



Setting Rail Rates for Coal-Fired Power Plants - the New Normal?

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Changing



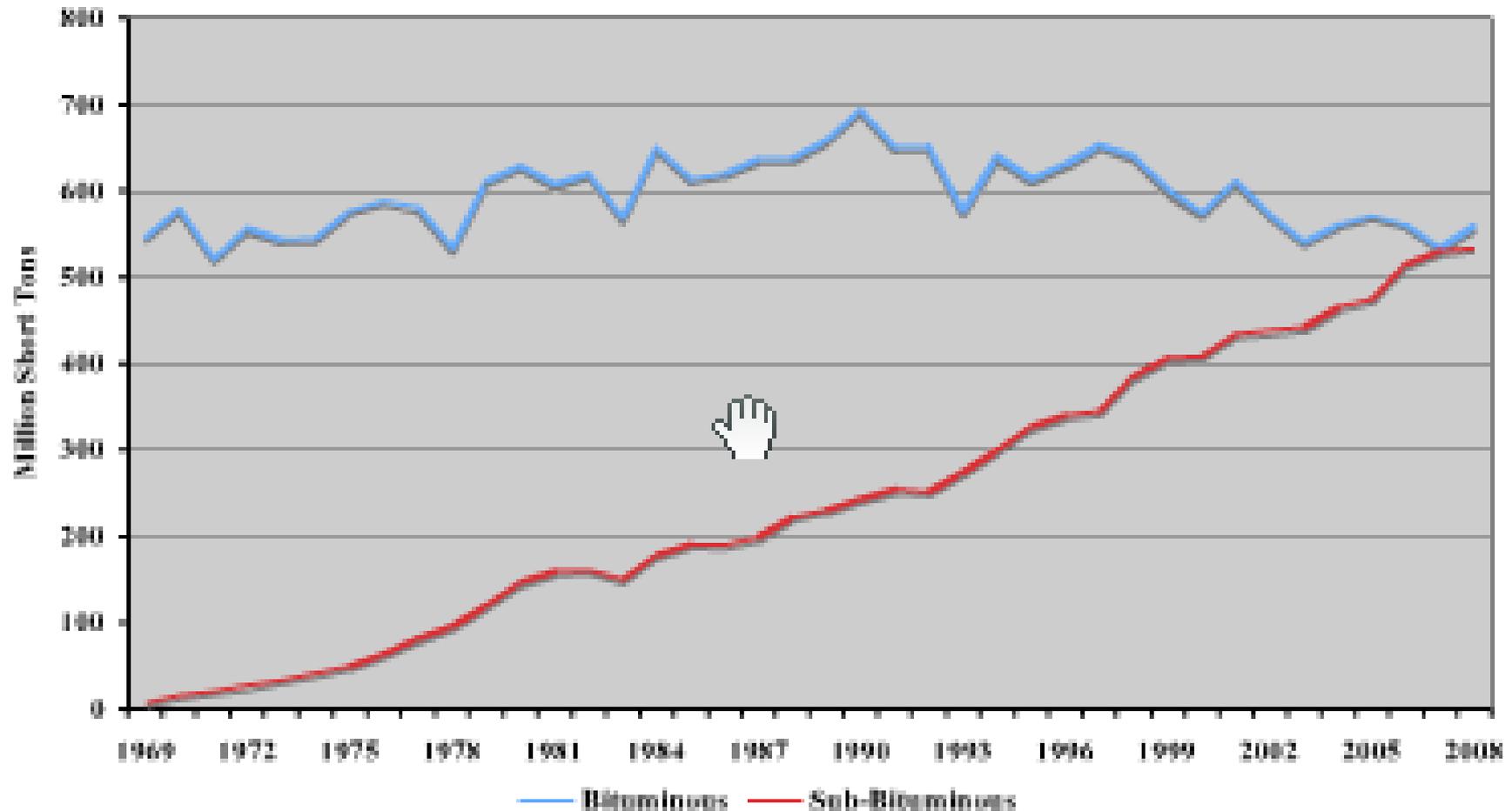
Situation

Coal has declined in importance to the rail industry over the past five years.

What will be the future role of coal and rail rates for coal?

