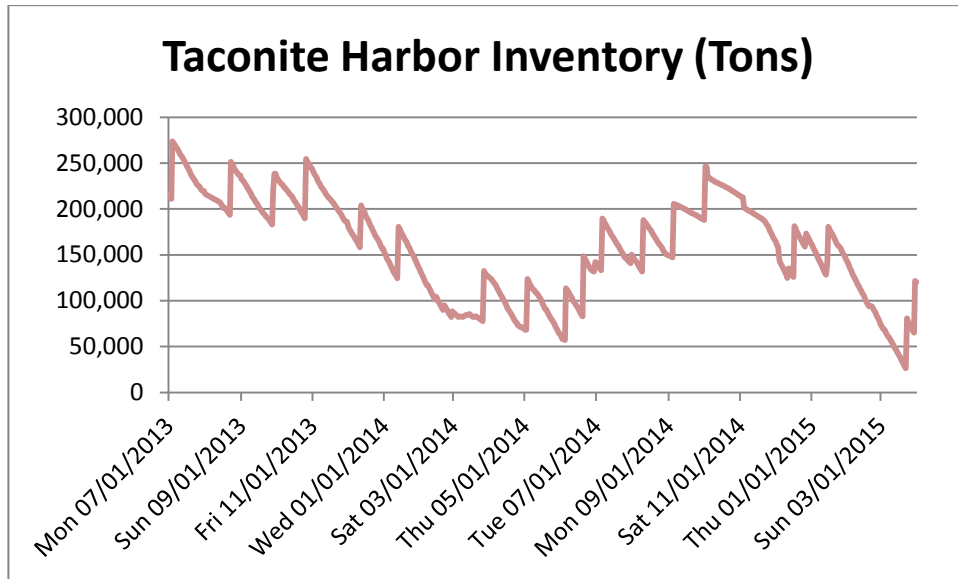
The low point in inventory for 2014 at Taconite Harbor was June 4, 2014. Inventory was at 23 days’ burn. This may seem like a lot of coal compared to Boswell's inventory levels; however, since Taconite Harbor can only take coal during the Great Lakes shipping season, it must carry at least 90 days of burn in inventory. Taconite Harbor trucking occurred intermittently through the period of 1/29/2014 through 7/31/2014.

The low point for Taconite Harbor for 2015 was March 22, 2015 when inventory was at 10.5 days burn. Inventory at this time was supplemented by trucks for the period

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of March 10-22, 2015 until the facility was able to receive the first vessel of the season.



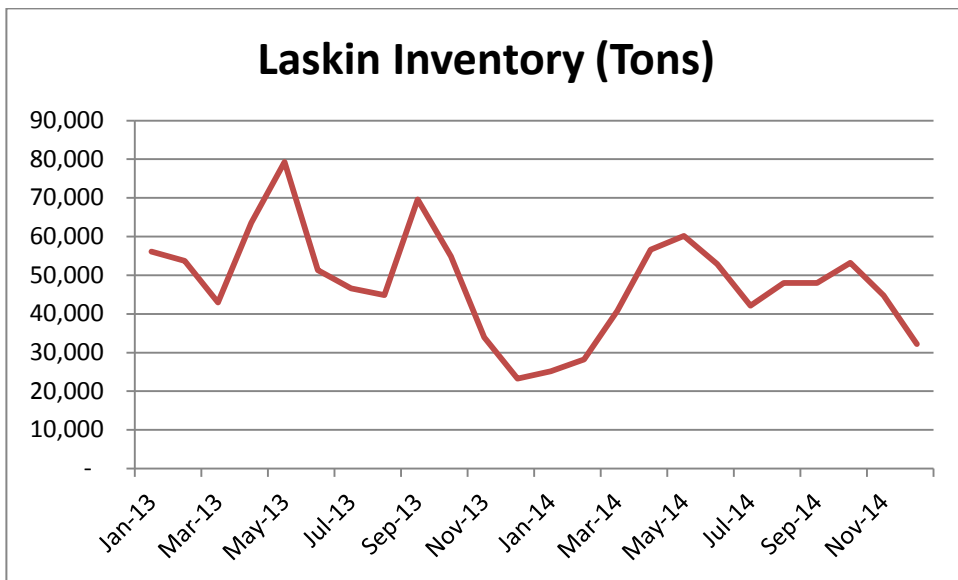
Laskin Energy Center ("Laskin")

Laskin was affected the least of the three energy centers due to the fact that if we kept one train set running, it would continue to support the needs of that site. In addition, Laskin uses a bottom-dump car for train unloading. This train type is not interchangeable with the rotary-dump cars used at Boswell and Taconite Harbor. The low point in inventory in 2013 was December 2013 when inventory was at 24 days burn. Laskin generally carries slightly higher inventory levels due to its need to use two rail carriers and the delays associated with the 3 days it takes to unload a train versus 4-10 hours at Boswell and Taconite Harbor.

The low point in inventory during this period was January 2015 when inventory was at 26 days burn.

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List sources of information:



- b. [TRADE SECRET DATA EXCISED]
- c. [TRADE SECRET DATA EXCISED]
- d. [TRADE SECRET DATA EXCISED]
- e. These efforts have ended.
- f. [TRADE SECRET DATA EXCISED]

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List sources of information:

January 2014 Extreme Weather Event

Markets Committee
of the
Board of Directors

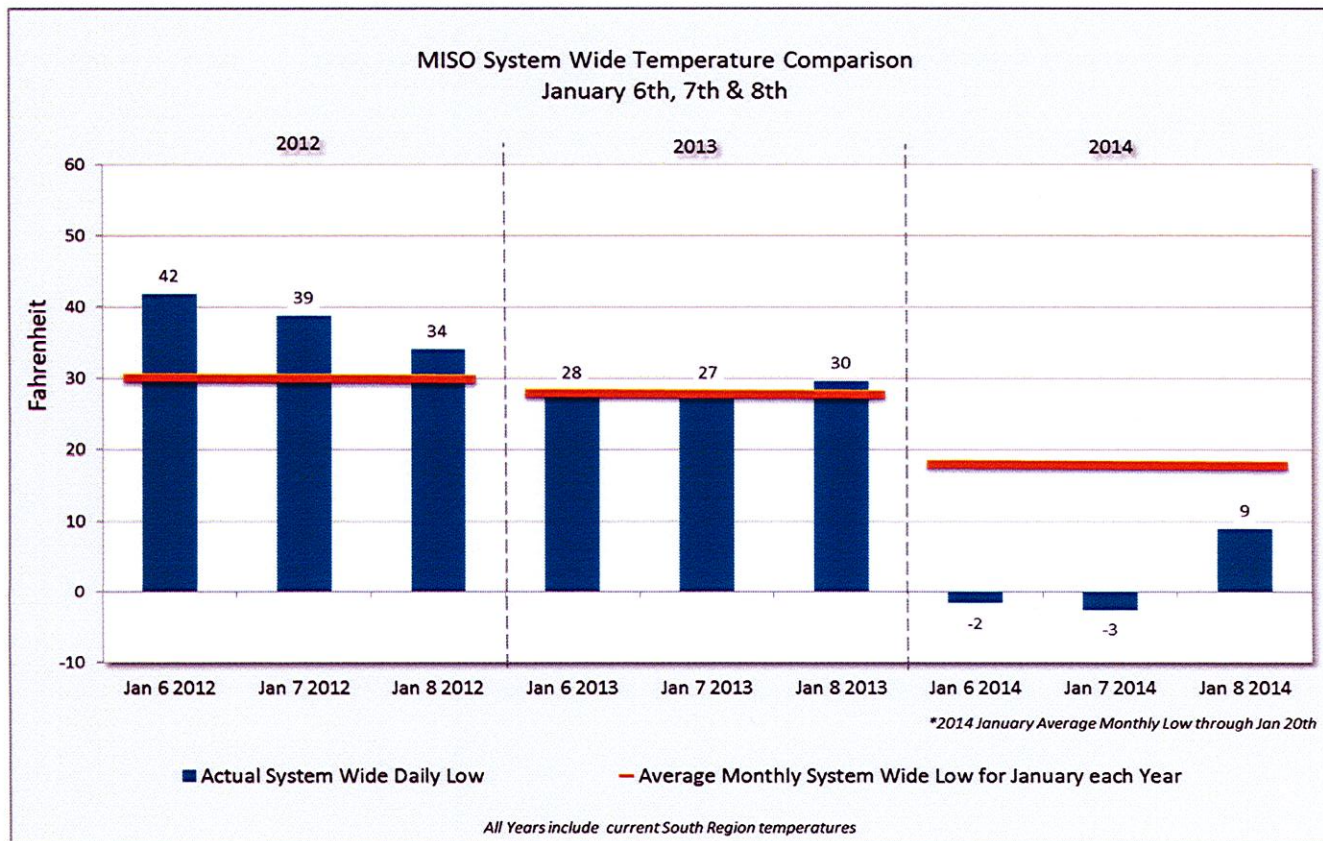
January 2014



Overview

- The recent polar vortex brought extreme weather conditions to the MISO Region and temperatures in many areas were the coldest experienced in two decades.
- MISO successfully managed a new all-time winter market peak load of 109.3GW on January 6th.
- MISO was able to effectively manage system assets within its region, while also supporting and assisting neighboring entities in their efforts to do the same.
- Maximum Emergency Generation declarations were issued the operating day (January 7th) after MISO's winter peak due to decreased wind generation, less available generation and reduced imports.
- An increase to the Operations Reliability Coordination Agreement (ORCA) phase 1 temporary dispatch flow limit was coordinated effectively with new neighboring Reliability Coordinators.
- Key takeaways from this event include the benefits that were made possible by improved coordination with the gas pipeline operators as well as proactive staff planning.

Impacts of extreme low temperatures were initially felt in the far northwestern portion of MISO's footprint but quickly moved to the South, impacting the entire MISO Region.



Temperatures in many areas were the coldest experienced in 20 years



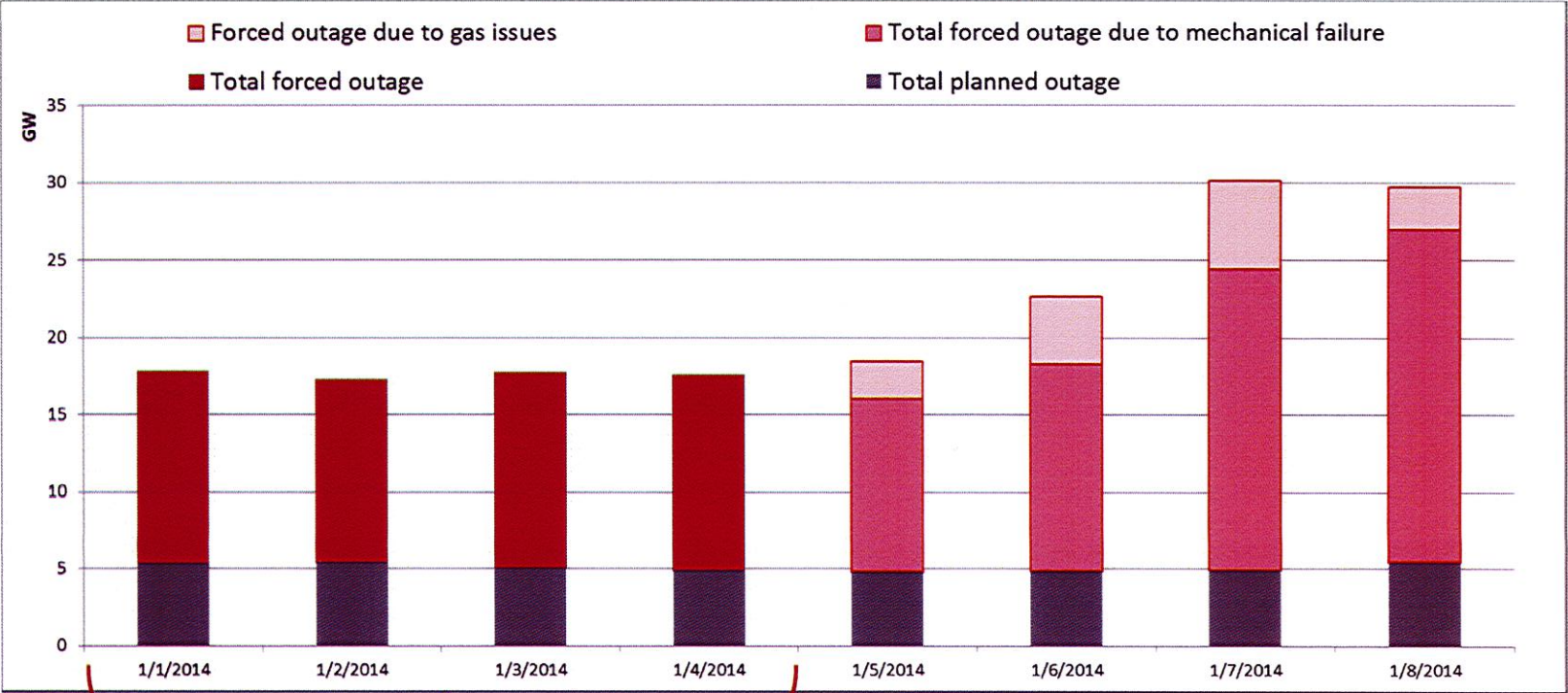
Extremely cold temperatures and heavy snow impacted large portions of the footprint from January 5th through January 7th.

