

IMPACTS OF RECENT USEPA RULEMAKING ON BPU

State of Kansas

Joint Committee on Energy & Environmental Policy

October 17, 2011

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Kansas City Board of Public Utilities



Background

Kansas City Board of Public Utilities (BPU)

Electric and Water Utility:

**Publicly owned administrative agency of the
Unified Government (UG) of Wyandotte
County/Kansas City, Kansas**

Customer information:

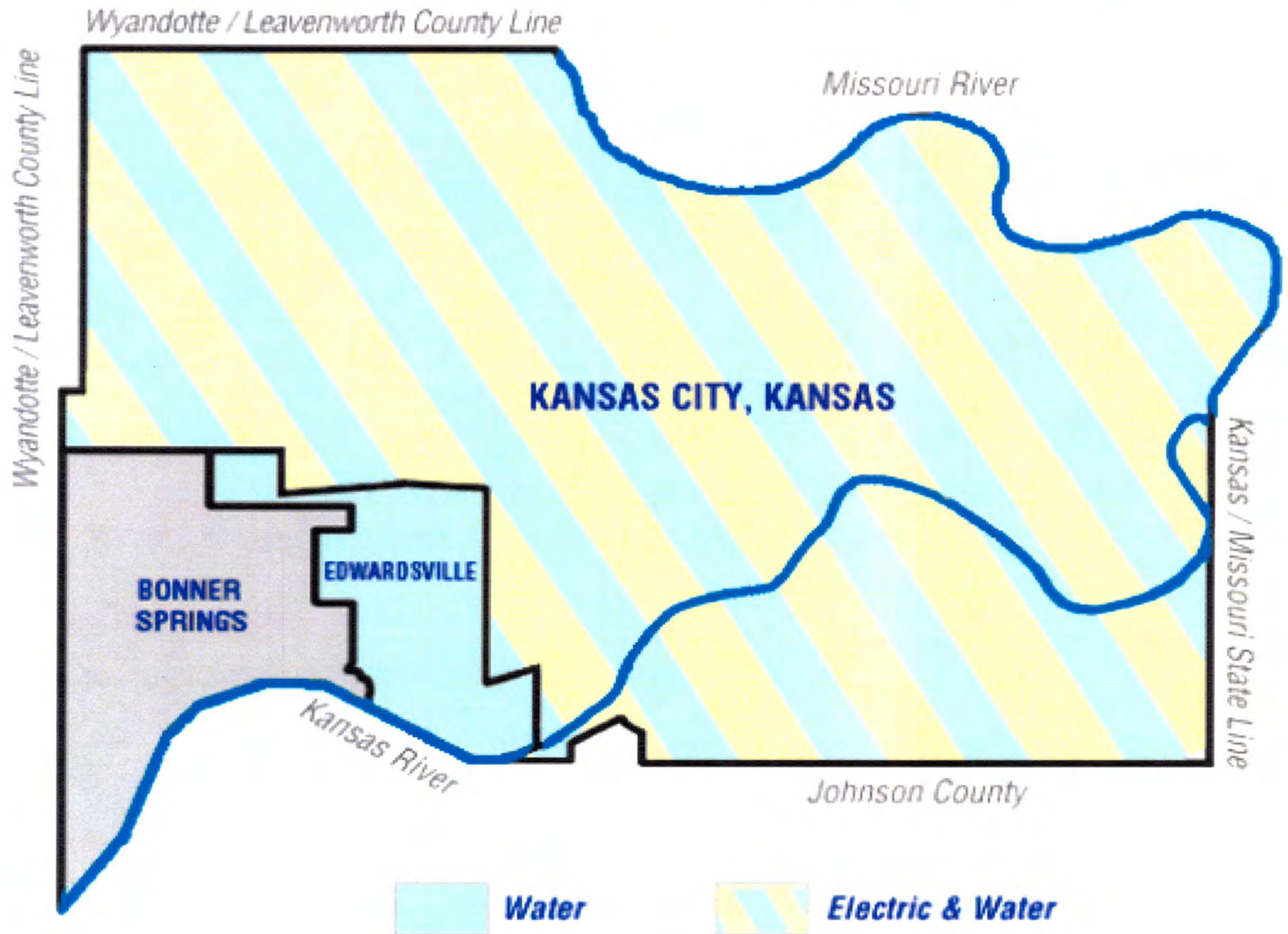
**150,000 residents
67,000 electric meters
55,000 water meters**

