BOARD INFORMATION PACKET

KANSAS CITY BPU

Board of Public Utilities
Kansas City, Kansas

Regular Meeting of

February 4, 2026

RP3 Reliable Public Power Provider™

ASSOCIATION OF METROPOLITAN WATER AGENCIES

Gold Award for Competitiveness Achievement

Approval of Agenda
Agenda Item #III

KANSAS CITY BPU
THE POWER OF COMMUNITY

BOARD AGENDA

Regular Session
February 4, 2026 – 6:00 P.M.

I. Call to Order

II. Roll Call

____Gary Bradley-Lopez, At Large, Position 1
____Chase Cook, District 2
____David Haley, At Large, Position 2
____Stevie A. Wakes, Sr., District 1
____Rose Mulvany Henry, At Large, Position 3
____Brett Parker, District 3

III. Approval of Agenda

IV. Consent Agenda Approvals

a. Approval of the Minutes of the Work Session of January 21, 2026
b. Approval of the Minutes of the Regular Session of January 21, 2026
c. Board Approval of Stevie Wakes as Vice President for the term of January 2026 to February 2027. (Please note, Stevie Wakes was the only nomination for Vice President, however, after nominations were closed, a formal roll call was not taken on his nomination.)

V. General Manager / Team Reports

a. Cybersecurity Update
b. 2% Credit Card Fee

VI. Public Comments

VII. Miscellaneous Comments

VIII. Board Comments

IX. Executive Session

X. Adjourn

Consent Agenda Approvals

Agenda Item #IV

a. Approval of the Minutes of the Work Session of January 21, 2026

WORK SESSION MINUTES – WEDNESDAY, JANUARY 21, 2026

STATE OF KANSAS)
) SS
CITY OF KANSAS CITY)

The Board of Public Utilities of Kansas City, Kansas (aka BPU, We, Us, Our) met in Work Session on Wednesday, January 21, 2026 at 5:00 PM. The following Board Members were present: Rose Mulvany Henry, Vice President; Brett Parker, Secretary; Gary Bradley-Lopez, Chase Cook, Stevie A. Wakes Sr., and David Haley.

Also present: Jeremy Ash, General Manager; Angela Lawson, Acting Chief Counsel; Leigh Mulholland, Chief Compliance Officer; Andrew Ferris, Chief Financial Officer; Jerry Sullivan, Chief Information Officer; Jerin Purtee, Chief Operating Officer; Steve Green, Executive Director Water Operations; Darrin McNew, Executive Director Electric Operations; David Wilson, Director Electric Distribution- Engineering; Phillip Brown, Director Civil Engineering; and Rob Kamp, IT Project Manager.

A video of this meeting is on file at the Board of Public Utilities and can be found on the BPU website, www.bpu.com.

Ms. Mulvany Henry called the meeting to order at 5:00 PM.

Roll call was taken and all Board members were present except Mr. Haley, who arrived at 5:01 PM, and Mr. Cook, who arrived at 5:22 PM.

<u>Item #3 –Approval of Agenda</u>

A motion was made to approve the agenda, by Mr. Parker, seconded by Mr. Wakes, and unanimously carried.

<u>Item #4 – Board Update/GM Update</u>

There were no updates.

<u>Item #5 –Current Energy Group Information</u>

The Board discussed how they wished to proceed with documenting the report prepared by the Current Energy Group as it related to the Integrated Resource Plan (IRP).

A motion was made to formally acknowledge receipt of the study by Mr. Parker, seconded by Mr. Bradley-Lopez, and unanimously carried. (See attached Report.)

WORK SESSION MINUTES – WEDNESDAY, JANUARY 21, 2026

STATE OF KANSAS)
) SS
CITY OF KANSAS CITY)

Item #6 – Infill Housing Group Information

Mr. Ash explained the purpose of the Infill Housing Policy and shared historical data from the previous year.

Mr. Ash, Mr. David Wilson, Director Electric Distribution- Engineering, and Mr. Phillip Brown, Director Civil Engineering, responded to questions and comments from the Board.

Item #7 – Adjourn

A motion was made to adjourn the Work Session at 5:55 PM, by Mr. Bradley-Lopez, seconded by Mr. Cook, and unanimously carried.

ATTEST: APPROVED:

_______________________________ _______________________________
Secretary President

CURRENT
ENERGY GROUP

Clean Replacement Portfolio & Transition Strategy for Nearman Coal

Prepared for Kansans for an Affordable Future and The Sierra Club

Authors
Maria Roumpani,
Laura Burford,
Justin Brant

Contents

Executive Summary

Current Energy Group (CEG) conducted this analysis to explore options and specific steps that would allow Kansas BPU to replace the Nearman Creek Unit 1 (Nearman) coal generation with non-emitting resources. This report summarizes CEG's findings and recommendations. It also serves as a roadmap for what steps BPU can take to implement a phased approach to retire Nearman and replace the generation and capacity with non-emitting resources.

Recent analyses—including BPU's 2024 Integrated Resource Plan and independent reviews—highlight that Nearman operates at a net loss averaging $14 million annually, with cumulative projected losses of $227 million through 2040. In addition, annual health and environmental costs associated with Nearman's emissions are estimated at $140 million to $281 million.

CEG conducted this study to identify a clean replacement portfolio and provide a roadmap for retiring Nearman by 2030. The modeling exercise demonstrates that a portfolio of **wind, solar, battery storage, and demand-side resources can replace Nearman's energy and capacity at lower cost and risk than continued coal operation.** Estimated annual costs for 2030 for the clean portfolio are $62.8 million, compared to $64.1 million for Nearman, yielding **a net benefit of $1.3 million.** As Nearman's operating costs rise, including fuel, operations & maintenance, and incremental capital expenses, the savings from switching to a clean portfolio will only grow.

		Nameplate Capacity		
Nearman Coal		235 MW		
Clean Portfolio	**Wind**	**Solar**	**Storage**	**Demand-Side Resources**
	222 MW	118 MW	107 MW	19 MW

Transitioning away from coal reduces the financial burden of operating an aging plant, avoids the need for costly capital expenses, and eliminates significant climate and public health impacts associated with continued coal generation. The immediate steps that Kansas BPU can take to prepare for Nearman's retirement, among other long-term actions detailed herein, include:

- Issue an **All-Source RFP**—including demand-side resources—and make all possible efforts to secure federal tax credits for wind and solar before the July 2026 deadline. Use RFP responses to refine clean replacement portfolio cost estimates.
- Enhance and expand **demand-side resource** investments and offerings for energy efficiency and demand response. These resources are rapidly deployable, cost-effective options to reduce energy use, offering savings that can be realized prior to Nearman's closure.

Bottom Line: Early retirement of Nearman and deployment of a clean replacement portfolio can save ratepayers millions annually, improve public health, and position BPU as a leader in affordable, sustainable energy. Time-sensitive opportunities—particularly federal tax incentives—make immediate action critical.

1. Introduction

The **Kansas City Board of Public Utilities** (BPU) is a not-for-profit municipal utility that serves electric and water customers in Wyandotte County, Kansas. BPU currently serves their electric customers with a portfolio that includes 28% of the system's capacity from coal,[1] generated from a single coal plant, Nearman Creek Unit 1 (Nearman).[2] **Nearman** was built in 1981 and is facing many of the same issues common to aging coal plants—rising costs and declining value for customers—along with public pressure to reduce reliance upon greenhouse gas and air pollutant-emitting resources.

BPU has engaged in two recent systemwide review processes: a rate case in 2023 and long-term planning in 2024. The **2023 Rate Case** was the first time BPU had adjusted rates since 2018. During this Rate Case, testimony submitted by Synapse Economics on behalf of Sierra Club provided an analysis of Nearman's economic performance and detailed the historical operating losses of the plant. A key finding from this work is that Nearman resulted in cost for BPU that averaged $16 million per year from 2018 to 2020 (2022 dollars). This trend was expected to continue—Synapse's analysis projected continued losses through at least 2027 of at least $11 million per year.[3]

BPU's is required to file an Integrated Resource Plan (IRP) with Western Area Power Administration (WAPA) every five years. The **2024 IRP** for Kansas BPU was completed in August 2024 by Black & Veatch. In October 2024, RMI reviewed the IRP and provided recommendations for how to improve modeling to ensure planning identifies least-cost solutions.[4] Some of the recommendations were specific to Nearman, including a supplemental resource planning analysis to evaluate a variety of options for Nearman Creek Power Station, its economic retirement and/or conversion to seasonal operation.

The studies conducted over the last few years have been informative in identifying existing conditions and suggesting areas of improvement for Nearman, as well as the broader BPU system. In this report, we build upon these prior efforts to:

- Provide updated information about the status of Nearman and the options available for replacement resources.
- Identify the composition and costs of a portfolio of clean energy resources (including demand-side resources) that could replace the energy and capacity of Nearman.
- Evaluate the avoided environmental and health costs associated with reduced coal generation.

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[1] Black & Veatch. (2024, August 30). *2024 Integrated Resource Plan: Prepared for Kansas City Board of Public Utilities*. Figure 2-1.

[2] The Nearman Creek Power Station includes Unit 1 (Coal) and Unit 4 (Gas/Oil), which is also BPU-owned, has an 85 MW capacity, and was constructed in 2006. For purposes of this report, all references to "Nearman" are specific to Unit 1 (coal). Any description of the gas/oil generator will be referred to as "Nearman Unit 4".

[3] Shenstone-Harris, S. (2023, May 15). *Direct testimony of Sarah Shenstone-Harris on behalf of Sierra Club*. Submitted to Kansas City Board of Public Utilities.

[4] RMI. (2024, October 10). *Review and Recommendations for Best-Practices Planning: Kansas City Board of Public Utilities' 2024 IRP.*

- Provide a roadmap with a phased approach detailing the immediate and longer-term actions that BPU and stakeholders can implement to fill in information gaps, build up clean energy within the system, and ultimately decommission Nearman.

2. Background & Context

This section provides background information on Nearman's operations and costs, including projections, which are then used for analysis to identify the requirements for the modeled clean replacement resource portfolio. In addition, this section also provides up-to-date information that informs the motivation for evaluating alternatives to Nearman due to increasing operational costs, as well as environmental and health costs associated with coal generation.

2.1 Background

Nearman Creek Unit 1 (Nearman) is a conventional steam coal generator constructed in 1981 with a net capacity of 243 MW in both summer and winter.[5] The **Nearman** coal unit is located at the Nearman Creek Power Station, which is situated alongside the Missouri River in north Kansas City and Wyandotte County. The facility also hosts Nearman Creek Unit 4, an 85 MW capacity natural gas/oil combustion turbine (CT) that was constructed in 2006, as well as a 1 MW community solar project. Across both maintenance and operations there are 70 staff at Nearman Creek Power Station.[6]

2.1.1 Generation

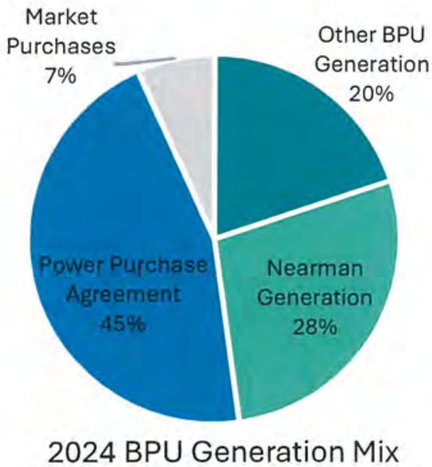
In calendar year 2024, BPU provided 2.37 GWh of electricity to serve its customers,[7] of which **28% was supplied by Nearman** (661,122 MWh). BPU relied on Power Purchase Agreements (PPAs) with third-party generators to supply 45% of its load for 2024 (Figure 1). Levels of PPAs and total generation have been relatively consistent since 2017 and the two have averaged 105% of load from 2017 to 2024. The years 2023 and 2024 were the first years since 2017 when BPU made market purchases to meet load, rather than being a net seller (i.e. generation and PPAs exceeded load from 2018 to 2022).

[5] EIA-860M, September 2025.

[6] Kansas City BPU. (2025, April 21). *Annual Comprehensive Financial Report for Fiscal Years Ending December 31, 2024 and 2023*. Page 107.

[7] Kansas City BPU, (2025, April 21), Page 95.

Figure 1. BPU Annual Total Generation by Source (2024) and Electric Load (2015-2024)



Fiscal Year	Generated (MWh)	PPAs (MWh)	Market (MWh)	Total Load (MWh)
2024	1,132,013	1,076,134	160,031	**2,368,178**
2023	1,224,116	1,024,507	59,746	**2,308,369**
2022	1,546,652	1,204,501	-290,981	**2,460,173**
2021	1,644,842	1,004,085	-414,118	**2,314,179**
2020	1,444,815	1,295,707	-467,177	**2,273,346**
2019	1,424,905	1,092,747	-363,824	**2,407,201**
2018	1,350,390	1,224,246	-39,637	**2,534,999**
2017	1,164,228	1,083,830	104,101	**2,352,158**
2016	954,458	360,986	1,116,577	**2,432,021**
2015	1,767,688	257,821	382,733	**2,408,242**

Source: (Left) Created by CEG using information from S&P Capital IQ and Kansas City BPU. (2025, April 21). *Annual Comprehensive Financial Report for Fiscal Years Ending December 31, 2024 and 2023, page 95.*

Annual generation at Nearman has declined in the last two years—2023 and 2024 operated at a **capacity factor of just over 30%**, while prior years were closer to 50%. Nearman operations changed from self-commitment to market-commitment in 2021. Table 1 summarizes key operation statistics for Nearman for the last seven years.

