



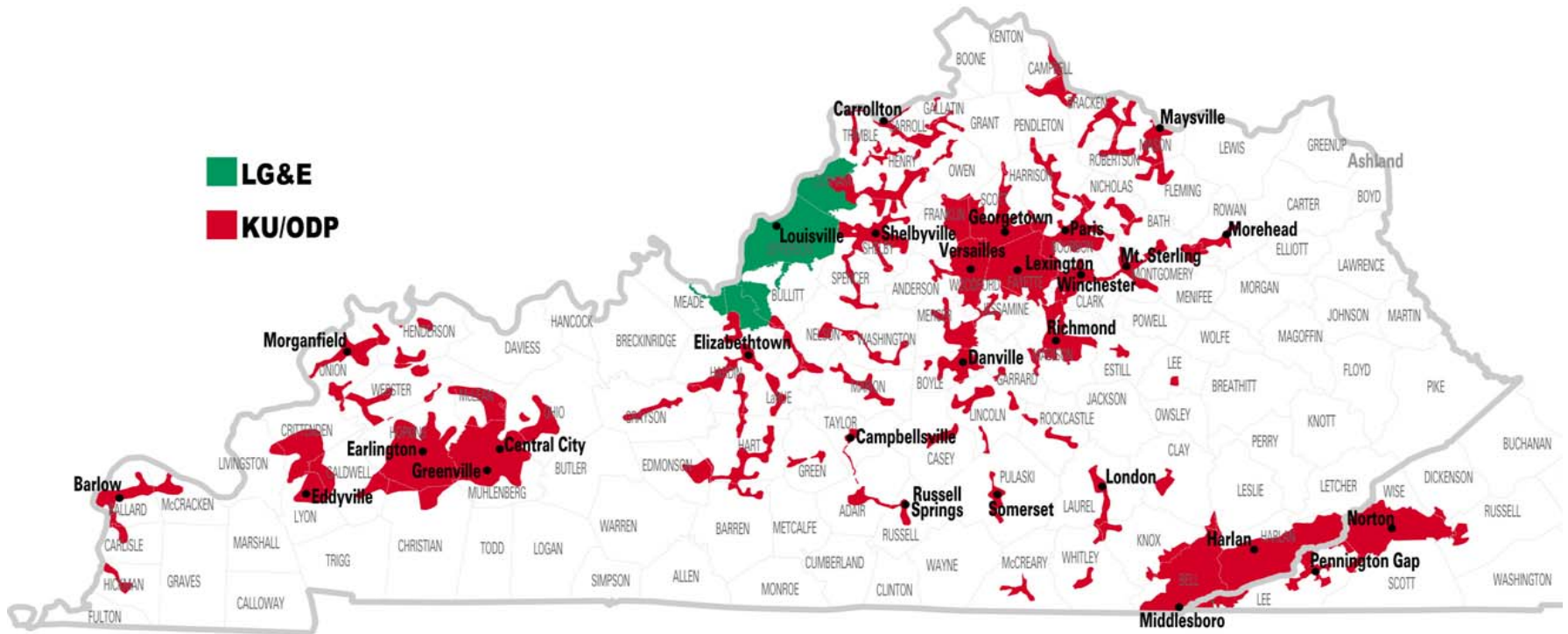
E.ON U.S. Energy Efficiency & Conservation Initiatives

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Director, Customer Service & Marketing
September 20, 2006

E.ON U.S. Fact Sheet

- Louisville Gas and Electric provides gas to 321,000 customers and electricity to 394,000 customers in the metropolitan Louisville area and surrounding counties.
- Kentucky Utilities provides electric service to 525,000 customers in Lexington, 77 rural counties in Kentucky, and 5 counties in Virginia.
- E.ON U.S. subsidiaries own, operate or lease 15 fossil fuel fired plants and 2 hydroelectric plants, all located within the state.
- Combined LG&E/KU peak load is ~ 8,300 MW

Service Territory



Considerations

Kentucky Perspective

- Kentucky Public Service Commission Reviews
Admin Case No. 387
Case No. 2005-00090
Kentucky's Electric Infrastructure: Present and Future
- *Kentucky Comprehensive Energy Strategy*

E.ON U.S. Perspective

- Integrated Resource Planning (“IRP”)
Demand-Side Analysis – Conservation Alternatives
Supply-Side Analysis – Generation Alternatives
- Other Initiatives

Kentucky PSC Assessments

- Administrative Case No. 387
- *An Assessment of Kentucky's Electric Generation, Transmission, and Distribution Needs*, Case No. 2005-00090
- Executive Order 2005-121, issued February 7, 2005 by Governor Ernie Fletcher, directed the KPSC to report on the future needs for electricity in Kentucky and called for a “Strategic Blueprint” to
 - Promote future investment in electric infrastructure in Kentucky,
 - Protect Kentucky's low-cost advantage,
 - Maintain affordable electricity rates for all Kentuckians, and
 - Preserve Kentucky's commitment to environmental protection.