Answer: Different, very different

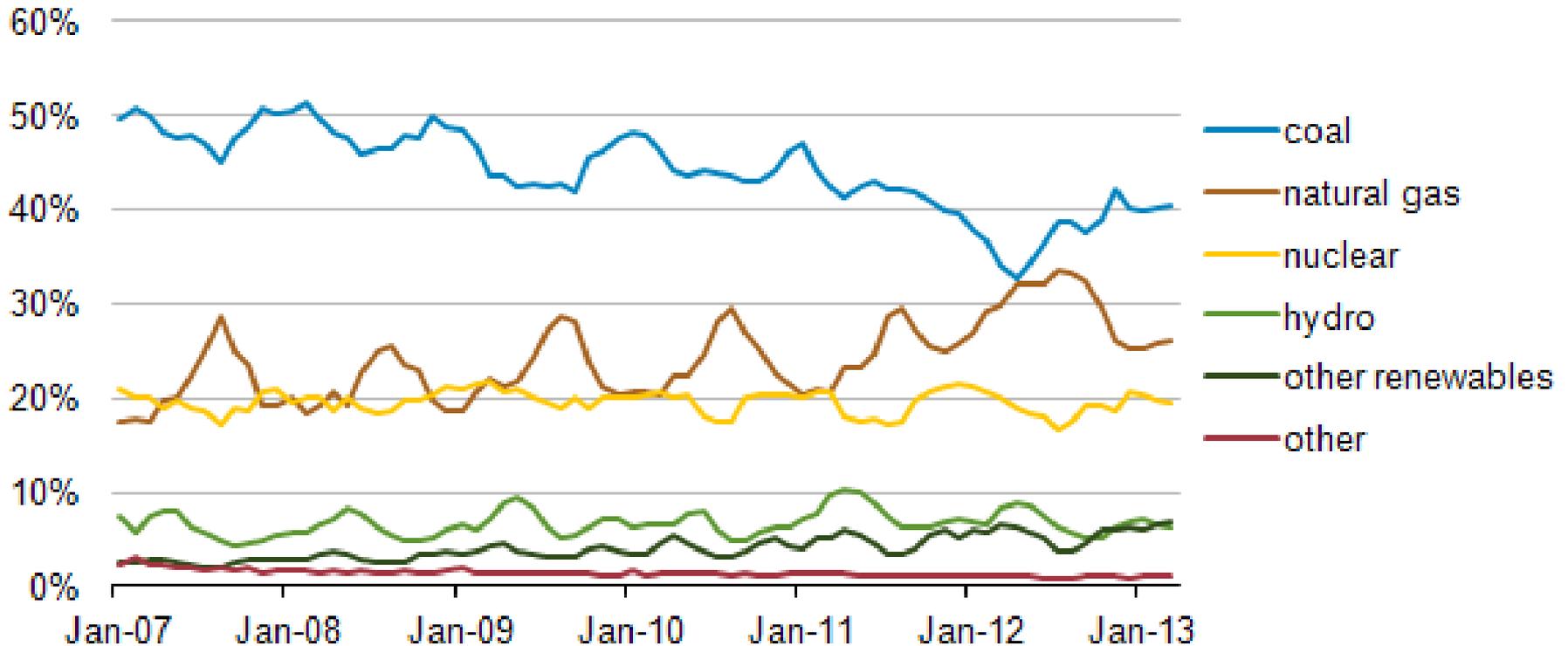
PRB Growth was US Coal Growth



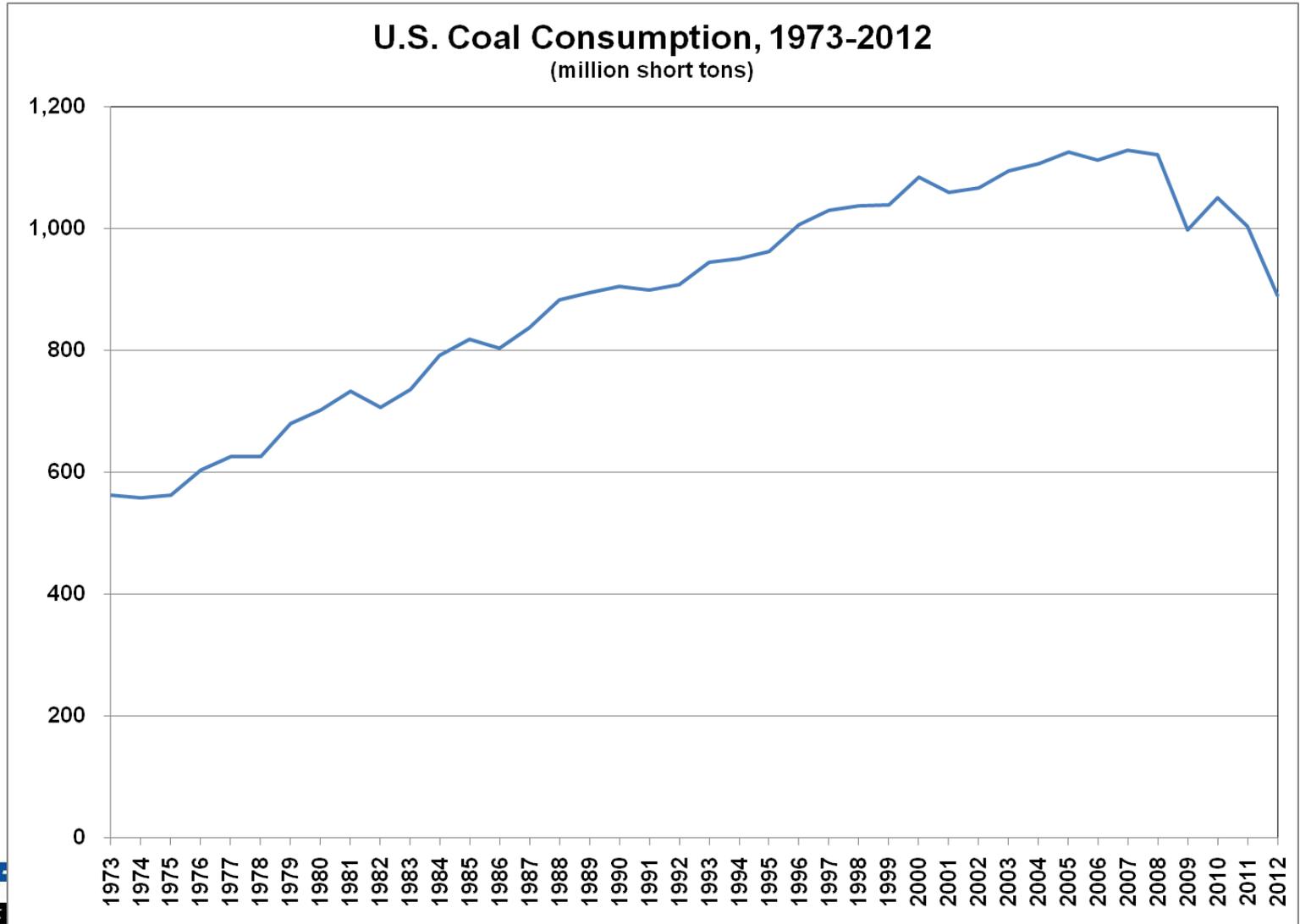
Source: Energy Information Administration