Revenue Sources:

**85% electric
15% water**



BPU Electric & Water Service Area Map



Background

Kansas City Board of Public Utilities (BPU)

BPU Service Area Demographics:

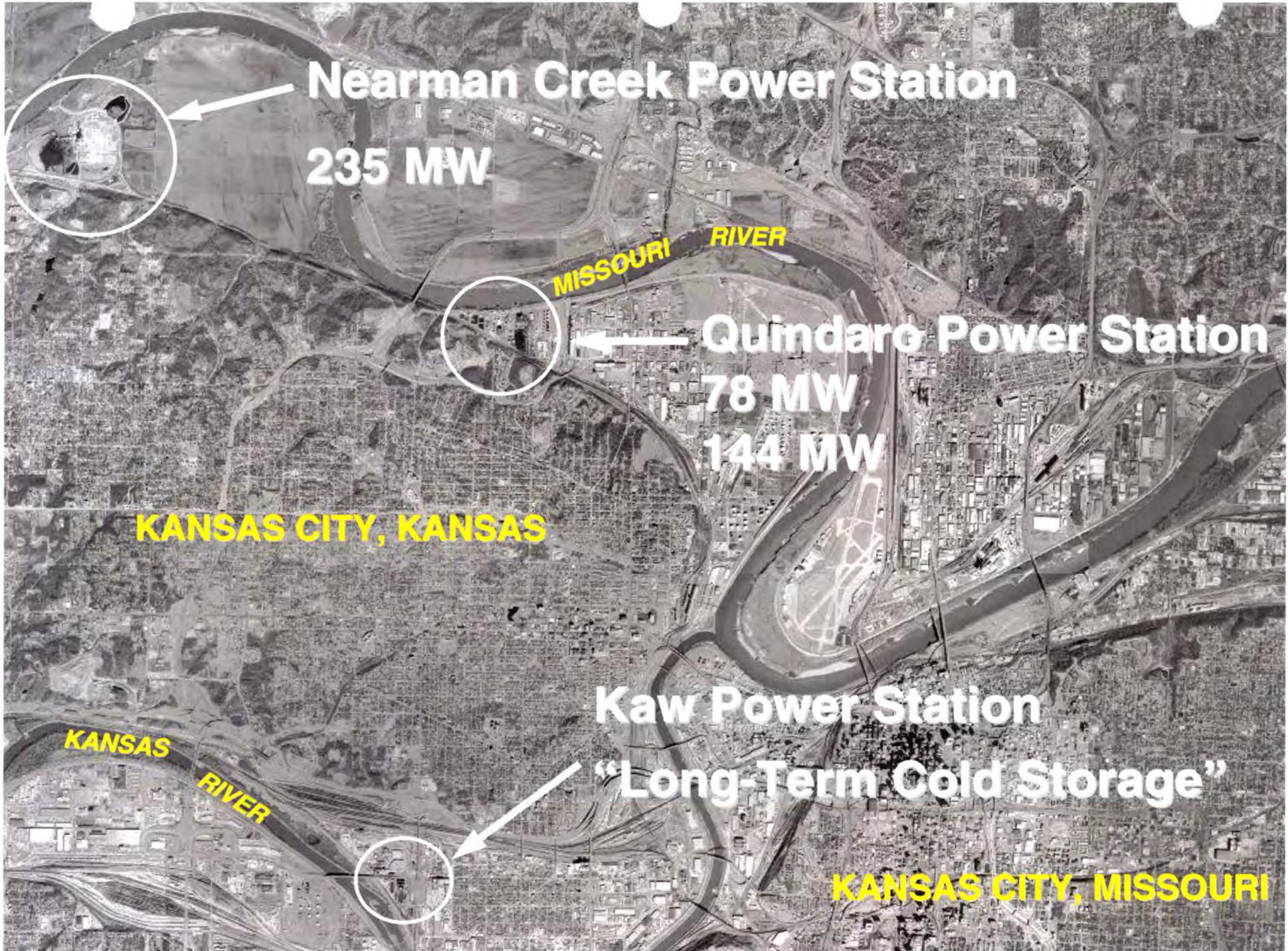
16.5% live below the poverty line

11.2% unemployment rate

14,000 annual “payment arrangements”