Kentucky PSC Assessment of Electric

Infrastructure

Kentucky's Electric Infrastructure: Present and Future, August 22, 2005

- Utilities have adequate generation, transmission, and distribution for today; *~7,000 MW of new generation will be needed by 2025*
- Utilities are adequately planning to serve customer needs
- Kentucky should preserve its current statutory and regulatory framework
- Balanced approach to policy-making is necessary to preserve Kentucky's low cost energy, responsibly develop Kentucky's energy resources, and preserve Kentucky's commitment to environmental quality
- Greater use of energy efficient products and enhanced efforts to implement practical DSM and conservation measures can have a positive impact on the environment and should be considered in the development of Kentucky's future energy policy

LG&E/KU 2005 Integrated Resource Plan ("IRP")

- Case No. 2005-00162 filed April 21, 2005

Resource Acquisition Plan included Supply-Side and Demand-Side Options:

- 549 MW Supercritical Pulverized Coal unit at Trimble County Station ("TC2") in 2010
- 181 MW Hydroelectric Purchase Power Agreement ("PPA") in 2014
- Six 148 MW Combustion Turbines and another coal unit ~750 MW at Greenfield Site(s) from 2013 to 2019
- Implementation of five new DSM initiatives which ramp up to combined 28.8 MW annually by 2011

Promoting Energy Efficiency – DSM Programs

- Weatherization services provided to nearly 4,400 low-income customers since 2001 resulting in annual reductions of ~5,750 MWh of electric usage
- Residential Energy Audits provided to over 8,800 customers since 2001 with customer actions resulting in annual reductions of ~5,600 MWh of electric usage
- Commercial Energy Audits provided to over 4,200 customers since 2001 with customer actions resulting in annual reductions of ~25,350 MWh of electric usage

Promoting Energy Efficiency – DSM Load Control

- DSM devices installed on more than 93,000 A/C units.
- Pays customers \$5 per month (June through September) for participating.
- Approximately 93 MW of summer peak reduction available
- Approximately 150 MW of summer peak emergency load reduction available (immediate reduction for 10 minutes)
- 1,900 switches installed at commercial customer premises.