Gas Taking Market Share from Coal

U.S. monthly net electric power generation, January 2007 - March 2013
percent share



U. S. Coal Consumption, 1973- 2012



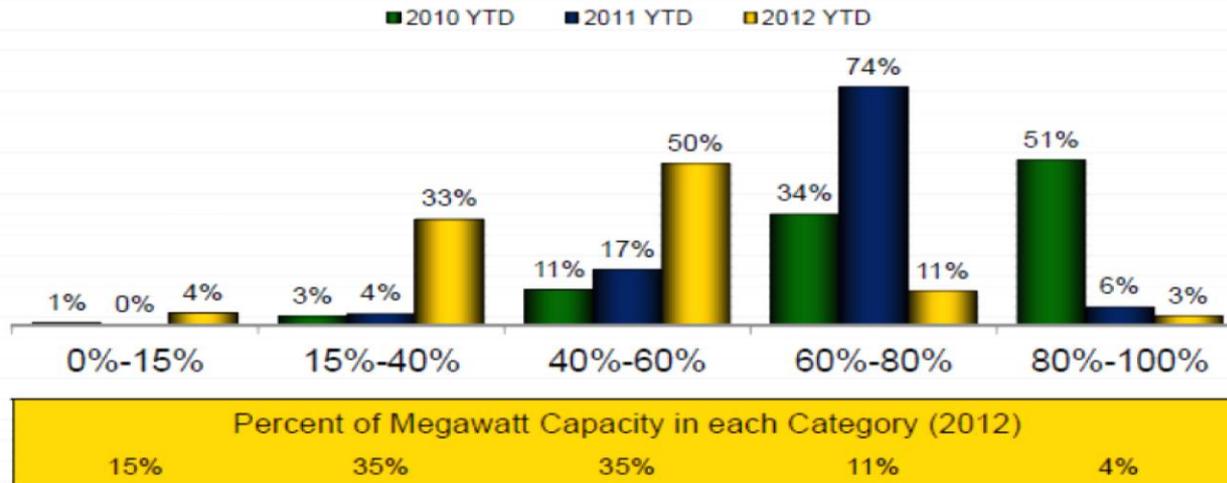
What Happened?