6,000 monthly accounts eligible for disconnection





Nearman Creek Power Station

235 MW

MISSOURI RIVER

Quindaro Power Station

78 MW

144 MW

KANSAS CITY, KANSAS

Kaw Power Station

"Long-Term Cold Storage"

KANSAS CITY, MISSOURI

KANSAS RIVER

Current Issues with USEPA Rulemaking (non-air emissions):

- Cooling Water Intake Structures**
- Coal Combustion Residuals (CCR)**
- Wastewater Discharge Standards**



Current Issues with USEPA Rulemaking (air emissions):

- **National Ambient Air Quality Standards (Ozone)**
- **Permitting for Green House Gas Requirements**
- **Utility Maximum Achievable Control Technologies (MACT)**
- **Cross State Air Pollution Rule!**

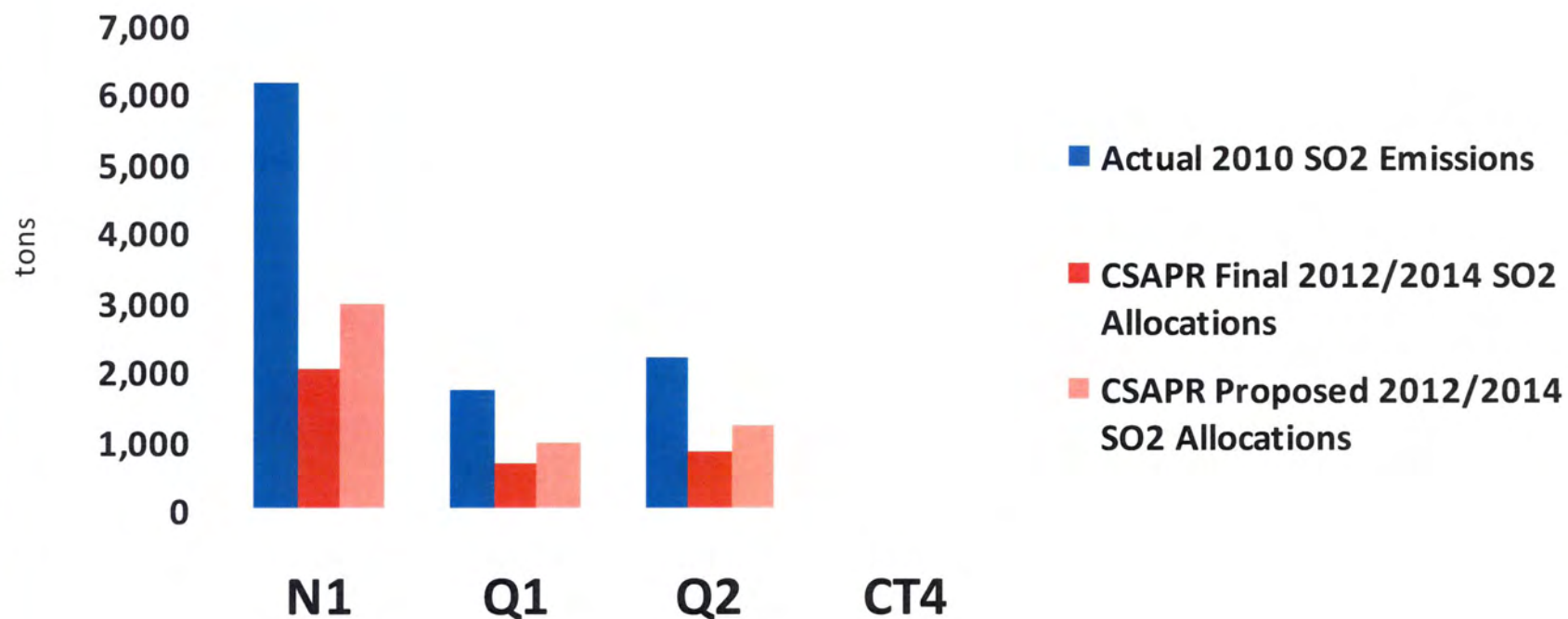
Published August 8, 2011

Effective October 7, 2011

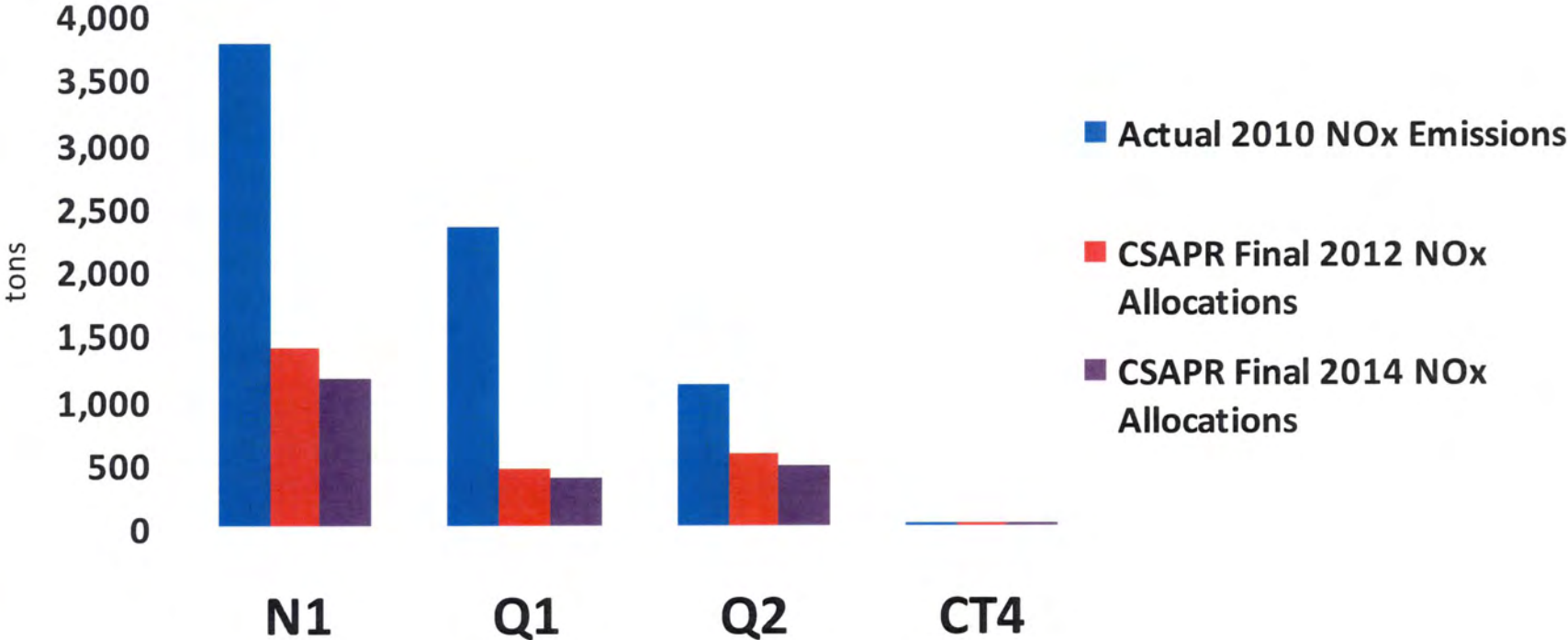
First Compliance Period Begins January 1, 2012



