Peabody

PEABODY ENERGY

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St. Louis, Missouri 63101-1826
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June 16, 2005

Bob Amato (via email)
Director - Division of Engineering
Public Service Commission, Commonwealth of Kentucky
211 Sower Blvd.
P.O. Box 615
Frankfort, KY 40602

RE: Assessment of Kentucky's Electric Generation, Transmission and Distribution Needs (Case # 2005-00090)

Dear Mr. Amato:

Peabody Energy Corp. appreciates the opportunity to submit comments regarding the Commonwealth of Kentucky's assessment of its existing electric generation and delivery infrastructure. Peabody Energy (NYSE: BTU) is the world's largest coal company. In 2004, coal accounted for over 52% of all the electricity produced within the United States and is the reason the United States has low-cost electricity. Our company's products fuel more than 10% of all US electricity generation and more than 3% of electricity generation worldwide. Peabody Energy is the largest coal reserve owner and producer in the Illinois Basin, which includes parts of Illinois, Indiana and western Kentucky. The company is not involved in any eastern Kentucky mining operations or any operations involving mountain top mining. In addition, Peabody Energy has three low-emission pulverized coal generating units under development located in Kentucky, Illinois and New Mexico.

Peabody Energy supports the Commonwealth of Kentucky's energy plan to continue its use of coal-based generation in order to remain one of the lowest cost electricity states in the US, if not the lowest. We believe that the state can sustain this advantage by keeping its electric utility industry regulated. Our company also supports Kentucky's trend of continuous improvements in air quality by incorporating new environmental control technology to existing coal generation within the state. With the passage of the Clean Air Interstate Rule (CAIR) and mercury regulation on the federal level, Kentucky coal plants, like other coal plants located in the Eastern US, will be required to reduce emissions of SO2, NOx, and mercury by an extra 70% in the next 10 years in addition to their substantial quality improvements to date.

Peabody Energy is also in favor of Kentucky's pursuit of new, clean coal generation regardless of its technology. Today's most advanced coal generating technology

includes sub- or super-critical pulverized coal (PC), circulating fluidized bed (CFB) and integrated gasified combined cycle (IGCC). Newer coal plants who employ these technologies will be 70 - 85% cleaner than the existing ones and may displace generators that are older, smaller, higher in operating cost and not utilizing advanced environmental technologies. These new plants will also be 10 - 15% more efficient in terms of CO2 emissions.

While Peabody Energy does champion the state of Kentucky's effort to develop sound energy policies, the company feels there are some aspects the state needs to either clarify or address. For instance, will this plan only relate to energy used within the state of Kentucky or will the plan also address the energy that is produced within, but sold and delivered elsewhere? We believe it is best to have a plan that can encompass both without subsidizing and without unfairly penalizing either transaction. We also believe it is good to have both affordable energy for the citizens of the Commonwealth and, where appropriate, gain the economic rewards of selling energy (coal, gas, oil and electricity) to other states. Interestingly, there are those who openly oppose the sale of electricity out of the state. Ironically enough, most view the interstate sale of Kentucky-based produced goods, such as bourbon, Corvettes, Toyotas and aluminum, as unquestionable.

Peabody Energy views interstate energy commerce as a positive for the state of Kentucky given the fact only 25% of all the coal produced in Kentucky is used within the state and the remaining 75% is used elsewhere. It should also be noted that the Kentucky coal industry has suffered dramatic decreases in production and the corresponding economic value it brings to the Commonwealth. Over the past 15 years, sales of Kentucky coal have declined by 35%, from 173 to 112 M tons annually. Kentucky needs an energy plan that recognizes the deterioration of its coal industry, which will continue to decline unless new coal generation (regulated and unregulated) using Kentucky coal is built.

While some suggest it is bad to sell power out of state, one of the greatest economic development opportunities for Kentucky is to build new, clean coal generation in order to provide consumers in Kentucky with low cost electricity and increase the number of interstate electricity transactions, benefiting Kentucky electricity producers. Moreover, this expansion of new coal generation is, in essence, the only way to slow or stop the loss of coal production in the state of Kentucky. Today, Kentucky only exports 2% of the electricity it produces. In stark contrast, four other major coal states in the East (IL, IN, PA and WV) export over 42% of their electricity production to other states.

Other states are recognizing the economic value of adding new, very clean mine-mouth generation. Illinois is the leading state in terms of development of new coal generation. It is no coincidence that Illinois has legislation to support not only the coal plant development, but also new coal mines and expanded transmission. As a result of these efforts by the state of Illinois, our 1,500 MW Prairie State Energy Campus has moved to our lead project even though development started six months after our 1,500 MW Western Kentucky project, Thoroughbred. Furthermore, Prairie State's advancement

has led at least one utility in Kentucky (Paducah Power Systems) to join the project and others may become involved as well.

The state of Illinois also recognizes the value of transmission in expanding its energy output. In Kentucky, the transmission system is relatively weak. If you compare to similar states in terms of electric load and square miles of transmission, Indiana has more than four times as many miles of high voltage transmission (345 kV) than Kentucky. For such a physically long state as Kentucky, it only has two north-south high voltage transmission lines, which essentially tie into the Tennessee Valley Authority (TVA) system. It is no surprise that Kentucky's own assessment of the transmission point out the weak ties to TVA and that East Kentucky Power Cooperative (EKPC) has to build new transmission from the north to provide service from its northern Kentucky plants to Warren REC in the southern part of the state. One could argue that if Kentucky was cut all of it strong electric ties to north with Indiana and Ohio, the state would have difficulty providing adequate transmission to and economic serve its load.

There are a number of new coal generation and high voltage transmission projects that can both strengthen Kentucky's electricity infrastructure and provide Kentucky with sound economic development. However, many of these projects will not be constructed due to Kentucky's counterintuitive permitting and appeal process. An excellent example of this is Peabody's Thoroughbred project. Kentucky's relatively slow appeal process has led to an indefinite delay for the project, where the Appeal of the air permit received in 2002 is still undecided. This coupled with the state's new siting process and timeframes that conflict rather than sync, set up a scenario where large scale, extremely clean projects, which could provide both affordable electricity and economic benefits to the citizens of Kentucky, could be abandoned because of extensive delays rather than inefficiencies or lack of value to the Commonwealth.