Future of DSM Programs

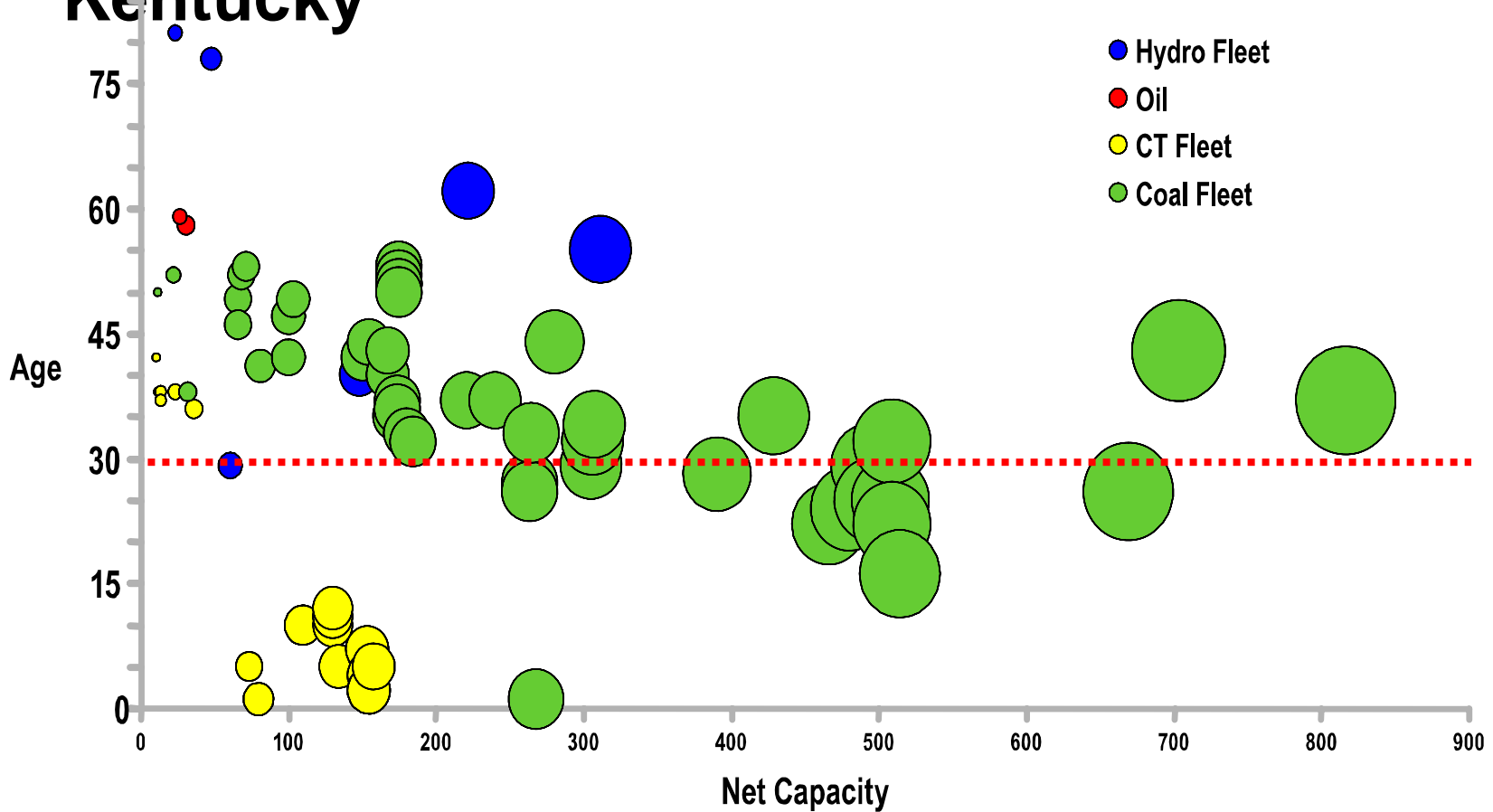
- LG&E and KU intend to file with the Kentucky PSC to extend these programs through 2013 and to propose new programs
- New programs include
 - Residential New Construction
 - HVAC Diagnosis/Tune-Up
 - HVAC Dealer Referral Network
 - High Efficiency Lighting
 - Critical Peak Pricing Pilot Program