Operating Day	1/5/14	1/6/14	1/7/14	1/8/14
Peak Load	92 GW	109.3 GW	104.7 GW	100.1 GW
Wind at Peak	9.4 GW	6.6 GW	2.3 GW	1.2 GW
NSI at Peak (-) Imports/(+) Exports	-3.2 GW	-2.4 GW	.04 GW	-.19 GW
Max Gen Alert			07:15-07:30 EST 11:15-22:00 EST	
Max Gen Warning			07:30-11:15 EST	
Conservative Ops	22:00 EST	-	22:00 EST	
Cold Weather Alert	22:00 EST	-	-	10:00 EST

- MISO was able to effectively manage system assets to maintain reliability within its region, while also supporting and assisting neighboring entities.
- A new all-time winter market peak load was set on January 6th of 109.3 GW, over 9% higher than the prior winter peak for MISO's current membership of 99.8 GW.
 - This peak was set even with multiple days of travel restrictions, school closings and business closings.

The number of forced outages escalated as the severe weather conditions moved into the footprint. Freezing components and fuel restrictions caused challenges for many units.

Based on preliminary findings

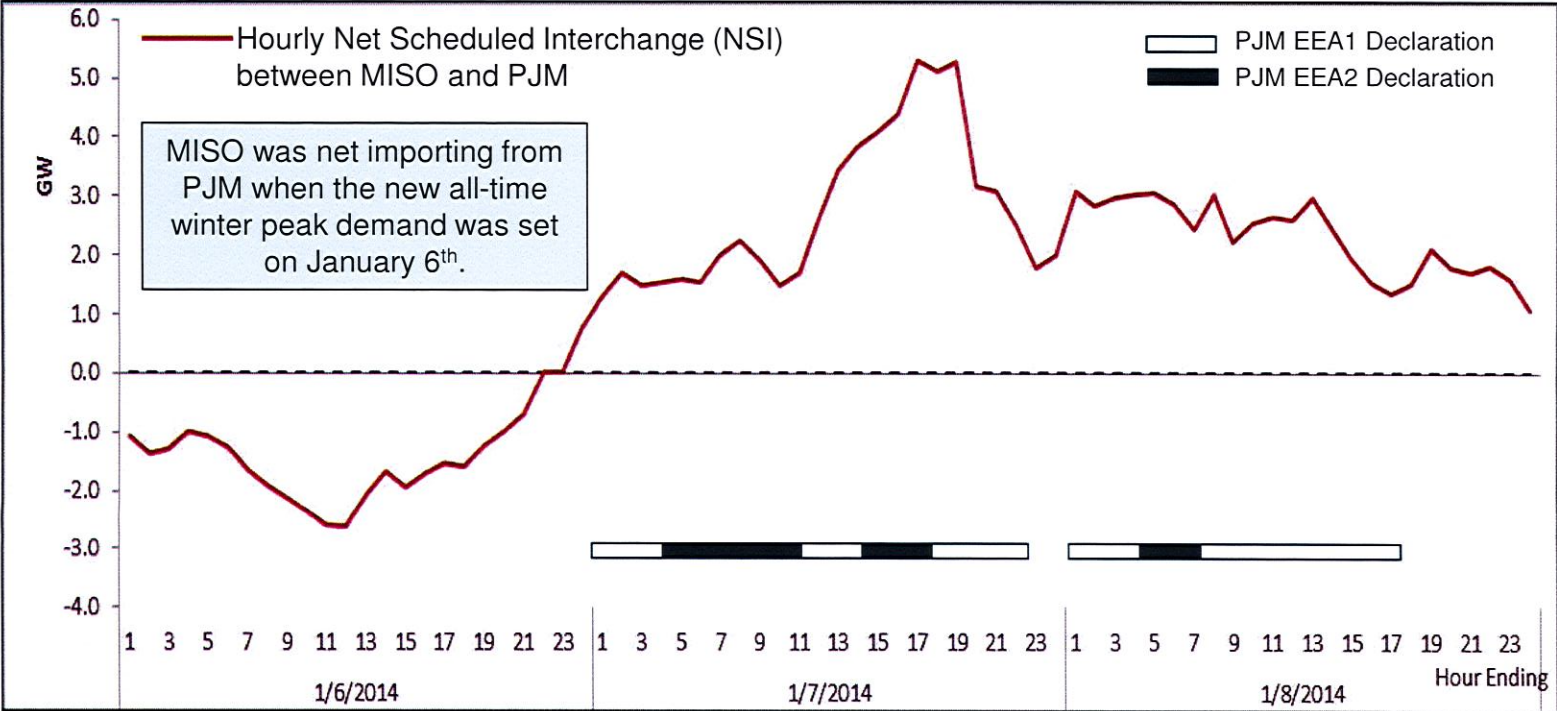


Total Forced Generation outage prior to January 5th includes the forced outages due to mechanical failure and gas issues.

Natural gas curtailments had a relatively minor impact as several plants with the ability to switch their fuel source were able to do so.



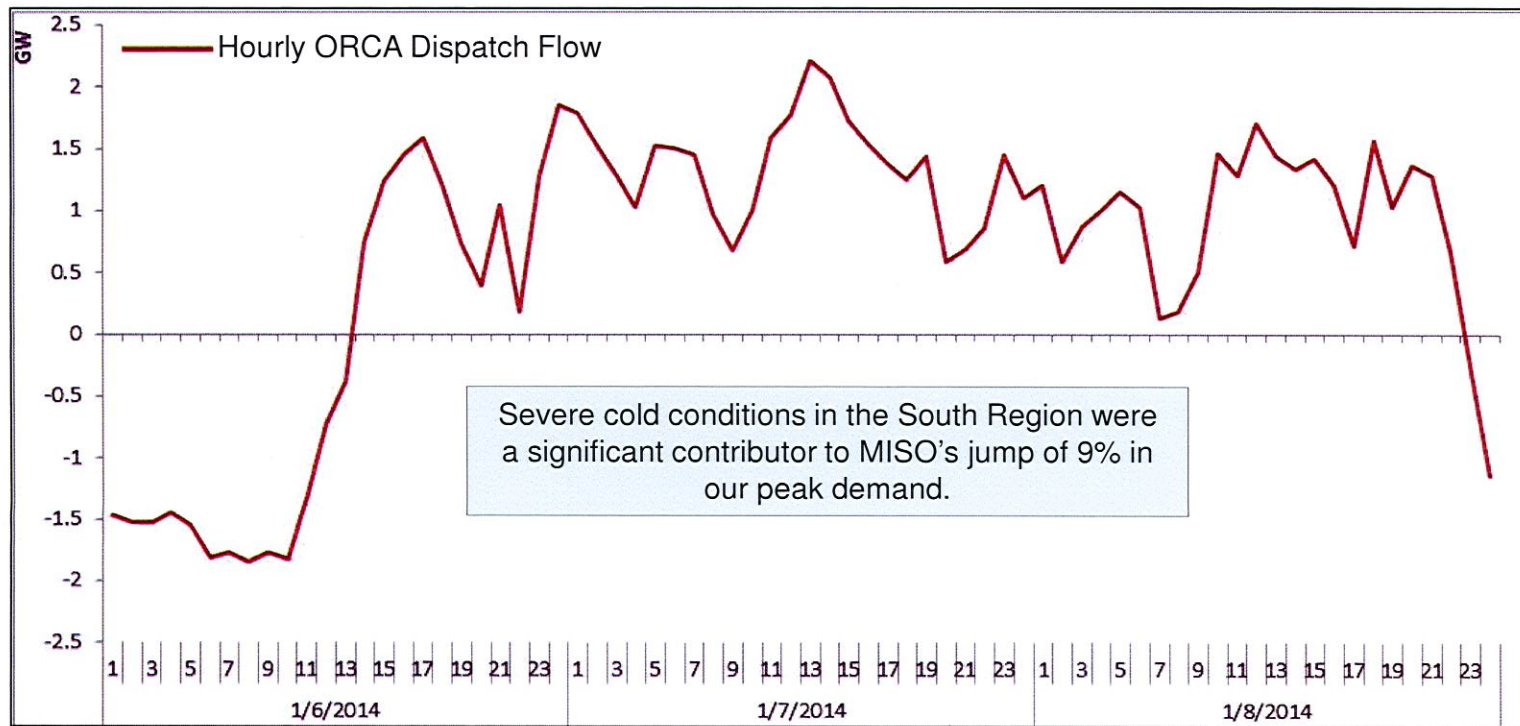
**MISO experienced winter peak conditions on January 6th.
 Reduced peak load obligations on subsequent days freed up
 resources allowing MISO to assist PJM as the extreme cold
 temperatures moved into the East.**



¹ Negative sign of NSI between MISO and PJM means net import from PJM and positive sign indicates net export to PJM



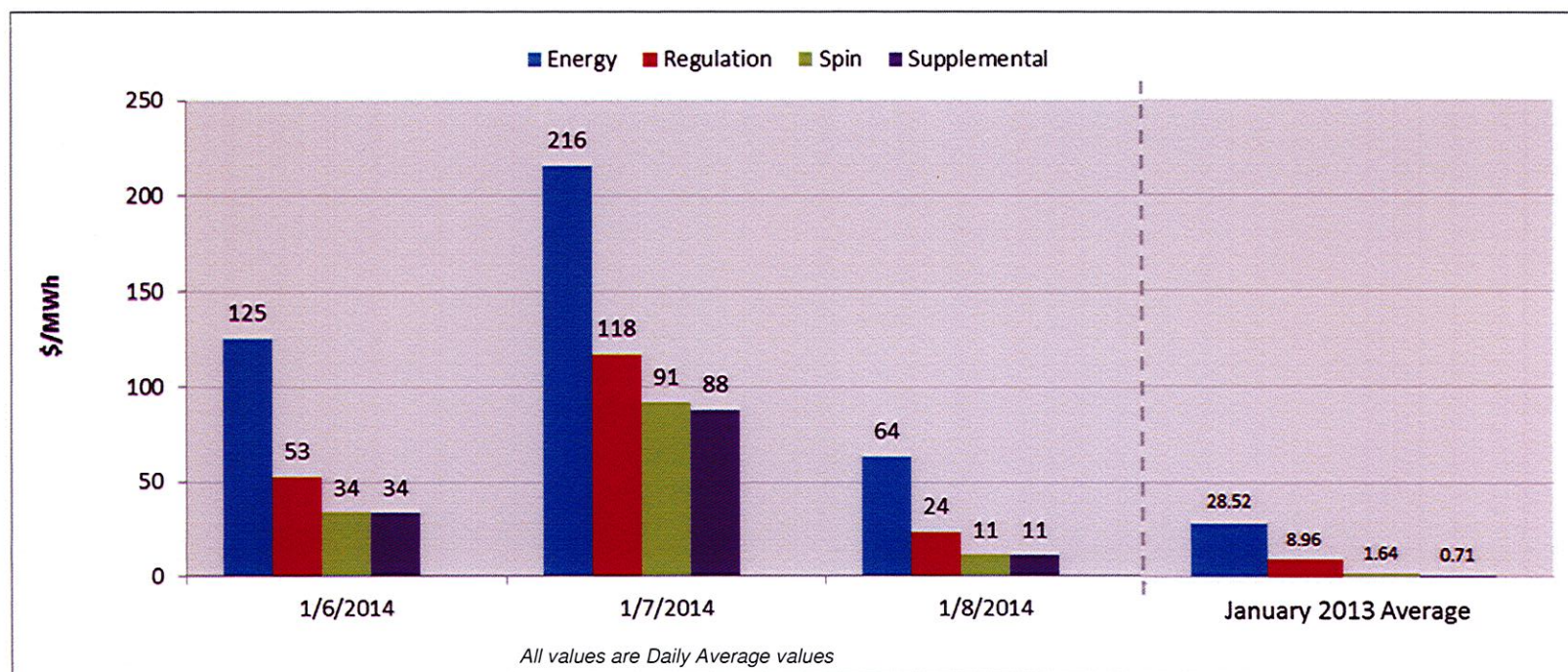
The larger footprint allowed load to be served broadly as the South supplied to the Central/North while they were experiencing peak conditions within their region near summer peak demands.



Negative ORCA dispatch flow means flow is from north to south



Daily Average Market Pricing was reflective of the tight operating system conditions.



Operating Reserve scarcity occurred during Hour Ending 08 on January 7th and was the primary driver for the increase in hourly Real-Time prices on that day.

While this event was managed reliably, MISO continues to explore opportunities to improve.

Improved Coordination with the Gas Pipeline Operators

- Continue to improve coordination between the electric and gas industries through our Electric-Natural Gas Coordination Task Force.
- This coordination includes our field trial with the pipelines to identify improvement opportunities and establish best practices.