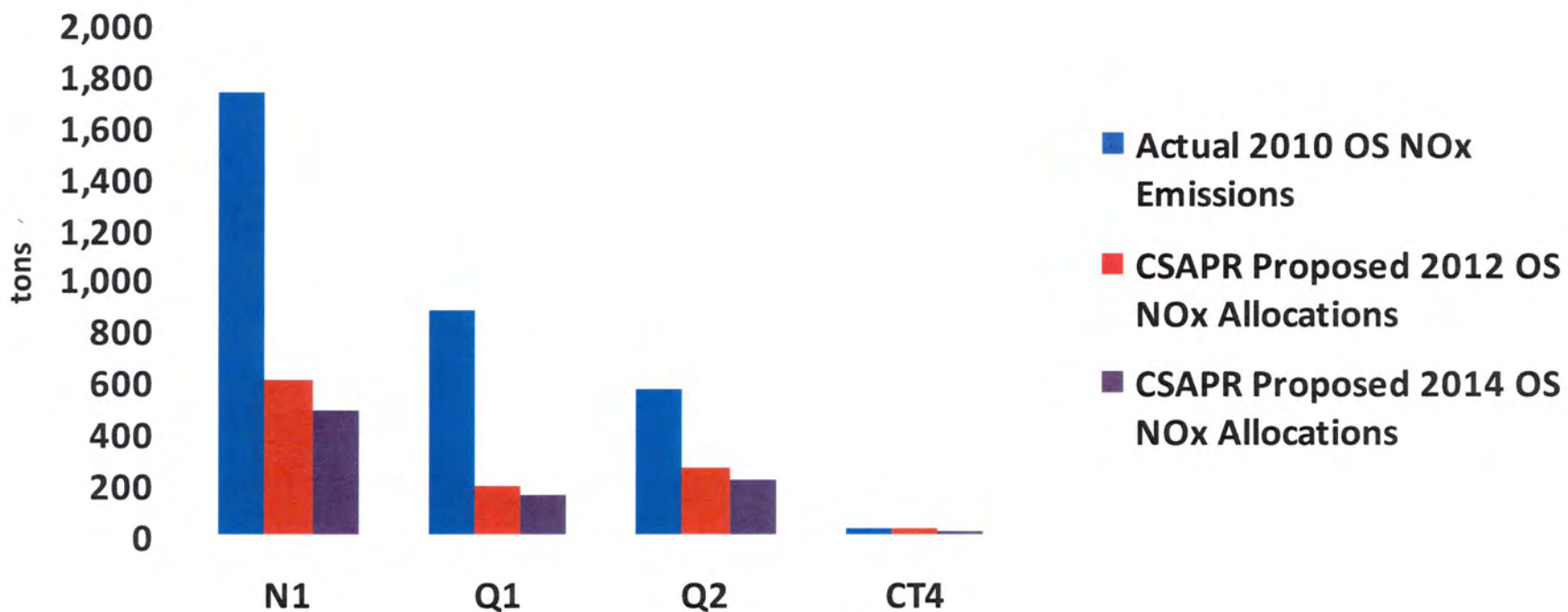
BPU 2010 SO2 Emissions vs. CSAPR Allocations



BPU 2010 NOx Emissions vs. CSAPR Allocations



BPU Ozone Season NOx 2010 Emissions vs. Proposed CSAPR Allocations



Near-Term Preliminary Compliance Solutions

AQC

- N1
 - SO₂: DSI
 - NO_x: SNCR
- Q1
 - SO₂: DSI
 - NO_x: SNCR/RRI
- Q2
 - SO₂: DSI
 - NO_x: SNCR
- “FuelTech” proposal for modeling NO_x relative to SNCR & RRI

NG Conversion

- Q1
- CT-2 and CT-3
- Natural Gas Pipeline and Availability

Purchase Power

- Power agreement evaluation
- Replacement power solicitation (Ready for issue, 30 day turnaround, November 7)

Allowances

- Preliminary allowance prices for Kansas for a mature, stable market
 - NO_x: \$2,600/ton
 - SO₂: \$600/ton
- Market will be volatile for first 2-3 years



Preliminary Costs for AQC Solutions

Capital Costs(\$)	Nearman 1	Quindaro 1	Quindaro 2
DSI System	800,000	600,000	600,000
SNCR Modeling	148,700	134,700	148,700
SNCR¹/RRI² System	2,750,000	2,000,000	2,000,000
OFA System	--	1,800,000	--
O&M	Nearman	Quindaro	Quindaro
DSI Sorbent³	3,700,000	940,000	1,200,000
SNCR/RRI	3,700,000	3,500,000	920,000
TOTAL	7,400,000	4,440,000	2,120,000

¹Nearman 1 SNCR includes \$250K for relocating flue gas conditioning system injection lances .

²RRI on Quindaro 1 only.

³Sorbent Costs based on 66% SO₂ removal based on a trona cost of \$190 per ton (delivered).

⁴Reagent Costs based on \$1.85 a gallon for Urea.



