

WORK SESSION MINUTES – WEDNESDAY, MAY 18, 2022

STATE OF KANSAS)
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CITY OF KANSAS CITY)

The Board of Public Utilities of Kansas City, Kansas (aka BPU, We, Us, Our) met in Work Session on Wednesday, May 18, 2022 at 5:00 P.M. The following Board Members were present: Mary Gonzales, President; Rose Mulvany Henry, Vice President; Thomas Groneman, Secretary; Robert L. Milan, Jeff Bryant and David Haley.

Also present: William Johnson, General Manager; Wendy Green, Senior Counsel; Johnetta Hinson, Executive Director Customer Service; Steve Green, Executive Director Water Operations; Dong Quach, Executive Director Electric Production; Jerry Sullivan, Chief Information Officer; David Mehlhaff, Chief Communications Officer; Randy Otting, Director Accounting; Andrew Ferris, Director Electric Supply Planning; Darren McNew, Director Electric Transmission & Substation; and Robert Kamp, IT Project Manager.

A tape of this meeting is on file at the Board of Public Utilities.

Ms. Gonzales called the meeting to order at 5:00 P.M.

Roll call was taken, all Board Members were present, Mr. Haley, was present via phone and arrived in person at 5:07 P.M.

Item #3 – Approval of Agenda

A motion was made to approve the Agenda by Mr. Bryant, seconded by Ms. Mulvany Henry, and unanimously carried.

Item #4 – Board Update/GM Update

Mr. Bryant gave an update on the Policy Committee meeting. They would like to be a Work Session agenda item on June 22nd to discuss proposed changes to the Cold Weather Policy.

Mr. Haley reported on the Economic Development and Finance Standing Committee meeting he attended. There was discussion regarding adjusting the PILOT rate differently for residential and industrial/commercial customers.

Ms. Gonzales commented on the Governance role of the Board and the meaningfulness of their role in regards to strategies and direction of the utility. She felt like an outside consultant would be helpful in zeroing in on the Board’s focus and help the Board navigate

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the Governance part of the Strategic Plan. She asked Mr. Johnson and Mr. Dennis Dumovich, Director of Human Resources to look into that.

Mr. Johnson reported on the Government Efficiency and Economic Development taskforce. All of the information from the preliminary Economic Development meetings was being compiled and they would be including more members of the community in future meetings.

He also spoke about the Supreme Court ruling regarding redistricting. The Unified Government would be looking at the district maps to see what adjustment might need to be made.

Item #5 – Purchase Power Agreements

Mr. Andrew Ferris, Director Electric Supply Planning, updated the Board about BPU’s Renewable Energy Supply which included, Federal Hydro, Wind, Landfill Gas, Hydroelectric and Solar. He also gave an update about Purchase Power activity. (See attached PowerPoint.)

Mr. Ferris answered questions from the Board.

Item #6 – Adjourn

A motion was made to adjourn the Work Session at 5:58 P.M. by Mr. Bryant, seconded by Mr. Milan, and unanimously carried.

ATTEST:


Secretary

APPROVED:


President

BPU Renewable Energy Supply and Purchase Power Update

May 18, 2022

Renewable Energy Generation

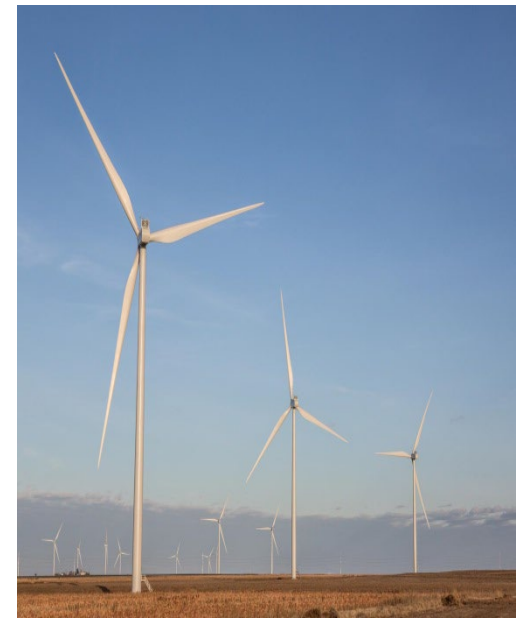
- Federal Hydro - 44 MW
- Wind - 250.2 MW
- Landfill Gas - 3.5 MW
- Hydroelectric (Bowersock) - 7 MW
- Solar - 1 MW