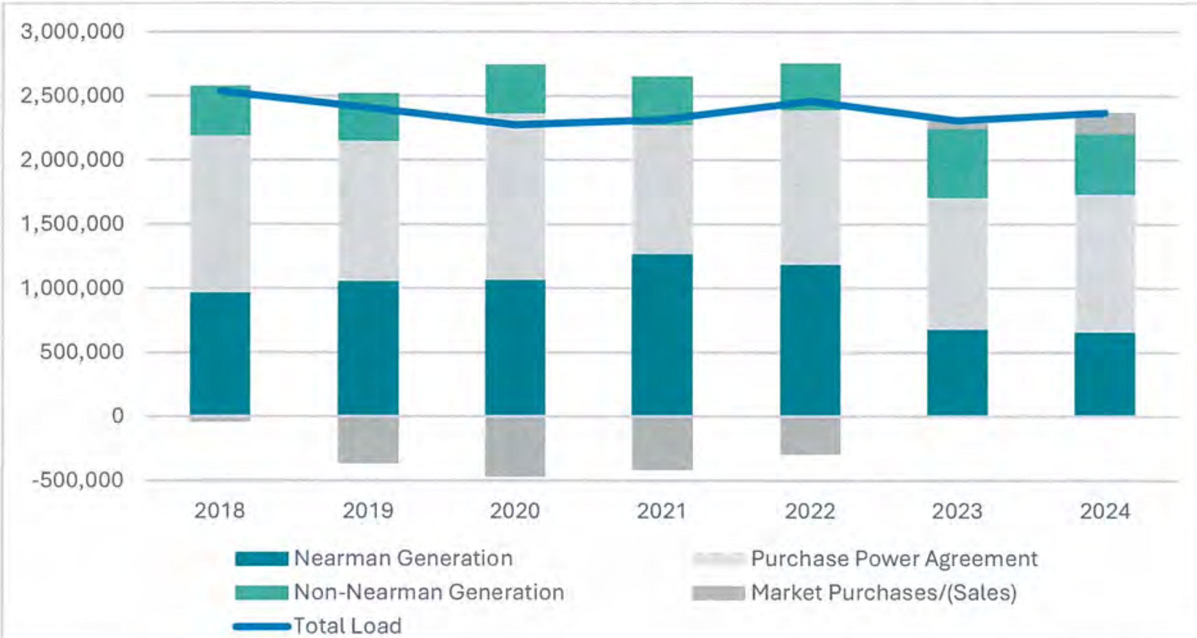
Table 1. Nearman Annual Operating Characteristics (2018-2024)

	Operating Time (hours)	Net Generation (MWh)	Capacity Factor (%)	Heat Rate (Btu/kWh)	Heat Input (MMBtu)
2024	4,195	661,122	31.0	11,479	8,941,897
2023	3,872	683,047	32.1	11,385	8,760,557
2022	6,595	1,189,220	55.9	11,336	15,054,284
2021	6,830	1,272,074	59.8	11,157	15,959,419
2020	6,851	1,070,251	50.8	11,108	13,529,027
2019	7,022	1,059,210	50.4	11,318	13,384,655
2018	5,421	970,561	46.2	10,956	11,169,257
Average	5,827	986,498	47.0	11,248	12,399,871

Source: S&P Capital IQ, Nearman Creek ST 1 Unit Monthly Operations

Despite having lower generation from Nearman in recent years, total generation (including PPAs) and load were constant. The reduction in Nearman generation corresponds with reductions in market sales, as BPU shifted from being a net seller to a net buyer starting in 2023 (Figure 2). This change is likely due to relatively lower power prices due to declining natural gas fuel prices as well as increased market availability of zero-marginal cost renewables, which reduced the hours that Nearman could engage in economic dispatch, particularly after the shift to primarily market-commitment in 2021.[8, 9]

Figure 2. Kansas BPU Electric Load Statistics (2018–2024)



Source: Created by CEG with data from S&P Capital IQ and Kansas City BPU. (2025, April 21). *Annual Comprehensive Financial Report for Fiscal Years Ending December 31, 2024 and 2023.*

The year 2025 will have higher generation than 2023 and 2024, as January to August generation alone has totaled 897,626 MWh in generation for Nearman.[10] In the November 2025 Board meeting, BPU stated that they have been making fewer market purchases in 2025, resulting in additional generation.[11]

Figure 3 displays the total monthly net generation for the most recent 3-year period (August 2022 to August 2025). During this time the average monthly net generation has been 72,970 MWh. While summer generally has the highest loads, the highest total month was January 2025 corresponding to record-breaking cold temperatures.[12] Nearman had negative net generation (i.e. consumed more energy than the plant produced) in three of the 36 months.

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[8] Shenstone-Harris, S. (2023, May 15). *List of Exhibits to the Direct Testimony of Sarah Shenstone-Harris on Behalf of Sierra Club*. Exhibit SSH-2, Response to Data Request 3-1.

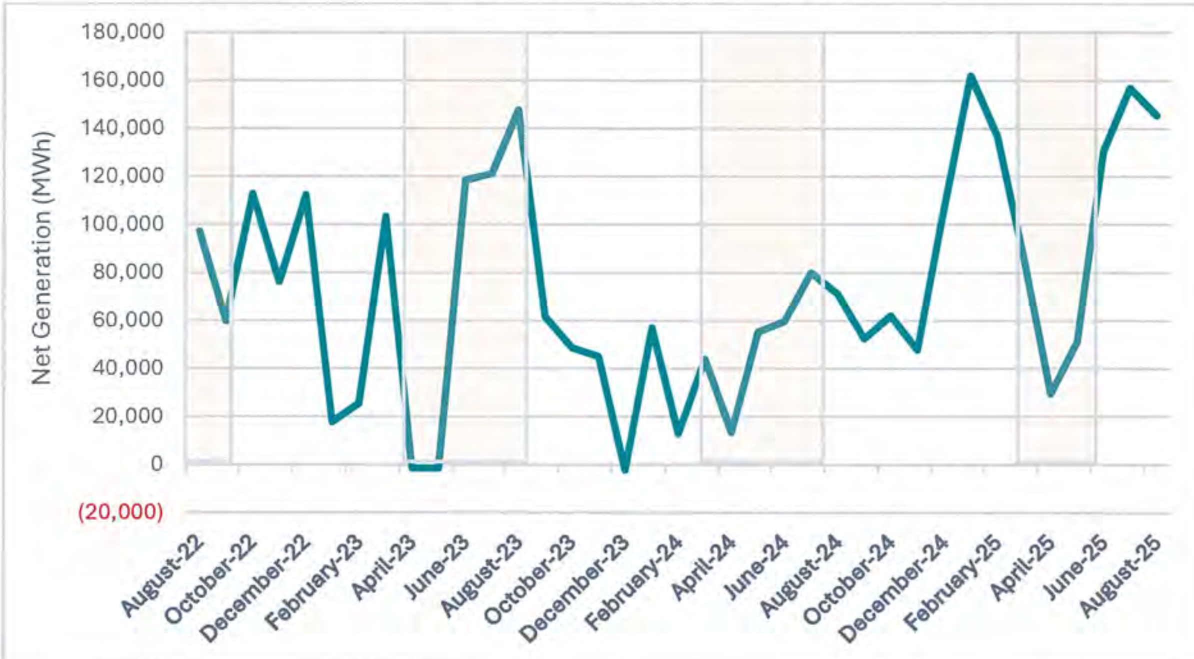
[9] Market-commitment is when a unit dispatches power only when the market price exceeds its marginal cost, while self-commitment refers to unit commitment regardless of the economics.

[10] S&P Capital IQ, Nearman Creek ST 1 Unit Monthly Operations.

[11] Kansas BPU Board Meeting, Regular Session, November 5, 2025, at 10:06.

[12] National Oceanic and Atmospheric Association, National Weather Service. *January 2025 Extreme Cold*.

Figure 3. Nearman Monthly Net Generation for the Prior 3 Year Period



Source: Created by CEG with data from S&P Capital IQ. Summer months of May through September are shaded.

2.1.2 Capacity

The planning or target reserve margin and the firm capacity contribution of resources are key concepts in power system planning. A utility's reserve margin is defined as the percentage by which projected firm capacity exceeds projected peak demand. Utilities typically plan to maintain surplus capacity—i.e., a reserve margin equal to or greater than the PRM—to ensure reliability in the face of uncertainties such as equipment failures or unexpected spikes in demand. Firm capacity refers to the portion of a resource's capacity that can be counted on to reliably meet peak demand. One common way to measure firm capacity is through the Effective Load Carrying Capability (ELCC), which quantifies the additional load a system can support with a given resource without reducing overall reliability.

BPU has 543 MW of owned generation nameplate capacity, all of which are thermal resources. With both owned and contracted resources, BPU has a nameplate system capacity of 848 MW.[13] However, resources are not available to provide their nameplate capacity all the time. Even thermal resources which face planned and unplanned outages as well as fuel supply constraints, are not considered perfectly dispatchable.

In 2024, BPU's peak demand was 474 MW in the summer and 390 MW in the winter.[14] Nearman provides a large share of BPU's total capacity need. Nearman's projected base firm capacity forecast from 2026 to 2042 used in the 2024 IRP is 220.8 MW.[15] However, this value

[13] Black & Veatch (2024), Table 2-2.

[14] EIA-861, *Operational Data*, 2024.

[15] Black & Veatch (2024), Table 2-4.

exceeds Nearman's unforced capacity of 208 MW as well as its projected availability of 85%.[16] As depicted in Table 2, using the 220.8 MW value, **Nearman is expected to contribute 39% to firm capacity** for BPU through 2032.

Table 2. Forecast of Nearman Base Firm Capacity Contributions (2026-2032)

	2026	2027	2028	2029	2030	2031	2032
Nearman Creek Unit 1	220.8	220.8	220.8	220.8	220.8	220.8	220.8
System Peak + Capacity Margin (15%)	561.2	561.2	562.4	562.4	563.5	563.5	564.7
% from Nearman	39%	39%	39%	39%	39%	39%	39%

Source: Created by CEG using values from Black & Veatch (2024), Table 2-4.

Southwest Power Pool (SPP), the regional transmission organization for BPU, does not have a formal capacity market like elsewhere in the country (e.g., PJM Interconnection). Capacity contracts are conducted bilaterally directly by buyers and sellers. BPU has existing contracts with Southwest Power Administration (SWPA) and Western Area Power Administration (WAPA) for a total of 43.4 MW of capacity.[17] These contracts have a weighted average capacity value of $4.56/kW-month.[18] BPU does not currently have any new third-party capacity contracts existing or planned through 2032.[19]

2.1.3 Net Revenues

Nearman's historical operating net revenues have been variable from 2018 to 2024,[20] with the largest value in 2021 of $85 million and the lowest value in 2018 of negative $22 million. Figure 4 provides the historical net revenues by component. Nearman's net revenue is highly correlated with generation levels and energy prices—only high price levels are sufficient to offset costs, which are relatively stable. The years 2021 and 2022 saw positive net revenue resulting from high levels of generation as well as high power prices and market sales, due to the record gas prices at the time. In contrast, all other years have resulted in negative net revenues. In 2024, Nearman's losses of approximately $13.5 million equate to an average annual cost per customer of $200.[21]

[16] Shenstone-Harris, S. (2023), *Exhibit SSH-2, Response to Data Request 1-7.*

[17] Black and Veatch (2024) at 2-12.

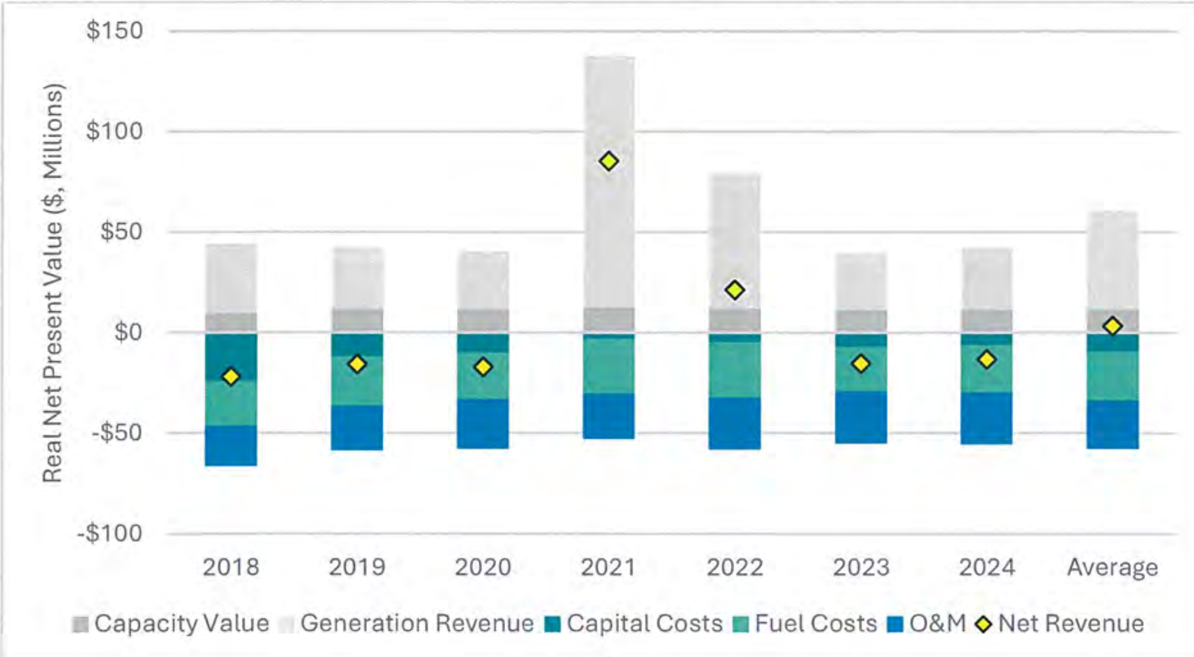
[18] Shenstone-Harris, S. (2023), *Exhibit SSH-2, Response to Data Request 2-1.*

[19] Email to Current Energy Group from Jeremy Ash, Kansas BPU, on September 10, 2025.

[20] BPU did not provide updated data to be able to use actual net revenue values for 2023 and 2024, so this section relies on projections provided by BPU as reported in Shenstone-Harris, S. (2023).

[21] Based on 69,283 electric customers per Kansas BPU, Annual Comprehensive Financial Report, page 88.

Figure 4. Nearman Historical Net Revenue (2018-2024)

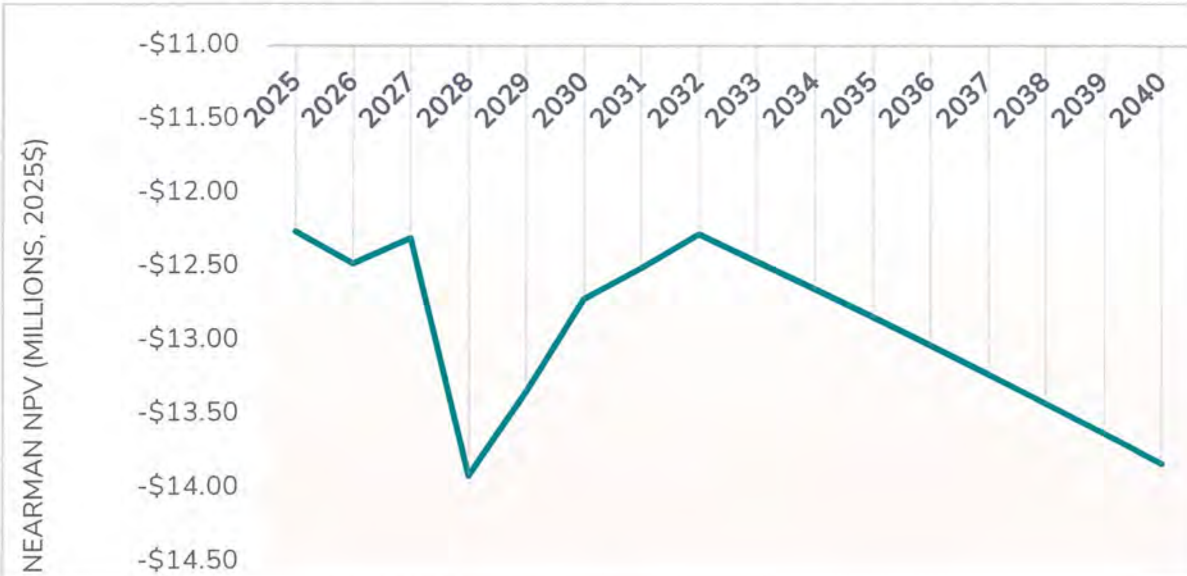


Source: Created by CEG with data from Shenstone-Harris, S. (2023). Note, the years 2023 and 2024 use BPU projections as of April 2023.