Substantial seasonal variation in Demand Side Resource availability

- Market Participants reported Load Modifying Resource (LMR) availability on these winter peak days indicated reduced availability compared to summer peak days.
- Air conditioning load reductions are likely one of the factors in this variation between seasons.
- Proceed with on-going efforts to improve transparency and management of these resources.

PUBLIC DOCUMENT
TRADE SECRET DATA HAS BEEN EXCISED
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Utility Information Request

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Date of Request: March 18, 2015

Requested From: Xcel, MP, IPL, OTP

Response Due: March 30, 2015

Analyst Requesting Information: Craig Addonizio

Type of Inquiry: Financial Rate of Return Rate Design
 Engineering Forecasting Conservation
 Cost of Service CIP Other:

If you feel your responses are trade secret or privileged, please indicate this on your response.

Request No.	
27	<p>Reference: Rail Delivery Improvements</p> <p>a. If the utility is working directly with railroads to improve delivery times in the short and medium terms, please explain the nature of these efforts. Please specifically explain what options are available to the railroad to improve delivery times in the short and medium term.</p> <p>b. Please provide the utility's perspective on when and how its rail delivery issues will be fully resolved, and its expectations for rail service for the next few years.</p> <p>c. Please explain whether the utility plans to alter its coal transportation and procurement strategies in the future in response to any delays it has experienced (i.e. higher inventories, higher transportation volumes, different performance requirements for railroads, larger penalties for railroads, etc.).</p>

RESPONSE:

a. Throughout 2013 and 2014, the time which Minnesota Power experienced coal inventory challenges due to BNSF Railway Company's ("BNSF") inability to provide enough coal to meet burn and maintain normal inventory levels, Minnesota Power and BNSF communicated many times at all levels of the organization including the Minnesota Power and BNSF CEO's. Minnesota Power and BNSF also exchanged written correspondence regarding coal deliveries, as shown in Attachment IR-27-A.1.

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[TRADE SECRET DATA EXCISED]

BNSF and Minnesota Power began scheduled weekly calls in September 2013 specifically to address delivery shortfalls. The theme of these discussions was specifically to discuss Minnesota Power's coal inventory situation, identify areas of improvement, and get BNSF's commitment to ship coal to meet Minnesota Power's burn and inventory requirements.

In January, 2014 at Minnesota Power's request BNSF flew five high level employees to Minnesota Power's office in Duluth to discuss delivery shortfalls and to formulate a plan to get back on track. Themes of this meeting included BNSF's impact on Minnesota Power across four dimensions - Reputation, Reliability, Emissions/Compliance and Customers. These four categories of impact along with the overarching single takeaway - that we demand at a minimum "3 to 4 trains every 2 days" until Boswell Energy Center's ("Boswell") inventory returns to our target of 400,000 tons was repeated back to us in a weekend action item summary from George Duggan, BNSF's senior coal executive. BNSF committed to the following actions to correct the inventory shortfalls, which we have coined "BNSF recovery plan": a) cycle time improvements, which have moved from 250 hours to 187 hours over the past week (160 hours is normal), b) increase trains unloadings to 3-4 trains every 2 days at Boswell to allow the plant to go back to normal run and begin building inventory, c) keep a minimum of 10 sets in Boswell's service until inventory levels are back to normal (5-6 trainsets are normally required to meet Boswell's requirements), d) BNSF to ensure cars/train numbers increase to the normal train size.

Given that Minnesota Power's large industrial paper and taconite customers were also feeling the impact of the BNSF's service challenges, Minnesota Power requested that Stevan Bobb, BNSF's Executive Vice President and Chief Marketing Officer, travel to Duluth in February, 2014, to update those customers on BNSF service. Mr. Bobb's presentation (See Attachment IR-27-A.2) pointed to increased surges in crude-by-rail, compressed agricultural harvest, increased coal volumes, expansion projects along BNSF's northern corridor (the route Minnesota Power trains travel) and extreme cold weather as setbacks to service. To address this, BNSF indicated plans to: a) add 996 new employees in 2014, b) add more than 250 locomotives to its fleet, and a 2014 capital commitment of \$5 Billion.

Boswell did see inventory gains following these meetings; however, as described in IR-26, inventory gains were short-lived until the last six weeks of 2014. At that time, BNSF added additional sets to Minnesota Power's service and shipped more coal than Minnesota Power requested during the last quarter. Given the prior 24 months' service challenges, Minnesota Power accepted the trains and inventory grew to levels described in IR-28, much higher than the company had anticipated.

Regarding what options BNSF has available to improve delivery times in the short- and medium-term, BNSF provided a number of system-wide service advisories to communicate broadly about service delays; Minnesota Power began to see these in

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October 2013 (See Attachment IR-27-A.3: BNSF Service Advisories). The things BNSF can control to improve delivery times are: increase operating staff, improve and build additional rail infrastructure, increase capital spend, buy more equipment (locomotives and rail cars), and become a more efficiently-run railroad. Improved efficiency is measured in a number of ways, cycle times being one of them. Cycle time, which represents the period of time it takes a train to load at the mine, travel to the plant, unload, and return to the mine for loading, have been extremely sporadic in the last couple years. Historical cycle times for Minnesota Power business have been around 6.5 days in mid-2012, averaging 10.4 days throughout December 2013, and periodically in 2014, improving though not sustained. With crude, agriculture and coal demands slowing, cycle times have improved since mid-November and are currently running 7.0 days.

As illustrated in Attachment IR-27-A.4: Transportation Industry Impacts, rail service delays have impacted industries beyond coal. The services issues did not happen overnight; rather, they developed over a number of years as railroads significantly reduced operating staff and capital spending as traffic declined in 2009 and 2010 due to the US economic recession. As traffic volumes began to increase in 2011 and 2012, the railroads were slow to bring back furloughed workers causing train delays due to lack of operating crews. At the same time, the western railroads, especially BNSF, experienced a large increase in crude oil shipments from the Bakken formation of Montana and North Dakota. As described in articles about the Bakken oil boom, the large demand for crude oil by rail led to power (locomotives) and crews being shifted from other regions of the railroad networks causing system-wide delays. In addition, the winter of 2013/2014 was especially severe in the upper Midwest, leading to additional delays and slow train speeds.

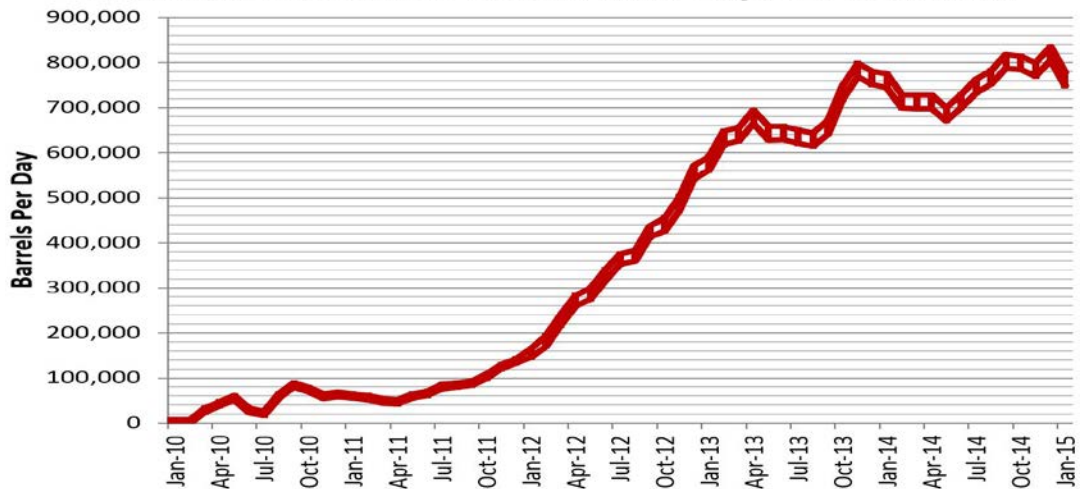
b. Minnesota Power was not the only BNSF customer that experienced difficulty with service issues (See Attachment IR-27-A.4). For example, the Minnesota Grain and Feed Association stated that “of the 600 grain elevators in Minnesota, 150 are served by rail and 50 of those have unit train loading facilities. All of those have been impacted to some degree by rail delays that date back to [Fall of 2013]” (<http://www.mgfa.org/html/news.cfm?ID=1923>). In addition, last year Cliffs Natural Resources began trucking some of its iron ore pellets from Hibbing Taconite to the Duluth-Superior Harbor due to railway backups.

While Minnesota Power’s service began to suffer, the number of rail carloads of crude began rising in 2012, as production in the Bakken Shale and other shale plays grew; the dramatic increase in crude rail volumes is illustrated on the graph below from the North Dakota Pipeline Authority.

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List sources of information:

Estimated North Dakota Rail Export Volumes



According to the North Dakota Pipeline Authority, Bakken rail outflow capacity totaled 965,000 barrels per day by the end of 2013, compared to 515,500 barrels per day of pipeline capacity. While some refineries are being built or planned for the area, most Bakken crude oil will continue to be moved out of the region to be processed at refineries in other parts of the country.

In North Dakota, 18 separate Crude by Rail (“CBR”) loading facilities were operating as of 2013. In June 2013, a study by Bloomberg Industries said that 71% of the Bakken crude production was shipping out by rail, up from 25% in early 2012. BNSF, which has been at the forefront of Bakken CBR, offers the most rail loading capacity in the Williston Basin through service from 11 originating terminals. In all, BNSF serves more than 30 CBR loading facilities across its system. Much of that oil is traversing Minnesota’s rail lines. On average, seven (7) oil-carrying trains pass through Minnesota daily, with as many as six (6) through the Twin cities. Each train carries 3.3 million gallons of oil among 110 loaded cars.

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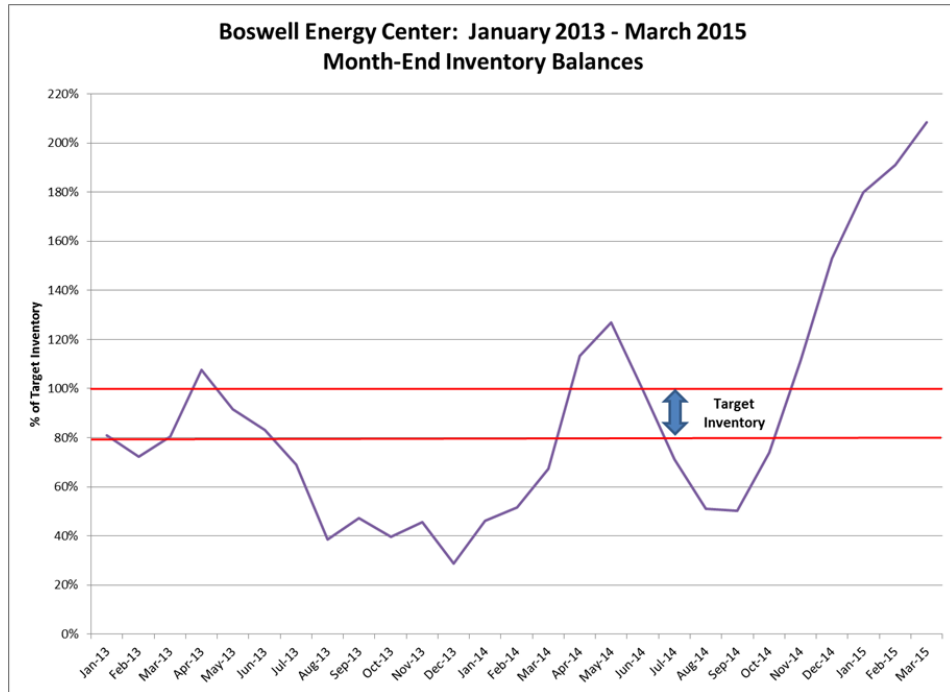
Throughout 2014 as Minnesota Power’s rail service challenges grew, Minnesota Power reached out externally for assistance in getting the railroad to perform, which was influential in getting trains moving. A number of those activities, copies of which are included in Attachment IR-27-B-1: Regulatory/ Legislative Activity Regarding Rail Service, included: a) letters sent and meetings attended with Minnesota legislatures, asking for support in rail delivery challenges; b) membership in Western Coal Traffic League (“WCTL”), comprised of shippers of approximately 14 million tons of coal mined in the western part of the United States, of which Minnesota Power’s Kathy Benham, Director – Fuel Strategy & Sourcing, is an officer, which is very active in addressing shipper concerns; c) Minnesota Power executives Dave McMillan, Sr. Vice President ALLETE External Affairs and Executive Vice President, Minnesota Power and Al Rudeck, Vice President – Minnesota Power Strategy & Planning, testified hearings at the Surface Transportation Board (“STB”), FERC, and a joint Minnesota Legislative group; d) meetings/written communications with Governor Dayton and staff, including

Response by: Kathy Benham
Title: Director - Fuel Strategy & Sourcing
Department: Strategy and Planning
Telephone: 218-313-4402

List sources of information:

participation in the Governor’s transportation summits, and e) communications with MnDOT regarding rail infrastructure enhancements needed for all traffic in northern Minnesota.