- **Cheap gas, tough environmental regulations and low power prices have virtually eliminated new US coal plant construction.**
- **Cheap gas, conservation, renewables and anemic economic growth have reduced rail shipments to existing units.**
- **High production costs, tougher mining regulations, installation of scrubbers, and low market prices have eviscerated the CAPP steam coal supply industry,**

Base Load Plants are Becoming Intermediate Load

Current dispatch rate of CSX-served utility plants

Capacity Utilization of CSX-Served Plants
Percent of Total Tonnage



Source: SNL Energy, with year-to-date February data for each of the three years

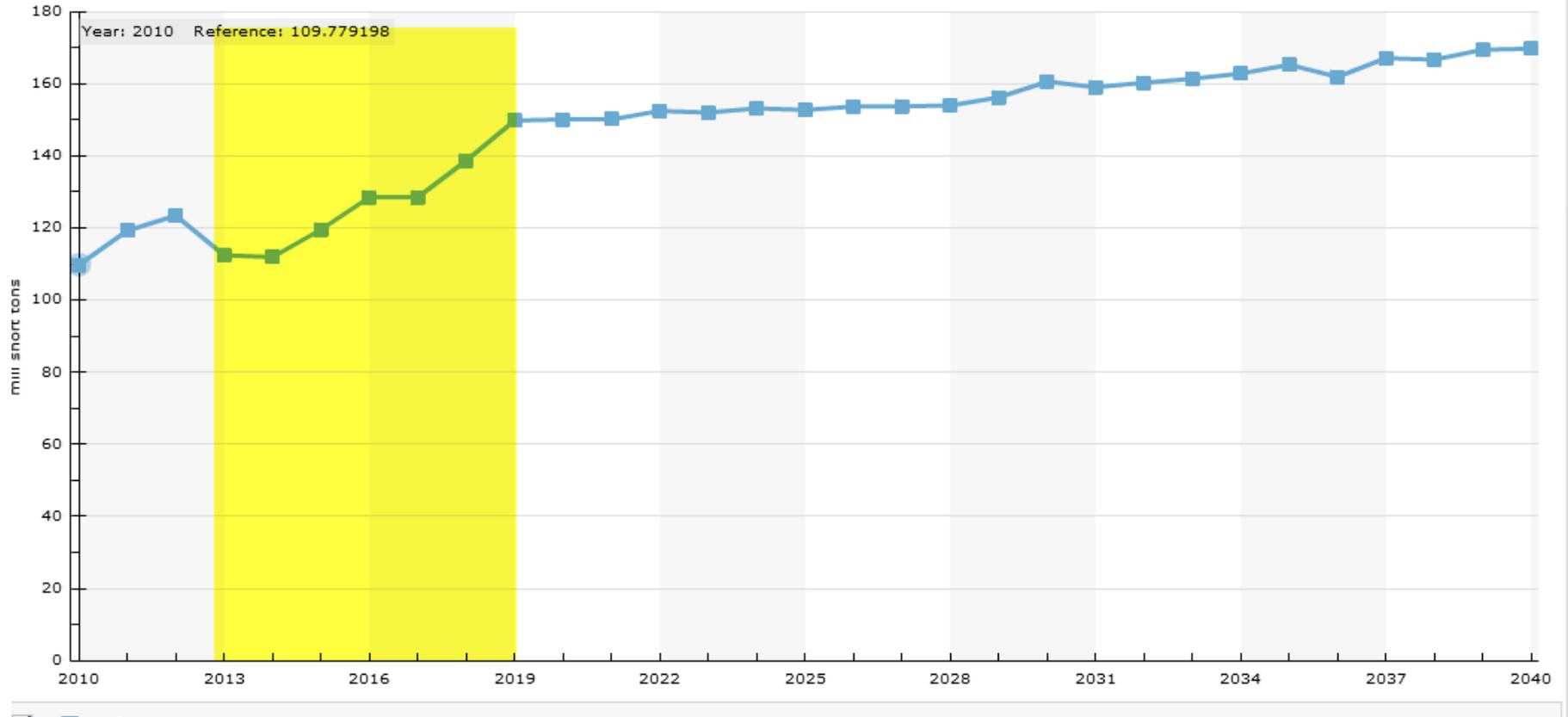
Potentially Quite Different Rail Pricing for CAPP and ILB