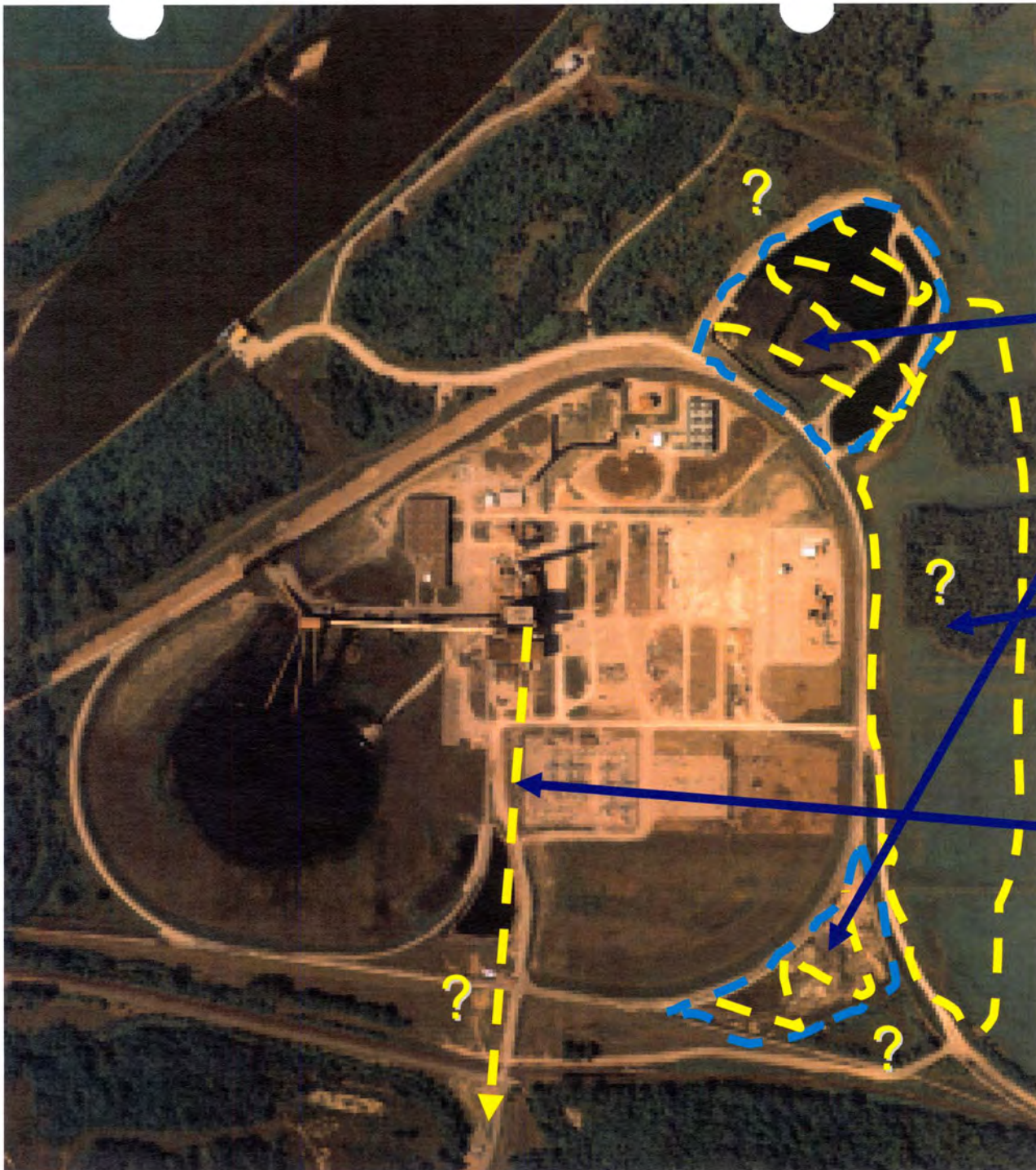
BPU Environmental Compliance Planning

Long Term (Beyond 2014)

- **Final Air Control Solutions**
- **Waste and Wastewater Solutions**
- **Unit Closures (Q-1?)**
- **Unit Permitting & Construction**
- **Construct new Generating Unit(s) - Met. Tower, CT-5?, Combined Cycle?**