Nearman is likely to continue operating at a net loss in the future. Projecting Nearman's net present value through 2040 using BPU projections[22] and averages from historical data suggests continued declines and high-risk exposure. Annual net revenue is projected to average **negative $14 million per year**, for a total cumulative cost of **negative $227 million through 2040.** Figure 5 provides estimates of future net revenues for Nearman if current trends continue.

[22] Shenstone-Harris, S. (2023), *Exhibit SSH-2, Response to Data Request 1-10.*

Figure 5. Nearman Estimated Net Revenue (2025-2040)



Source: Calculated using information provided by Kansas BPU. Where BPU projections did not extend to the full period to 2040, future year values are calculated based on the average from the prior years and a 1.5% escalation rate.

2.1.4 Coal Contracts

BPU's coal supply for the Nearman Creek Power Station is managed through agreements with Western Fuels Association (WFA). WFA contracts with Peabody Coal Sales LLC for coal procurement and Union Pacific Railroad for transportation. The Peabody supply contract currently runs through December 31, 2024 (BPU would not confirm if it was extended), while the Union Pacific transportation agreement is under a renewal structure that can extend through December 31, 2025.[23]

Both contracts are structured with base pricing adjusted by indices specified in the agreements. **The average delivered coal cost in the previous contract was approximately $2.04 per MMBtu.**[24] Coal delivery disruptions that have interfered with Nearman operations have occurred (e.g., in 2022 due to rail maintenance and labor disputes), leading to significant cost for replacement power.

2.1.5 Undepreciated Balance

Nearman's undepreciated balance is approximately $305.2 million (as of December 31, 2022).[25] This value reflects the amount that will need to be repaid by ratepayers. BPU estimates that the debt will be fully paid off by September of 2050. As a comparison to contextualize the level of debt outstanding, the "in service amount" for Nearman—the book value of the plant's capital

[23] In response to data requests, BPU would not confirm if either contract was extended.

[24] Shenstone-Harris, S. (2023), *Exhibit SSH-2, Response to Data Request 2-4.*

[25] Shenstone-Harris, S. (2023), *Exhibit SSH-2, Response to Data Request 1-1.*

assets—is $391.9 million (as of December 31, 2022).[26] If Nearman were to be decommissioned the debt values would still need to be repaid as it is a sunk cost.

2.1.6 Health & Environmental Costs

Nearman, like all coal plants, emits both air pollutants and greenhouse gas emissions. The primary pollutants from Nearman are sulfur dioxide (SO_2), nitrogen oxides (NO_x), and particulate matter ($PM_{2.5}$ and others). Coal plants contribute directly to particulate matter through fly ash and soot released through generation, as well as indirectly as SO_2 and NO_x gases react with other chemicals and moisture in the atmosphere to form new fine particles, such as sulfate and nitrate particles.

The adverse health impacts associated with coal plant emissions are particularly acute because fine particulate pollutants ($PM_{2.5}$) are small enough to penetrate deep into the lungs. $PM_{2.5}$ exposure from coal plants is linked to elevated risks of premature mortality and other serious health impacts including asthma, chronic bronchitis, congestive heart failure, chronic lung disease, and pneumonia.

Table 3 provides the annual emissions from Nearman for the primary pollutants from 2018 to 2024. Emissions are proportional to generation. Accordingly, the years with the most generation and fuel consumed have the highest levels of emissions.

Table 3. Air Pollution Emissions from Nearman (2018-2024)

Year	CO_2 Emissions (tons)	NO_x Emissions (tons)	SO_2 Emissions (tons)	PM2.5 Emissions (tons)
2024	935,159	872	575	73.1
2023	917,853	825	528	71.6
2022	1,577,682	1,543	1,386	123.1
2021	1,672,885	1,693	1,326	130.5
2020	1,418,260	1,407	1,211	110.5
2019	1,402,793	1,455	1,198	143.3
2018	1,170,657	1,221	1,023	119.6

Source: Created by CEG with data from S&P Insights (CO_2, NO_x, and SO_x) and EGrid ($PM_{2.5}$)[27, 28]

In addition to health impacts from direct exposure to pollutants, NO_x also contributes to the formation of ground-level ozone and smog, worsening air quality and leading to additional respiratory conditions such as asthma. Furthermore, SO_x emissions combine with water, oxygen, and other chemicals to form sulfuric acid, which causes acid rain—harming ecosystems through acidification as well as corroding building materials.

[26] Shenstone-Harris, S. (2023), *Exhibit SSH-2, Response to Data Request 1-2.*

[27] The year 2021 is the most recent year with PM2.5 data available for Nearman from EPA EGrid, during which year Nearman Creek Unit 1 had an annual emissions rate of 0.01635 lb/MMBTu. The years 2022, 2023, and 2024 were calculated using the same emissions intensity rate.

[28] United States Environmental Protection Agency. *eGRID 2018-2021 PM2.5 Data.xlsx.*

BPU has made $250 million in upgrades to the Nearman plant to implement emissions control technology.[29] Nearman operates below federal and state limits for air pollutants and greenhouse gas emissions, but those limits are not zero. Accordingly, Nearman's emissions have associated health costs. The 2024 costs by pollutant and year are detailed in Table 4. For 2024 the estimate of annual health costs associated with Nearman's generation range from $140 to $281 million. The harmful impacts of coal plant pollution do not stay within geographic boundaries like county and state lines. However, those closest to facilities and downwind communities face the largest risks.

Table 4. Estimate of Annual Estimated Social & Health Costs of Nearman Generation (2024)

Estimate Range	CO_2 Social Cost	NO_X Health Costs	SO_2 Health Costs	$PM_{2.5}$ Health Costs	Total Annual Costs
Low	$75 million	$40 million	$15 million	$10 million	$140 million
High	$173 million	$53 million	$33 million	$22 million	$281 million

Source: Estimates for NOx, SOx, and PM2.5 are from EPA COBRA web tool (https://cobra.epa.gov/). CO_2 cost is calculated using an annualized social cost of carbon range (low: $80 per ton (3% discount rate), high: $185 (2% discount rate))[30]

2.2 BPU Context

The Kansas City Board of Public Utilities (BPU) operates as a publicly owned, not-for-profit agency. It is governed by a six-member board elected by the community and functions independently, reinvesting revenues into system improvements rather than distributing profits to shareholders. As of 2024, BPU provides electric service to 69,283 customers and had total electric sales of $279 million.[31]

2.2.1 Financial Considerations

BPU increased electric rates by 2.5% in 2023 and again in 2024. Prior to these instances, the last BPU rate increase was in 2018. As a combined utility, customer monthly bills include both electricity and water, as well as a Payment-in-Lieu-of-Taxes (PILOT) fee. The Unified Government of Wyandotte County (UG)—the consolidated city and county government—relies on the PILOT fee for funding. In lieu of property and other taxes, BPU is required to pay the UG based on a percentage of sales. Since 2018 BPU has been required to transfer 11.9% of gross electric and water utility sales to the UG. In 2024, PILOT revenues from BPU totaled approximately $38.5 million, making up about 10% of the UG's tax revenues.[32]

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[29] Johnson, Bill. (2024, November 19). Opinion: The truth about how Nearman Creek helps BPU deliver energy to Wyandotte County. *The Kansas City Star*.

[30] Rennert, K., Kingdon, C., & Prest, B. C. (2019, August 1; updated March 13, 2025). *Social cost of carbon 101*. Resources for the Future.

[31] Kansas City BPU, (2025, April 21), Page 88.

[32] Unified Government of Wyandotte County and Kansas City, KS. (2025, August 15). *Annual Comprehensive Financial Report 2024*.

Affordability concerns are particularly acute for BPU customers. BPU's average electricity bill of \$205 for summer[33] is higher than the national average of \$178.[34] Wyandotte County income levels fall below both state and national averages (Table 5), making affordability a critical consideration.

Table 5. Income Comparison by Geography (2023)

Measure	Kansas City, KS	Wyandotte County, KS	Kansas	Missouri	United States
Median Household Income	\$69,958	\$65,291	\$75,514	\$71,589	\$81,604
Per Capita Income	\$41,380	\$30,451	\$41,580	\$40,284	\$45,256
Poverty Rate	15.7%	13.8%	10.9%	12.3%	12.1%

Source: 2024 American Community Survey Data 1-Year Estimates, Tables S1901, B19301, and S1701.

2.2.2 Demand-Side Resources

In addition to resources on the supply side, like Nearman, other important resources to BPU's energy portfolio are on the demand side. Demand-side resources include all programs that impact the load (demand) profile of consumers, including:

- **Energy Efficiency (EE):** refers to reducing electricity use by using less energy to perform the same task. It generally involves replacing energy intensive equipment with more efficient alternatives. Common EE measures for commercial and industrial customers includes replacing heaters, boilers, & machinery. Residential EE can incorporate home weatherization and upgrades, including water heaters, smart appliances, and heat pumps.
- **Demand Response (DR):** refers to behavioral incentives to shift energy use to reduce peak demand for electricity. Demand response programs either ask or offer incentives to customers to reduce their electricity use during certain times of day and/or when notified during an event.
- **Distributed Generation (DG):** refers to small-scale electricity generation located close to where the energy is used. Common examples include rooftop solar. Distributed generation can also be combined with distributed battery storage.

BPU's existing DSM initiatives are modest in scale. Energy efficiency programs include weatherization assistance and rebates for heat pumps and water heaters, delivering incremental annual savings of 56 MWh and lifecycle savings of 558 MWh at a cost of \$44,000.[35] Peak demand savings from these programs are estimated at 0.2 MW, all from residential customers.

Distributed generation is primarily limited to rooftop solar under net metering arrangements. As of 2024, BPU had 3.4 MW of installed PV capacity across 371 customer sites, with an

[33] Kansas City BPU. (2023, April 11). *2023 Electric Rate Proposal*.

[34] U.S. Energy Information Administration. (2025, June 23). *Residential Electricity bills could increase slightly this summer*.

[35] EIA-861, Energy Efficiency, 2024.

additional 0.425 MW under virtual net metering.[36] These installations collectively exported 1,730 MWh back to the grid. While these figures represent progress, they remain small relative to system needs and highlight the opportunity for expansion.

Opportunities for Expansion

National benchmarks indicate that utilities achieving annual savings of 2% of retail sales and peak demand reductions of 2% are considered high performers.[37] For BPU, this would equate to approximately 50,000 MWh of energy savings and 10 MW of peak demand reduction—orders of magnitude above current levels. Achieving these targets would require scaling existing programs and introducing new offerings, such as smart thermostats with automated peak load control, time-of-use pricing, and expanded low-income weatherization partnerships.

With a large industrial customer base, BPU is particularly well positioned to expand offerings for large energy users. BPU's total electric revenue in 2024 was $314.7 million (including PILOT revenues of $32.5 million).[38]

BPU serves a substantial number of large customers (Table 6), indicating expanded opportunities for commercial and industrial energy efficiency and demand response initiatives. These programs are typically more cost-effective than residential offerings, though they do not provide the same benefits related to occupant comfort or household bill relief.

Table 6. Top 10 BPU Electric Revenue Customers & Percentage of Total (2024)

User	2024 Revenue	Percent of Total Revenue
General Motors (Auto Production)	$12,563,068	4.0%
CertainTeed Corp. (Insultation)	$12,511,253	4.0%
WaterOne of Johnson County (Water Utility)	$9,080,699	2.9%
Griffin Wheel (Railroad Wheels)	$7,783,841	2.5%
Univ. of Kansas Hospital Authority (Hospital)	$7,463,916	2.4%
Ownes Corning Fiberglass (Insulation)	$7,206,953	2.3%
Ecovyst Catalyst Technologies (Chemicals Manufacturer)	$3,571,296	1.1%
University of Kansas Medical Center (School / Hospital)	$4,573,024	1.5%
Amazon.com/KSDC, LLC (Online Retail)	$3,208,782	1.0%
Stryten Energy (Energy Storage)	$3,127,719	1.0%

Source: Kansas City BPU. (2025, April 21). *Annual Comprehensive Financial Report for Fiscal Years Ending December 31, 2024 and 2023*, page 96.

[36] EIA-861, Energy Efficiency, 2024.

[37] American Council for an Energy Efficient Economy. (2025, March). [2025 State Energy Efficiency Scorecard]().

[38] Kansas City BPU, (2025, April 21), Page 80.

Cost of Demand-Side Resources

While the scale and costs of BPU's existing programs for demand management are limited, information from other jurisdictions informs the expected range of costs for expanded programming. Based on a statewide review, the national average **levelized cost of saved energy is $0.026/kWh, while the average cost of saved capacity is $150/kw.**[39, 40] This report also found that the Midwest, including Kansas, is closest to the average costs among the four regions of the country.

Cost savings from demand-side resources also occur from two other value streams—rapid deployment and modular build. Unlike traditional supply-side resources which can take 3 to 10 years to complete (depending on the technology and permitting requirements), demand-side resources are able to be deployed as quickly as they can be procured, allowing for large additions within a single year. The modular, distributed nature of demand-side resources enables the technology to be "right-sized" to needs. Where it can fill the gap, it can delay large-scale investments, resulting in avoided cost for energy, capacity, transmission, and distribution.

Demand-Side Resource Recent Developments

Recent regulatory and technological developments have expanded the potential for demand-side resources to participate in wholesale markets. FERC Order 2222 enables demand-side distributed energy resources (DERs)—including rooftop solar, battery storage, and aggregated demand response—to compete alongside traditional supply-side resources in regional transmission organization (RTO) and independent system operator (ISO) markets. This development creates new revenue streams for customers and utilities while improving system reliability.

