

REINHOLD ENVIRONMENTAL Ltd.



**2018 APC & Wastewater Round Table
& Expo Presentation**

July 23 & 24, 2018 in Lexington, KY / Hosted by East Kentucky Power Coop


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We Are EKPC

*Don Mosier
Executive Vice President and Chief Operating Officer
East Kentucky Power Cooperative
July 23, 2018*



A Touchstone Energy Cooperative 

Safety Moment



- Sun safety
 - Drink plenty of water
 - Use sunscreen – SPF 15 or higher
 - Reapply sunscreen often
 - See Consumer Reports for best performing types
- Skin cancer is serious stuff
 - More people diagnosed with skin cancer each year in U.S. than all other cancers combined
 - 1 in 5 will develop by the age of 70



EKPC: *Company Overview*

- *Not-for-profit, member-owned generation and transmission cooperative based in Winchester, Ky.*
- *Provides wholesale power to 16 member co-ops*
- *Member co-ops serve over 1.2 million Kentuckians in 87 counties*

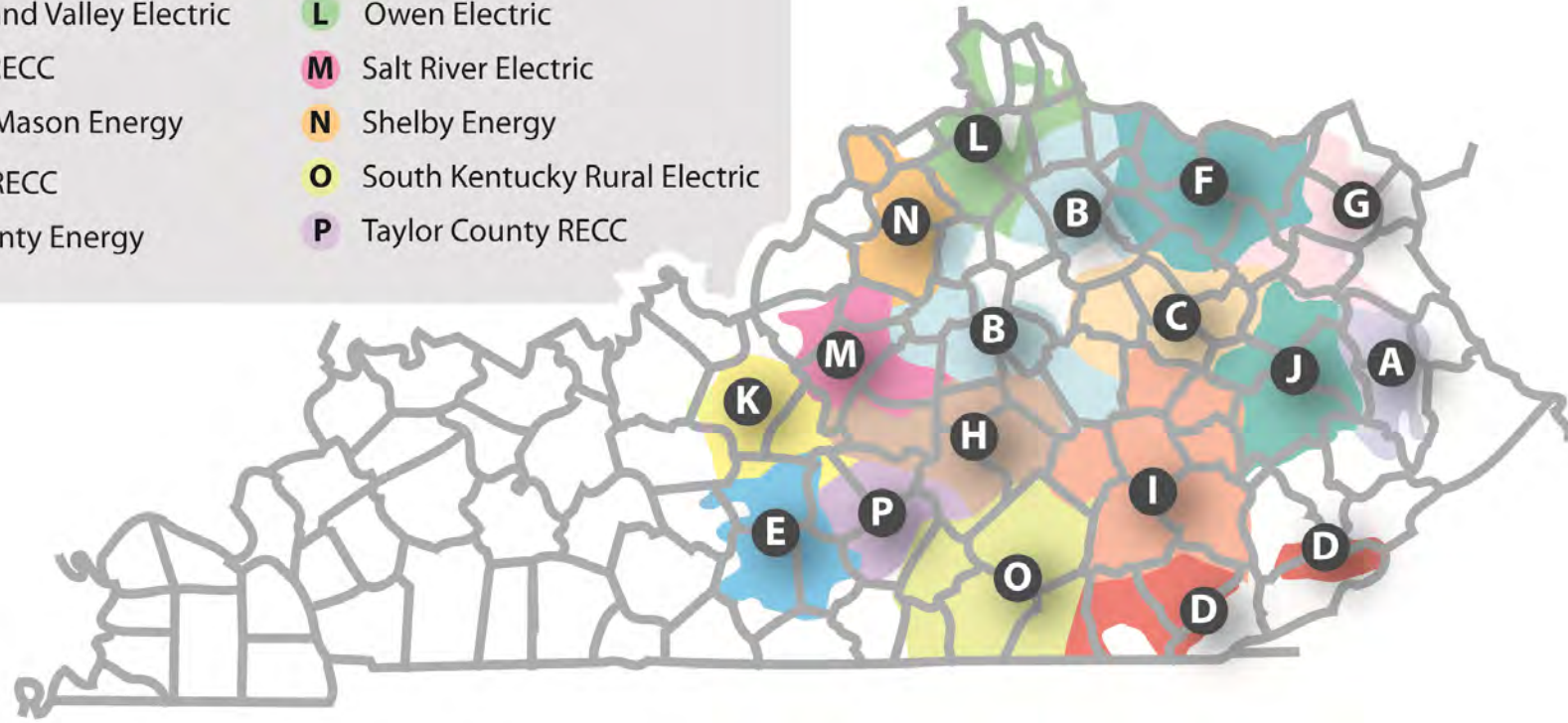
EKPC: *Company Overview*

- *Over \$860 million in operating revenue and \$3.8 billion in assets*
- *Around 700 employees*
- *3,500 MW of winter generating capacity*
- *13 million MWh delivered in 2017*



EKPC: Serving Rural Kentucky

- | | |
|-------------------------------------|--|
| A Big Sandy RECC | I Jackson Energy |
| B Blue Grass Energy | J Licking Valley RECC |
| C Clark Energy | K Nolin RECC |
| D Cumberland Valley Electric | L Owen Electric |
| E Farmers RECC | M Salt River Electric |
| F Fleming-Mason Energy | N Shelby Energy |
| G Grayson RECC | O South Kentucky Rural Electric |
| H Inter-County Energy | P Taylor County RECC |



EKPC: *Power Supply*

H.L. Spurlock Station

Maysville, Ky. (Mason County)

- 1,346 net megawatts
- 4 Units



EKPC: *Power Supply*

**John Sherman Cooper Station
Burnside, Ky. (Pulaski County)**

- 341 net megawatts
- 2 Units



EKPC: *Power Supply*

Bluegrass Station

La Grange, Ky. (Oldham County)

- 3 Units fueled by natural gas
- 501 net megawatts in summer;
567 net megawatts in winter