Least Cost Resources: Generation Alternatives

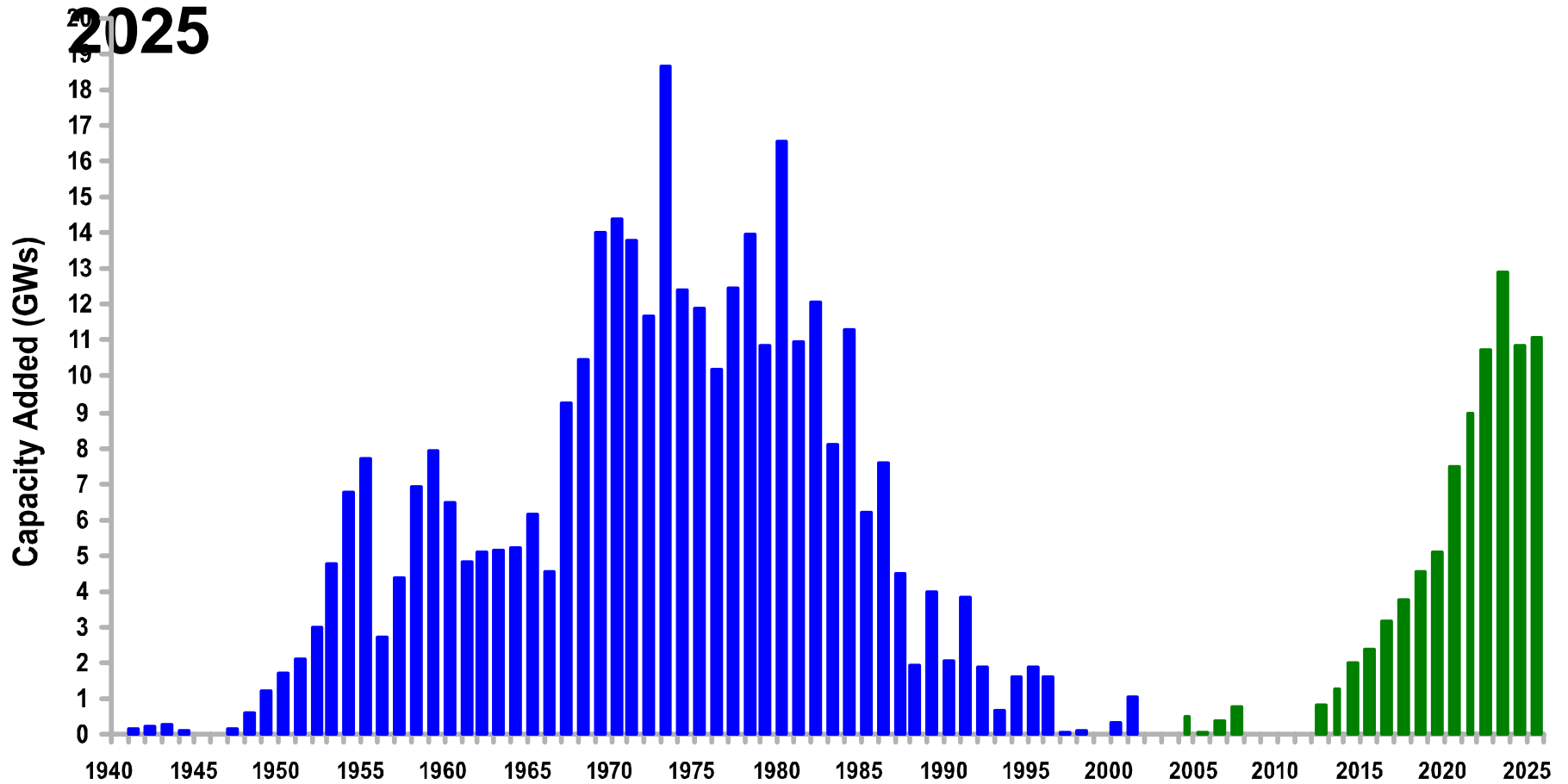
- Supply Side Analysis identifies alternatives for meeting projected LG&E and KU customer needs for the next 15 years.

- Options considered include
 - ~ Coal-Fueled Technologies
 - ~ Liquid/Gas-Fueled Technologies
 - ~ Renewable Resource Technologies
 - ~ Energy Storage Technologies
 - ~ Other
 - Existing Plant Rehabilitation
 - Power Purchase Agreement(s)

Utility Asset Matrix – Aging Units Across Kentucky



U.S. Coal-Fired Capacity Additions—1940-2025



Source: U.S. Department of Energy NETL & Annual Energy Outlook 2005

Trimble County 2: Planning for the Future

- Trimble County Station 2, a 750-megawatt generating station, will be powered by an advanced super-critical pulverized coal boiler that includes the latest technological advances in efficiency and environmental controls.
- When complete in 2009, TC2 will be one of the nation's most efficient coal plants.
- One of only four plants in the United States eligible for a \$125 million tax credit for its high efficiency and low



- Unit Cost: \$1.058 Billion
- \$300 Million to be spent on emission controls

Ohio Falls Hydroelectric Generating Station

- In 2005, LG&E renewed its license to operate the facility.
- \$75 million rehabilitation project is currently underway.
- The project will update and refurbish eight existing turbine/generator units.
- As a result, generating capacity will be increased to 80 megawatts.



Proposed Meldahl Hydroelectric Facility

- On June 12, E.ON U.S. filed a “Notification of Intent” and a “Pre-Application Document” with the Federal Energy Regulatory Commission noting the intent to seek a license to construct a 99 megawatt hydroelectric plant at the Meldahl Locks and Dam on the Ohio River east of Cincinnati.
- FERC has no time limitations on issuing a decision. As part of the process, E.ON U.S. Hydro held two public meetings in late June to outline the project details.