In today's contentious environment, it is common for interest groups to challenge major projects, whether new industrial developments (e.g. Kentucky Transpark in Bowling Green) or power plants. It is also common for these proceedings to be brought in multiple forums as different government approvals are issued and challenged. Litigation is of course a very time consuming process, typically extending over years when complex issues are involved. In today's financial climate, litigation over project approvals can delay the ability of projects to finalize financing arrangements and secure partners which are the steps needed in most cases to start construction given the major investments at issue. Construction of new power plant facilities typically requires three to five years to complete even after site preparation. Where certificates to construct have a limited term, the deadlines for starting work can become problematic. For those reasons, greater flexibility in providing for extensions of time for construction authorizations is of critical importance to the energy sector.

An example of the need for greater flexibility is found in KRS 278.704, which provides that a certificate to construct a merchant electric generating facility issued by the State Board on Electric Generation and Transmission Siting is valid for two years after issuance of the last permit required to be obtained from the Natural Resources and

Environmental Protection Cabinet (now the Environmental and Public Protection Cabinet).[1] There is no express provision authorizing extensions of the certificate term to take into account delays caused by challenges to permits or licenses required for a project, including challenges to permits issued by the Cabinet. This issue needs to be addressed. In fact, KRS Chapter 278 has already deals with that situation in KRS 278.020(1) in the context of the one-year term of certificates of convenience and necessity. That statute provides that the one-year term is exclusive of any delay due to orders of courts or failure to obtain necessary grants and consents. Similar flexibility is needed with respect to certificates to construct merchant plants and transmission lines. Notwithstanding any other provisions, the duration of these certificates should be exclusive of any delay caused by judicial or administrative proceedings concerning the certificate or other authorizations required for the project.

Finally, for those concerned about providing affordable electricity and natural gas to lower income groups, the Commonwealth of Kentucky must recognize the need for exporting Kentucky coal based generation to areas south and east in order to displace the natural gas generation used in those areas. This would undoubtedly cause the US price of natural gas to decline due to the reduction of demand from electric generators. In most cost/benefit analysis of transmission expansions or enhancements, the benefits to the country's natural gas consumers have not been accounted.

After reviewing Kentucky's Assessment of Electricity Needs, we believe a thorough analysis will provide the Commonwealth with a number of excellent opportunities, which could benefit its citizens and citizens throughout the region. For years to come, consumers would enjoy increased access to the reliable, low-cost electricity produced from Kentucky coal. Enclosed with this letter is a presentation made to Kentucky Public Service Commission on June 14, 2005 entitled "New Clean Coal Generation: Affordable Energy Plan that Makes Economic Sense for Kentucky." We trust you will find this additional information useful in determining the value of coal, coal-based generation and transmission in Kentucky's electricity infrastructure. Again, Peabody Energy Corp. is grateful for the chance to offer comments.

Sincerely,

Jacob A. Williams
Vice President - Generation Development

encl. "New Clean Coal Generation: Affordable Energy Plan that Makes Economic Sense for Kentucky." Presentation to Kentucky Public Service Commission dated June 14, 2005

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[1] One need look no further than the challenge to Thoroughbred's air permit for evidence that major delays do occur as a result of administrative litigation. *Sierra Club, et al. v. Thoroughbred Generating Company, LLC, et al.*, File No. DAQ-26003-037 and DAQ-26048-037 (EPPC OAH). The challenge to Thoroughbred's air permit was filed in November 2002, the lengthy hearing concluded in June 2004, and the parties still await the hearing officer's report.

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New Clean Coal Generation:

Affordable Energy Plan that Makes Economic Sense for Kentucky

Jacob Williams

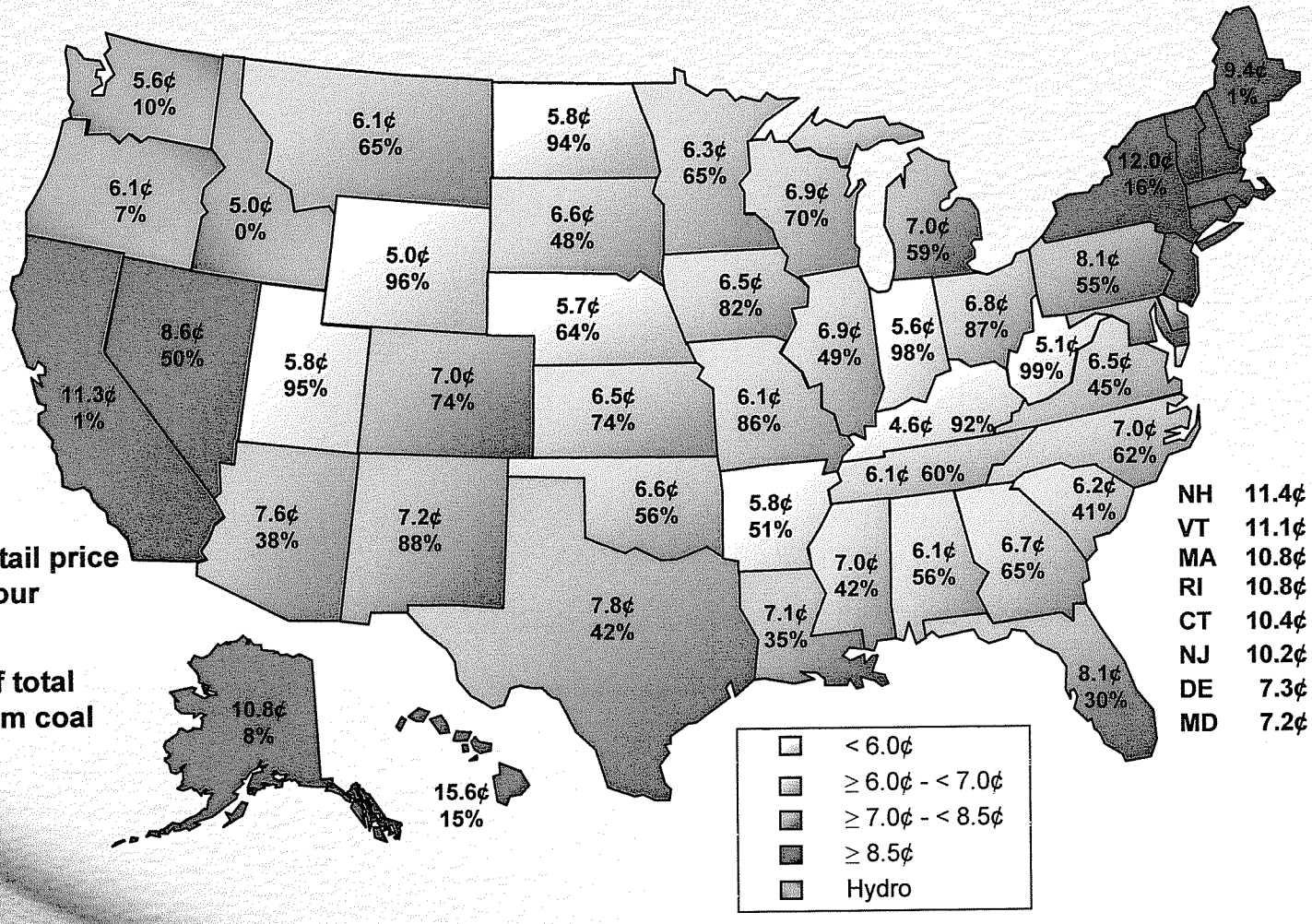
June 2005

Energy from Clean Coal
Provides Affordable Energy and A Strong Kentucky Economy

- Kentucky's low electricity prices are based on coal generation
  - To retain low cost position, maintain regulated status
- Kentucky can continue low cost trend while cleaning up existing plants
- Kentucky should pursue all new coal technologies and let the market pick the winners
- Expansion of existing and new coal in Kentucky a significant economic driver
  - More coal generation stabilize or lowers electricity prices
  - Provides significant jobs and tax revenue to the Commonwealth not unlike auto, aluminum and steel production
- New and existing coal generation expansion and associated transmission enhancements needed to reduce gas prices by $10 - 20 billion annually

Low-Cost Electricity from Coal: Coal Fuels 50%+ of U.S. Electricity

Retail Cost Per kWh & Percent of Coal Generation



¢ = average retail price per kilowatt hour for 2004

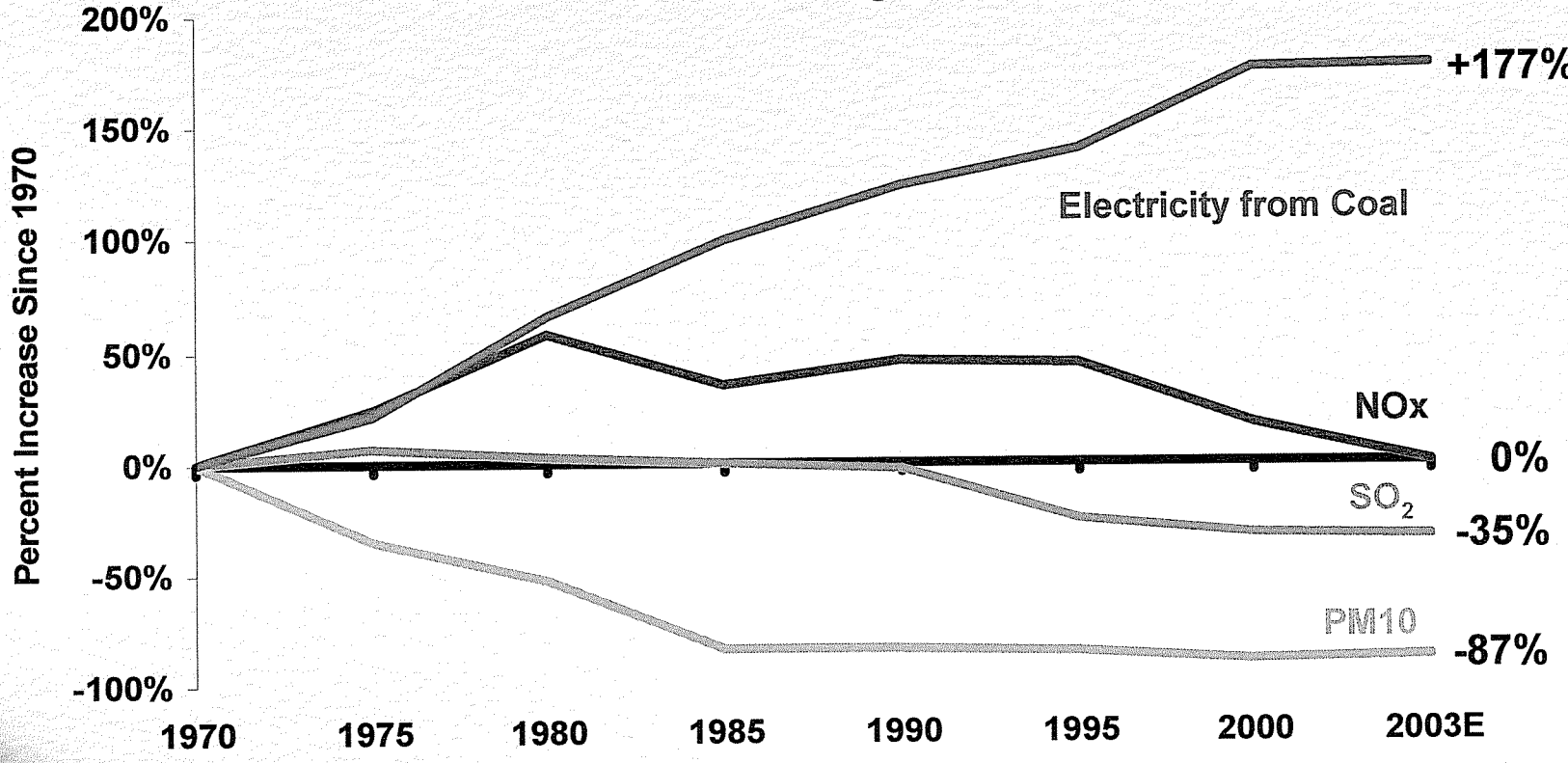
% = percent of total generation from coal for 2004

NH	11.4¢	17%
VT	11.1¢	0%
MA	10.8¢	22%
RI	10.8¢	0%
CT	10.4¢	13%
NJ	10.2¢	19%
DE	7.3¢	65%
MD	7.2¢	52%

Source: Energy Information Administration, March 2005.