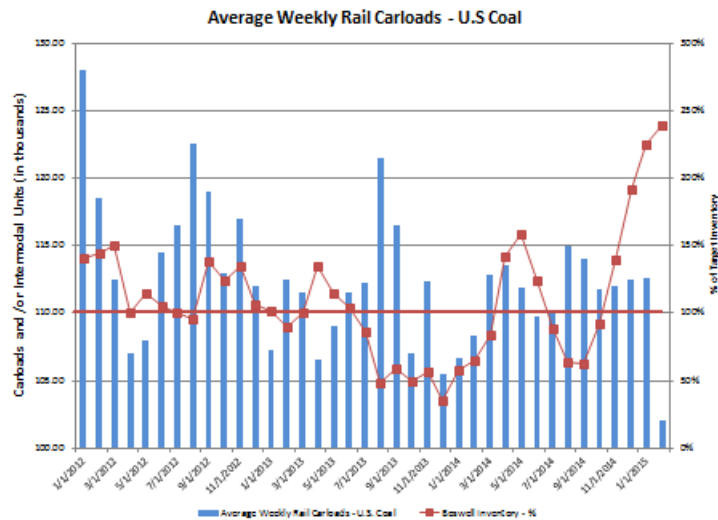
It is very hard to predict when/if rail service issues will be fully resolved. As depicted in the table below, Boswell was 20% over inventory target in May, 2014; through the summer, deliveries waned and by September inventory levels were 50% of target, followed by significant inventory gains through March, 2015. Given Minnesota Power’s large ratio of industrial customers that run 24/7, 365 days/year, consistent deliveries are as important as actually getting the coal. Throughout the two-year period, Minnesota Power was in constant contact with BNSF, which yielded very mixed results and inconsistent deliveries.



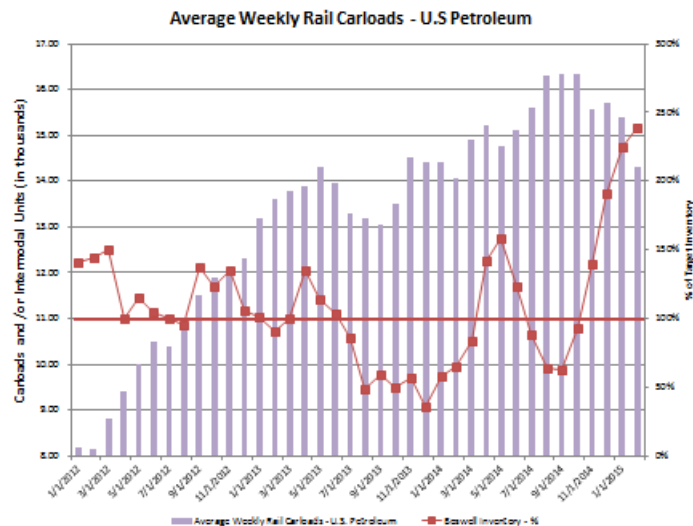
In comparing how Minnesota Power is doing regarding deliveries and inventory levels, the chart below shows Boswell month-end inventory levels (line data) and coal loadings in general (bar data); in months when coal deliveries were high, Minnesota Power did not necessarily get its “share” of deliveries; contrarily, when coal deliveries in the industry were low, one could argue Minnesota Power got more than it’s “share” of deliveries, thus making it hard to predict if the crisis is really over.

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List sources of information:



The chart below also follows Minnesota Power inventory levels with regards to increased petroleum-by-rail traffic; although there's not a direct correlation between Minnesota Power inventory levels and petroleum movements, one can see how petroleum deliveries likely impacted coal deliveries.



In 2015, Minnesota Power and BNSF continue to have differing viewpoints on coal delivery requirements, specifically around ratability of deliveries. Currently, BNSF has equipment available to ship coal and continues to ship more coal than is nominated monthly; hence the increased coal inventory levels depicted above. Minnesota Power is working diligently to expand the footprint of the pile at Boswell to allow for higher inventory levels; however, this has been somewhat delayed due to permitting requirements of the Minnesota Pollution Control Agency ("MPCA").

As outlined in a letter to the Minnesota Department of Transportation (See Attachment IR-27-B.2), competitive rail optionality is needed in northeastern Minnesota – both for Minnesota Power coal movements and to address large

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List sources of information:

industrial transportation needs in the region. In addition, as discussed in c) below, Minnesota Power has been having discussions with the transportation industry regulators (STB) and state legislators over many years, asking for help with rail shipper-related concerns.

c. [TRADE SECRET DATA EXCISED]

Although stronger performance requirements and/or larger penalties for the railroads would likely be beneficial, there are very few contracts, if any, remaining today that require the railroads to provide service for their rates and seriously penalize them if they fail. Although the service crisis appears to be over at this time, it could be another big event (e.g. crude-by-rail deliveries significantly increase) that once again brings service issues to the forefront. To avoid another coal delivery crisis like that experienced in 2013-2014, the STB must require more meaningful reporting on coal traffic and greater articulation of how BNSF intends to solve its problems.

Like transportation service challenges experienced by the industry over the recent years, there are a multitude of rail initiatives that need reform in order to protect shippers – whether shipping coal, taconite, agriculture, or other commodities. Minnesota Power has been active in bringing these issues forward; as evidenced in Attachment 27-C.1. Through the years Minnesota Power has communicated with Minnesota legislators to address a number of industry concerns, including: a) impacts of moving from 63 Class 1 railroads to four – two in the east and two in the west – which gives shippers little power over its rail movements, b) the need to remove bottlenecks (as described in the attachment) to unleash rail competition, c) the railroad competition and service improvement act of 1999, d) greater STB oversight, and e) railroad antitrust enforcement.

The general problem is that major carriers like BNSF and Union Pacific (“UP”) will not offer contracts with meaningful service standards. WCTL brought this matter to the STB’s attention in its submissions to the STB in ExParte No. 705 (see Attachment 27-C.2 Docket 705) and, as illustrated in on page 18 of Duane Richards’ (CEO of Western Fuels Association) verified statement, prior to 2004 BNSF and UP “negotiated, reasonable service standards, cycle times, etc.” but after 2004 there was a “general refusal to establish any service standards, cycle times, etc.” WCTL attributes this to the monopoly/duopoly BNSF and UP have over PRB shippers. Thus larger market forces preclude shippers like Minnesota Power from being able to negotiate meaningful service protections today – specifically the market power of mega-carriers like BNSF and UP – which since approximately 2004 they have been yielding like a club on service issues. This filing shows that Minnesota Power has brought the service standard problem to the attention of BNSF’s regulators.

On a historical basis, Minnesota Power (through WCTL) tried to head off the duopoly problem by opposing some of the mega-mergers in the 19990s that resulted in BNSF and UP, but the ICC/STB let them go through (See page 10 of Duane Richard’s verified statement in Attachment 27-C-2: Docket 705).

Response by: Kathy Benham
Title: Director - Fuel Strategy & Sourcing
Department: Strategy and Planning
Telephone: 218-313-4402

List sources of information:

To address these problems, WCTL has urged the STB to take actions to try to inject more competition in the railroad industry in a manner that would help shippers like Minnesota Power (see legal argument Attachment 27-C.2; Docket 705), asked the STB to more carefully monitor carrier service metrics (see Attachment 27-C-3: Coal Service Recovery Plan, which includes WCTL's 10-22-14 STB service petition in EP 724 and its opening comments on in EP 724(4) filed 3-2-15,); Minnesota Power is closely monitoring an on-going suit brought by Oxbow Mining where the shipper is alleging that BNSF and UP are colluding on price/service terms for PRB coal shipments in violation of the antitrust laws (see, as an example, Attachment 27-C.4: Oxbow Case), and Minnesota Power has Congress to intervene (e.g., see Attachment 27-C.1, which includes copies of letters Al Hodnik, CEO, sent on January 1, 2015 to Rick Nolan, Al Franken and Amy Klobuchar asking Congress to "step in . . . to address service problems for transportation services that move under contract".

In response to such efforts and WCTL's, Senator Baldwin (D-WI) has introduced a bill that would specifically permit the STB to intervene to address and remedy service emergencies faced by contract shippers (see Attachment 27-C.5: Baldwin Bill and Summary).

Response by: Kathy Benham
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Department: Strategy and Planning
Telephone: 218-313-4402

List sources of information:

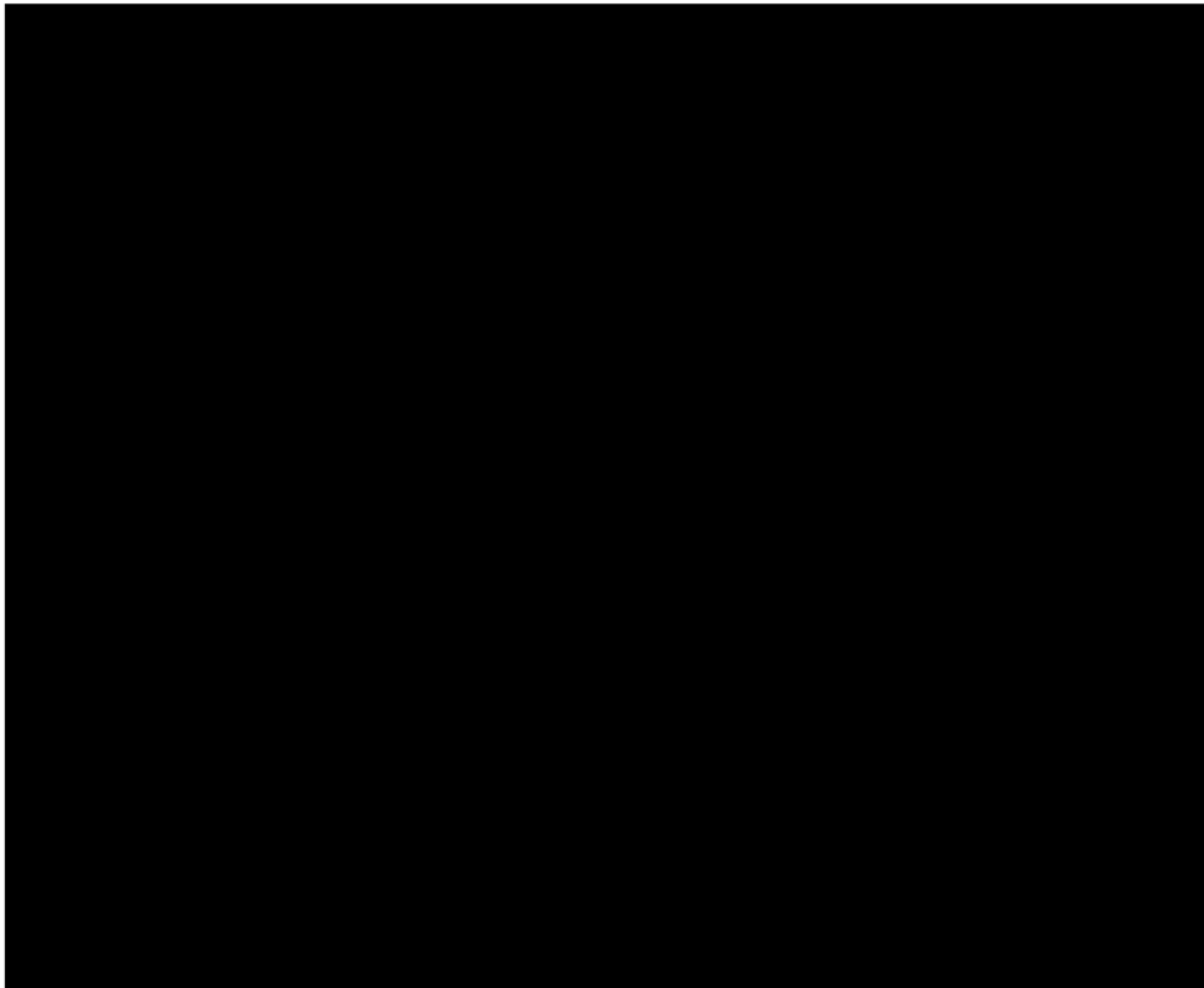


December 27, 2013

George Duggan
Group Vice President – Coal Marketing
Burlington Northern Santa Fe Railway
PO Box 961051
Fort Worth, Texas 76161-0051

Sent via electronic mail

Dear George,





Sincerely

A handwritten signature in black ink, appearing to read "Allan S. Rudeck Jr.", is written over the typed name.