Calculating the Rail Freight 'Headroom' for CAPP and ILB Coal to Compete with Gas Combined Cycle Power for CY '13

		Gas	CAPP Coal	ILB Coal
Coal ICAP 2Q-4Q '13	\$/t		\$66	\$40
Fuel price	\$/MMBtu	\$4.10	\$2.64	\$1.69
Transport	\$/MMBtu	\$0.30	\$0.46	\$1.41
heat rate	MMBtu/MWh	7.0	10.0	10.0
Fuel for Generation	\$/MWH	31	31	31
Rail price to match gas	\$/ton		\$12	\$33

Gas price May 7, '13 CME Group HH forwards for Jun-Dec '13
Coal price ICAP May 7, 2013. Heat rates are generic.

Illinois Basin Production Increase



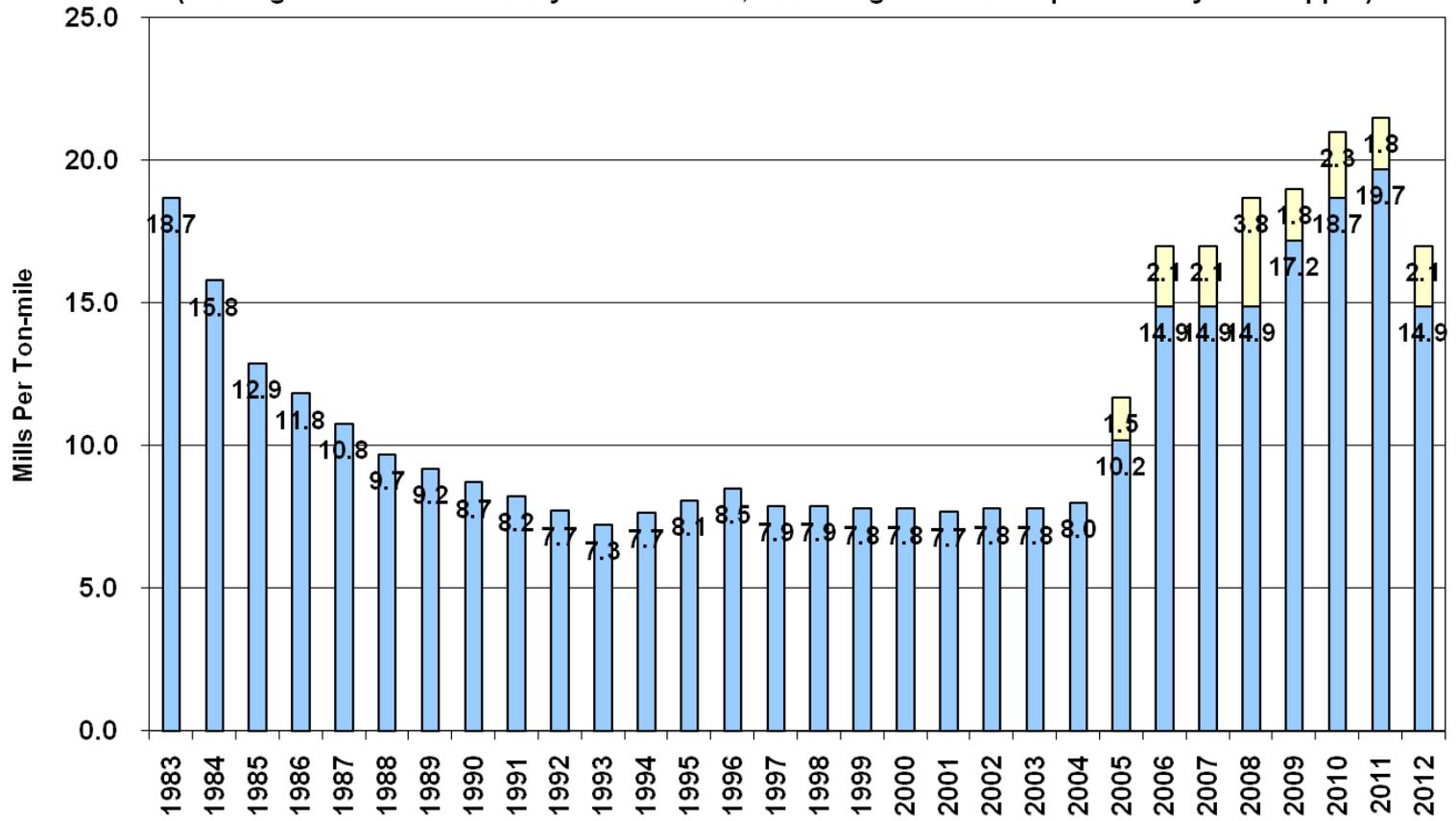
EIA Reference Case AEO 2013



PRB Rail Rates: Still at High Levels

Rail Rates for Shipments of PRB Coal to Competitively-Served Destinations on BNSF or UP