Coal Use Grows While Emissions Decline

Coal used for electricity has tripled since 1970 while emissions have been significantly improved



Source: EPA National Air Pollutant Emission Trends, EIA Annual Energy Review 2002 (October 2003).

Emission Rates for U.S. Coal Generation

Thoroughbred Will Remove 98% SO_2 & 80%+ NO_x

	SO_2 (lbs/MM Btu)			NO_x (lbs/MM Btu)		
	US	IL	KY	US	IL	KY
1980	1.94	2.57	3.52			
1985	1.75	3.10	2.49			
1990	1.60	2.99	2.51			
1995	1.25	1.71	1.43	0.61	0.71	0.79
2000	1.04	0.95	1.16	0.44	0.50	0.49
2004*	0.94	0.69	1.09	0.34	0.27	0.33
Thoroughbred Permit	**0.167**					**0.08**

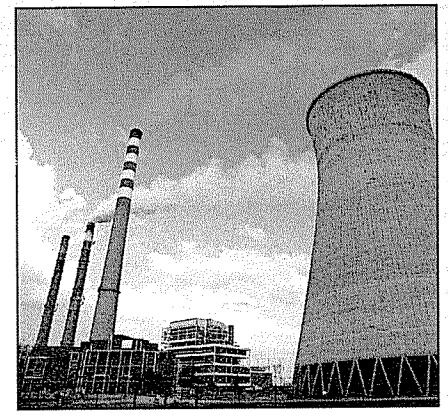
* Estimate

Source: US Environmental Protection Agency & 2004 data RDI/Platts

The Path to Zero Emissions from Coal-Fueled Generating Plants

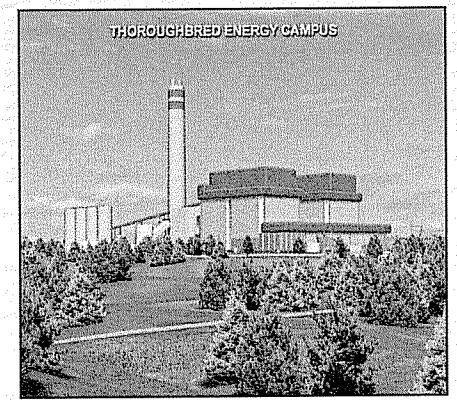
The Current & Next Generation... of Generation

RETROFIT EXISTING PLANTS



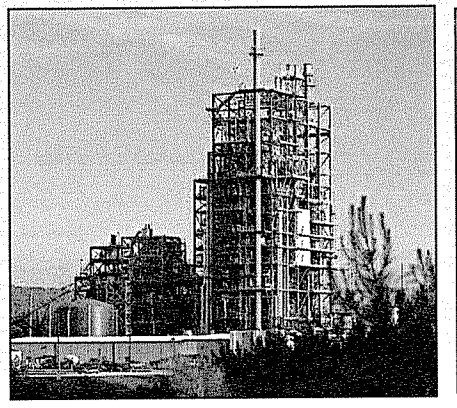
TVA's Paradise Plant

BUILD "ADVANCED PC" PLANTS



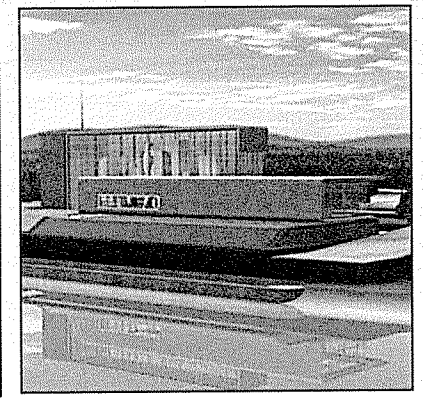
Peabody's Planned Thoroughbred Energy Campus