Allan S. Rudeck Jr.
Vice President
Strategy and Planning
Minnesota Power

c: Jessie McCabe , BNSF Railway
Stevan B. Bobb, BNSF Railway

Minnesota Power Fuel Strategy Group
Alan R. Hodnik – Chairman, President and CEO – ALLETE



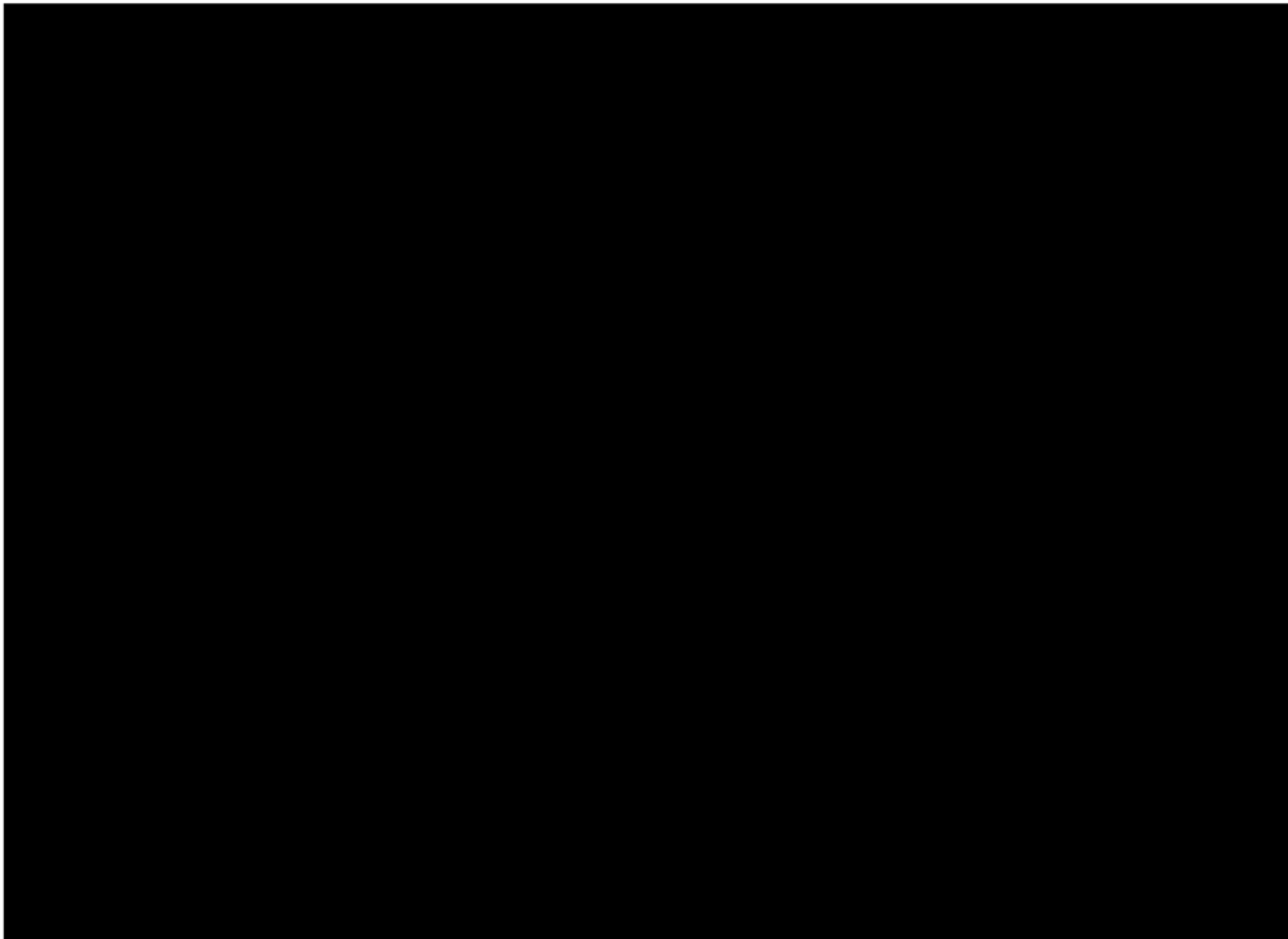
George T. Duggan
Group Vice President
Coal Marketing

BNSF Railway Company
P.O. Box 961051
Fort Worth, Texas 76161-0051
2650 Lou Menk Drive
Fort Worth, Texas 76131-2830
Tel: (817) 867-6253
Fax: (817) 352-7940
George.Duggan@bnsf.com

February 10, 2014

Mr. Allan S. Rudeck, Jr., P. E.
Vice President Strategy & Planning
Minnesota Power
30 West Superior Street
Duluth, MN 55802-2093

Dear Allan:





Sincerely,

A handwritten signature in black ink, appearing to read "G. T. Duggan", with a long horizontal flourish extending to the right.

George T. Duggan

Cc: Ms. Jennifer Sackson, AVP Coal Marketing, BNSF Railway, Fort Worth, TX
Ms. Jessie McCabe, Director Coal Marketing, BNSF Railway, Fort Worth, TX

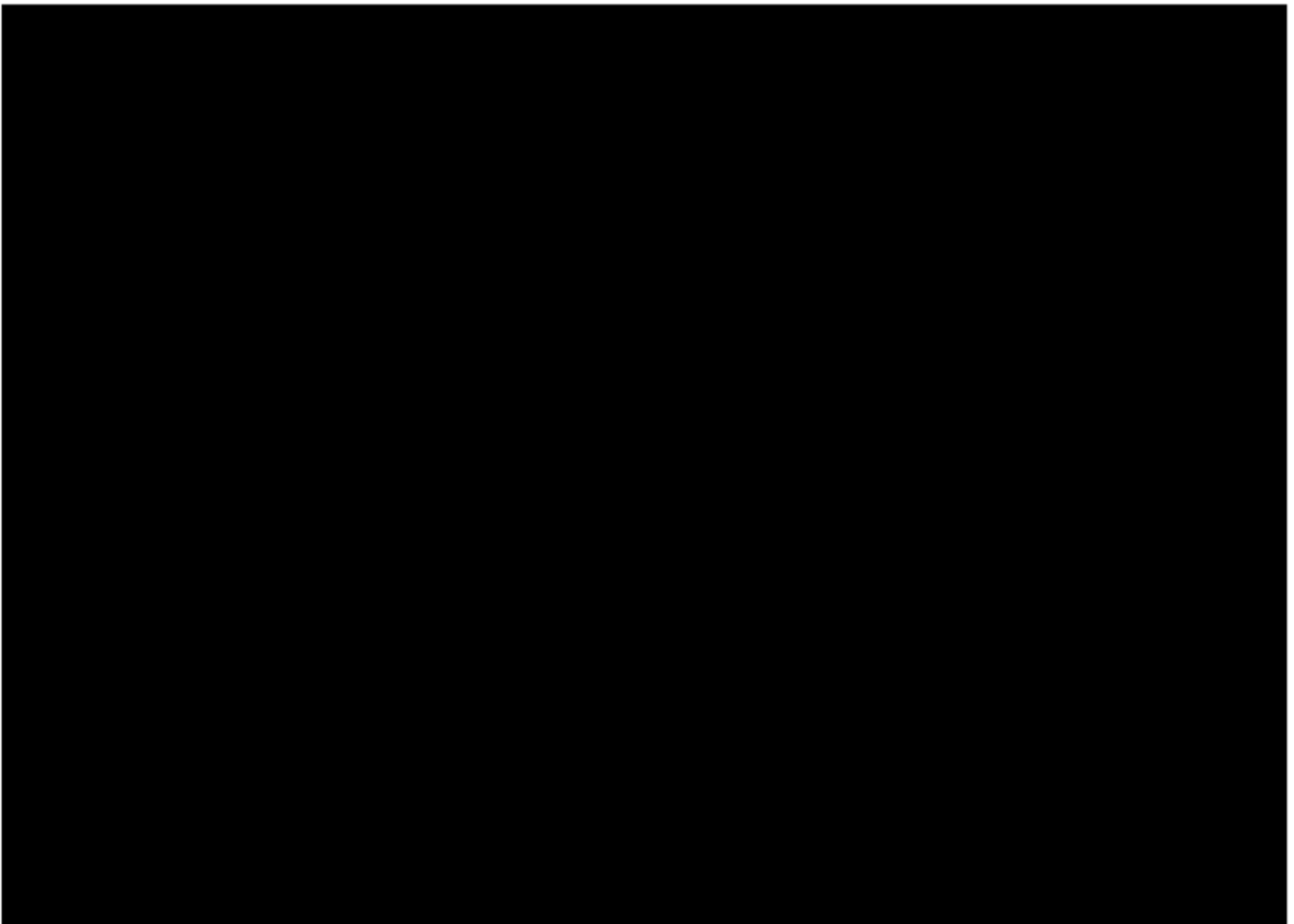


Alan R. Hodnik
Chairman, President and
Chief Executive Officer

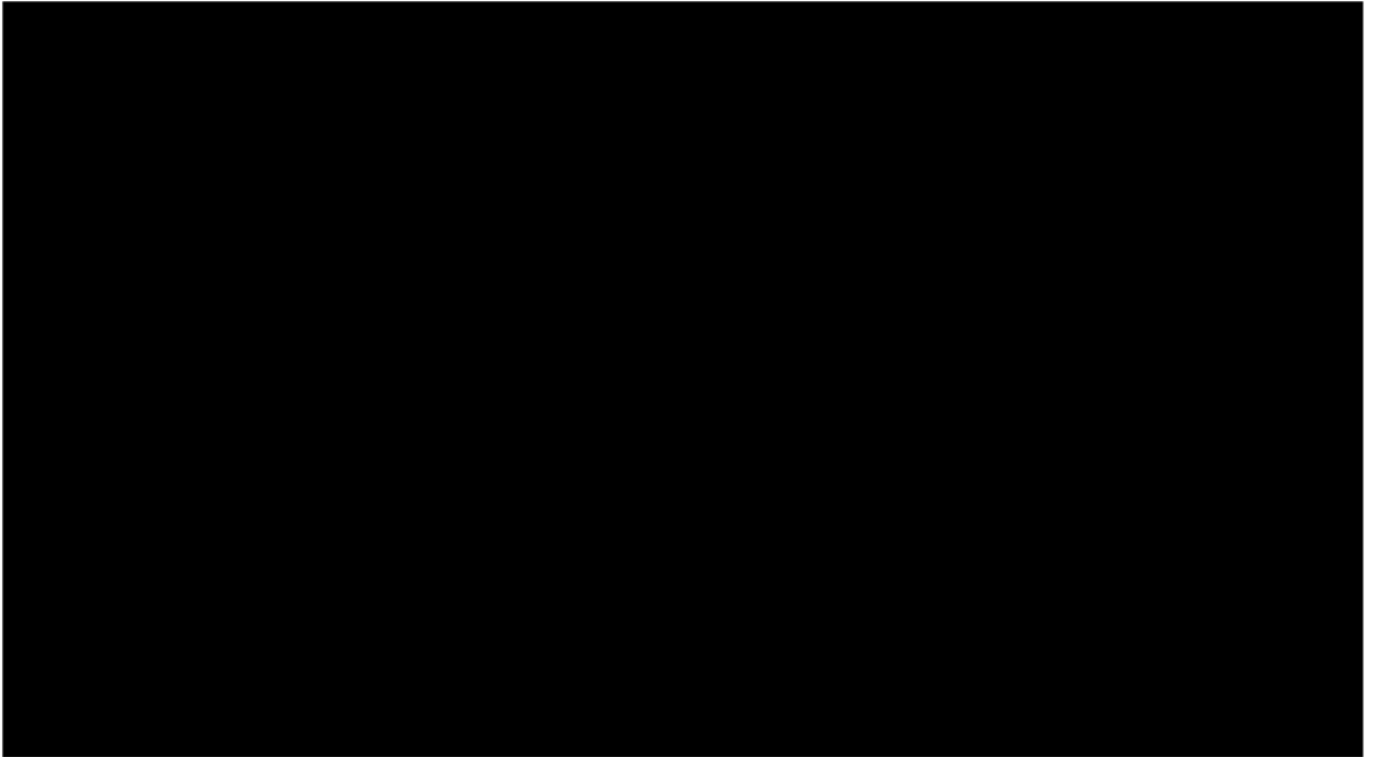
April 14, 2014

Mr. Carl Ice
Chief Executive Officer and President
BNSF Railway
2650 Lou Menk Drive
Fort Worth, TX 76131-2830

Dear Carl:



Mr. Carl Ice
April 14, 2014
Page 2



Sincerely,
ALLETE, Inc.

A handwritten signature in black ink, appearing to read "A. Hodnik", is written over the typed name.