(starting rates for new multi-year contracts, assuming railcars are provided by the shipper)

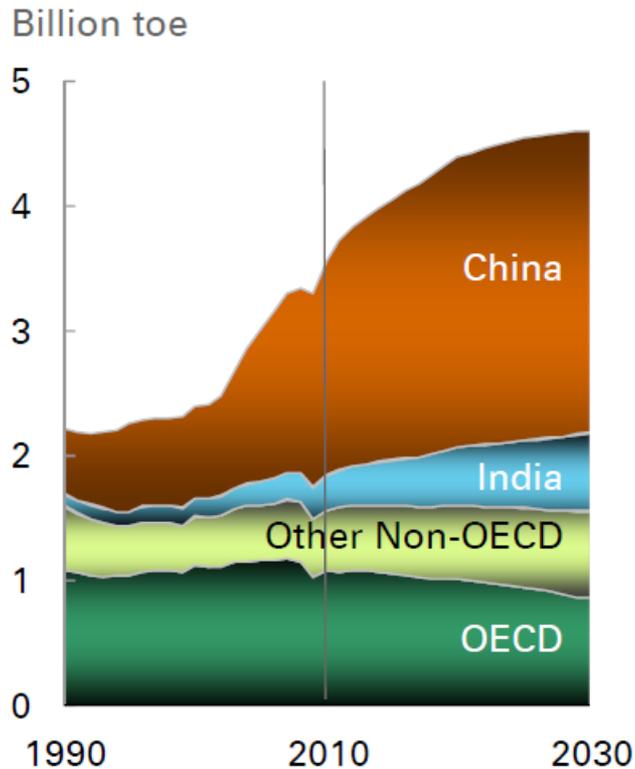


Sources: Estimates by Fieldston Co., Inc., PA Consulting Group, Pace Global Energy Services, and Hellerworx.

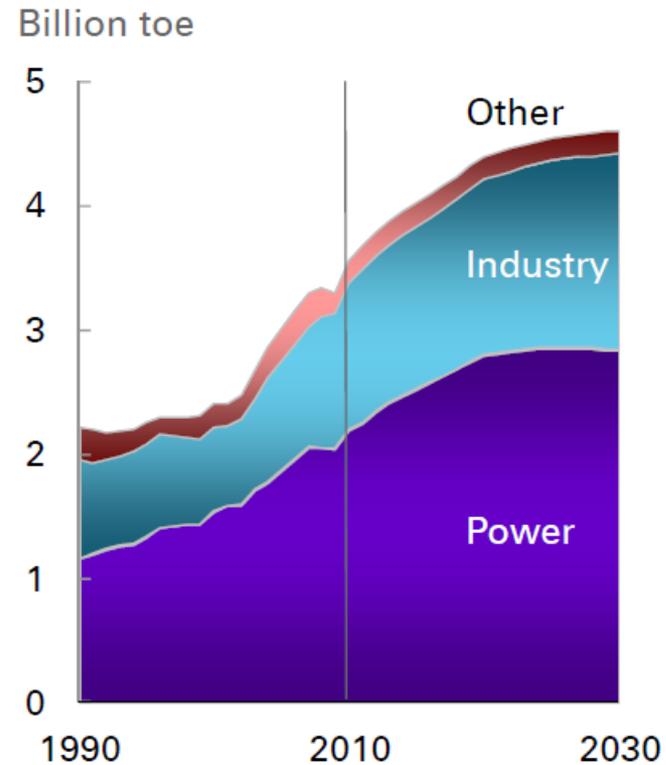


For US Coal - Exports Are the Target

Coal demand by region



Coal demand by sector



Conclusions

Domestic utility coal will become a smaller and more uncertain part of the railroads' commodity mix than it has been in the past due to environmental regs and competition from natural gas.

- 1. An ability to flexibly burn and transport ILB coal will be critical. (NAPP and PRB largely done)**
- 2. More flexible approaches to contracting for coal and rail may develop. Would use price and term flexibility to achieve more volume predictability.**