In parallel, recent technological developments in equipment and software allow DERs to be aggregated and coordinated at scale. These DER aggregations, known as Distributed Power Plants (DPPs),[41] can be dispatched as if they were a single power plant and offer a suite of grid services that can support core grid operations. When combined with upgrades to the distribution system, DPPs are now comparable technologies to traditional supply-side resources, but have the added benefits of being rapidly deployed to meet emerging needs, without the risks associated with traditional resources that require large capital expenditures and land footprints.

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[39] Frick et. al. (2024, December). *Consumer Benefits of Clean Energy: Energy Efficiency*. Berkeley Lab, Energy Markets & Planning.

[40] Costs adjusted from 2021 to 2025 dollars using U.S. Bureau of Labor Statistics CPI inflation calculator.

[41] Also referred to as Virtual Power Plants (VPPs).

2.2.3 Data Centers

There are two proposed data centers within the BPU service territory. The more defined project of the two is PowerTransitions's proposed conversion of the former Quindaro Power Station site (an 85-acre coal-fired plant shuttered in 2019) into a 192 MW data center campus referred to a "Project Yardbird."[42] The property is currently owned by the UG. The proposed sale is for approximately $13.6 million, as well as completion of remediation (which is estimated to cost $20 million).[43] By using the existing transmission interconnection at the site, the project aims to be completed by 2027. Specific details on how the data center would be supplied with power have not been publicized.

In addition to Project Yardbird, Wyandotte County has also received another proposal for a data center, up to 600 MW, proposed for a site near the Kansas Speedway. This project, proposed by "Red Wolf DCD Properties LLC", is still in the proposal stage, and specific development details are not yet available. If fully constructed, adding the two data center projects would result in non-peak electricity demand nearly triple the size of the current BPU system.

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[42] New Project Media. (2025, June). *Wyandotte County, KS considering sale of former power plant for 192 MW data center development*.

[43] Rosenberg, M. (2025, July 1). *Data center boom in Kansas City area raises power questions*. The Beacon News.

3. Clean Replacement Portfolio

This analysis investigates the lowest cost options for clean replacement portfolio resources that can provide equivalent energy generation and capacity as Nearman, while reducing emissions and risks associated with an aging coal plant. To identify a replacement portfolio, the analysis employs a custom optimization model that selects the lowest-cost combination of resources to meet the same hourly load as Nearman.

The model's decision variables reflect investment decisions for wind, solar, and storage (including both short- and long-duration options), as well as dispatch decisions to maximize the value of the energy generated. Renewable resources and energy storage operations are subject to technical constraints (e.g., hourly renewable generation profiles, storage dispatch constraints, capacity accreditation, etc.). Additional assumptions and constraints include:

- All values are presented in 2030 nominal terms, reflecting the earliest practical year for full replacement of Nearman with a non-emitting resource mix.
- Nearman generation uses the average hourly load profile for the years 2020 through 2024.
- Available clean replacement resources are utility-scale wind and solar, short (4-hour) and long-duration (100-hour) storage, as well as energy efficiency and demand response.
- Energy efficiency and demand response are selectable by the model, based on their costs and capacity contributions, up to maximum levels of approximately 11,841 MWh for energy efficiency[44] and 10 MW of demand response.[45,46]
- Storage resources are allowed to operate flexibly in response to hourly market conditions and the availability of renewable energy, subject to charge/discharge constraints.
- Limited market interactions on an as-needed hourly basis.[47]

Additional modeling assumptions are provided in **Appendix A**.

3.1 Replacement Portfolio Resources

The least-cost portfolio selected through the optimization modeling approach achieves full replacement of Nearman's annual generation and firm capacity contribution with a mix of wind, solar, battery storage, and demand-side resources. Table 7 summarizes the nameplate capacity and expected generation for each resource type. The optimal solution includes 222 MW of wind and 118 MW of solar, supported by 107 MW of energy storage (including both short- and long-duration). Demand-side resources—energy efficiency resulting in annual savings of 11,815 MWh, and 10 MW of demand response—provide both cost-effective peak reduction and year-round load reductions.

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[44] This representative value corresponds to a 0.5% energy savings using 2024 retail sales levels of 2,368,178 MWh.

[45] 10 MW is equal to a peak load savings of 2% from 2024 peak load levels of 485 MW. Demand response is modeled with a maximum capacity factor of 5% on an annual basis.

[46] Retail sales and peak load values are sourced from Kansas City BPU, (2025, April 21), Page 95

[47] On an annual basis the clean portfolio provides equivalent energy as the coal unit (i.e. it results in no net imports/exports).

Table 7. Clean Energy Portfolio Capacity & Generation Compared to Nearman

Representative Year 2030		
Resource	**Nameplate Capacity (MW)**	**Annual Generation (MWh)**
	Nearman Only	
Nearman Unit 1	245 MW	1,100,184 MWh
	Clean Energy Portfolio	
Wind	222 MW	933,491 MWh
Solar	118 MW	260,325 MWh
Energy Efficiency	9 MW	11,815 MWh
Demand Response	10 MW	4,380 MWh
Total Generation	**359 MW**	**1,210,012 MWh**
Energy Storage	107 MW	-45,441 MWh (losses)
Total Including Storage	**466 MW**	**1,164,297 MWh**

Note: Energy storage is a combination of 4-hour and long-duration energy storage.

Exports and imports balance to zero on an annual basis, with surplus clean energy offsetting an equivalent volume of supplemental power purchases in hours when renewable output is low. In comparison, BPU's total net market purchases were net imports of 160,031 MWh for 2024.[48] Given the modeling constraint imposed on market interactions, a small percentage of renewable energy that cannot be used or exported is curtailed. In reality, this energy could be exported, leading to **incremental revenue further increasing the net savings of the clean portfolio**.

Replacing Nearman's firm capacity is a central requirement of this analysis. Using applicable Effective Load Carrying Capability (ELCC) values for SPP, the modeled portfolio meets Nearman's accredited capacity in winter and exceeds it in summer (Table 8). This finding demonstrates that winter is the binding constraint for the clean resource portfolio, but even under stringent winter reliability requirements, a clean resource mix can replace Nearman's accredited capacity without reliance on new thermal generation. BPU is a summer peaking system with peak loads over 80 MW higher than in winter,[49] allowing the excess summer capacity to meet needs or serve the market when energy is in high demand.

Table 8. Clean Energy Portfolio Seasonal Capacity Contributions Compared to Nearman

	Nearman	Clean Portfolio
Summer	208 MW	220 MW
Winter	208 MW	208 MW

This analysis also evaluated portfolios with alternative allocations of wind, solar, and storage (such as requiring all long-duration storage, minimum levels of solar, etc.). Across scenarios, clean portfolios consistently produced lower system costs than continued operation of Nearman. Both long-duration and shorter-duration storage technologies were selected in cost-

[48] Kansas City BPU, (2025, April 21), Page 95.

[49] See Footnote 14.

optimal mixes, reflecting their complementary roles in managing winter peaks and multi-day renewable variability.

3.2 Resource Costs

An important consideration of this analysis relates to cost, specifically the upfront cost and general cost structure of the proposed replacement portfolio (acknowledging that Kansas BPU might prefer third party agreements to avoid significant up-front cost payment), compared to the continued operation of Nearman.

The cost assumptions in this analysis are based on publicly available information:

- For the cost of Nearman operations, the analysis uses inputs and projections provided by BPU through discovery responses in the 2023 Rate Review.[50]
- For the clean replacement resource options, cost inputs are based on the 2024 Annual Technology Baseline (ATB) developed by the National Renewable Energy Laboratory. Solar, wind, and 4-hour batteries are based on the moderate ATB projections (inflated to $2030) for resources with a commercial operation date of 2030.[51] Additional details for the cost inputs can be found in Appendix A.

The results in Table 9 shows that a clean energy portfolio can provide reliable service at a lower cost than continuing to operate Nearman. In 2030, the projected annual cost of the clean energy portfolio is $62.8 million compared to $64.1 million for Nearman, resulting in **approximately $1.3 million in savings.** On a customer basis, this equates to an average annual savings of about $19. While the savings are modest, the finding is significant: it demonstrates that transitioning to a clean energy portfolio can maintain reliability while delivering power at the same or lower cost than the existing coal resource.

Table 9. Clean Energy Portfolio Annualized Costs Compared to Nearman

Portfolio Cost - Example Year 2030 (2030$)		
Clean Energy Portfolio	**Nearman Unit 1 Coal**	**Cost Savings**
$62.8 million	$64.1 million	$1.3 million

BPU and other Kansas utilities have recently recognized the cost-effectiveness of solar resources to provide "capacity and valuable peak energy".[52] Along with Kansas Municipal Energy Agency and Kansas Electric Power Cooperative Inc., BPU signed a PPA for a 200 MW solar project with Ninnescah Flats Solar, set to be operational in 2026. BPU's press release for

[50] Shenstone-Harris (2023), Exhibit SSH-2.

[51] The 2024 NREL ATB does not include projections for the costs of 100-hour energy storage options. The cost of this technology was based on the supply resource costs presented by PacifiCorp.

[52] Kansas Municipal Energy Agency. (2025, May). *Kansas Utilities Sign Agreement with Ninnescah Flats Solar Energy Center*.

this project states that the project will support "rate stability goals" and help deliver "cost-conscious power."[53]

3.2.1 Federal Tax Credits

Federal tax credits were previously available under the Inflation Reduction Act (IRA) to any project that met the zero or net-negative greenhouse gas emissions requirement, including established technologies like wind and solar, as well as advanced nuclear, geothermal, and other nascent technologies.

There were two options for the tax credits:

- **Investment Tax Credit (ITC):** A one-time, upfront credit based on project cost that starts at 30% (without bonuses).
- **Production Tax Credit (PTC):** An ongoing credit based on electricity output over the first ten years of operations of up to 2.75 cents/kWh.[54]

In July 2025, the federal government moved to eliminate the ITC and PTC for solar and onshore wind projects that begin construction after July 4, 2026 (or that are not operational before 2028). Full tax credits and bonus adders were retained for battery storage, as well as nuclear and geothermal projects, through 2032. Restrictions on eligibility based on foreign components and higher domestic content requirements may reduce eligibility for certain projects.

To remain conservative, this analysis assumes that solar and wind resources are not eligible for federal tax credits. Still, should BPU take actions in the near term, replacement resources might be eligible for credits resulting in additional savings for the clean portfolio. Energy storage was assumed to be eligible for the base Investment Tax Credit, and the Energy Community Bonus.

If BPU is able to acquire wind and solar resources that are eligible for the tax credit, there would be larger savings from the clean energy portfolio compared to Nearman. Using BPU's own cost estimates from the 2023 Rate Review (Table 10) instead of the updated cost information (provided in Appendix A) would yield an additional annual savings of $13 million per year,[55] bringing the total to $13.3 million per year. If tax credit savings could be realized, the savings would equate to an average of $200 per year for BPU ratepayers.

To refine the inputs, specific costs for new resources should be obtained through an immediate Requests for Proposal—one that identifies any BPU savings from wind and solar projects prior to the sunset of the federal tax credits in July 2026. The recent PPA with Ninnescah Flats Solar—a 200 MW project with operation in 2026—could be used for more detailed data on solar project costs.

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[53] Kansas City BPU. (2025, May 20). *BPU signs agreement with Ninnescah Flats Solar Energy Center.*

[54] U.S. Environmental Protection Agency. (2024, December 10). *Renewable electricity production tax credit information*.

[55] Based on updated optimization modeling using the lower cost inputs, with tax credits, for wind and solar.

Table 10. BPU Estimate of the Cost of New Resources (2024 IRP)

	BPU Estimate with Tax Credits
Wind	\$24 - \$30 per MWh
Solar	\$48 - \$58 per MWh

Source: Shenstone-Harris, S. (2023), Exhibit SSH-2, *Sierra Club's 1st Set of Discovery in 2023 Rate Review*, Response to Data Request 2-3. Note that costs and response is as of April 24, 2023.

3.3 Additional Considerations

The purpose of the modeling is to better understand the value proposition of the clean replacement portfolio relative to Nearman. The results of this analysis are meant to be *illustrative* of the scale and magnitude of possible resource portfolios, as well as provide insights regarding the optimal resource mix. This analysis provides a representative portfolio to demonstrate the potential cost savings. This section details additional information, risks, and considerations for the replacement portfolio and decommissioning Nearman.

3.3.1 Health & Environmental Benefits

As discussed in Section 2.1.7, the emissions and air pollution from Nearman result in substantial health-related damages **estimated at \$140 million to \$281 million in 2024 alone.** Fully retiring Nearman would therefore avoid health and environmental costs of this same order of magnitude each year, producing significant and recurring savings for BPU customers and surrounding communities.

Environmental benefits from avoided CO_2 emissions not only contribute to global emissions reductions, but also position BPU for compliance with potential future regulatory actions, such as the EPA Greenhouse Gas Emission Standards and the EPA's Cross-State Air Pollution Rule Good Neighbor Plan.

The per-MWh emission cost estimates in Table 11 demonstrate that any reduction in Nearman's output—even before full retirement—yields meaningful avoided health and environmental damages. Even incremental decreases in generation achieved through demand-side management or early operational curtailment translate directly into **avoided costs from reduced CO_2, NO_x, SO_2, and $PM_{2.5}$ emissions.**

Table 11. Annual Social and Health Costs per MWh of Nearman Generation (2024)

	CO2	NOx	SO2	PM2.5	Total
Costs per MWh (Low)	\$113.44	\$60.50	\$22.69	\$15.13	**\$211.76**
Costs per MWh (High)	\$261.68	\$80.17	\$49.92	\$33.28	**\$425.04**

Source: Calculated using values from Nearman social and health costs (Table 4) and net generation (Table 1).

3.3.2 Risks

Evaluating replacement portfolios for Nearman requires consideration of several key risks and uncertainties. Foremost, BPU has not committed to a specific retirement date for Nearman, which introduces planning uncertainty regarding the timing and sequencing of new resource additions and results in missed opportunities. Any phased approach to replacing Nearman must account for both the operational trajectory of the coal unit and the lead times associated with deploying clean energy, storage, and demand-side resources.

Cost stability.

A significant difference in the cost structure of the two options, the continued coal operation of Nearman and the clean replacement portfolio, is that Nearman costs will keep escalating; clean resource costs are not only lower, but also stable.