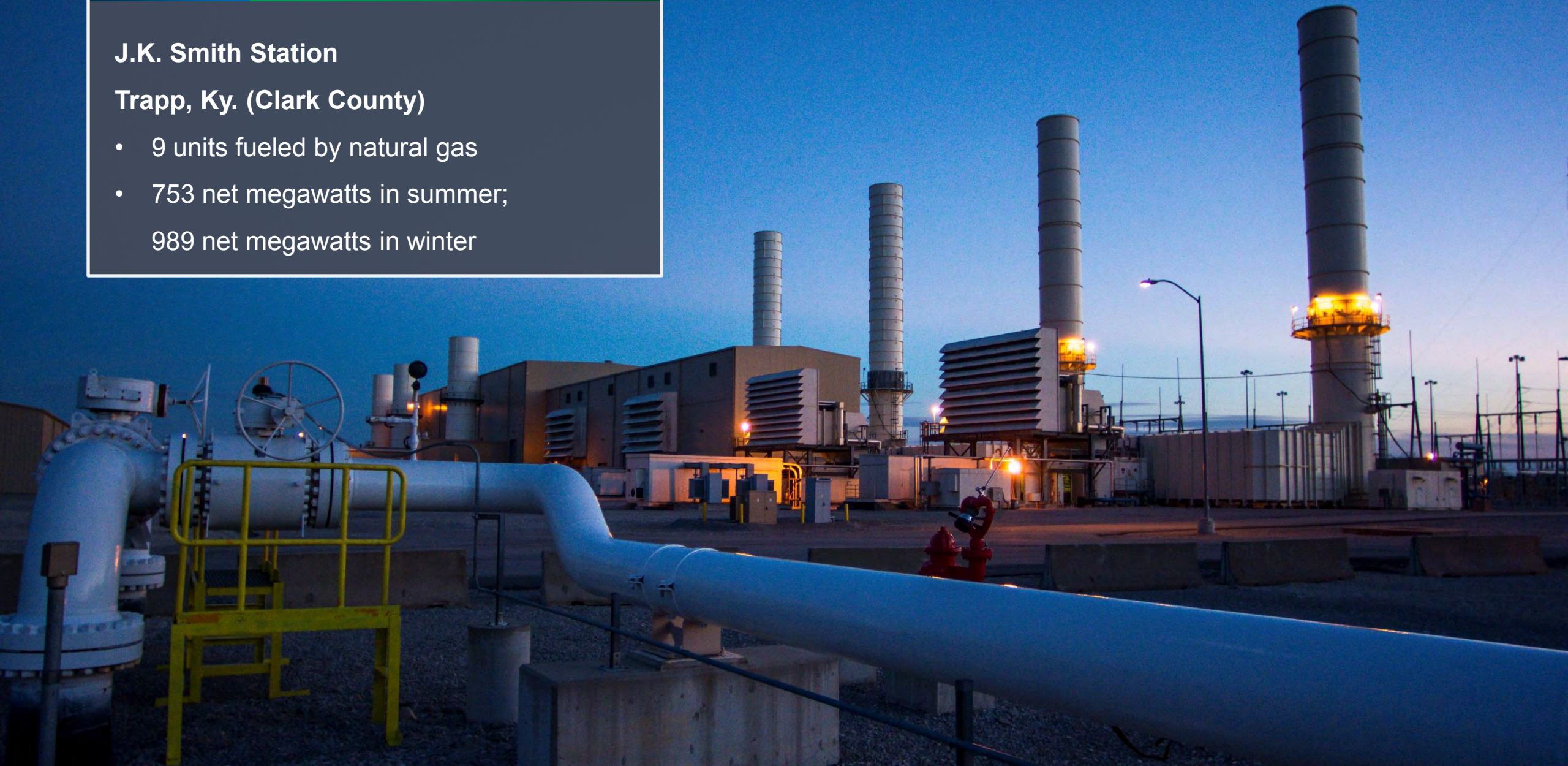


EKPC: *Power Supply*

J.K. Smith Station

Trapp, Ky. (Clark County)

- 9 units fueled by natural gas
- 753 net megawatts in summer;
989 net megawatts in winter



EKPC: *Power Supply*

Cooperative Solar Farm One

Winchester, Ky. (Clark County)

- One of the largest solar farms in KY
- 10 MW DC, 8.5 MW AC



Kentucky's Touchstone Energy Cooperatives
Cooperative Solar

www.cooperativesolar.com





CCR and ELG Compliance