DEVELOP COAL GASIFICATION



The Power Systems Development Facility

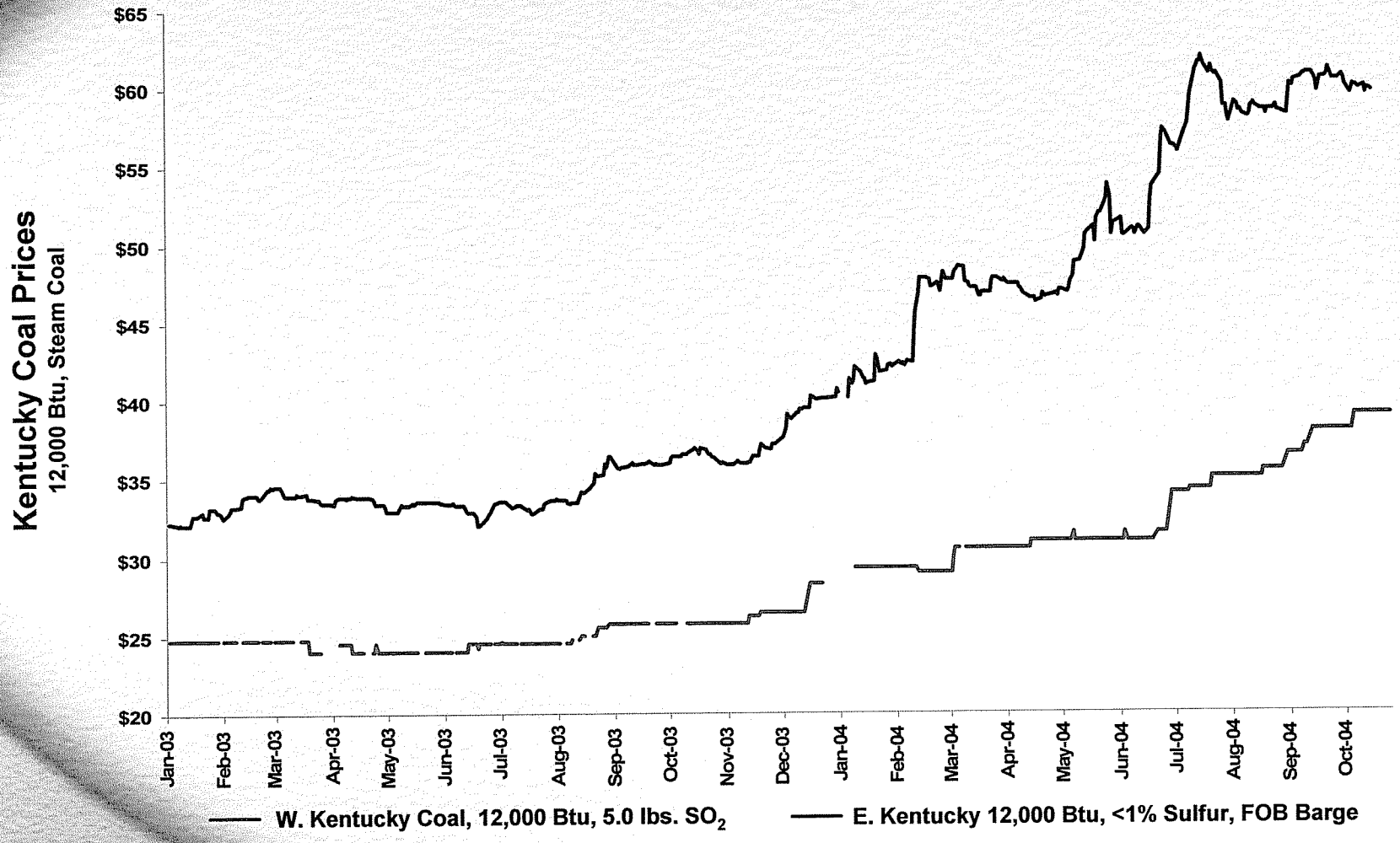
PURSUE HYDROGEN & SEQUESTRATION



The Proposed FutureGen Project

Western & Eastern Kentucky Coal Prices

OTC Prices for Future Year Delivery



Values represent average over-the-counter (OTC) prices for Illinois Basin & E. Kentucky (NYMEX) barge coal per various broker sources for ratable delivery in subsequent calendar year. This is a thinly traded market for small quantities of coal. (Updated 10/18/04.)

Kentucky Utility Coal Plants

CY 2004 Fuel Costs & Emission Rates

Plant	Plant Operator	Capacity (MW)	Capacity Factor (%)	Total (kTons)	Del Fuel (¢/mmbtu)	SO2 (lbs/mmbtu)	NOx (lbs/mmbtu)
Elmer Smith	OMU	426	66	1,353	96	0.43	0.35
Henderson II	WKE	312	35	214	98	0.26	0.37
D. B. Wilson*	WKE	435	39	462	99	0.50	0.35
Paradise	TVA	2,295	70	4,597	103	1.25	0.51
Green*	WKE	464	53	530	104	0.14	0.32
K. C. Coleman*	WKE	455	72	428	104	3.61	0.33
R A Reid*	WKE	65	38	71	104	4.24	0.42
Mill Creek KY	LGE	1,493	73	4,261	115	0.54	0.25
Cane Run	LGE	563	65	1,411	116	0.98	0.35
Trimble Station	LGE	512	94	1,766	118	0.24	0.23
East Bend	CIN	600	78	1,890	119	0.55	0.29
Green River KY	KU	217	42	390	136	4.08	0.38
Shawnee KY	TVA	1,369	76	4,379	144	0.68	0.38
Ghent	KU	1,958	70	5,287	154	0.85	0.23
Big Sandy	AEP	1,060	70	2,451	157	1.67	0.38
E W Brown	KU	704	61	1,523	164	2.55	0.34
J Sherman Cooper	EKPC	341	76	900	165	2.68	0.46
Hugh L Spurlock	EKPC	850	66	2,391	176	1.23	0.29
William C Dale	EKPC	196	70	577	187	1.52	0.44
Tyrone*	KU	73	41	127	209	1.55	0.38

*** Includes modeled information based upon data from prior years**

Source: Platts/RDI COALData, June 2005

Source: Global Energy – Energy Velocity, Platts – COALDat ☐ Eastern Coal Sourced

Kentucky Coal Industry in Decline

Production Decreases for Over a Decade

	Million Tons			Change From Prior Period/Year		
Year	Eastern	Western	Total	Eastern	Western	Total
1990	128.4	44.9	173.3			
1995	118.5	35.2	153.7	(-8%)	(-22%)	(-11%)
2000	105.0	25.8	130.8	(-11%)	(-27%)	(-15%)
2004	87.2	25.3	112.5	(-17%)	(-2%)	(-14%)
Total Change	(41.2)	(19.6)	(60.8)	(-32%)	(-44%)	(-35%)

*2005 Data is the last 52 weeks

Source: National Mining Association June 8, 2005

West Kentucky Production Will Increase
East Kentucky Production Will Decrease

West Kentucky Coal Will Increase

- Scrubber additions especially in Kentucky
- Cost structure low enough to support mine-mouth projects
- Reserve blocks in sufficient size to develop new projects

East Kentucky Coal Will Decrease

- Cost pressures due to
  - Environmental laws
  - Thinner seams
  - Reliance on rail markets
  - More expensive bonding requirements
- Delivered cost out of state averages $1.89/MM Btu
- Scrubber additions will eliminate some demand for low sulfur Eastern Kentucky coal
- Cost structure and small reserve blocks limits mine-mouth opportunities in Eastern Kentucky