Alan R. Hodnik
Chairman, President & CEO

/c/l

C: George Duggan
Bob Lease



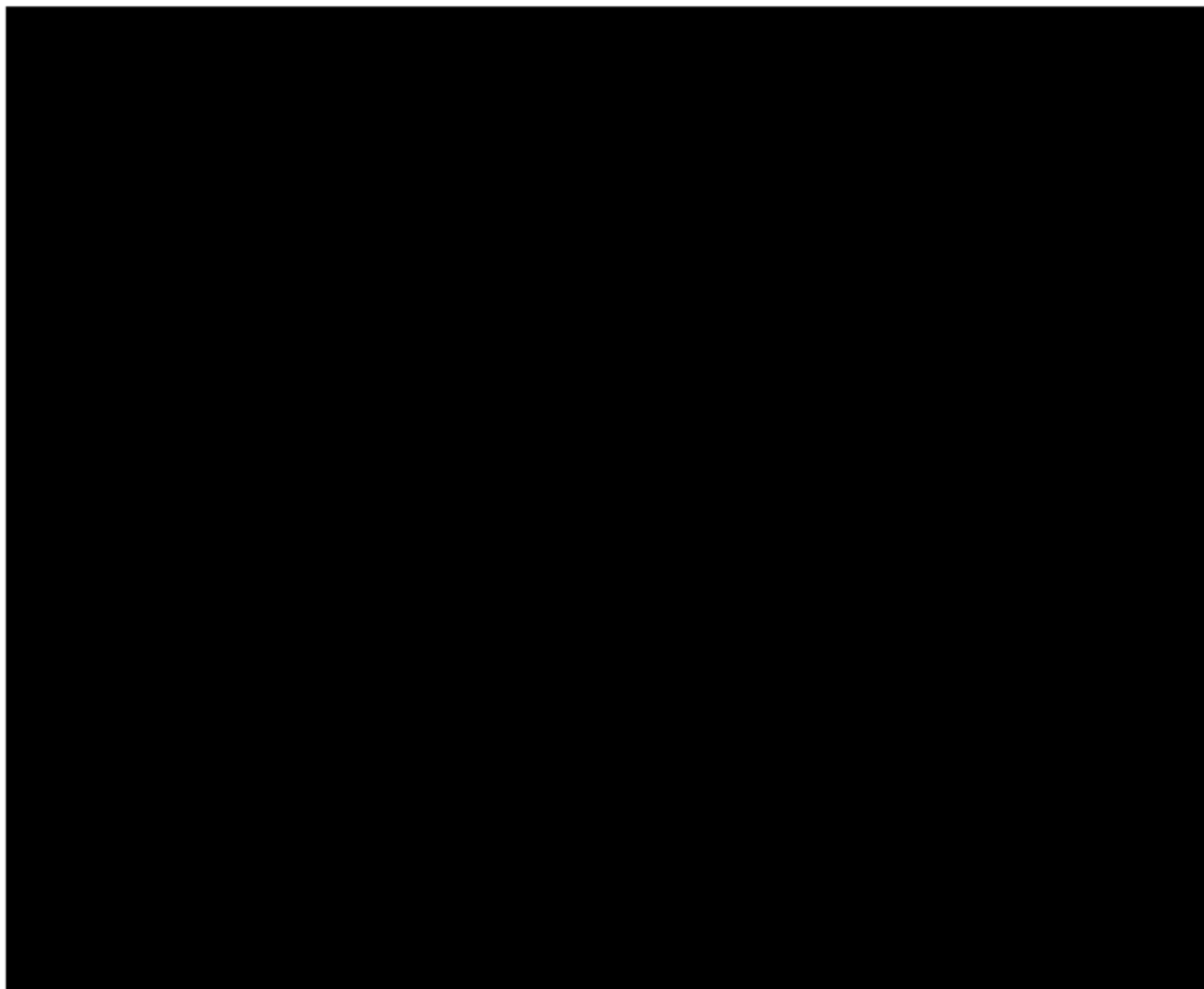
Allan S. Rudeck, Jr., Vice President – Strategy & Planning

30 West Superior Street, Duluth, Minnesota 55802 / 218-355-3480 / fax: 218-723-3983 / arudeck@mnpower.com

August 29, 2014


Mr. George T. Duggan
Group Vice President
Coal Marketing
BNSF Railway Company
2650 Lou Menk Drive
Fort Worth, TX 76131-2830

Dear George:





Sincerely,

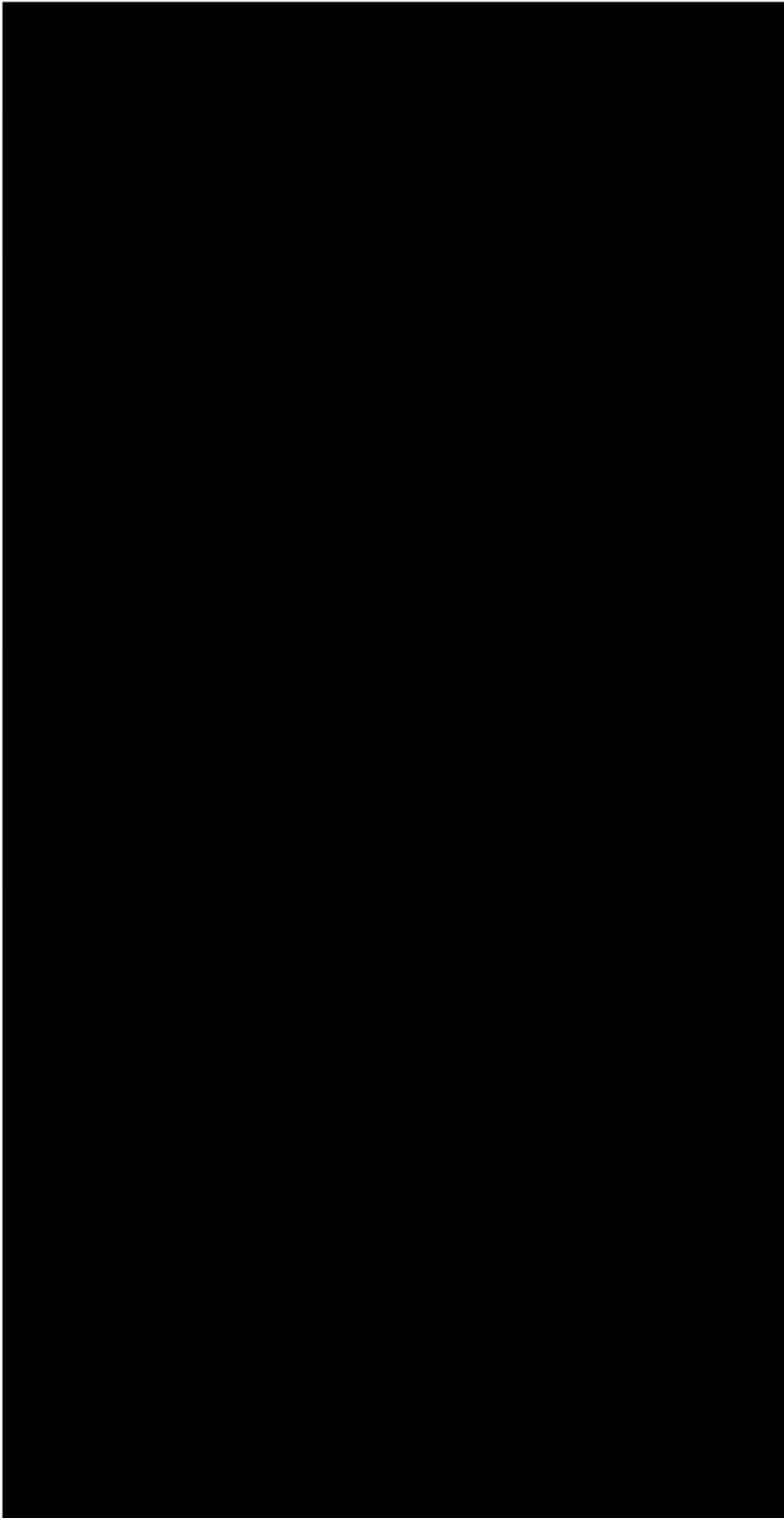


Allan S. Rudeck, Jr.
Vice President – MP Strategy & Planning

Enclosure

c: MP Legal Services
Kathy Benham, Director – Fuel Strategy & Sourcing

PUBLIC DOCUMENT
TRADE SECRET DATA EXCISED
Minnesota Power Confidential Information
Coal Transportation Agreement BNSF-C-12269
Enclosure to August 29, 2014 Letter ASR to GTD