Decision Making in the Cooperative Model

Governance Matters – Who “Owns” EKPC?

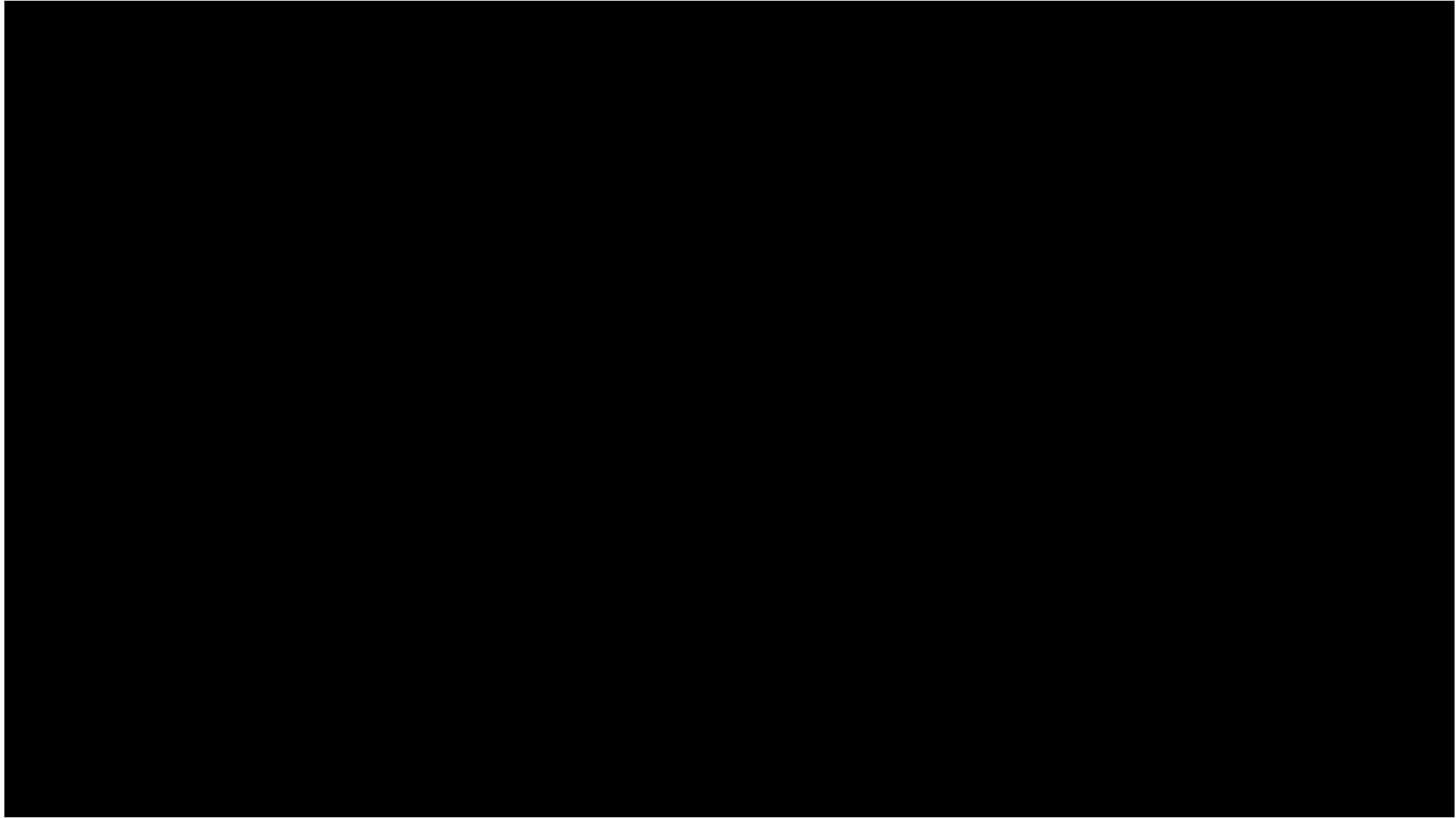
- 1.2 million owner-members “own” our 16 distribution cooperatives
- Our 16 distribution cooperatives “own” EKPC
- Board consists of 16 Board Directors and 16 non-voting co-op CEOs
- Meet monthly
 - Board of Directors
 - Strategic Issues Committee
 - Board Risk Oversight Committee
 - Governance Committee
 - Audit Committee (quarterly)