Bowersock Hydro

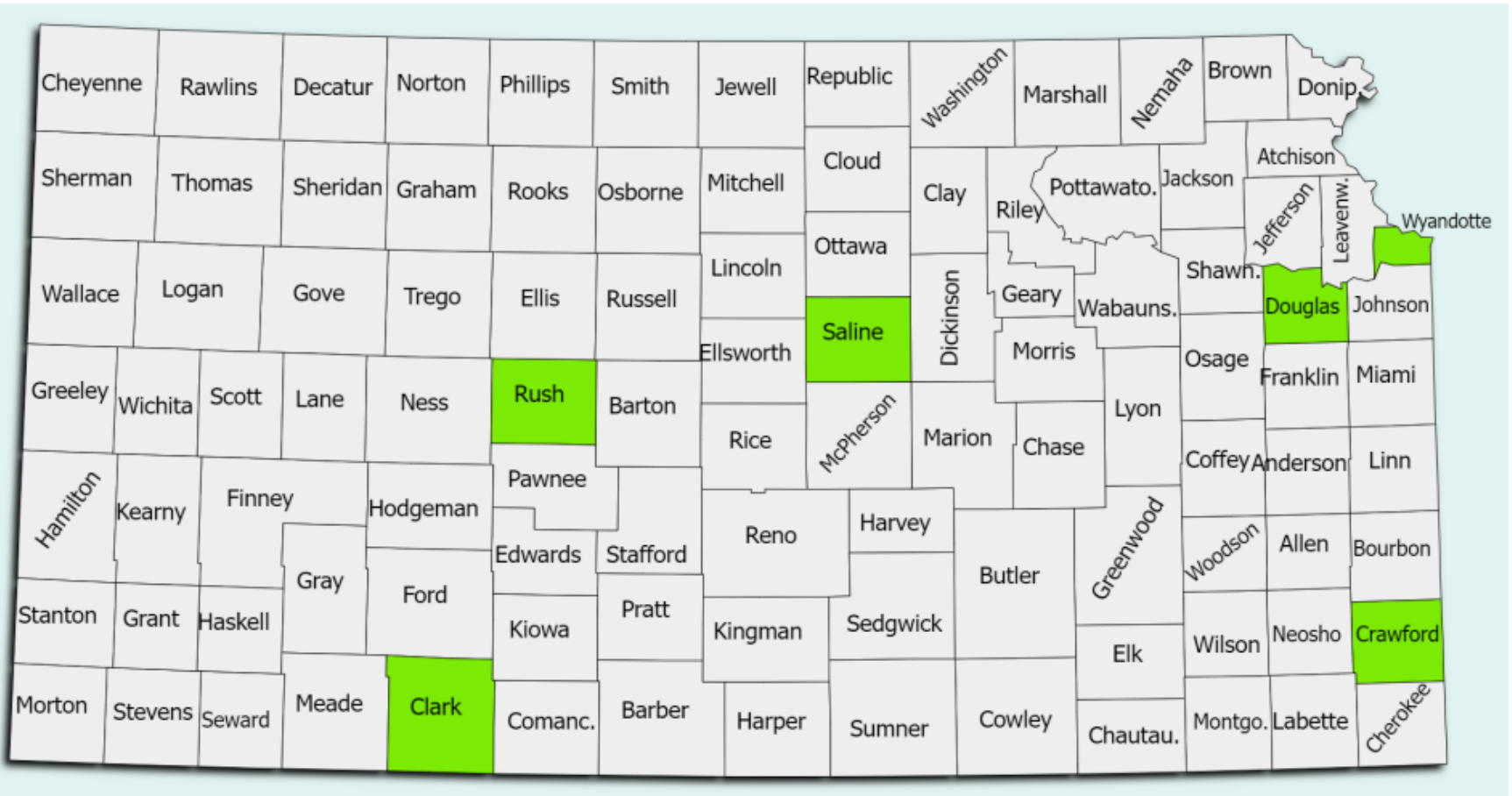


Landfill Gas



Cimarron Bend

Resource Locations





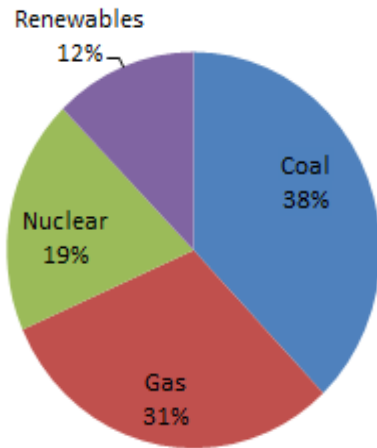
BPU Purchase Power History

- WAPA and SPA Hydro services began in the late 1970's
 - WAPA agreement currently runs through 2024 and SPA through 2035
- Smoky Hills Wind - 2008 - 2027
- Oak Grove LFG - 2011 - 2029
- Bowersock Hydro - 2012 - 2036