Nationwide, power generation from coal is steadily declining. Coal supply and transportation issues are continuously rising, while the operation and maintenance of aging units in an industry that no longer attracts new talent, capital, and innovation is challenging, leading to underperformance issues and raising both affordability and reliability concerns. The costs of operating Nearman are expected to continue rising due to increasing fuel prices, ongoing operations and maintenance expenses, and potential incremental capital investments required to keep the plant online. **As these costs escalate, the net cost savings associated with transitioning to a clean energy portfolio will grow correspondingly.**

In contrast, renewable resources, whether owned or procured through PPAs, provide cost stability, a consideration that is increasingly important in today's period of heightened uncertainty. In fact, BPU recognizes the rate stability benefit of renewable energy in its recent announcement for the Ninnescah Flats solar energy center, stating that "The facility is scheduled to begin commercial operation in 2026 and will provide homegrown electricity for Kansans while supporting clean energy and rate stability goals." [56]

Reduced Coal Generation and Operational Inefficiencies.

Nearman's future net revenues are likely to decline as increasing deployment of zero-marginal-cost renewable resources in SPP reduces energy market prices and lowers capacity factors for thermal units – a risk that BPU does not seem to incorporate in its generation and revenue projections.[57] SPP's interconnection queue currently includes 4.3 GW of proposed generation, 73% of which consists of wind and solar resources, placing additional downward pressure on Nearman's dispatch and revenues.

Furthermore, in an energy system that increasingly demands operational flexibility, coal units introduce avoidable inefficiencies. Fluctuating natural gas prices and the growing share of renewable energy are creating greater variability in grid demands —variability that coal units are not well-equipped to handle. As a result, coal plants will need to cycle on and off more frequently than they were originally designed for, negatively impacting their performance and leading to increased mechanical wear, higher maintenance costs, and greater thermal stress.

[56] Kansas City BPU. (2025, May 20). *BPU signs agreement with Ninnescah Flats Solar Energy Center.*

[57] Shenstone-Harris (2023), *Exhibit SSH-2, Response to Data Request 2-2d.*

Accommodating the inflexibility of these units will require operating the system less efficiently, ultimately raising costs. In contrast, the deployment of available energy storage technologies could help eliminate these inefficiencies and support more flexible, cost-effective grid operations.

Timing Risks.

Expanded demand-side resources, batteries, and incremental solar are all actions that BPU can make immediate progress on and use to reduce Nearman's generation, even before there is a set date for the plant's decommissioning. Delay represents a significant risk across multiple resource types. Demand-side resources—including energy efficiency and demand response—provide cumulative, compounding benefits over time; **failing to invest in these programs today results in permanent lost savings and higher long-term costs**. Similarly, opportunities to secure favorable terms for renewable energy through competitive solicitations may diminish if procurement is deferred.

Federal tax incentives further underscore the importance of timely action. Current incentives for standalone energy storage under the Inflation Reduction Act are scheduled to phase down in 2032, while other renewable energy credits, including those applicable to wind and solar, are set to expire as early as July 2026 unless extended. Although technology costs for solar, wind, and storage may continue to decline over time, the combination of expiring incentives, rising Nearman costs, and the cumulative benefits of demand-side resources make immediate planning and procurement critical to realizing the maximum economic and operational value from the replacement portfolio. **Delays could result in a lost opportunity for cost savings, as well as reduced flexibility in meeting long-term decarbonization objectives.**

Regulatory and Compliance Risks

Continuing to operate Nearman exposes BPU to increasing regulatory risks. Future federal air-quality and climate policies—such as the EPA Greenhouse Gas Emission Standards and the Cross-State Air Pollution Rule Good Neighbor Plan—could impose additional compliance costs, operational constraints, or accelerated timelines for emissions reductions. [58] **Retiring Nearman and replacing it with zero-emission resources reduces exposure to these regulatory uncertainties.** If BPU does not plan a timely transition away from coal resources, future compliance with likely carbon regulations will come at exponentially higher costs.

Operational and Reliability Risks and Costs

Thermal units are often described as "dispatchable." While it is generally true that grid operators can direct these units to increase, decrease, or stop their output under normal operating conditions, this label can be misleading. It suggests that such units can reliably generate electricity on demand at any time—even during periods of critical system need. In practice, coal- and gas-fired units, like all forms of generation, are not perfectly dispatchable. They are susceptible to outages caused by extreme weather, equipment failures, and fuel

[58] The 2024 BPU IRP included scenarios that addressed lowering either greenhouse gas emissions or NOx emissions at Nearman to comply with the Environmental Protection Agency (EPA) Greenhouse Gas Emission Standards and the EPA's Cross-State Air Pollution Rule Good Neighbor Plan. As of the writing of this report, both standards are in legal limbo as they face ongoing litigation and proposed repeals under the Trump administration.

supply disruptions. Nearman, as a coal unit nearing the end of its operational life, is particularly vulnerable to forced outages and unplanned maintenance events. Continuing to operate aging units increases both operational risk and maintenance cost, as component failures become more frequent and replacement parts become harder to source, especially for equipment that is nearing obsolescence. **A diversified clean energy portfolio mitigates these risks by reducing dependence on a single aging thermal unit.**

Similarly, fuel supply disruptions can lead to prolonged outages, reliability risks, and increased costs. For example, a coal supply disruption led to significant market purchase costs in 2022—which added an additional $960,000 in purchase power costs. According to BPU:[59]

> "Yearly coal car maintenance was scheduled around April 10th, 2022. This is normally a 2-week evolution depending on identified repair scope. Union Pacific was delayed in getting power back on the car set until May 18th, 2022 thereby impacting deliveries to Nearman. Additionally, Union Pacific experienced a short-term labor dispute in 2022."

3.3.3 Interconnection Potential

Surplus interconnection refers to the use of existing transmission and substation infrastructure at a power plant site to interconnect new generation and/or storage resources. This approach leverages the available capacity in the interconnection queue and on-site electrical equipment, enabling new clean energy resources to come online more quickly and at lower cost than securing a new greenfield interconnection. Clean replacement resources sited at interconnection points would be expected to have a lower cost and yield additional savings compared to the generic resources used in the modeling exercise.

The Nearman Creek Power Station is a particularly strong candidate for surplus interconnection. The site already hosts a 1 MW community solar project, and the UG owns roughly 120 acres of undeveloped land on the eastern portion of the parcel. [60] Using the same development characteristics as the existing 1 MW solar facility, which occupies approximately 4.6 acres,[61] **Nearman Creek Power Station could accommodate an additional 20 MW of solar generation, with further opportunities for distributed placement of battery storage across the property.** With early interconnection, BPU can realize immediate cost savings and reduce the amount of resource procurement needed when Nearman is retired.

To avoid Nearman coal generation, co-located batteries could be charged from the onsite natural gas unit, as well as renewables and market purchases. The Nearman Creek site is not the only BPU-owned power station where interconnection of renewables could offer early benefits and co-located battery storage. The Quindaro Power Station and Dogwood Energy Facility are also sites that could be used for interconnection of battery storage, which occupies a small footprint at less than 0.03 acres per MW.[62]

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[59] Shenstone-Harris, S. (2023), *Exhibit SSH-2, Response to Data Request* 1-15.

[60] Identified as parcel number 917301 in Wyandotte County mapping systems.

[61] Calculated using Unified Government DotMaps Tool.

[62] National Renewable Energy Laboratory. (2024, February). *Renewable Rikers Feasibility Study Report*. Prepared for NYC Mayor's Office of Climate & Environmental Justice.

4. Outstanding Questions & Future Analysis

Several important data gaps remain due to BPU's unwillingness to provide key information on the basis of perceived confidentiality concerns. CEG's formal information requests to BPU are included in Appendix C. To ensure that future analyses of Nearman replacement portfolios are comprehensive, transparent, and analytically sound, answers to the following open questions should be publicly released or obtained by any entity conducting subsequent evaluations.

- **Nearman Dispatch and Coal Procurement in 2025.** BPU appears to be increasing both coal purchases and plant output in 2025, with EIA data indicating that Nearman is on track to purchase approximately 19% more coal in 2025 than in 2024, and 21% more than in 2023. BPU has publicly stated that in 2025 that "our plants have been running more... so we're not having to go out and purchase power on the market", [63] but has not explained the rationale for why they are avoided market purchases and incurring higher fuel costs (e.g. the underlying economics, or whether such operational decisions are driven by must-take clauses in coal contracts).
- **Frequency of Self-Dispatch Versus Economic Dispatch.** It remains unclear how often Nearman has been manually self-dispatched rather than economically dispatched from 2023 to the present. Quantifying the frequency and magnitude of these decisions is essential to understanding whether Nearman's recent operations reflect market conditions, contract constraints, or internal dispatch directives.
- **Updated Information on Coal Contracting.** BPU has not provided updated information on its coal supply contracts, including whether any fixed-price arrangements or must-take provisions remain in place. This information is critical given prior recommendations from RMI and Synapse—echoed in this report—that BPU move away from fixed coal contracts to reduce financial and operational risk.
- **DSM and Energy Efficiency Program Data.** Substantially more program-level information is needed to assess the cost-effectiveness, reach, and future potential of BPU's DSM and energy efficiency initiatives. This includes detailed data on program implementation details, participation rates, and spending levels for:
  - BPU's Utility Learning Center and streetlight replacement programs,
  - Smart meters and net metering customers,
  - Seasonal rate structures (see below),
  - Clean energy participation options, such as the Green Rider Program, as well as
  - The enforcement and impact of the low-power-factor penalty.
- **Rate Structure Changes.** Additional information is needed on recent modifications to the electric rate structure—specifically, adjustments that lower winter rates and increase summer rates. As noted on page 2-13 of the 2024 IRP, these changes are intended to encourage winter usage and enhance the economic viability of energy management programs. Data on the effect of these changes on customer behavior or program outcomes would inform the value and potential for further updates.

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[63] Kansas BPU Board Meeting Regular Session, November 5, 2025, at 10:06.

5. Implementation Roadmap

To actionize the findings from this analysis, this section details the specific steps that Kansas BPU and stakeholders can take now to advance the identified solutions and resources in the replacement portfolio. The roadmap below provides a phased approach to work towards implementing a clean resource portfolio to replace Nearman. **BPU can take immediate action to realize cost savings for ratepayers by expanding investment and offerings in demand-side resources**, reducing the generation needed from Nearman.

Phase 1. Immediate Actions

1-1. Issue All Source RFP. Initiate an All-Source RFP to solicit proposals for clean replacement generation resources of up to at least 800 MW and energy storage resources up to approximately 250 MW. These figures represent maximum thresholds, providing BPU with the **information needed for further analysis**, as well as **flexibility and optionality for procurement.**

BPU's 2024 IRP identified a need for additional solar capacity across multiple scenarios, including the base case, even without Nearman's retirement—indicating a time-sensitive opportunity to reduce costs for ratepayers. The RFP should prioritize projects capable of achieving interconnection **before July 2026 to maximize eligibility for federal tax credits** for wind and solar, which could yield an estimated $13 million in additional savings for a clean resource portfolio.

The All-Source RFP, or a separate targeted solicitation, should also explore opportunities for expanded **solar and battery storage at surplus interconnection points**, including the Nearman Creek site. Preliminary analysis suggests that approximately 20 MW of additional solar capacity could be sited on BPU-owned land at Nearman Creek, enabling rapid interconnection and further enhancing portfolio flexibility.

1-2. Expand Demand-Side Resource Offerings. Expanding demand-side management (DSM) resources—including energy efficiency (EE), demand response (DR), and other load-flexibility programs—offers one of the most immediate, low-cost opportunities for BPU to reduce peak demand and lower reliance on Nearman. Near-term DSM expansion can reliably provide **5–10 MW of peak reduction**, based on comparable jurisdictions,[64] and can be deployed more quickly than supply-side resources.

BPU can accelerate DSM deployment through several parallel strategies. First, BPU should explore opportunities to **coordinate with Evergy's demand-side programs**, leveraging their existing vendors, program designs, and evaluation structures to reduce administrative startup time. Second, BPU should issue a targeted DSM RFP—or incorporate DSM directly into the All-Source RFP (as discussed above)—to solicit turnkey offerings from experienced DSM providers. This solicitation should explicitly request smart thermostat programming, flexible residential load programs, and

[64] See Appendix B for additional information.

commercial and industrial demand response solutions capable of delivering at least 5 MW of verifiable reduction.

Customer engagement will be critical to scaling participation. BPU should **expand and modernize customer-facing DSM and EE resources on its website**, making offerings easier to find, understand, and enroll in. At the same time, BPU should launch **direct outreach to large commercial and industrial customers**, who present the greatest potential for cost-effective load reduction. Working individually with these customers can identify customized opportunities—such as process load flexibility, building automation upgrades, and thermal storage strategies—that may not emerge through standard rebate programs.

A growing opportunity for BPU is the emergence of **distributed energy resources as grid-scale capacity resources**, enabled by reforms such as FERC Order 2222 and distributed power plants. As more parts of the country adopt these models, BPU can position itself to integrate aggregated DER portfolios that can respond to price signals, provide peak shaving, participate in demand response, and ultimately function as dispatchable, multi-MW resources. Even before formal regional market participation is available, adopting 2222-aligned program structures helps ensure BPU's DSM and DER programs are scalable, standardized, and compatible with future market reforms.

To support growth in demand-side resource adoption, BPU should also begin evaluating and addressing **its own structural disincentives**—such as reduced revenue and PILOT collections—that currently limit uptake. Proactive planning for demand-side resources will help correct the incentive structure, so BPU revenues are not adversely impacted if demand side resources do what they are designed to do and lower electricity demand, and thus revenues.

In addition, BPU should explore **innovative public financing models**, such as those used in Lincoln, Nebraska,[65] where energy efficiency improvements are integrated with housing rehabilitation and affordability programs. Similar approaches could be adapted to Wyandotte County by leveraging the Unified Government's existing community development program[66]s and incorporating new opportunities into future annual action plans.[67]

1-3. **Identify Opportunities Arising from New Large Loads.** As new large loads—particularly data centers—consider establishing or expanding operations in Wyandotte County, BPU has a strategic opportunity to align these developments with long-term Nearman replacement planning. The **BPU and the UG have already demonstrated success and an innovative approach** in this area with the PowerTransitions offtake of the remediation costs for the Quindaro Power Station.

BPU should evaluate whether new generation built to serve data centers can be structured to **also provide replacement capacity for Nearman**, reducing the amount of

[65] City of Lincoln website, South of Downtown Residential Rental Rehabilitation Program.

[66] Unified Government of Wyandotte County website, Community Development Programs.

[67] Unified Government of Wyandotte County (2025). *Annual Action Plan FY 2025-2026 [Draft].*

additional procurement required in future years. Early technical reviews with large-load customers can help identify opportunities to co-optimize site design, interconnection planning, and procurement strategies.

Data centers have unique operational capabilities—such as controllable computing loads, advanced building automation, and high-capacity backup power systems—that position them to contribute meaningfully to local grid flexibility.[68, 69] BPU should incorporate **data center load flexibility** provisions within the large-load tariff agreements.