Cooperatives vs. IOU's and Municipals

- Customer density is less than 8 customers per mile, contrast with:
 - IOUs at 35 and municipals at 50
- Per customer revenue is a fraction as well
- Yet EKPC and other G&Ts face the same market, regulatory environment, capital and investment decisions that the others face
- Do not underestimate the strategic advantages of the cooperative model:
 - Can remain focused on long term strategy without quarterly pressures
 - Direct line of sight for all employees to see the impact of our work – the end consumer
 - Commitment to community
 - Political clout and grassroots capability – WE COUNT AT THE BALLOT BOX

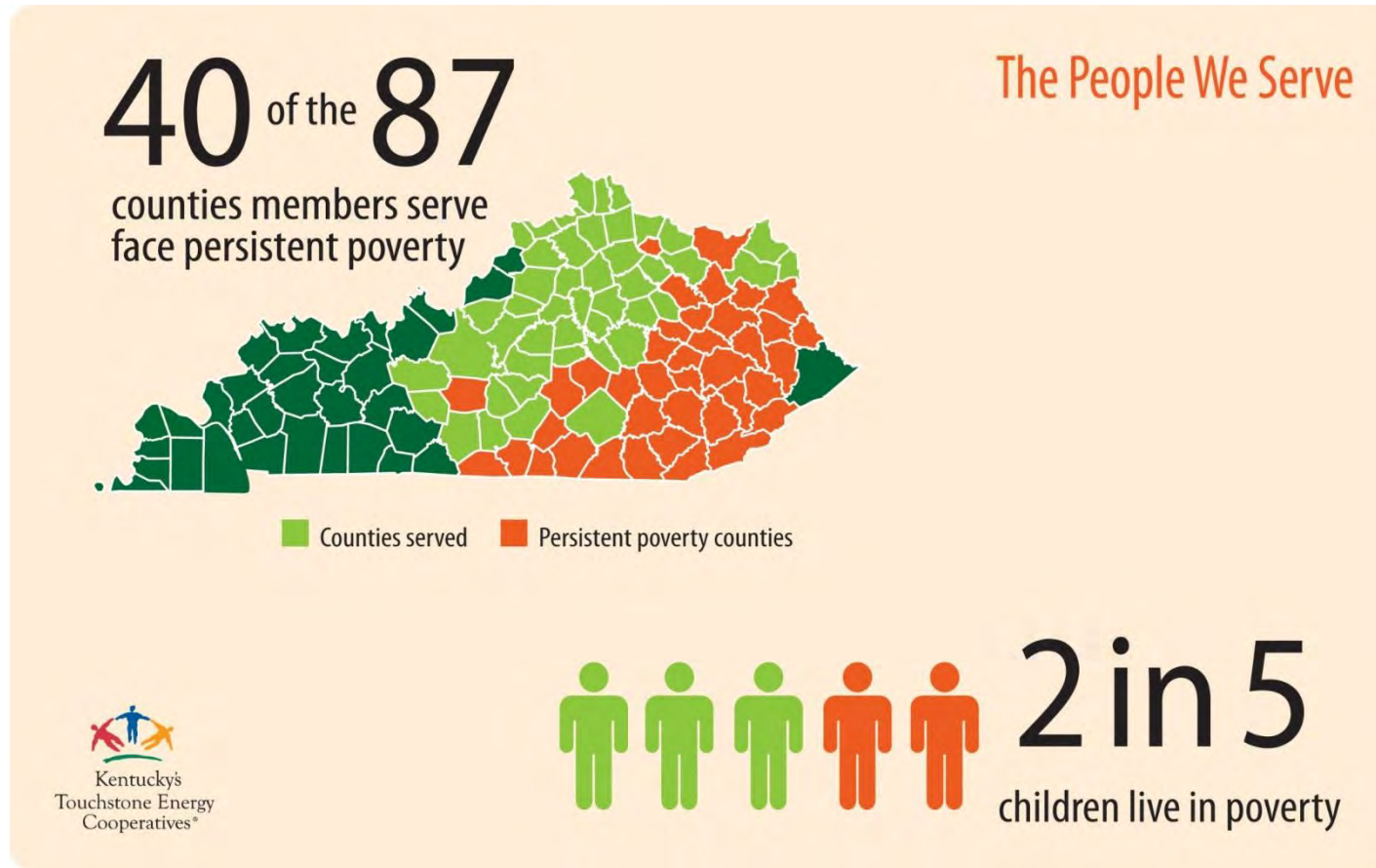
Our Owners at the “End of the Line”