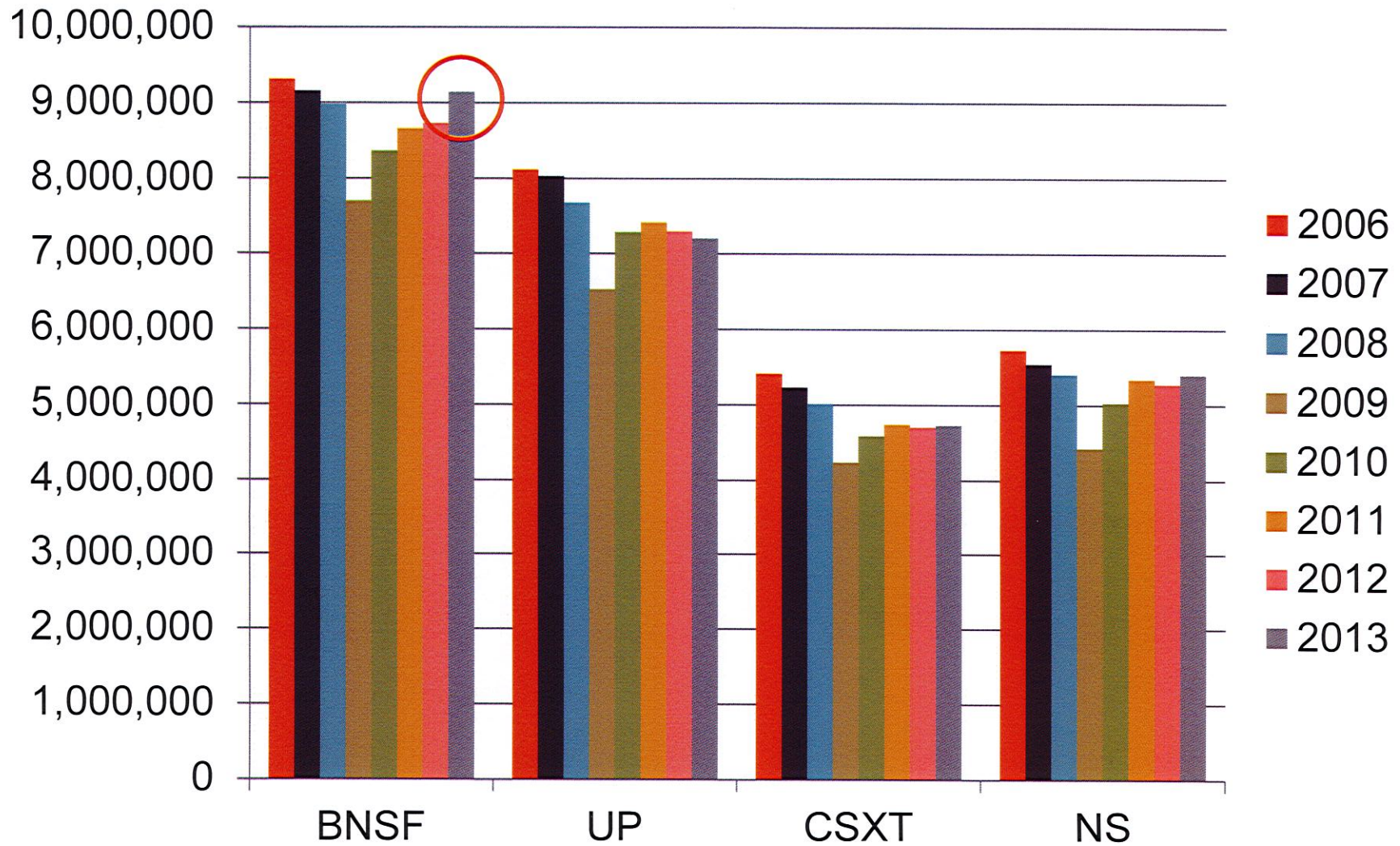
BNSF Service Update

February 2014



Factors Contributing to Current Congestion

As economy improves-rail traffic is rebounding

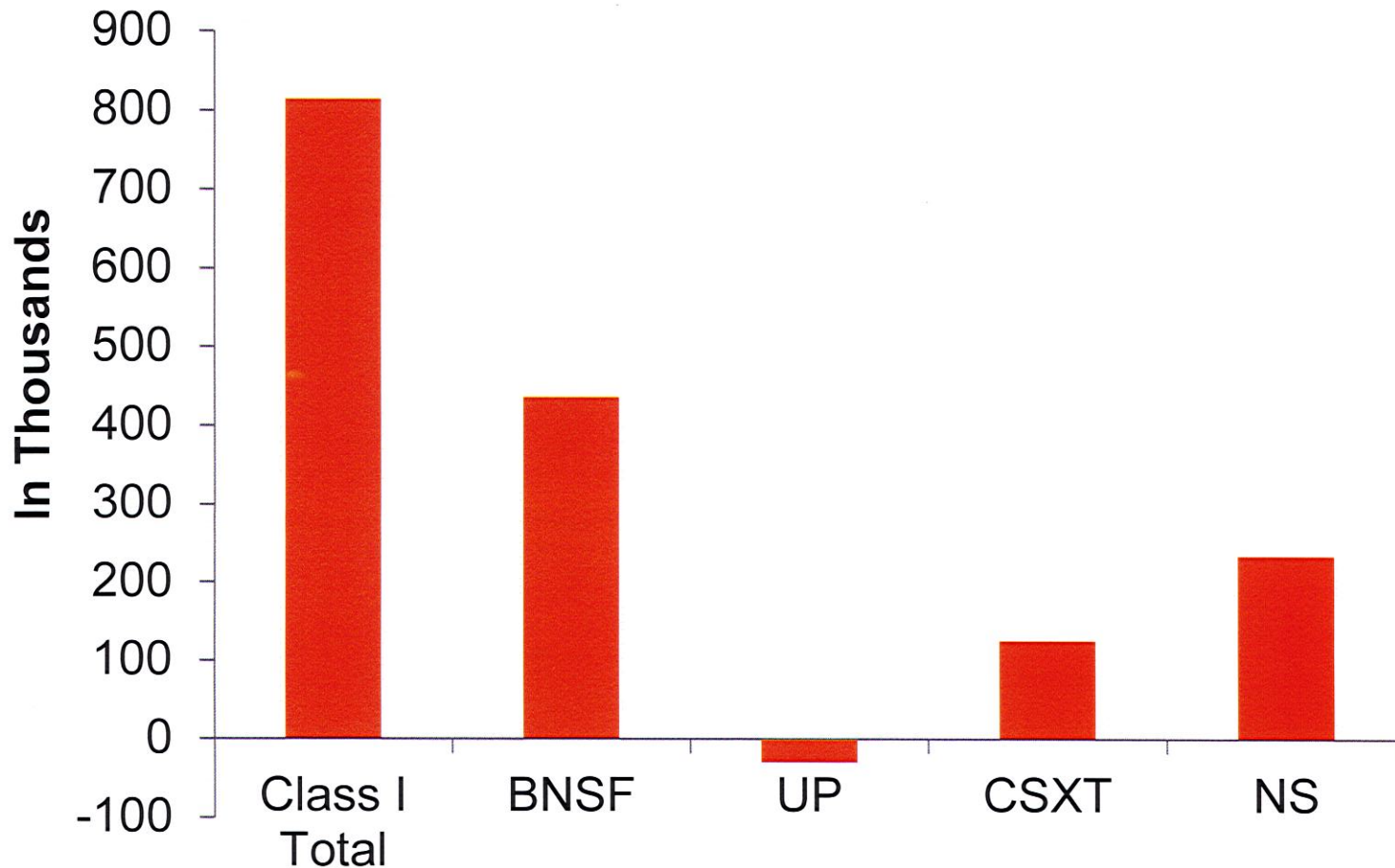


Source: CS54 Weekly Traffic Reports; data through Week 52, 2013



BNSF moved 50% of all growth on U.S. rail

Incremental Unit Growth vs. 2012

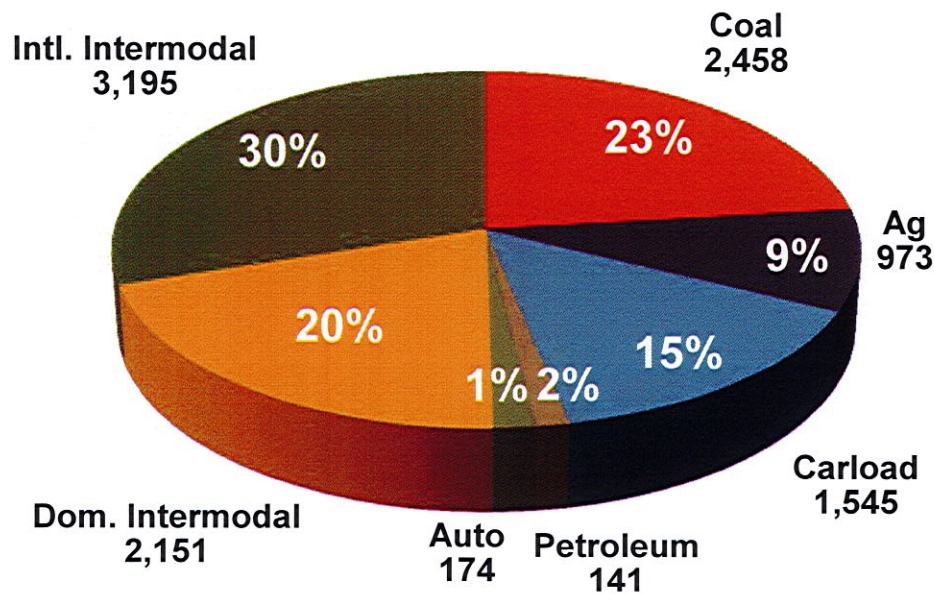


Traffic growth is much different today

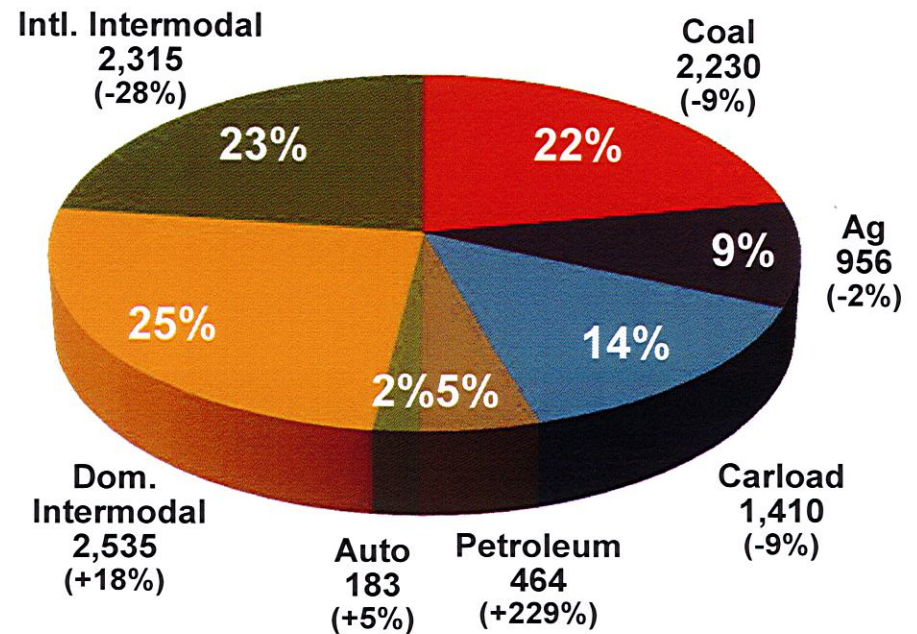
Domestic Intermodal & Crude growth are game-changers

Units in Thousands

2006
Total 10,637



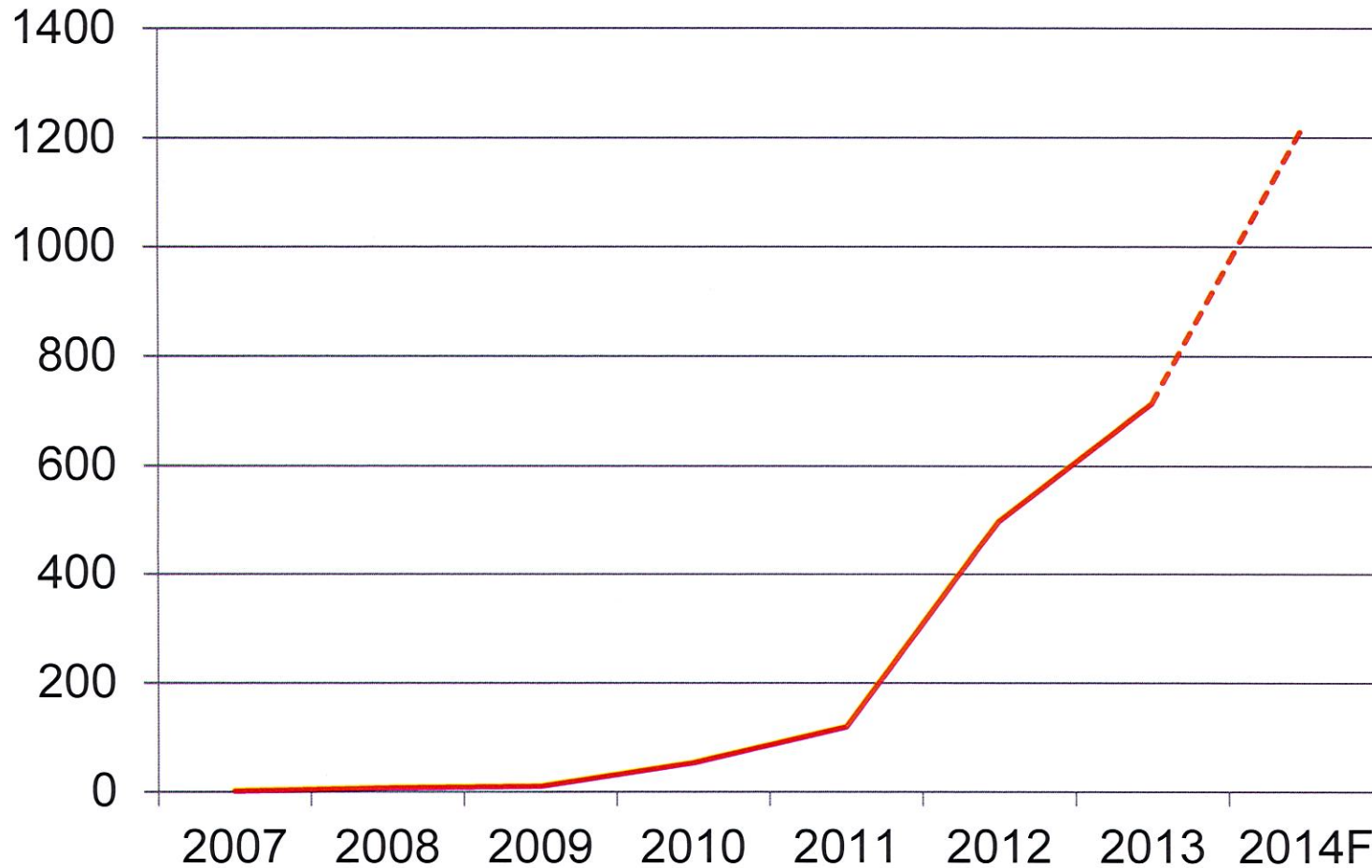
2013
Total 10,093
(-5%)