FERC Order 2222 may also create new frameworks for large customers to support or directly invest in DER portfolios, including energy efficiency, demand response, battery storage, and flexible load programs. BPU should explore models in which **large-load customers partner to fund expanded demand-side resource programs** that provide both local reliability benefits and system peak reductions.

BPU could use emerging financing and ownership models—such as Coal-to-Clean or "solar-for-coal" swaps—to accelerate the transition away from Nearman while maintaining financial stability.[70] Under this model, a **third-party developer purchases and retires a utility's coal asset and develops new, lower-cost solar generation**. The utility signs a long-term power purchase agreement for the replacement resource, enabling a predictable revenue stream while lowering costs for customers.

1-4. Avoid coal contracts with must-take clauses: BPU should not enter into coal supply agreements that include must-take provisions or fixed-volume commitments. These clauses lock the utility into purchasing coal even when Nearman is uneconomic to operate, driving up costs and limiting flexibility to reduce generation as clean resources come online.

Phase 2. Initial Implementation of Clean Portfolio & Ongoing Analysis

2-1. Build out Surplus Interconnection Resources: BPU should leverage surplus interconnection capacity at existing power station sites to accelerate clean energy deployment and reduce costs. Using RFP responses, identify projects that can utilize existing transmission infrastructure for rapid interconnection. Interconnection of solar and storage can be prioritized at Nearman Creek, Quindaro, and Dogwood Power Station.

2-2. Complete IRP Update in 2027: BPU should complete an updated Integrated Resource Plan in 2027 (earlier than the next required update) that fully evaluates a portfolio without Nearman and incorporates recommendations from RMI and Synapse. The capacity expansion modeling in the next IRP should use updated cost data from RFP responses, include demand-side resources as selectable options within the model, and

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[68] GridLab & Telos Energy. (2025). Data center flexibility: NV Energy case study report.

[69] Norris, T. et al. (2025). Rethinking Load Growth: Assessing the Potential for Integration of Large Flexible Loads in US Power System. Duke University, Nicholas Institute for Energy, Environment & Sustainability.

[70] Lehr, R., & O'Boyle, M. (2020, July). *Solar for coal swaps: An emerging model for accelerating the transition from coal to solar*. Energy Innovation Policy & Technology LLC.

allow Nearman retirement decisions to be based on realistic economic inputs. The subsequent IRP in 2029 should integrate a firm retirement date for Nearman and integration of expanded demand-side and other clean replacement resources.

2-3. Explore funding opportunities. BPU should actively pursue external funding and technical support to reduce costs and support workforce transition in preparation for Nearman's retirement. This includes contacting the Department of Energy's Loan Programs Office to determine eligibility for financing clean energy projects, particularly battery storage at existing power stations. In addition, BPU should engage with the National Renewable Energy Laboratory to explore workforce development programs that can retrain Nearman employees for roles in managing renewable resources and advanced grid technologies.

2-4. Reduce Reliance on Nearman through continued build out of Clean Resource Portfolio. BPU should steadily reduce reliance on Nearman as new clean resources and demand-side programs are deployed, potentially shifting the plant to seasonal operation. Building on Phase 1 momentum, BPU should continue expanding demand-side resource participation and, in or around 2028, issue a new All-Source RFP to secure resources needed for generation and capacity, leveraging the Nearman site for interconnection where possible. At the same time, BPU should begin planning for Nearman's decommissioning by identifying a specific retirement date and commissioning a detailed cost study to guide this transition.

Phase 3. Nearman's Retirement

3-1. Complete Nearman decommissioning and retirement by the target date. BPU should complete Nearman's decommissioning and retirement by the target date established in Phase 2. Advancing retirement by eight years could save approximately $40 million annually, based on Synapse estimates. If planning begins in 2028 and no-regrets actions from earlier phases are implemented, BPU can position itself to commit to full retirement by 2030.

6. Appendix

6.1 Appendix A. Modeling Assumptions

Parameter	Value		Source/Note
Nearman Creek Unit 1 (Coal) Assumptions			
Nearman Capacity Accreditation	85%		BPU Data Request Response[71]
Nearman Coal & Fuel Oil Cost	$26.23/MWh		BPU Data Request Response[72]
Nearman Non-Fuel Variable O&M	$11.37/MWh		BPU Data Request Response[73]
Nearman Capital Expenses & Fixed O&M	$89,396/kW-yr		BPU Data Request Response[74, 75]
Clean Resource Assumptions			
Capacity Accreditation (ELCC)	Summer	Winter	
Solar	62.6%	41.4%	2024 SPP ELCC study report[76]
Wind	17.9%	30.8%	2024 SPP ELCC study report
Storage (4-hour)	65.2%	47.7%	2024 SPP ELCC study report
Storage (100-hour)	100%	90%	Estimate informed by longer duration options in 2024 SPP ELCC study report
Energy Efficiency	Not defined		Load reduction at peak
Demand Response	90%	70%	E3 SPP Report[77]
Resource Costs	Capital	Fixed O&M	
Solar	$1,480/kW	$22/kW-yr	2024 NREL ATB, inflated to $2030
Wind	$1,746/kW	$36/kW-yr	2024 NREL ATB, inflated to $2030
Storage (4-hour)	$1,800/kW	$40/kW-yr	2024 NREL ATB, inflated to $2030
Storage (100-hour)	$3,386/kW	$26/kW-yr	PacifiCorp estimate,[78] inflated to $2030
Energy Efficiency	$30/MWh		CEG Estimate, See Appendix B
Demand Response	$100/kW-yr		CEG estimate, See Appendix B
Tax Credits			
Solar	No Credit		
Wind	No Credit		
Storage (4-hour)	40% ITC		30% base, 10% Energy Community Bonus

[71] Shenstone-Harris (2023), *Exhibit SSH-2, Response to Data Request 1-7.*

[72] Shenstone-Harris (2023), *Exhibit SSH-2, Response to Data Request 1-7*

[73] Shenstone-Harris (2023), *Exhibit SSH-2, Response to Data Request 1-10.* Variable non fuel O&M cost (assuming that 50% of O&M expenses are variable).

[74] Shenstone-Harris (2023), *Exhibit SSH-2, Response to Data Request 1-10.*

[75] 2030 projections based on BPU's historical and projected capital expenditures for Nearman and Fixed O&M cost (assuming 50% of O&M expenses are fixed).

[76] Southwest Power Pool, Inc. (2024, September). 2024 ELCC wind, solar & ESR study report. Southwest Power Pool, Resource Adequacy.

[77] Energy & Environmental Economics, Inc. (2025, October). *The capacity accreditation of demand response in SPP*, Figure 5.

[78] PacifiCorp 2025 Integrated Resource Plan Studies, Public Supply-Side Resource Data Summary-2025.

Parameter	Value	Source/Note
Storage (100-hour)	40% ITC	30% base, 10% Energy Community Bonus
Lifetime (Years)		
Solar	30	2024 NREL ATB
Wind	30	2024 NREL ATB
Storage (4-hour)	15	2024 NREL ATB
Storage (100-hour)	20	PacifiCorp Estimate
Energy Efficiency	-	Estimated on a per-MWh basis
Demand Response	1	CEG Estimate
BPU's weighted average cost of capita	6.7%	Shenstone-Harris, S. (2023), Exhibit SSH-2, Response to Data Request 1-5
Renewable Generation Profile	-	NREL System Advisor Model
Energy Efficiency Generation Profile	-	NREL Residential Building Stock
SPP-North Market Prices	-	Forward projection from S&P with hourly variability introduced based on 2024 hourly prices

All values reported above are in nominal terms for the year 2030.

6.2 Appendix B. Demand-Side Resources

This section examines the feasibility of demand-side resources for the Kansas City BPU. Feasibility is considered in terms of both achievability and cost-effectiveness. By evaluating both potential and cost, this section provides a foundation for understanding how demand-side resources can contribute to BPU's clean energy transition while maintaining affordability and reliability.

6.2.1 Overview of Demand-Side Resources

For purposes of this report, demand-side resources refers to all programs and technologies that impact the load (demand) profile of consumers. Table 12 provides further information about how DSM resources work together to create energy savings and reduce peak energy demand.

Table 12. Overview of Demand-Side Management Resources

Demand-Side Management Resources		
Equipment Upgrades (Primarily Base Loads)	*Behavioral Incentives (Primarily Peak Loads)*	*Software Deployment (Primarily Peak Loads)*
Energy Efficiency (EE) refers to using less energy to perform the same task. It generally involves replacing energy-intensive equipment with more efficient alternatives.	**Demand Response (DR)** is a form of energy conservation that offers incentives to reduce energy, particularly during certain times of day and/or when notified by an event.	**Distributed Power Plants (DPPs)** refers to a system that aggregates **distributed energy resources (DERs)** to manage them as a single entity. Managed by the grid operator, instead of customer.
<u>C&I:</u> Replacing heaters, boilers, & machinery.	<u>C&I:</u> DR notification and incentive programs	DPPs will aggregate DERs, including: rooftop solar, batteries, EVs, smart thermostats, and other connected devices.
<u>Residential:</u> Weatherization, installing heat pumps, upgrading water heaters, smart appliances, etc.	<u>Residential:</u> Smart thermostats, smart appliances, batteries. With or without incentives.	

Note: C&I refers to "Commercial and Industrial"

Behavioral incentives also include energy conservation (using less energy with existing resources, turning off lights) which can be accomplished through time-sensitive pricing incentives (time of use, critical pricing periods, etc.)

Distributed energy resources (DERs) include rooftop solar and home batteries, also referred to as "behind the meter" solutions, which are increases to the supply side – but since they are for the customer they can also reduce generation need from the utility through reducing "net load". **Demand-side resources include both DERs as well as DSM programs.**

6.2.2 Potential for BPU

For a municipal utility of BPU's scale, the key is balancing program cost-effectiveness (kWh and kW reduced per program dollar) with customer uptake. We do not recommend a market potential study at this time – other nearby utilities have done those that BPU can use as comps, and the cost is not worth the additional value-added.

Market Potential

Market Potential studies for EE are commonly conducted by utilities to provide insight into the amount of EE resources that can be procured over a period of time. EE savings opportunities come from a wide range of end uses, each of which are evaluated in the potential study. Potential Studies usually break down the amount of energy efficiency into three or more categories.

Technical potential is the total amount of potential that could theoretically be achieved if all end uses were replaced with more energy efficient appliances.

Economic potential is a subset of the technical potential and reflects the amount of measures that can be deployed according to a cost-effectiveness test. The exact test used to screen for cost-effectiveness can vary.

Achievable potential (or "realistic achievable potential") is a subset of economic potential that is deemed to be achievable through program implementation, given practical limits on program development, customer uptake and incentive level. Sometimes this is further divided into:

- "Maximum achievable potential" the maximum amount that is cost-effective assuming incentives that cover the full incremental cost of qualifying measures,
- "Realistic Achievable Potential" all cost-effective DSM that would be expected, based on forecast incentive levels and customer willingness to participate, and/or
- "Program potential" to delineate what the utility proposes to pursue as part of its EE portfolio given budget limitations.

Ameren Missouri conducted a potential study in 2023.[79] For residential customers, the study found a Maximum Achievable Potential of 3.1% of total sales and a Realistic Achievable Potential of 2.4% within 3 years. The values for businesses were 6.4% and 4.7%, respectively. This value is likely conservative, as in Missouri large customers have the ability to opt out of utility-run energy efficiency programs and their potential is not included within the analysis.

Evergy in both its Kansas and Missouri regions delivers a portfolio of DSM programs. In Kansas the programs were launched in mid-2024 in response to the Kansas Energy Efficiency Investment Act. The programs are currently approved through 2027, with an annual budget across the Company's two service territories that increases to over $30 million across a portfolio of residential and commercial energy efficiency and demand response programs.[80] The portfolio

[79] GDS Associates, Inc & Brightline Group. (2023, April). 2023 DSM Market Potential Study. Prepared for Ameren Missouri.

[80] State Corporation Commission of Kansas. (2022, August 1). Motion to Approve Partial Settlement Agreement on DSM Programs.

of programs is relatively limited in scope, excluding major opportunities such as in new construction.

As shown in performance (Table 13), none of the programs in Kansas or Missouri are achieving significant levels of savings, but they present an opportunity to build on existing programs that are already in the field and could ramp up relatively quickly within the BPU service territory.

Table 13. 2024 Energy Savings Results for Kansas and Missouri Utilities

	Savings (MWh)	Demand Savings (MW)	Spending ($000)	Savings as % Sales	Spending as % Revenue
Evergy Missouri Metro	34,836	8.5	10,168	0.42%	1.1%
Evergy Missouri West	39,911	9.5	10,353	0.47%	1.2%
Ameren MO	165,241	61.2	59,793	0.54%	1.8%
Evergy Kansas Metro	9,110	5.3	2,597	0.14%	0.3%
Evergy Kansas Central	5,673	3.3	3,363	0.06%	0.3%
Evergy Kansas South	4,885	2.9	2,896	0.05%	0.3%

Source: EIA-861

Examples from other utilities demonstrate that achieving **2% of retail sales in energy savings and a 2% reduction in peak load through energy efficiency (EE) and demand response (DR)** is not only feasible but common among high-performing programs.[81] Utilities that reach or exceed these levels are considered leaders, while those below 1% are generally viewed as underperforming.

For BPU, which currently achieves only **198 MWh of annual energy savings and 0.4 MW of peak reduction**, the gap is significant. Meeting the recommended targets—approximately **50,000 MWh of energy savings and 10 MW of peak load reduction**—would represent a transformative improvement. Because BPU's existing DSM programs are currently limited, the utility is particularly well positioned to take advantage of the lowest cost DSM options first.

6.2.3 Program Costs

Table 14 provides estimates of levelized cost of energy savings for Kansas and Missouri utilities, as well as the national average of $0.026/kWh.[82, 83] Evergy Kansas programs began in 2024 and relatively higher spending likely due to low amount of demand savings during the initial phase of the programs. The optimization model utilizes the national average for energy

[81] American Council for an Energy Efficient Economy. (2025, March). *2025 State Energy Efficiency Scorecard.* https://www.aceee.org/research-report/u2502

[82] Frick et. al. (2024, December). "Consumer Benefits of Clean Energy: Energy Efficiency". Available at: https://emp.lbl.gov/publications/consumer-impacts-clean-energy

[83] Costs adjusted from 2021 to 2025 dollars using CPI inflation calculator.

efficiency savings—inflated to 2030 values—equal to $0.030/kWh or $30/MWh. In comparison, the 2024 IRP Base Case assumed a levelized generation cost of $0.04078/kWh (for all generation sources).[84]

Table 14. Regional Levelized Annual Energy Efficiency Program Savings (2024)

	Savings (MWh)	Demand Savings (MW)	Spending ($1,000)	Spending ($/kWh)*	Savings as % Sales	Spending as % Revenue
Evergy Missouri Metro	34,836	8.5	$10,168	$0.029	0.42%	1.1%
Evergy Missouri West	39,911	9.5	$10,353	$0.026	0.47%	1.2%
Ameren MO	165,241	61.2	$59,793	$0.036	0.54%	1.8%
Evergy Kansas Metro	9,110	5.3	$2,597	$0.028	0.14%	0.3%
Evergy Kansas Central	5,673	3.3	$3,363	$0.059	0.06%	0.3%
Evergy Kansas South	4,885	2.9	$2,896	$0.059	0.05%	0.3%
National Average Spending				**$0.026**		

Source: EIA-861 (2024) and American Council for an Energy Efficient Economy (2025) (for national average spending).