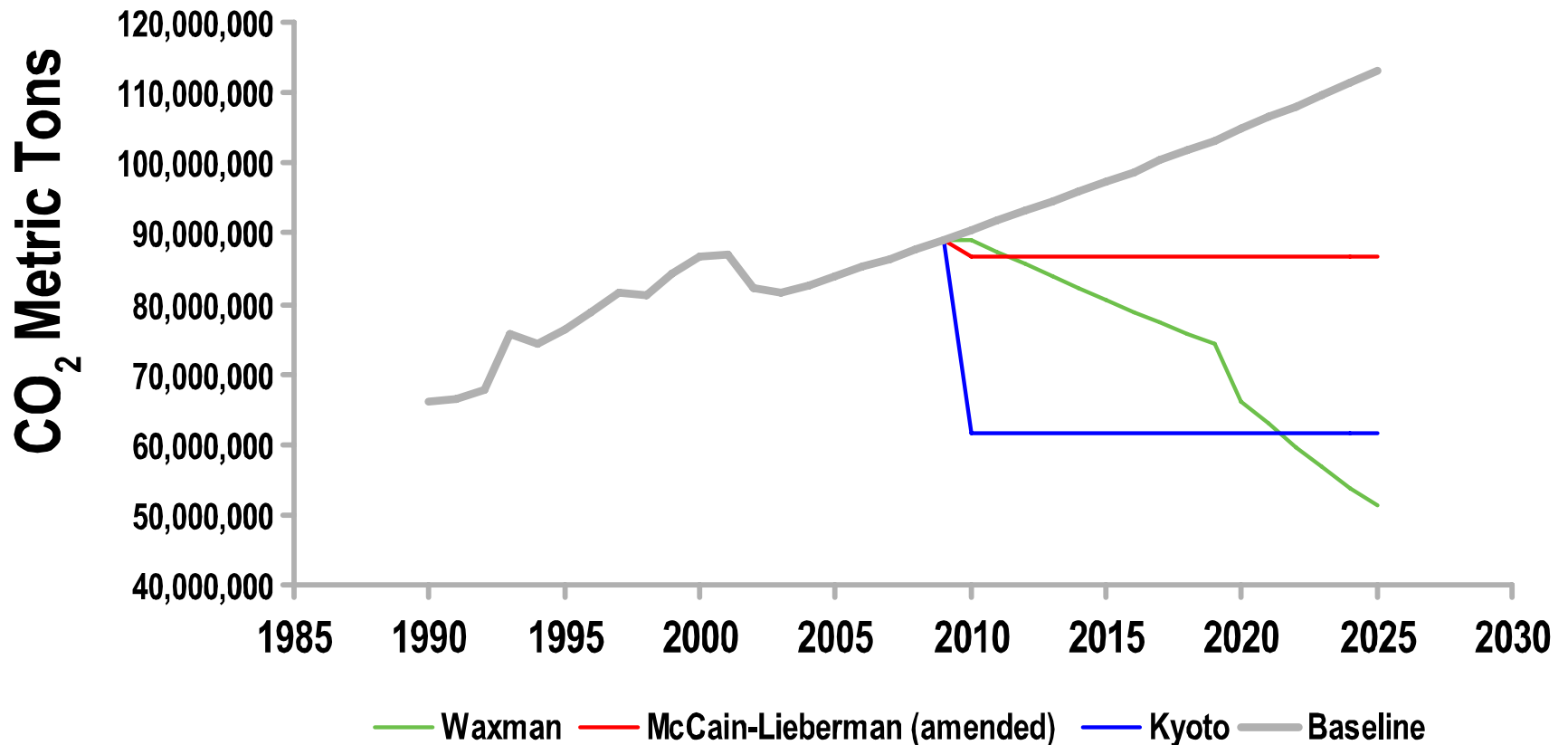
Supporting Research and Development

- E.ON U.S. is currently researching opportunities for LG&E and KU to initiate a “Green Energy” program, offering customers the option to purchase electricity from alternative/renewable resources.
- E.ON U.S. is a charter member of the *CoalFleet for Tomorrow* initiative sponsored by EPRI. This is an industry-led initiative formed to accelerate the deployment and commercialization of clean, efficient, advanced coal power systems.
- Donating \$1.5 million to University of Kentucky to study technologies to reduce greenhouse gases.
- LG&E and KU are participating in EPRI’s Transportable CO₂ Capture Pilot program that investigates methods to capture CO₂ from power plant flue gas and store it safely deep underground.