Exported East Kentucky Coal 43% Above 2004 U.S. Average for Utility Deliveries

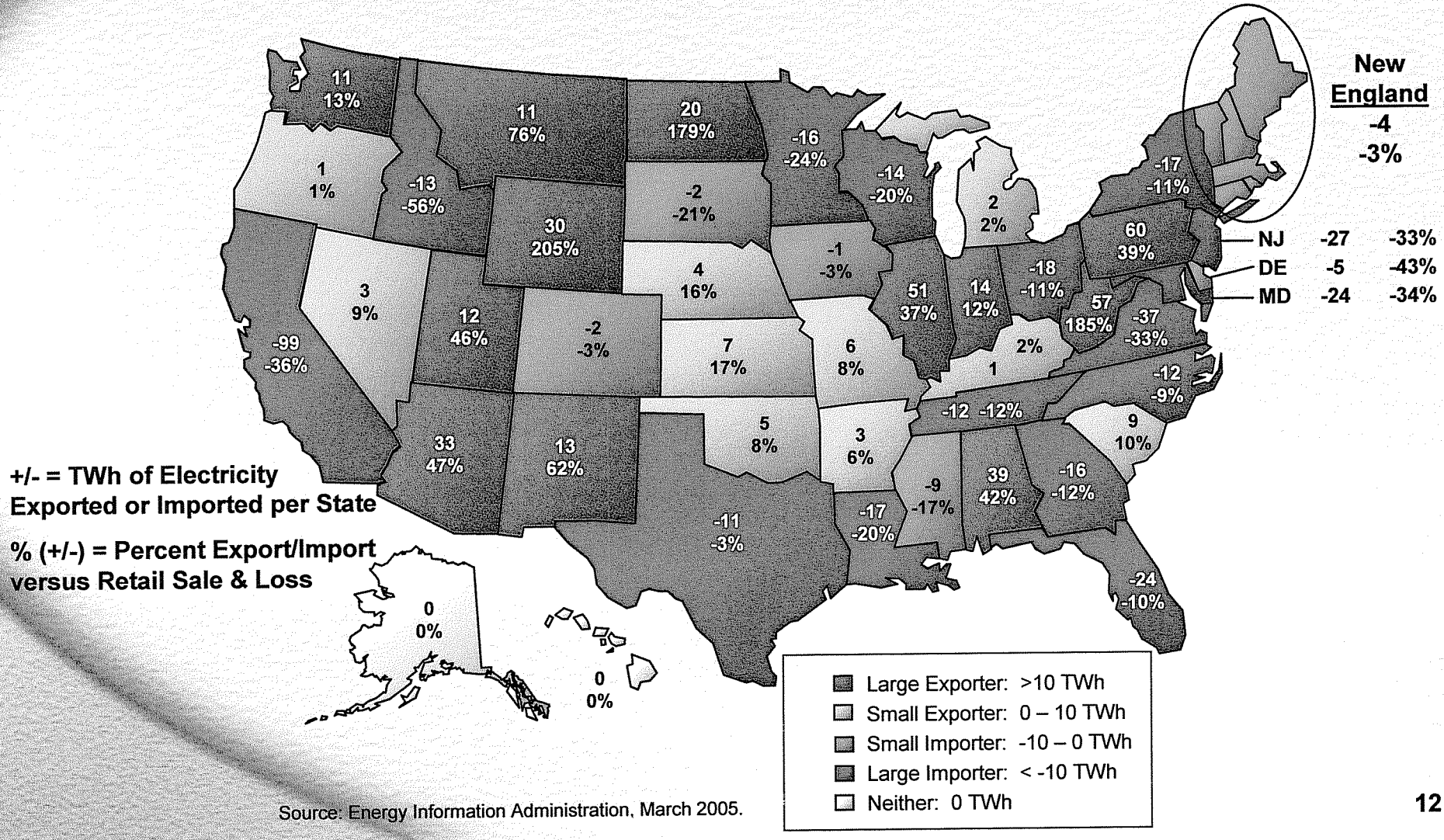
Destination	Eastern Kentucky		Western Kentucky	
	Tons (000)	$/MMBtu	Tons (000)	$/MMBtu
Kentucky	**7,786**	**$ 1.65**	**13,342**	**$ 1.11**
Georgia	13,675	1.86	-	-
South Carolina	12,688	1.90	-	-
North Carolina	9,418	2.03	-	-
Ohio	7,714	1.62	1,509	1.54
Florida	6,885	2.05	1,988	1.78
Virginia	5,217	2.15	-	-
Tennessee	4,383	1.67	2,892	1.06
Other	5,756	1.80	2,938	1.33
Total	73,523	$ 1.86	22,670	$ 1.22
Export East KY	**65,737**	**$ 1.89**		

	Powder River Basin
Southern	$ 1.46
TVA	1.11
U.S. Average	**$ 1.32**

Source: Platts/RDI COALDat, June 2005

Major Electricity Exports Come From "Coal States"