- Alexander Wind - 2016 - 2035
- Cimarron Wind - 2018 - 2037
- Community Solar - 2018 - 2042

2012 Power Supply

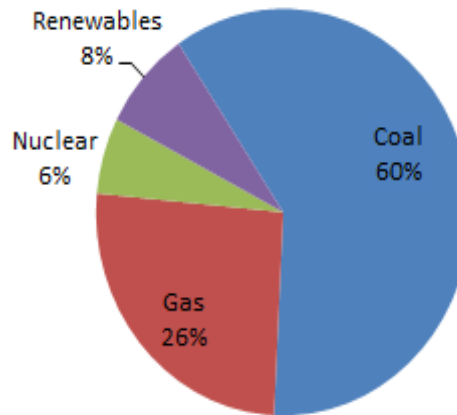
- Similarities / Differences
- Reasoning behind fuel source selection
- Renewable Make-up

National Generation - 2012



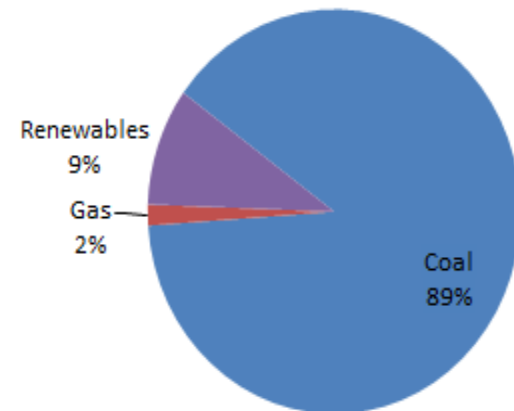
U.S. Energy Information Administration / Electricity