How Do We Protect the Environment, Keep Electricity Affordable and Reliable, and Power Our State Economy?

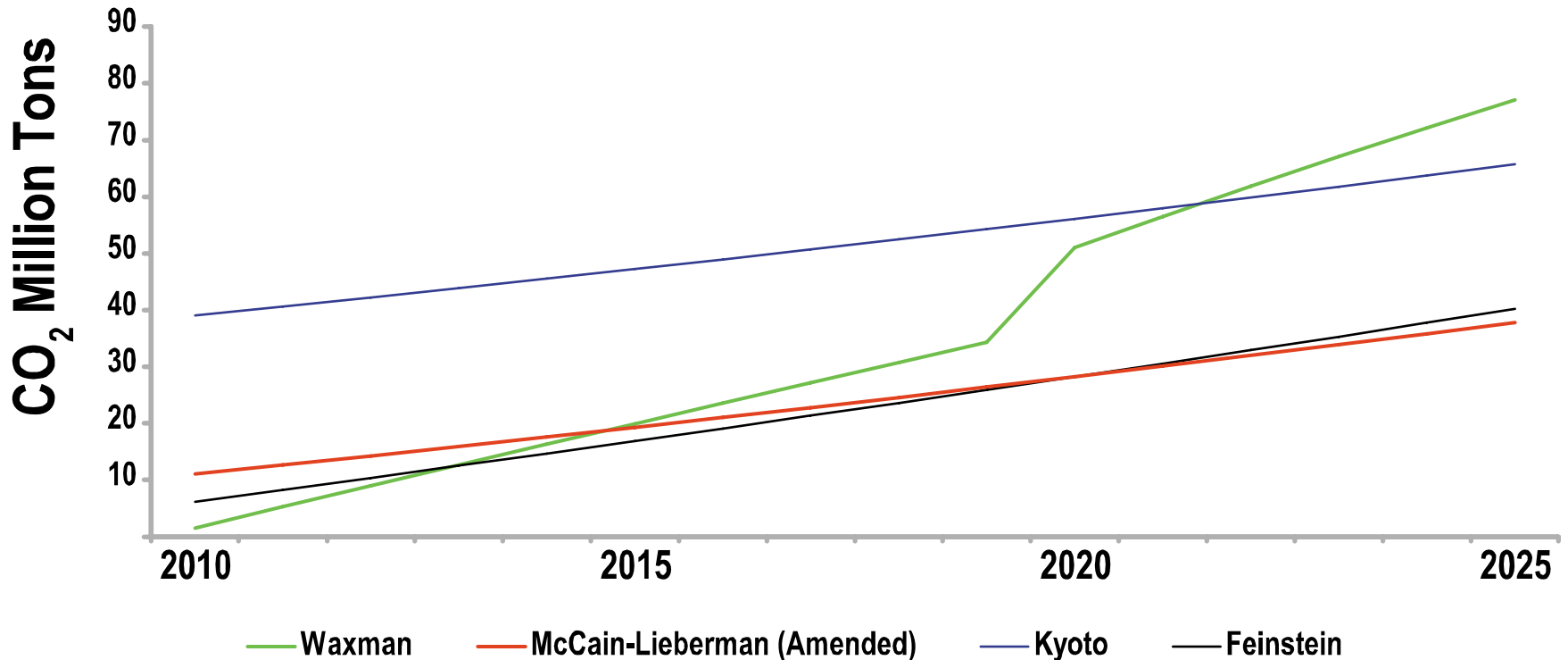
- Environmental regulations on the books are scheduled to become more stringent and require more investment in existing generation
- Potential new environmental regulations will require additional investments
- New cleaner generation and new transmission lines will be needed to meet rising power demand
- State economic growth will stall or decline if electricity, the engine for growth, cannot be economically and reliably generated and delivered under lower and lower emission caps