Net Export/Import of Electricity per State

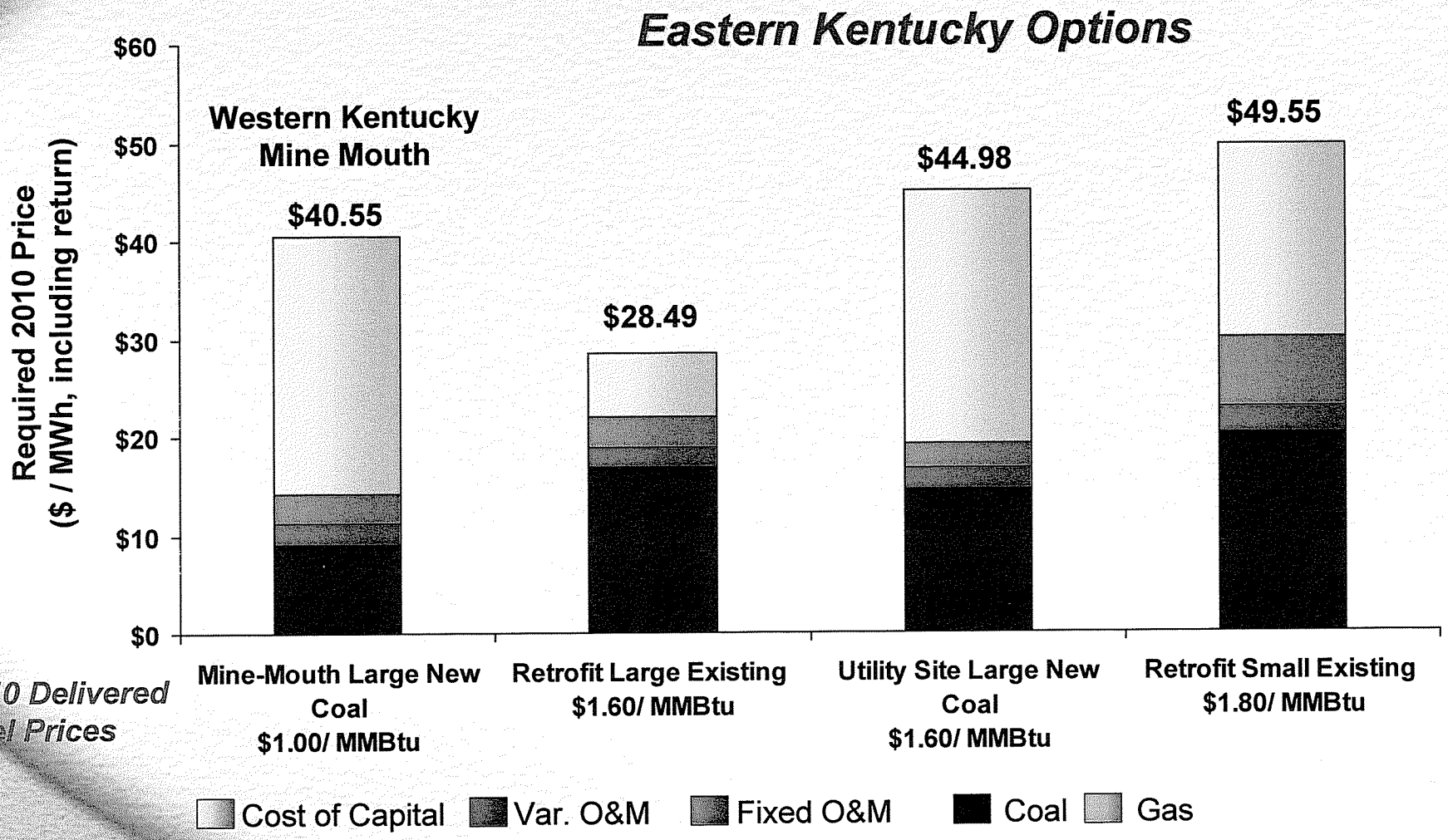


Source: Energy Information Administration, March 2005.

Basic Electricity and Energy Infrastructure Needed

- Load growth of 70% in last 25 years
  - Little new baseload resources added
  - Little new transmission added
- Nuclear generation capacity reaching output limit
  - 1990 66% capacity factor
  - 2004 91% capacity factor
- Coal generation capacity becoming fully utilized
  - 1990 59% capacity factor
  - 2004 74% capacity factor
- Clean Air Interstate Rules (CAIR) and mercury rules finalized by the EPA in March
  - 45,000 MW of new scrubbers in the Eastern U.S. by 2010 (100,000 GW already scrub)
  - 5 – 10% of the coal fleet (smaller, older, dirtier and higher cost) will be challenged to keep running over next 10 years
- Demand expected to grow another 20% over next 10 years
  - Long lead time for all baseload generation capacity

Lowest Cost Baseload Option



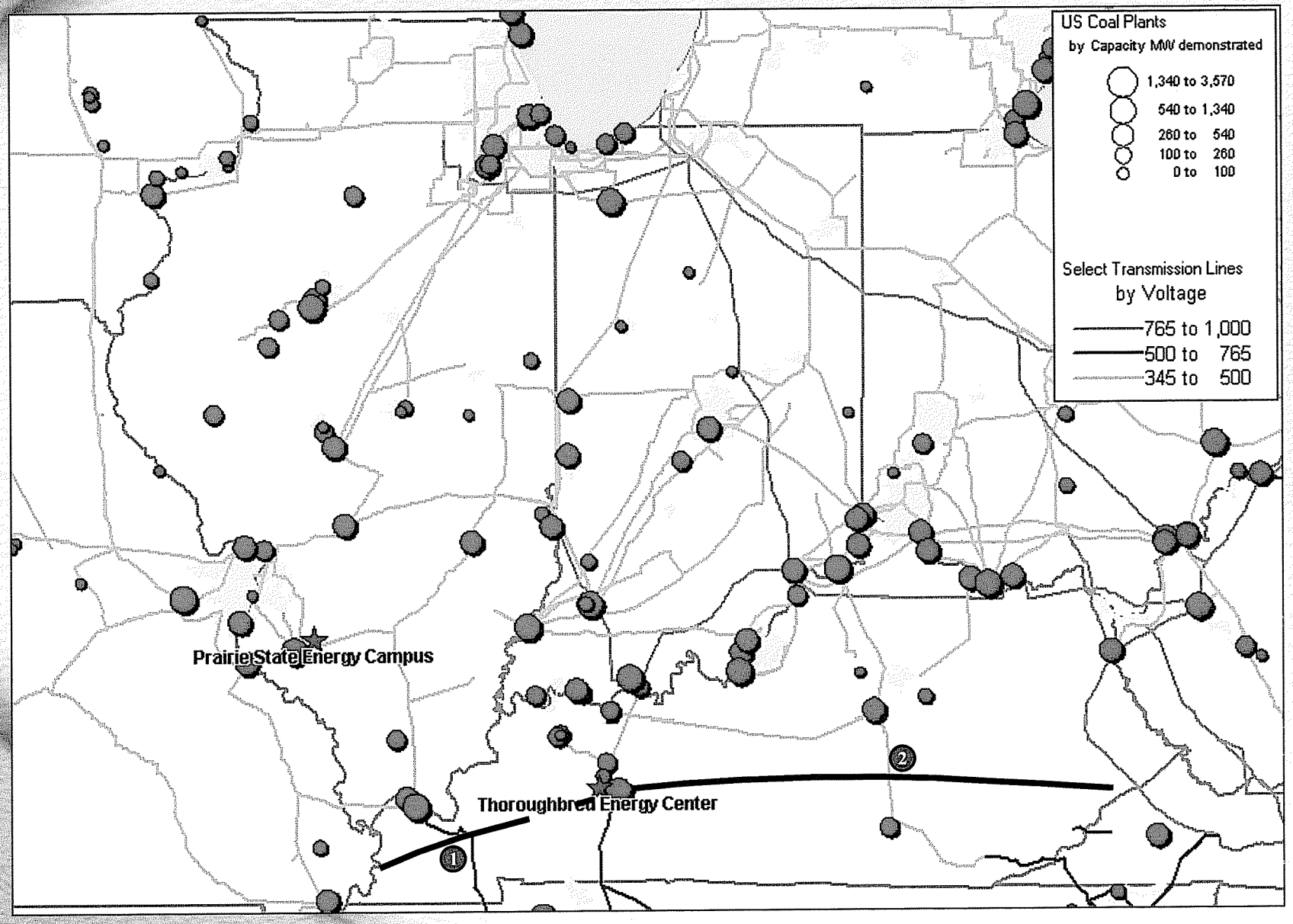
Source: Energy Information Administration Annual Energy Outlook 2004 & Peabody analysis; assumes 90% capacity factor, 10.8% weighted cost of capital, 30-year investment life, delivered fuel cost as shown above, latest environmental technologies & EIA's estimates of capital and non-fuel costs