SPP Generation - 2012



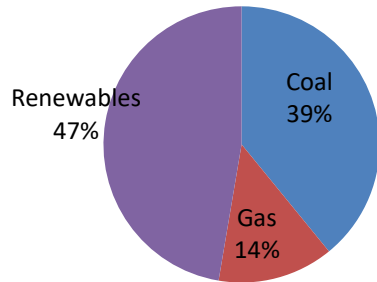
Southwest Power Pool

KC BPU Generation - 2012

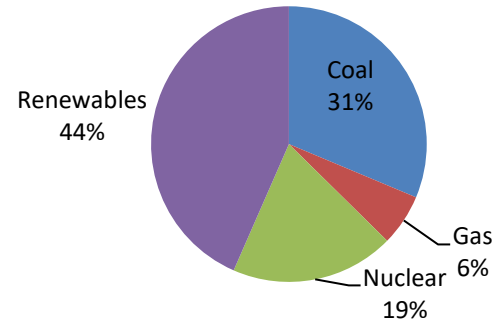


2020 Power Supply

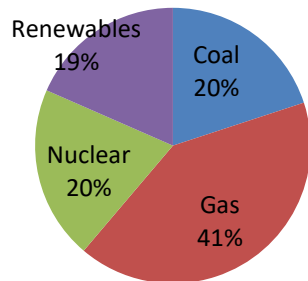
KC BPU Gen - 2020



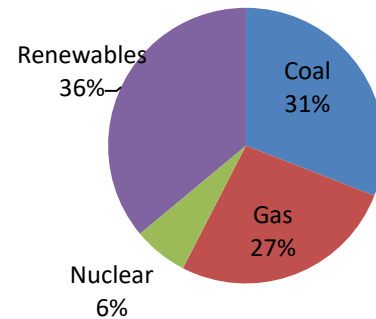
Kansas Generation - 2020



National Gen - 2020

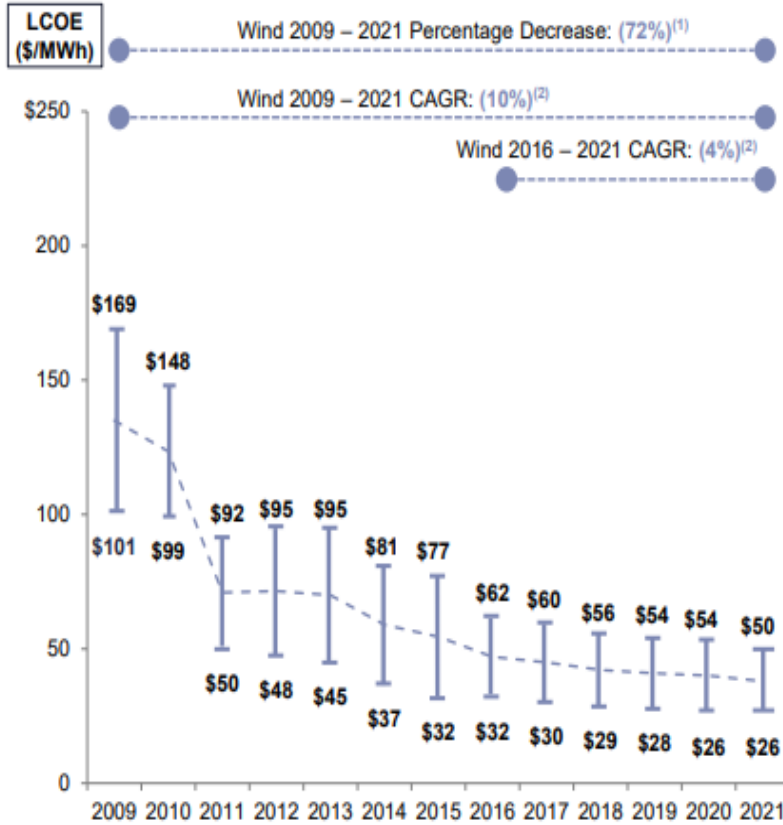


SPP Generation - 2020

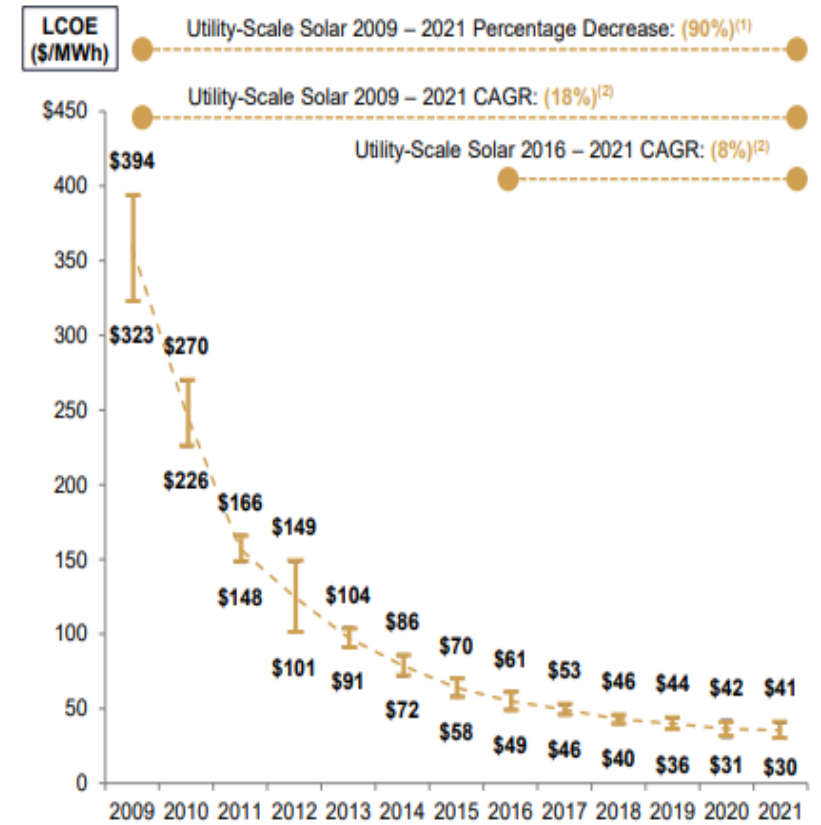


Historical Cost of Renewables

Unsubsidized Wind LCOE

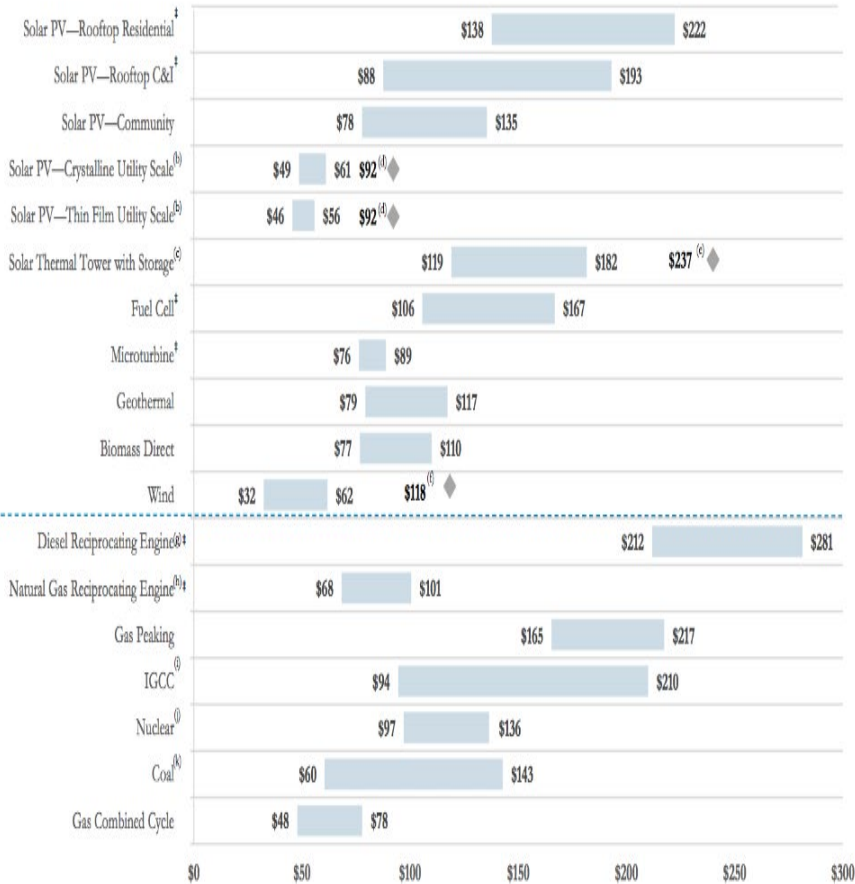


Unsubsidized Solar PV LCOE



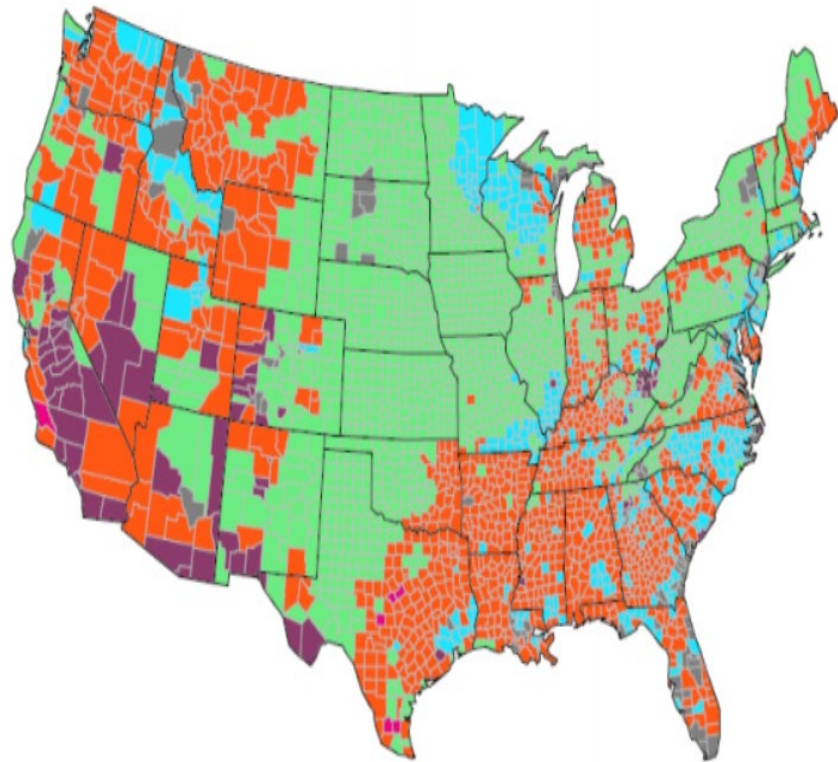
National Generation Trends

ALTERNATIVE ENERGY^(d)



Levelized Cost (\$/MWh)