Peak demand response values have variable costs, ranging from $75 to $190 per kW, with a national average of $125 (as of 2021).[85] More recent cost estimates on demand response for small utilities suggest a value of $100/kW.[86] The optimization model utilizes this peak demand savings for the demand response value, equal to $1000 per MW.

The magnitude of program spending that could enable 2% peak load reduction is approximately 5% of spending as a percentage of sales,[87] which would be approxiamtely $14 million using 2024 values. Comparatively, BPU's fuel cost $32.2 million and purchased power was $60.7 million in 2024.[88]

6.2.4 Cost-Effectiveness

Most utilities and jurisdictions require demand-side programs or portfolio to be cost-effective. There are a number of ways to look at cost-effectiveness, depending on the perspective. Each cost-benefit test brings in different costs and benefits, such as those from participating customers, state or local policies, or society as a whole. As cost-effectiveness test expand their scope, many of the costs and benefits can be difficult to quantify, especially benefits that accrue

[84] 2024 IRP, Appendix C, page 9-68, 2030 value.

[85] Frick et. al. (2024, December). Consumer Benefits of Clean Energy: Energy Efficiency.

[86] Kentucky Public Service Commission. (2025, February 14). Direct Testimony of Maria Roumpani on behalf of Joint Intervenors Appalachian Citizens' Law Center, Kentuckians for the Commonwealth, and Mountain Association, Case No. 2024-00370. Table 14.

[87] American Council for an Energy Efficient Economy (2025)

[88] Kansas City BPU, (2025, April 21), Page 22.

to participating customers or society at large. However, to maintain a symmetrical look at costs and benefits it is important to include these benefits within the applicable test.

A common framework for cost-effectiveness tests is the **National Standard Practice Manual for Benefit Cost Analysis of Distributed Energy Resources**.[89] Some of the largest benefits from DERs are the avoided costs of generation, capacity, transmission, and distribution. For example, DR results in avoided costs for peaking resources, so its value is high because it is offsetting the most expensive energy. Figure 6 summarizes the potential benefits and costs for the electric utility system for each type of resources, while Figure 7 identifies the host customers and societal benefits and costs.

Figure 6. Potential Benefits and Costs of DERs: Electric Utility System

Type	Utility System Impact	EE	DR	DG	Storage	Electrification
Generation	Energy Generation	🟢	🟠	🟢	🔴	🔴
	Capacity	🟢	🟢	🟢	🟠	🔴
	Environmental Compliance	🟢	🟠	🟢	🟠	🔴
	RPS/CES Compliance	🟢	🟠	🟢	🔴	🔴
	Market Price Effects	🟢	🟢	🟢	🟠	🔴
	Ancillary Services	🟢	🟢	🟠	🟠	🔴
Transmission	Transmission Capacity	🟢	🟢	🟠	🟠	🟠
	Transmission System Losses	🟢	🟢	🟢	🟠	🔴
Distribution	Distribution Capacity	🟢	🟢	🟠	🟠	🔴
	Distribution System Losses	🟢	🟢	🟢	🟠	🔴
	Distribution O&M	🟢	🟢	🟠	🟠	🔴
	Distribution Voltage	🟢	🟢	🟠	🟠	🔴
General	Financial Incentives	🔴	🔴	🔴	🔴	🔴
	Program Administration Costs	🔴	🔴	🔴	🔴	🔴
	Utility Performance Incentives	🔴	🔴	🔴	🔴	🔴
	Credit and Collection Costs	🟢	🟢	🟢	🟢	🟢
	Risk	🟢	🟢	🟠	🟢	🔴
	Reliability	🟢	🟢	🟠	🟢	🔴
	Resilience	🟢	🟢	🟢	🟢	○

🟢 = typically a benefit for this resource type; 🔴 = typically a cost for this resource type; 🟠 = either a benefit or cost for this resource type, depending upon the application of the resource; ○ = not relevant for this resource type

Source: National Energy Screening Project. (2020, August). *National Standard Practice Manual for Benefit Cost Analysis of Distributed Energy Resources Summary*. Table S-6, page xi.

[89] National Energy Screening Project. (2020, August). *National Standard Practice Manual for Benefit Cost Analysis of Distributed Energy Resources Summary*.

Figure 7. Potential Benefits and Costs of DERs: Host Customer & Societal

Type	Host Customer Impact	EE	DR	DG	Storage	Electrification
Host Customer	Host portion of DER costs	●	●	●	●	●
	Interconnection fees	○	○	●	●	○
	Risk	●	○	●	●	●
	Reliability	●	●	●	●	●
	Resilience	●	●	●	●	●
	Tax Incentives	●	●	●	●	●
	Host Customer NEIs	●	●	●	●	●
	Low-Income NEIs	●	●	●	●	●

Type	Societal Impact	EE	DR	DG	Storage	Electrification
Societal	Resilience	●	●	●	●	●
	GHG Emissions	●	●	●	●	●
	Other Environmental	●	●	●	●	●
	Economic and Jobs	●	●	●	●	●
	Public Health	●	●	●	●	●
	Low Income: Society	●	●	●	●	●
	Energy Security	●	●	●	●	●

● = typically a benefit for this resource type; ● = typically a cost for this resource type; ● = either a benefit or cost for this resource type, depending upon the application of the resource; ○ = not relevant for this resource type

BPU's existing DSM programs have reduced peak loads, resulting in an improvement in the system load factor. The 2024 IRP speaks directly to the benefits of DSM, by stating:

> "Improvements in load factor associated with DSM result from the fact that some of the programs implemented have increased off-peak energy use, while others have encouraged energy conservation or the use of more efficient appliances at the time of peak loads. Reductions in peak demand also help BPU in reducing costs related to the purchase of off-system power."[90]

6.2.5 Detailed DSM-Specific Implementation Roadmap

Expanding demand-side management (DSM) is one of the most practical strategies for reducing system load and mitigating reliance on Nearman. DSM encompasses energy efficiency (EE), demand response (DR), and distributed resources, all of which can deliver measurable reductions in both energy consumption and peak demand at relatively low cost compared to new supply-side investments. For BPU, the opportunity is significant: current DSM programs achieve only a fraction of what is possible, with annual savings under 100 MWh and peak reductions of less than 1 MW. By contrast, **high-performing utilities routinely achieve savings equal to 2% of retail sales and similar reductions in peak demand—roughly 50,000 MWh and 10 MW for BPU.**

[90] Black and Veatch (2024), Page 2-13.

Achieving these reductions requires a balanced approach that considers program cost-effectiveness (kWh and kW reduced per program dollar) alongside customer uptake. While technical and economic potential studies can provide detailed estimates, **we do not recommend commissioning a new market potential study at this time.** Comparable studies from nearby utilities, such as Evergy and Ameren Missouri, offer sufficient benchmarks to guide program design without incurring additional cost.

One structural challenge is the current **Payment-in-Lieu-of-Taxes (PILOT) fee, which creates a disincentive for DSM**. Because the PILOT is tied to energy sales, reductions in consumption directly reduce revenues to the Unified Government of Wyandotte County, which relies on these transfers for approximately 20% of its general fund. For example, when large customers like General Motors reduce usage—as occurred during a recent strike—PILOT revenues decline. This linkage discourages aggressive DSM deployment, even when such programs would lower costs for ratepayers and improve system efficiency. Addressing this misalignment, either through policy adjustments or alternative funding mechanisms, will be essential for DSM to scale effectively.

Near-term DSM expansion should focus on strategies that deliver the greatest aggregate impact at the lowest cost. These include residential and commercial efficiency upgrades, behavioral and technology-driven demand response, and partnerships for low-income weatherization. Foundational investments, such as advanced metering infrastructure and data analytics, will enable more targeted offerings and support future integration of distributed energy resources under frameworks like FERC Order 2222.

Ultimately, DSM is not just a set of programs—it is a portfolio approach that complements supply-side resources. Cost-effective DSM approaches from other jurisdictions that BPU could focus on first include:

1. **Smart Thermostats with Demand Response**
    - Enroll customers for automated summer peak load control (cycling A/C).
    - Low program costs per participant, large aggregate peak shaving potential.
    - Often the single most cost-effective demand response tool.
    - Low program costs per participant, large aggregate peak shaving potential; cost-effective DR tool.
2. **Low-income Weatherization Partnerships**
    - Partner with community organizations (such as Habitat for Humanity KC, Metropolitan Energy Center) to target insulation, air sealing, LED retrofits.
    - Large potential savings due to older housing stock
    - Addresses equity, makes people more comfortable in their homes, and can be paired with other community development goals
    - Opportunities to leverage federal/state funding.
3. **Residential Heat Pumps & Heat Pump Water Heaters**
    - Rebates or midstream incentives to contractors.
    - High energy savings, especially since Kansas City has both heating and cooling loads (cold winters, hot summers).
    - Water heaters also double as demand response assets when paired with timers/controls.

4. **Commercial HVAC & Lighting Retrofits**
    - Offer incentives for LED retrofits, high-efficiency rooftop units, and controls.
    - Pay-for-performance or direct install programs give quick wins.
5. **More aggressively address EE and DR opportunities for commercial and industrial (C&I) customers.**
    - Commercial HVAC & Lighting Retrofits, Demand-side resources for large load customers
    - Stricter adherence to low power factor rider to achieve no-cost to BPU energy savings.
6. **Unified Government to set example**
    - Similar to street light replacement program – where else is BPU able to find city & county savings?
7. **Potentially expand seasonal use billing with more targeted time of use rates**
    - Lower winter rates / higher summer peak rates already in place for BPU, opportunities to expand for more targeted time-of-use approach
    - Encourages load shifting without heavy program spending.
    - Pair with customer education and enabling technologies (smart thermostats, smart water heater controls).
    - Pair with customer education and technologies (smart thermostats, smart water heater controls).
8. ***Foundational Technology Investments***
    - **Smart Meters** are the essential backbone for both efficiency and demand response. Full deployment enables:
        1. Time-varying rates,
        2. Real-time usage feedback,
        3. Faster outage management.
    - **Data-Driven Targeted Investments:** Use interval data to identify high-use/peak-driven customers for targeted DSM offers.

6.3 Appendix C. BPU Data Requests

Attached are the Kansas Open Records Act (KORA) responses from BPU.

CURRENT
ENERGY GROUP

About Current Energy Group

Current Energy Group offers clients a fresh perspective, bringing a comprehensive, interdisciplinary approach to the energy transition. By addressing the technical, economic, and policy questions at the heart of every decision, we help our clients achieve outcomes that are actionable, financially viable, and beneficial for the communities we serve.

Our nationally recognized experts provide objective insights backed by rigorous analysis to solve complex challenges across a broad range of topics, including advanced rate design, cost of service, DER integration, energy system decarbonization, gas transition, power system planning, and regulatory and policy innovation. Our team brings deep expertise to deliver proven solutions that balance sustainability, affordability, and reliability—creating meaningful impact to help shape the future of energy systems.

We serve both private- and public-sector entities, such as Fortune 500 companies, state agencies, public interest organizations, utility commissions, clean energy buyers, industry trade associations, and consumer advocates.

For more information, visit currentenergy.group.

To:

Maria Roumpani
Partner, Current Energy Group
mroumpani@currentenergy.group

Re: Response to KORA Request dated October 3, 2025 — BPU and SPP Market Data

Dear Ms. Roumpani,

Thank you for your Kansas Open Records Act ("KORA") request dated October 3, 2025, requesting information related to the Nearman Creek Generating Station and BPU's participation in the Southwest Power Pool (SPP) markets.

As a public agency, the Kansas City Board of Public Utilities (BPU) must follow the Kansas Open Records Act (KORA), but certain laws and federal regulations limit what it can share. Under both KORA and the Southwest Power Pool's (SPP) Open Access Transmission Tariff (OATT), BPU must protect information that is confidential, proprietary, or critical to electric system security. This includes unit-specific operational data, market information, and Critical Energy Infrastructure Information (CEII). Federal Energy Regulatory Commission (FERC) rules and SPP agreements strictly prohibit releasing such data to outside groups that are not authorized market participants or regulators. These limits exist to prevent disclosure of sensitive details that could expose system vulnerabilities or provide a competitive advantage, ensuring fairness, market integrity, and grid security.

Please find BPU's responses below to each item of your request, including the information provided in response to your request.

1-1. ***"Please identify Nearman outages for 2023 to 2024 and specify if the outage was forced or planned."***

Response:
Detailed outage data (including historical), including whether outages were forced or planned, are resource-specific operational records protected from disclosure under the SPP Open Access Transmission Tariff (OATT), Sixth Revised Volume No. 1 (effective July 22, 2025) Attachment O, Section VII.7(d) and the Kansas Open Records Act (KORA) K.S.A. § 45-221(a)(12).

Information Provided:

None

1-2. ***"Please provide the following hourly data for Nearman Creek Units 1 & 4 for years 2023-2024: (a) Generation data (MWh); (b) Energy Market revenue ($); (c) Commitment Status (Self, Market, Reliability, Outage, Non-Participating) – please provide the reason for self-commitment; (d) Dispatch Status (Self, Market)."***

Response:
Unit specific hourly generation, Energy Market revenue, commitment status, and dispatch status information are market-sensitive and could be used to infer dispatch decisions. Disclosure is prohibited under the SPP Open Access Transmission Tariff (OATT), Sixth Revised Volume No. 1 (effective July 22, 2025) Attachment O, Section VII.7(d) and the Kansas Open Records Act (KORA) K.S.A. § 45-221(a)(12) and Kansas Uniform Trade Secrets Act (K.S.A. §60-3320 ***et seq.)***

Information Provided:

BPU has provided the following documents:

1. EIA923_Schedules_2_3_4_5_M_12_2023_Final_Revision.xlsx;
2. EIA923_Schedules_2_3_4_5_M_12_2024_Final.xslx.

These documents can be found on the https://www.eia.gov/electricity/data/eia923/ website. Within these documents the monthly Generation data (MWh) can be observed for Nearman Plant for years 2023 and 2024.