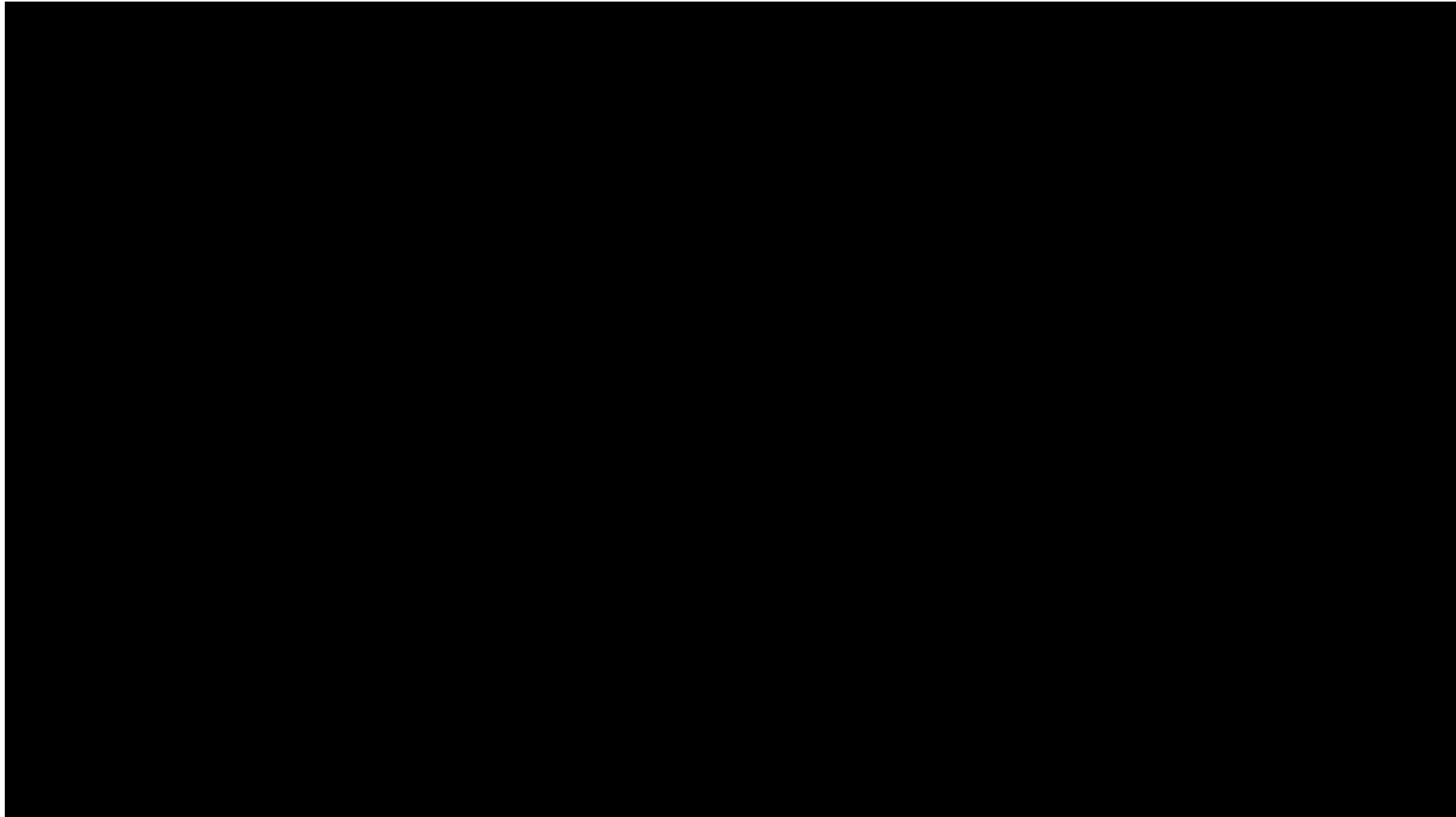
- Many of our eastern cooperatives are the “poorest of the poor”
 - Persistent deep poverty exists in 40 of 120 Kentucky counties
- Demands leadership execute our fiduciary duty to fullest extent
 - Direct line of sight from decision to implementation to customer bill
 - EKPC is over 70% of their bill
- Duty based on trust, honesty, transparency...just do the right thing



Our Owners at the “End of the Line”

Poverty and the downturn in mining have devastated the people we serve





When CCR/ELG came along, much was at stake

- Our Board and co-ops' education began in 2012 and continuously thereafter
- Recognized and developed a combined strategy early to approach as 1 rule, not 2
- To ensure we did not over comply or commit too early as rules began to go final, electing to go to the wire
- Put all viable options on the table
- Every investment option and compliance decision were thoroughly vetted
- Worked with the incoming EPA Administrator VERY CLOSELY
- Worked with our Kentucky regulators VERY CLOSELY

Options Reviewed with the Board

1. Compliance with CCR/ELG

- Cost \$262M, wet to dry ash handling and complex but proven effluent pre-treatment
- High regulatory risk for stranded investment, subject to citizens' lawsuits, but fuel storage advantage

2. Convert both units to natural gas

- Manageable capital cost with reduced O&M expense and headcount, but higher dispatch cost
- Lower regulatory risk, introduces gas supply risk and modest construction risk

3. Retire & replace w/ combined cycle gas turbine

- High capital cost but reduced O&M expense and headcount
- Lower regulatory risk but introduces market and gas supply risk, modest construction risk

4. Retire & replace w/ 800MW of purchased power

- Accept significant market exposure and eliminated "PJM" upside as short to market
- Shorter terms have low regulatory risk, longer terms mirror coal or gas ownership regulatory risk

5. Demolish wet systems and construct new dry systems

- Costly
- High regulatory risk for stranded investment, citizens' lawsuits, fuel storage advantage