Map of the lowest-cost electricity generation technology in every U.S. county



- Coal (BIT) (n = 0)
- Coal (SUB) CCS (n = 0)
- NGCC CCS (n = 0)
- Solar PV, resid. (n = 147)
- Coal (BIT) CCS (n = 0)
- CSP (n = 0)
- Coal (SUB) (n = 0)
- NGCC (n = 1127)
- NGCT (n = 6)
- Nuclear (n = 398)
- Solar PV, utility (n = 85)
- Wind (n = 1347)

Market Challenges

- Each renewable source has its own attributes
 - Wind generation is heavier during the shoulder months and overnight hours
 - Solar is heaviest between 8 AM - 2 PM and produces the most in late spring through mid-summer, but is also heavily influenced by weather
 - Hydro is generally heaviest in the late spring but is dependent on rain and snowfall levels
 - Landfill gas is expected to be very consistent but is impacted by the quality of the landfill methane wells
- The Energy Market is based on Real Time Market Conditions
 - Due to the increase in renewables negatively priced intervals made up 15% of all hours in 2021
 - This impacts the market value of wind most severely
- Nearly 90% of all expected new generation coming online in SPP will be renewable, which will continue to drive congestion

Future Generation

Future Generation considerations:

- Customer driven - Green Rider, GHG goals
- Regulation, Environmental and Transmission driven
- Electrification growth
- Aging thermal and capacity accreditation
- Flexible or new fuel source
- Storage

QUESTIONS