Waste Issues

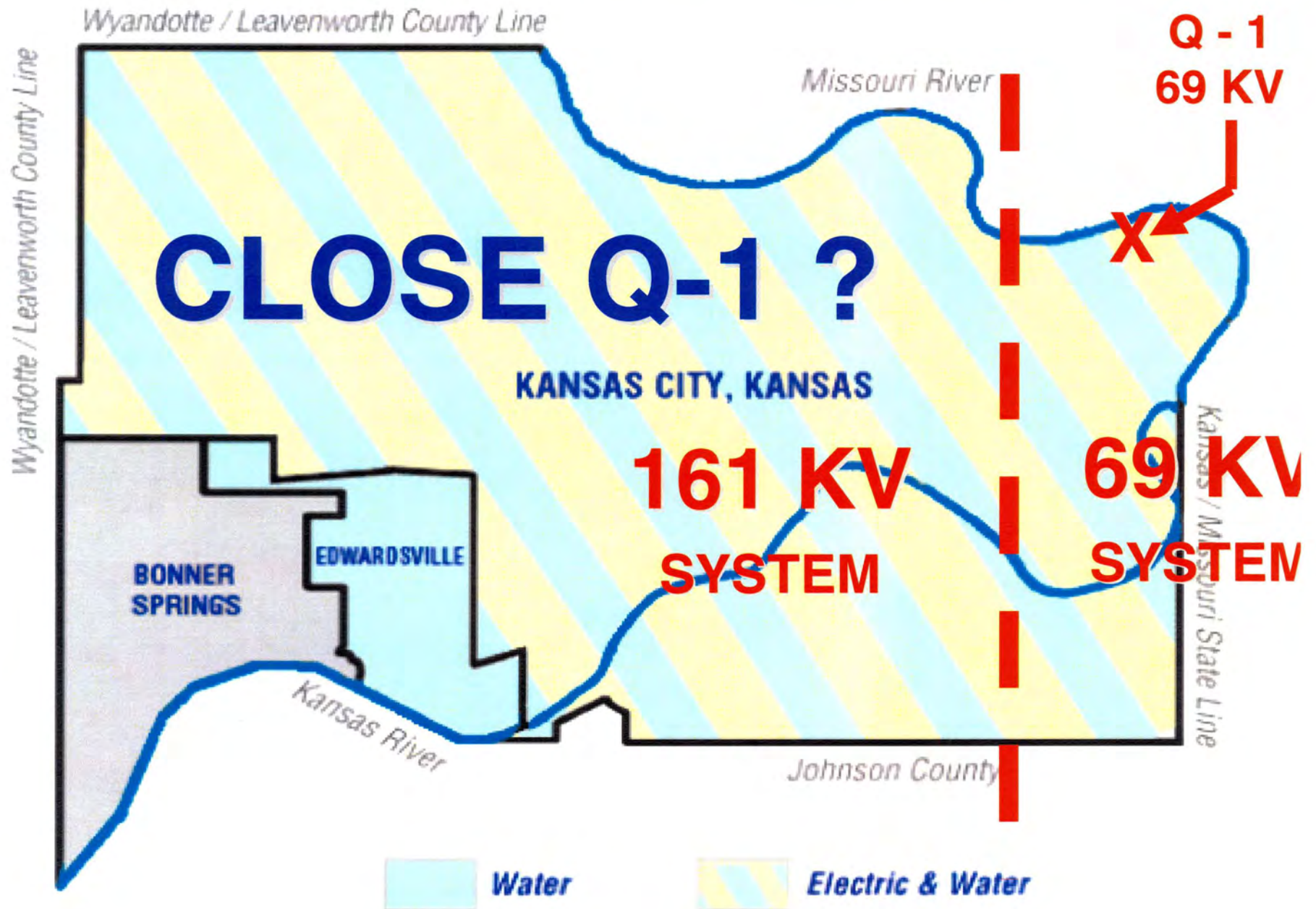


**Close or
Rebuild
Landfills?**

**Build New
Landfills?**

**Haul All Ash to
Where? How?
How Much?**

BPU Electric & Water Service Area Map



September 20, 2011

Southwest Power Pool's CSAPR Letter to USEPA

- During 2012 Summer peak conditions FERC and NERC regulations would be violated.
- SPP suggested that the EPA delay CSAPR's effective date at least a year to allow for investigating, planning and developing solutions to assist members in maintaining grid reliability and compliance



Estimated Compliance

Costs to BPU:

\$500,000,000



Impacts on BPU Customers...

Pre-CASPR: 33% Rate Increase ?

•Post-CASPR: 100% Rate Increase ?



October 7 2011

**BPU files “PETITION FOR
REVIEW” against EPA’s
CSAPR in D.C. District
Court**



“The best option would be for the EPA to write less destructive rules that don't jeopardize reliability in the first place. Failing that, we should at least know the risks before it is too late.”

-- Wall Street Journal Editorial

September 26, 2011



THANKS!

Kansas City Board of Public Utilities