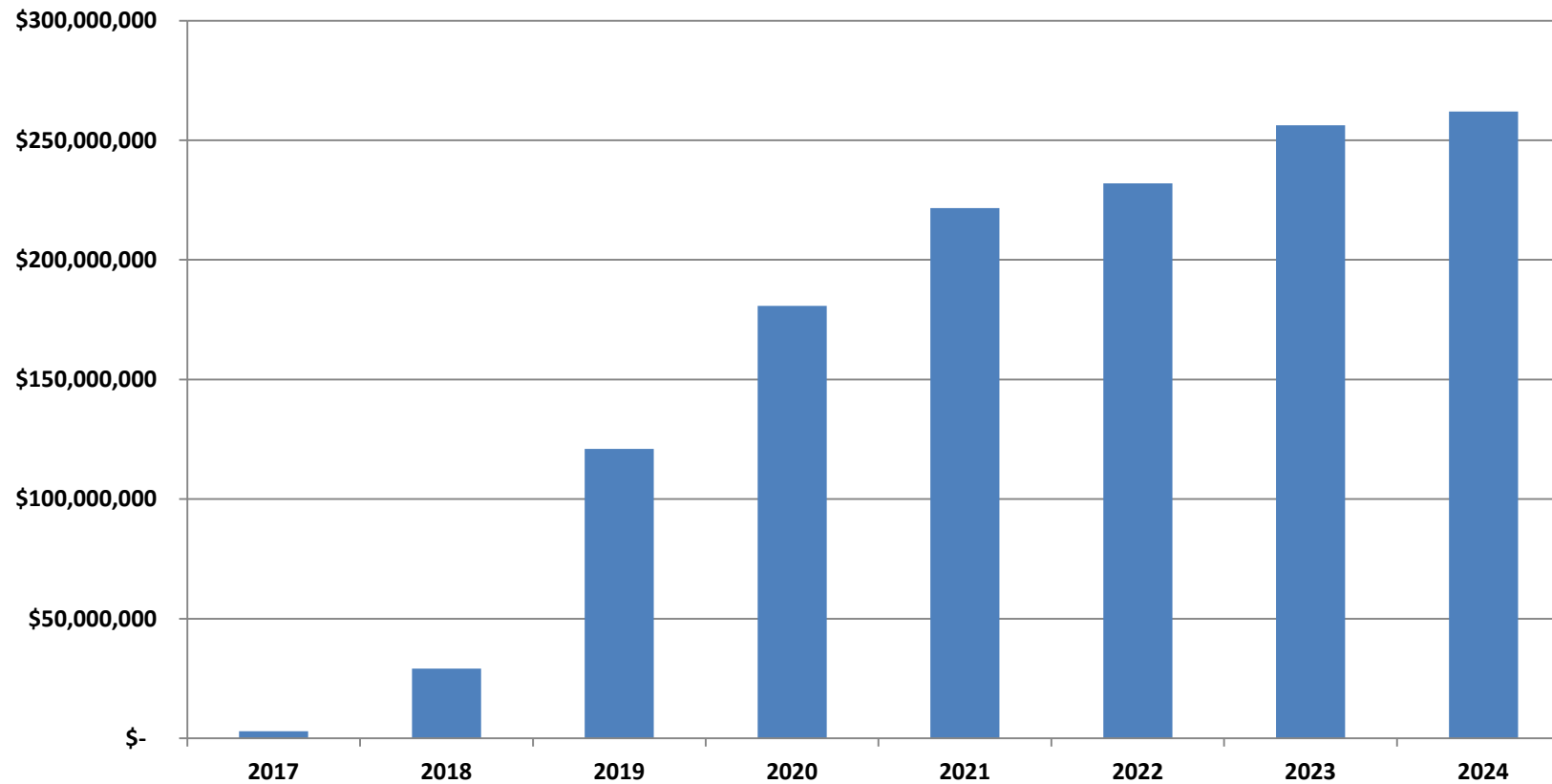
Complex Calculus Resulted in Compliance Choice

Decision criteria bounded by Mission: deliver safe, reliable, affordable power

- Ultimate decision could not violate our Mission and duty to our owner-members
- Our Board had to be educated in order to make prudent decisions – started in 2012
- Avoid creating more stranded cost potential, or at least minimize greatly
- Risk of future regulation – resilience important but at a cost
- Acknowledge significant investment and sunk costs at our largest coal plant
- End result must remain competitive if not cheaper than our competition