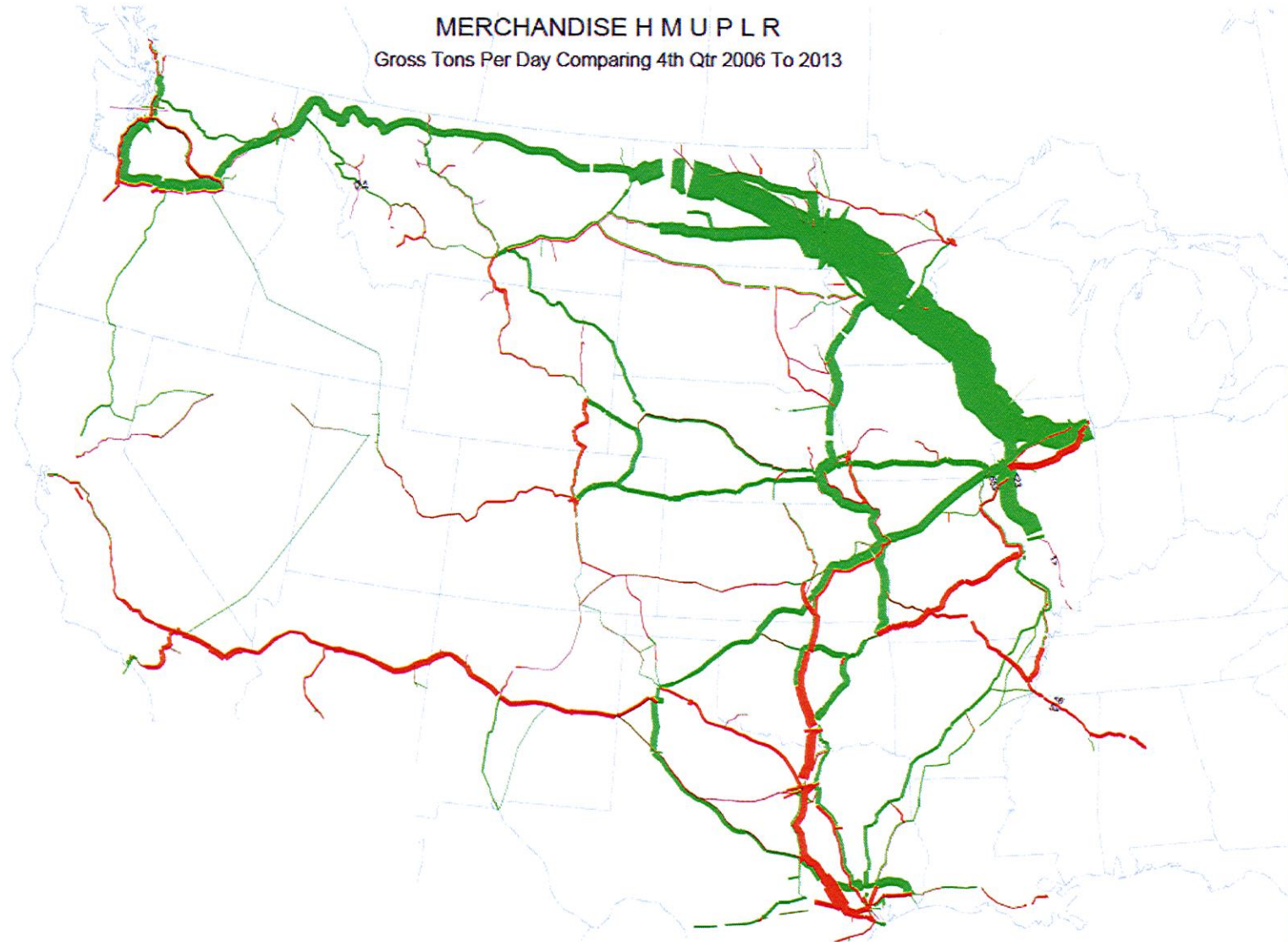
BNSF crude-by-rail growth

BNSF handled 9% of U.S. crude production in Nov. 2013

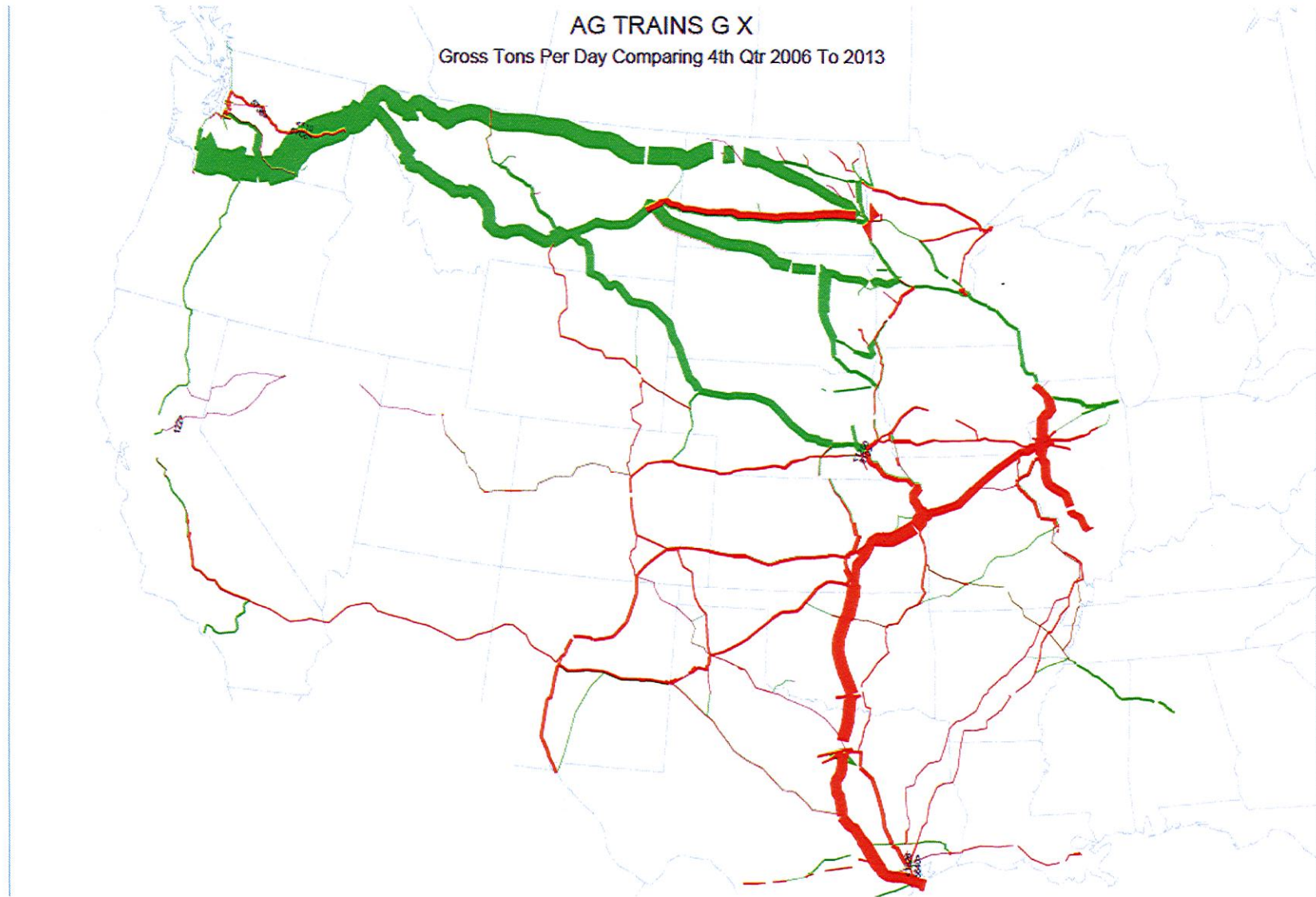
Barrels/Day (in Thousands)



BNSF volumes have increased substantially due to surges in crude-by-rail

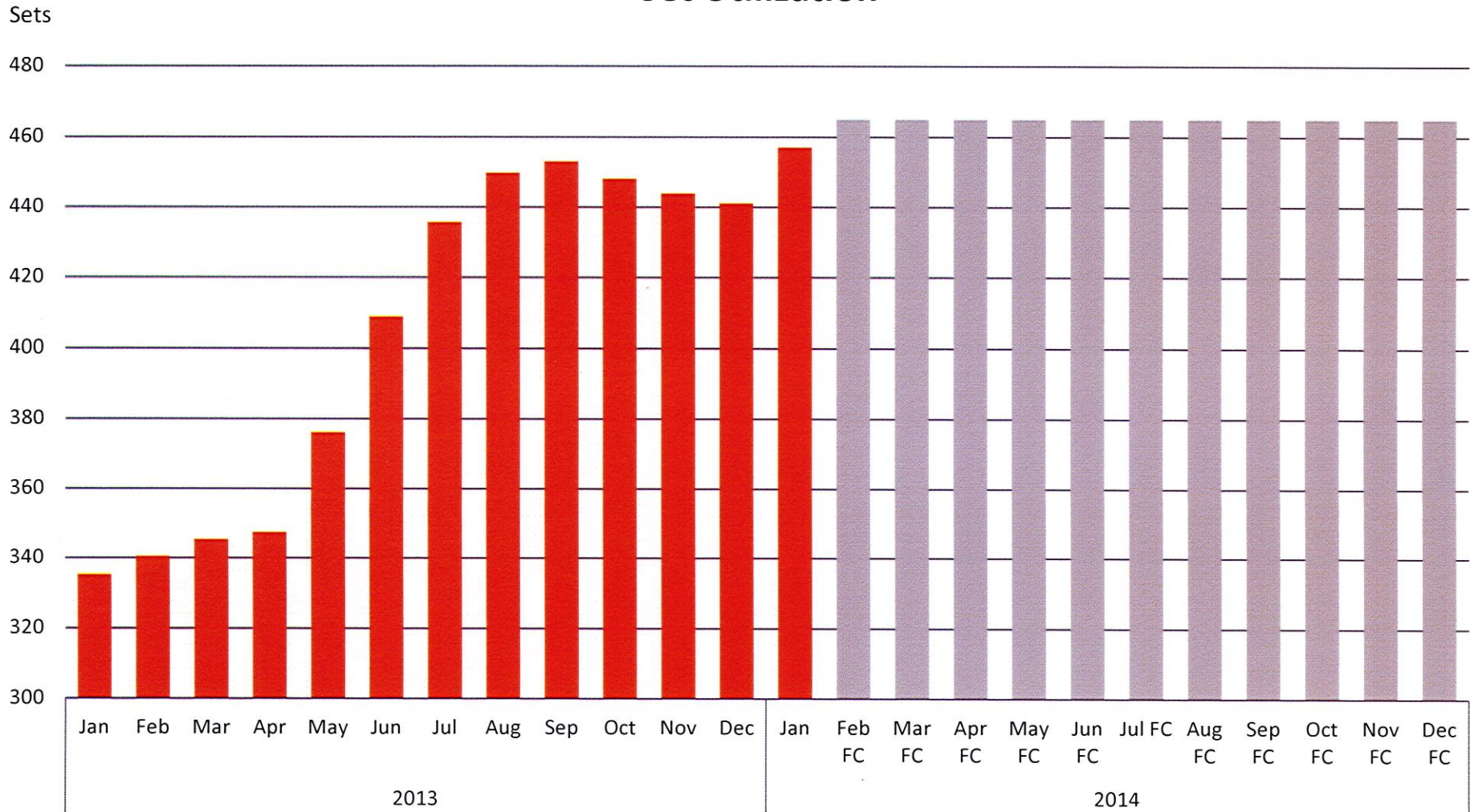


Compressed Ag harvest made additional demands on our Network

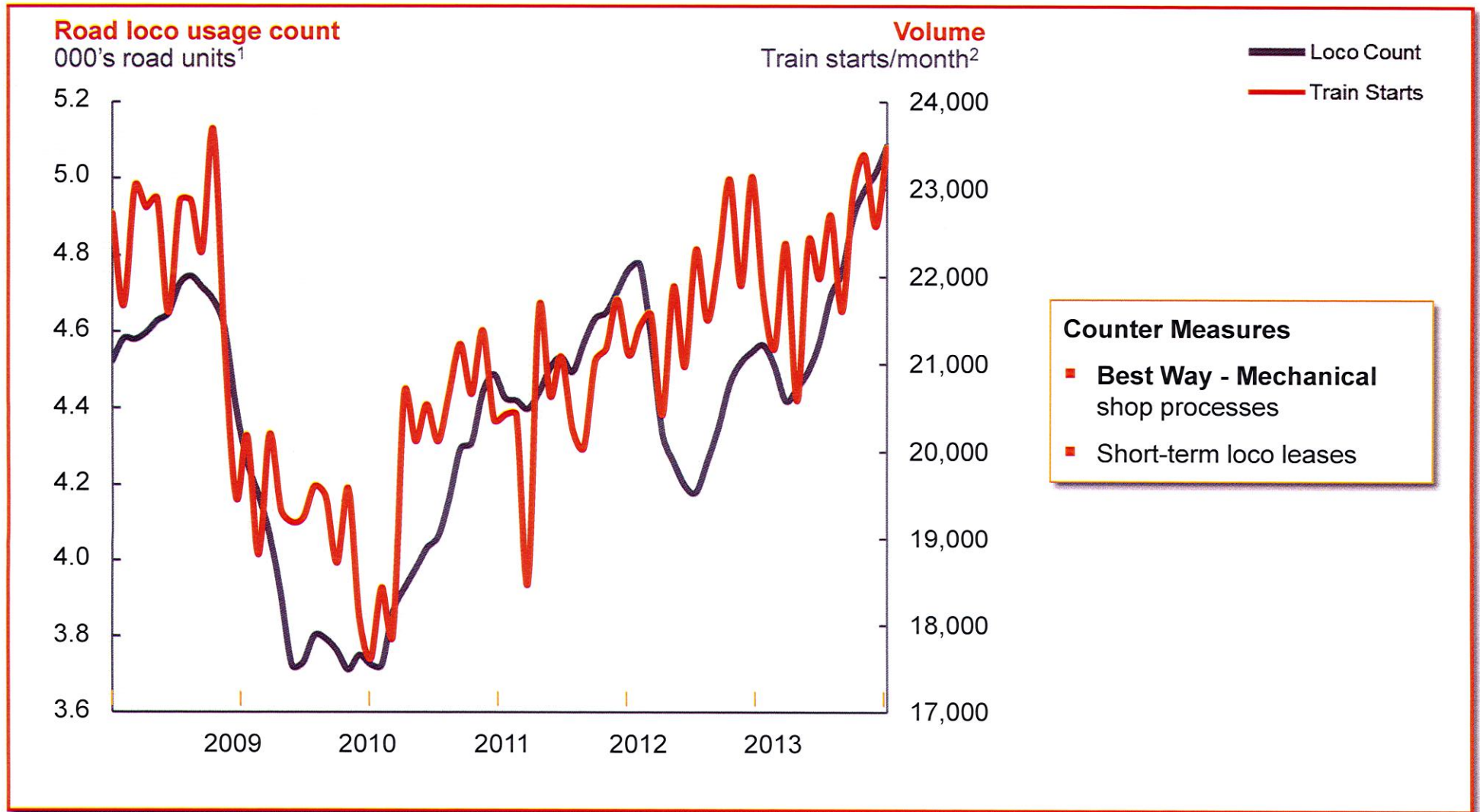


Coal sets in service rise mid-2013

Set Utilization



Number of road locomotives has kept pace with volume increases



1 "Loco usage" of "road" category by month

2 Originating trains

Train crews have also kept pace with recent volume growth