Kentucky Coal-Fired Generation



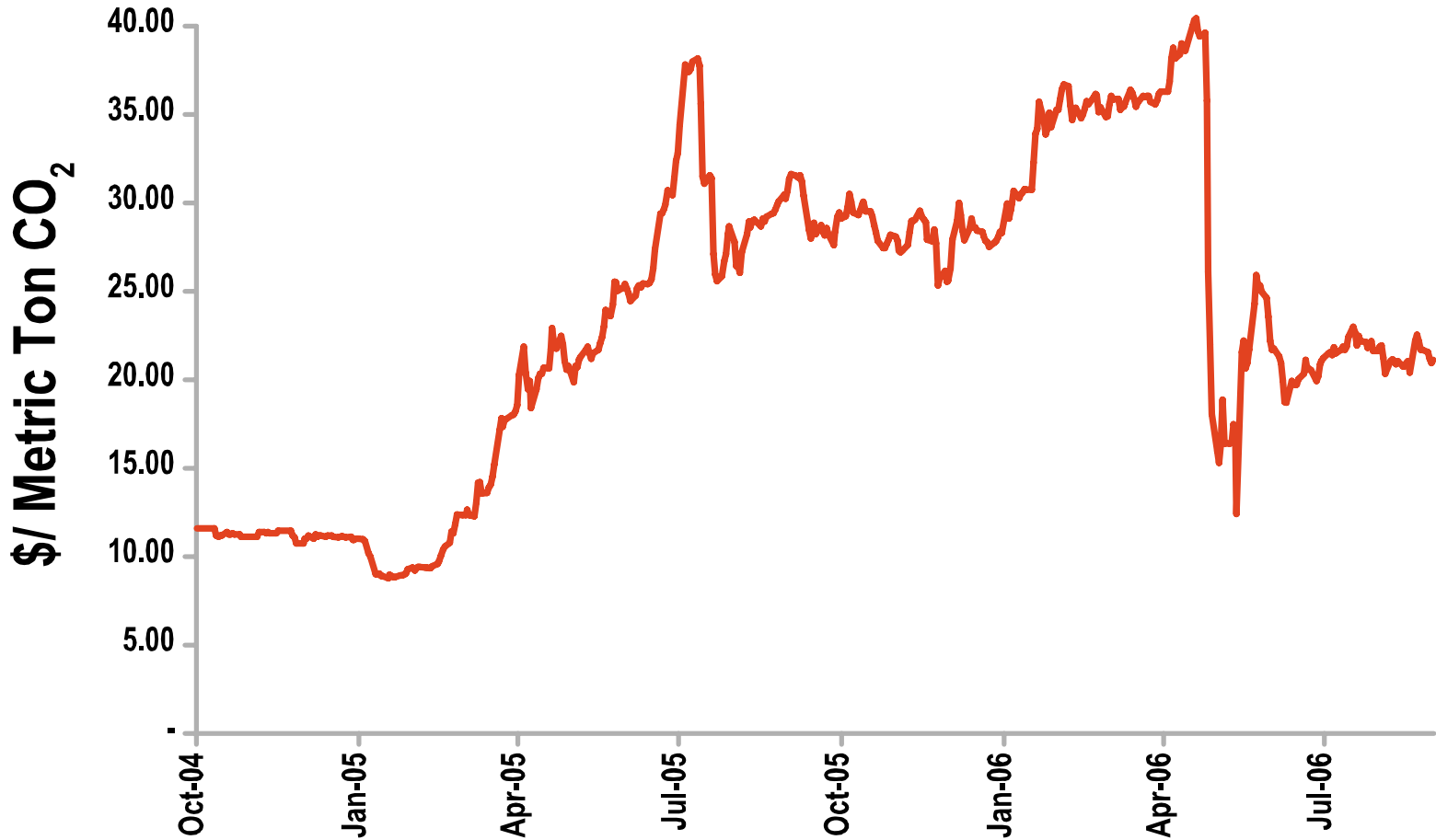
Sources: U.S. DOE Energy Information Administration for historic emissions. In-house analysis of CO₂ reduction proposals.

Kentucky CO₂ Reductions Required, 2010 – 2025



Sources: U.S. DOE Energy Information Agency for Historic Emissions. In-house analysis of generation and CO₂ reduction proposals.

Carbon Prices



Source: Point Carbon

What Can Policy-Makers Do?

- Guarantee certainty for clean coal technology investments
- Put investment in energy efficiency and conservation on an equal financial footing with investments in generation and transmission assets
- Foster more energy efficient buildings by implementing state- and industry-wide energy codes and standards
- Mandate energy efficiency as one of the goals of a retail rate design
- Promote the deployment of more energy efficient electric appliances, consumer electronics, etc. through tax incentives
- Consider innovative electric ratemaking and rate design that promotes efficiency and gives customers real-time information in order that they might control their electricity bills