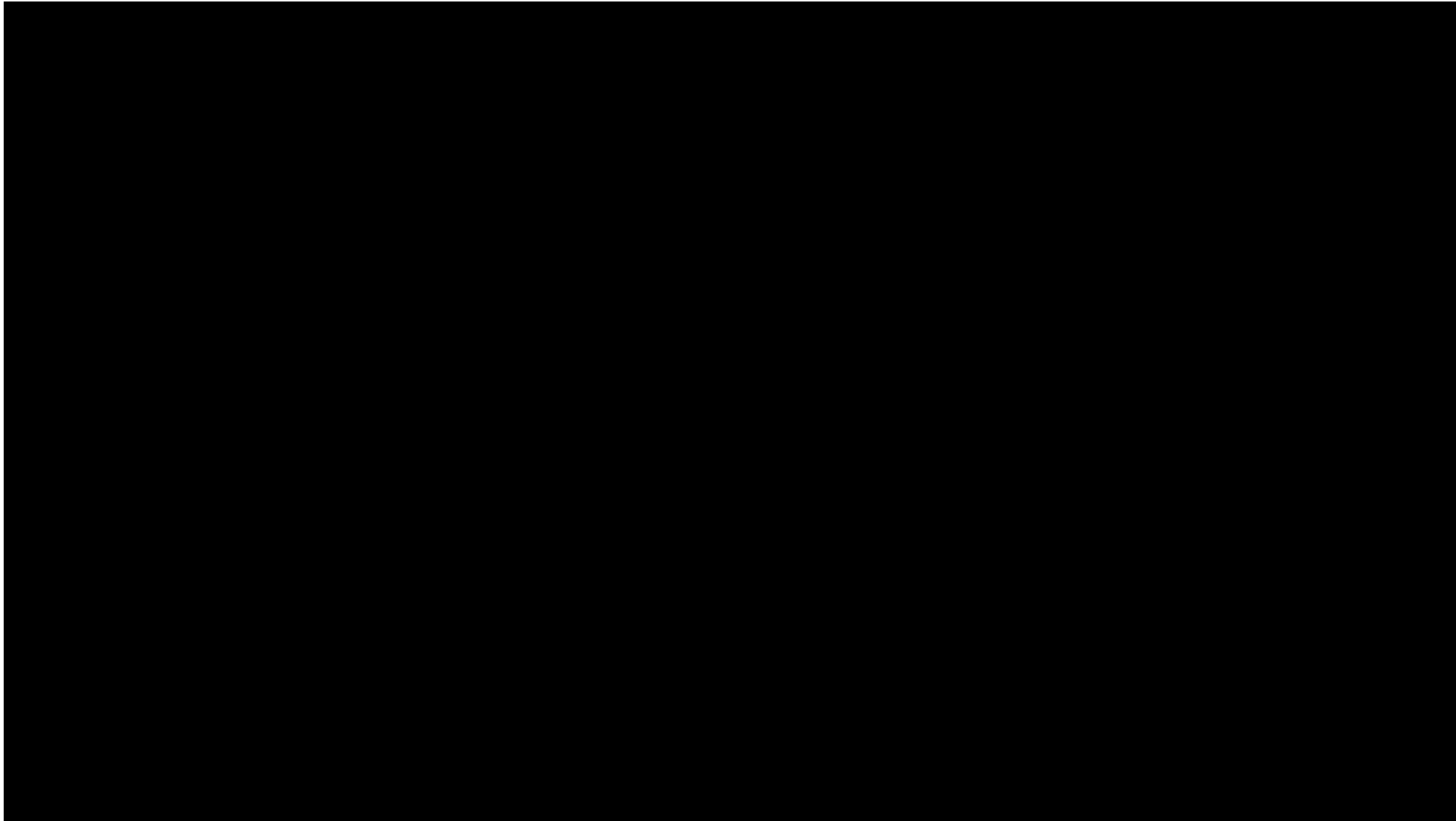
Projected Spend – Including Engineering

Spurlock CCR & ELG Compliance Project - \$262M (+/-10%)



Full “Steam” ahead on Compliance Path

- Best decision for our owner-members
- Remaining flexible with off-ramps
- 70+ acre ash pond to close by end of 2024 (quarter of total project cost)
- Preserves one of the most reliable and least cost coal generators in PJM
- But will not lose sight on what matters most





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