Mine Mouth Generation
Offers Way to Offset Future Decline

- Kentucky regulated plants burn only 19% or 21 million tons of the 112 million tons of coal mined in Kentucky
- Supplying existing plants will not offset losses from other states
  - Full utilization of Kentucky coal plants using only in-state coal would increase demand by 6 - 8 million tons Kentucky coal
- Large mine mouth plants enjoy fuel cost advantage of $.40 - .80/mmbtu
- Kentucky is a major exporter of autos, nuclear fuel, aluminum, steel, electronics, agriculture and processed food products
- Kentucky currently exports 2% of electricity generated in the state compared to neighboring coal states exporting 12 – 158% of their generation compared to their native load

Kentucky Has Least Developed Transmission

Indiana and Illinois Have 4 Times the Miles



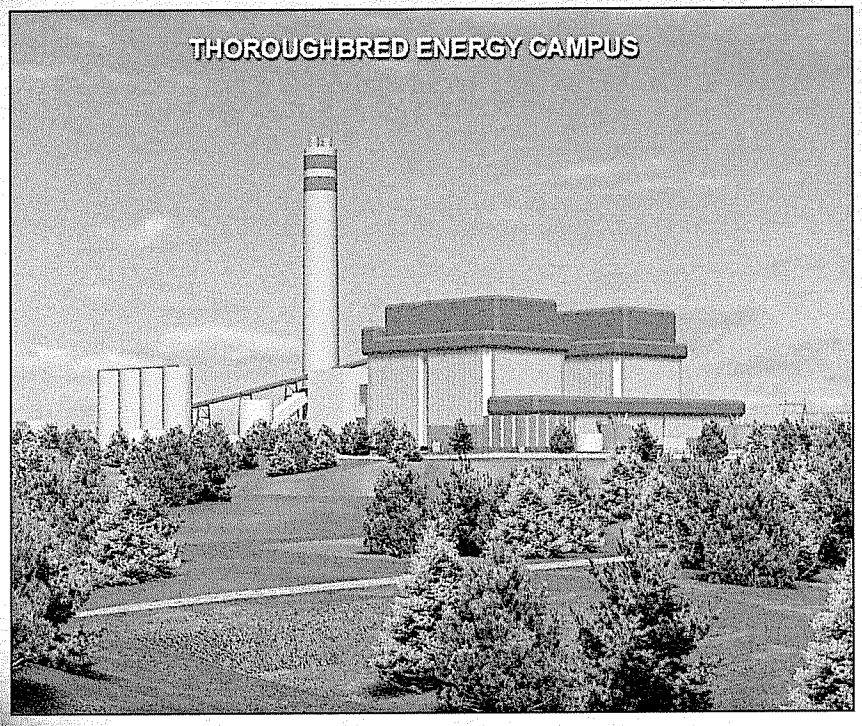
Enhanced Transmission
Critical for Kentucky Economy

- Kentucky can lock in current low-cost position by maintaining regulation over generation and distribution
- Enhanced transmission is needed to:
  - Continue delivering affordable electricity to Kentucky families
  - Improve reliability for electricity throughout Midwest
  - Enable new coal plants to be developed in Kentucky
  - Increase coal production in Western Kentucky
- Regional or national cost sharing of transmission funding can assure minimum impact on Kentucky consumers of electricity
- Some states (e.g., IL, IN, WVA and PA) support coal industry through incentive programs for generation and transmission investments

Comparison of Kentucky Permitting Process to Illinois

- Peabody has sister project in Southwestern Illinois, Prairie State, that while started 6 months later, has moved ahead of Thoroughbred and will likely be built first. Prairie State has almost 50% of the project committed including to a Kentucky utility.
- Why?
  - State of Illinois' appeal process has predictable timeline
    - Review of the record; no discovery or introduction of "new evidence"
    - A review of the procedural record. "Was the process proper?"
    - Commitment to hold a schedule
  - Baseload project developers and Partners take comfort in committing to project with a predictable process including time to reach final decisions

Thoroughbred Energy Campus Background



- Western Kentucky plant - 1,500 MW, twin unit pulverized & 6 million ton on-site coal mine
- 4,100 acre site on Green River
- Received air permit in October 2002
- Appeal process over 2 years
- All other major permits obtained
- Transmission ties to TVA and Big Rivers
  - Negotiating final agreement with Big Rivers
- Expected long term employment
  - 450 long term (mine & plant)
  - 1,500 construction – 4 year ave.

Energy from Clean Coal
Provides Affordable Energy and A Strong Kentucky Economy

- Kentucky's can retain its low electricity prices by keeping its regulated coal fleet regulated
- Kentucky can continue low cost trend while cleaning up existing plants
- Kentucky should pursue all new coal technologies and let the market pick the winners
- Expansion of existing and new coal in Kentucky a significant economic driver
  - Affordable energy
  - Jobs and tax revenues
- New and existing coal generation expansion and associated transmission enhancements needed to reduce gas prices for all consumers