1-3. ***"For years 2023 and 2024, please provide BPU's provision of REGUP, REGDN, SR, SUR, and OR to SPP by generating resource and the associated revenue. Please provide at the highest available resolution (hourly, monthly, annual)."***

Response:
These ancillary service details and revenues are resource-specific and confidential under the SPP Open Access Transmission Tariff (OATT), Sixth Revised Volume No. 1 (effective July 22, 2025) Attachment O, Section VII.7(d). Only authorized Market Participants and SPP staff may access this data.

Information Provided:

Please refer to the Annual Comprehensive Financial Report for Fiscal Years Ending December 31, 2024 and 2023 document on the BPU website here: https://www.bpu.com/Portals/0/BPU_Reports/2024-Boardof-Public-Utilities-of-Kansas-City-Kansas-FINAL-FS.pdf. Within this report, you may observe the total annual revenue from aggregated generation.

1-4. ***"Please provide the 2023 and 2024 volume of all BPU (owned or contracted) generation (GWh) sold to SPP and all purchases from SPP to meet BPU's demand at the highest available resolution (hourly, monthly, annual)."***

Response:

Hourly or unit-specific sales and purchases are confidential under the SPP Open Access Transmission Tariff (OATT), Sixth Revised Volume No. 1 (effective July 22, 2025) Attachment O, Section VII.7(d).

Information Provided:

Please refer to the Annual Comprehensive Financial Report for Fiscal Years Ending December 31, 2024 and 2023 document on the BPU website here: https://www.bpu.com/Portals/0/BPU_Reports/2024-Boardof-Public-Utilities-of-Kansas-City-Kansas-FINAL-FS.pdf. Within this report, you may observe the total annual revenue from aggregated generation.

1-5. ***"Please provide the following for all energy efficiency, demand response, or distributed resources programs offered by BPU (including discontinued programs): (a) Description of program; (b) Incentive level; (c) Lifetime of the program/measure; (d) Participation numbers (historical and expected); (e) 8760 profile; (f) Annual energy reduction; (g) Seasonal peak reduction; (h) Cost effectiveness analysis; (i) Assessment of the program (evaluation of cost of energy/demand saved); (j) Any assessment/study evaluating the program, barriers, and documentation."***

Response:
BPU reports information to the US Energy Information Administration (EIA) using form EIA-681 that contains the requested information above. This includes Demand Response numbers and energy efficiency numbers.

Information Provided:

Please refer to https://www.eia.gov/electricity/data/eia861/ for all of the past data supplied in reference to demand response and energy efficiency programs for BPU.

1-6. ***"Please provide all power purchase agreements or firm capacity contracts that BPU has entered into since 2014, including but not limited to contracts with WAPA, SPA, and Community Solar/MCP. If the contracts cannot be provided, please specify: (a) the technology and fuel of the contracted generating resource; (b) the capacity under contract; (c) the date and term of the contract; (d) the contract price."***

Response:
The full agreements and contract pricing terms are confidential commercial information under K.S.A. § 45-221(a)(12) and OATT § VII.7(d). However, BPU may disclose fuel type, technology, and general capacity/term summaries where available, but not prices or confidential terms.

BPU may release:

- **Generator Owner & Operator company**
- **Technology and fuel type**
- **Capacity and term information** (available in aggregated summary form)

Information Provided:

Please refer to section 2-2 in the Kansas City Board of Public Utilities 2024 Integrated Resource Plan for existing resources along with the technology and fuel type. The document can be found on the KCBPU website here: https://www.bpu.com/Portals/0/pdf/2024-BPU_IRP_Report-2024-FINAL.pdf

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1-7. *"Please provide the Nameplate Capacity, Maximum Injection Capability, and Network Resource Deliverability (MW) for the Nearman site in the Interconnection Agreement."*

Response:

Capacity information for the Nearman site can be found in the EIA-860 form.

- **MIC:** 250 MW
- **Network Resource Deliverability:** 247.5 MW

Information Provided:

Please refer to the EIA-860 form on the EIA website here: https://www.eia.gov/electricity/data/eia860/.

1-8. *"Please provide the number of people employed in the Nearman Creek Generating Station, and in particular at Nearman Creek Unit."*

Response:

- **Employee identifying information:** Protected from disclosure under **K.S.A. 45-221(a)(1)** and **(a)(12)** as personal information.
- **Total number of employees:** Can be provided as an aggregate headcount.

Information Provided:

Please refer to the Annual Comprehensive Financial Report for Fiscal Years Ending December 31, 2024 and 2023 document on the BPU website here: https://www.bpu.com/Portals/0/BPU_Reports/2024-Boardof-Public-Utilities-of-Kansas-City-Kansas-FINAL-FS.pdf. Within this report, on page 107, you may observe the total number of approved staffed positions in the electric production department.

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b. Approval of the Regular Session Minutes of January 21, 2026

REGULAR SESSION –WEDNESDAY, JANUARY 21, 2026

STATE OF KANSAS)
) SS
CITY OF KANSAS CITY)

The Board of Public Utilities of Kansas City, Kansas (aka BPU, We, Us, Our) met in Regular Session on Wednesday, January 21, 2026 at 6:00 PM. The following Board Members were present: Rose Mulvany Henry, Vice President; Brett Parker, Secretary; Gary Bradley-Lopez, Chase Cook, Stevie A. Wakes Sr., and David Haley.

Also present: Jeremy Ash, General Manager; Angela Lawson, Acting Chief Counsel; Andrew Ferris, Chief Financial Officer; Abbey Frye, Chief Administrative Officer; Leigh Mulholland, Chief Compliance Officer; Jerry Sullivan, Chief Information Officer; Darrin McNew, Executive Director Electric Operations; Steve Green, Executive Director Water Operations; Steve Nirschl, Director Water Processing; Dennis Dumovich, Director of Human Resources; Amber Oetting, Director Communications & Marketing; Phillip Brown, Director Civil Engineering; and Robert Kamp, IT Project Manager.

A video of this meeting is on file at the Board of Public Utilities and can be found on the BPU website, www.bpu.com.

Ms. Mulvany Henry called the Board meeting to order at 6:01 PM. She welcomed all that were listening to or viewing the meeting. She informed all that the meeting was being recorded including video and audio. During the public comments section, community members who wished to speak to the Board would be asked to provide their name and address. Members of the public who wished to speak to the Board using Zoom needed to use the raise hand feature at the bottom of the application or window to signal that they wish to address the board during the public comment section. Members of the public connected by phone only, needed to press *9 to indicate they wished to address the Board in the public comment sections. Those attending in person should sign up on the sheet located near the entry. Public comments would be limited to five minutes and should be addressed to the Board. No confidential information should be shared, including, account information. Staff would not provide individual account information during an open meeting. As always, the public could also email or call the BPU with any concerns. He informed all participants to act respectfully to each other; personal attacks or accusations would not be tolerated. All concerns would be directed to the Board only, they would then determine staff involvement. If side discussion was necessary, it was to be conducted outside of the Board room to avoid interfering with presenters or other attendees. If any rules were breached during this meeting, the attendee was subject to removal.

Ms. Mulvany Henry introduced herself and the other Board members along with the General Manager, and Legal Counsel.

Roll call was taken and all Board members were present.

REGULAR SESSION –WEDNESDAY, JANUARY 21, 2026

STATE OF KANSAS)
) SS
CITY OF KANSAS CITY)

<u>Item #3 – Approval of Agenda</u>

A motion was made to approve the Agenda of January 21, 2026, by Mr. Wakes, seconded by Mr. Haley, and unanimously carried.

<u>Item #4– Consent Agenda</u>

A motion was made to approve the Consent Agenda of January 21, 2026, by Mr. Parker, seconded by Mr. Bradley-Lopez, and unanimously carried.

<u>Consent Items:</u>

a. Approval of the Minutes of the Regular Session of January 7, 2026

<u>Item #5– Election of Officers</u>

A motion was made to suspend Section 3.1 of the Board Rules of Procedure, by Mr. Wakes, seconded by Ms. Mulvany Henry, and unanimously carried.

Ms. Angela Lawson, Acting Chief Counsel, explained the process of the Election of Officers and opened nominations for office of President.

A motion was made to nominate Mr. Parker as President, by Mr. Wakes, seconded by Ms. Mulvany Henry. No other nominations were received.

A motion was made to close the nominations by Mr. Wakes, seconded by Mr. Cook, and unanimously carried.

Roll call was taken on the vote for Mr. Parker for President, and he was elected unanimously.

Ms. Lawson opened nominations for office of Vice President.

A motion was made to nominate Mr. Wakes as Vice President, by Ms. Mulvany Henry, seconded by Mr. Parker. No other nominations were received.

A motion was made to close the nominations by Mr. Parker, seconded by Ms. Mulvany Henry, and unanimously carried.

REGULAR SESSION –WEDNESDAY, JANUARY 21, 2026

STATE OF KANSAS)
) SS
CITY OF KANSAS CITY)

Ms. Lawson opened nominations for office of Secretary.

A motion was made to appoint Ms. Mulvany Henry as Secretary, by Mr. Wakes, seconded by Mr. Cook. No other nominations were received.

A motion was made to close the nominations by Mr. Bradley-Lopez, seconded by Mr. Parker, and unanimously carried.

Roll call was taken on the vote for Ms. Mulvany Henry for Secretary:

Bradley-Lopez – yes

Cook – yes

Haley – no

Wakes – yes

Mulvany Henry – yes

Parker – yes

Ms. Mulvany Henry was elected as Secretary.

Item #6– General Manager / Team Reports

a) *Infill Program – Resolution #5320:* Mr. Ash presented Resolution #5320, authorizing the waiving of certain fees in support of the Unified Government Infill Housing Program, to the Board. (See attached Resolution.)

   A motion was made to retroactively approve Resolution #5320 to 1/1/2026 by, Ms. Mulvany Henry, seconded by Mr. Wakes, and unanimously carried.

Item #7– Public Comments

Mr. Ty Gorman, 2843 Parkwood Blvd., congratulated the new officers, spoke about the Current Energy Group report that was discussed during the Work Session meeting, and responded to inquiries from the Board regarding that request.

STATE OF KANSAS)
) SS
CITY OF KANSAS CITY)

Mr. Nathaniel Barnes, 2706 N. Hallock St, spoke about a water matter that occurred at a rental property he owns; he explained that his claim was denied and said he wished for reconsideration.

Mr. Ash said BPU would research the matter and someone would be in contact with him regarding the appeal process.

Item #8– Miscellaneous Comments

Mr. Ash had no comments.

Item #9– Board Comments

Mr. Haley congratulated Mr. Parker and said he looked forward to serving under his leadership. He spoke about listening to public comments and his advocacy for lobby operations.

Mr. Cook congratulated the newly elected officers and said he looked forward to working under their leadership. He thanked the BPU team for their presentation and said he learned a lot during the new Board orientation.

Mr. Wakes congratulated Mr. Parker and Ms. Mulvany Henry on their newly elected roles. He thanked Mr. Ty Gorman and BPU for working together for the community, and spoke about Mr. Barnes' matter. He also spoke about the importance of having great customer service.

Mr. Bradley-Lopez congratulated the newly elected Board members, and expressed gratitude to the BPU team for the information presented during orientation and for the tours of each BPU facilities. He applauded BPU employees for the work they do, and spoke about his advocacy for lobby operations and energy efficiency.

Ms. Mulvany Henry echoed previous comments and congratulated the newly elected officers. She also thanked the Current Energy Group, Gooch Strategies, and the Sierra Club for the analysis report they provided to BPU.

Mr. Parker congratulated Mr. Wakes and Ms. Mulvany Henry on their office roles and spoke to the newest members orientation and tours experience. He thanked the Current Energy Group, and partners, for the report they provided and the conversation it sparked. He expressed appreciation to the BPU team for being mindful of affordability and for seeking opportunities that would benefit the community.

Item 10– Executive Session

Ms. Lawson proposed a motion for adoption as followed:

"I move that after taking a five-minute break the Board go into Executive Session in the First Floor Conference Room for 20 minutes to discuss the General Manager goals pursuant to non-elected personnel matter exception to the Kansas Open Meetings Act under KSA 75-4319B1 and that counsel, Angela Lawson, and General Manager, Jeremy Ash, as needed be present to participate in the discussions and that we reconvene in Open Session in the Board Room at 7:15 PM to either take action or adjourn."

At 6:50 PM a motion was made to move into Executive Session, by Ms. Mulvany Henry, seconded by Mr. Haley, and unanimously carried.

At 7:15 PM the meeting returned to Open Session.

A motion was made to move back into Executive Session for 20 minutes, by Ms. Mulvany Henry, seconded by Mr. Bradley-Lopez. Roll call was taken:

Bradley-Lopez – yes

Cook – yes

Haley – no response

Wakes – no response

Mulvany Henry – yes

Parker – yes

The motion carried.

At 7:36 PM the meeting returned to Open Session.

STATE OF KANSAS)
) SS
CITY OF KANSAS CITY)

A motion was made to move back into Executive Session for 15 minutes, by Mr. Wakes, seconded by Mr. Cook. Roll call was taken:

Bradley-Lopez – yes

Cook – yes

Haley – no response

Wakes – yes

Mulvany Henry – yes

Parker – yes

The motion carried.

At 7:53 PM the meeting returned to Open Session.

<u>Item 11– Adjourn</u>

At 7:53 PM a motion to adjourn was made by Mr. Wakes, seconded by Ms. Mulvany Henry. Roll call was taken:

Bradley-Lopez – yes

Cook – yes

Haley – no response

Wakes – yes

Mulvany Henry – yes

Parker – yes

The motion carried and the meeting was adjourned.

REGULAR SESSION –WEDNESDAY, JANUARY 21, 2026

STATE OF KANSAS)
) SS
CITY OF KANSAS CITY)

ATTEST: APPROVED:

____________________________ ____________________________

Secretary President

RESOLUTION NO: 5320

RESOLUTION AUTHORIZING THE WAIVING OF CERTAIN FEES IN SUPPORT OF THE UNIFED GOVERNMENT INFILL HOUSING PROGRAM

WHEREAS, the Board of Public Utilities an administrative agency of the Unified Government of Wyandotte County/Kansas City("BPU"), Kansas (operates the Unified Government's electric and water utilities; and

WHEREAS, the Board of Directors (the Board) of the BPU has determined that it is in the best interest of our community for the BPU to support targeted economic development incentives; and

WHEREAS, the Unified Government developed an Infill housing program to support development and increase the tax base of the Unified Government; and

WHEREAS, the BPU staff will work within the framework established by this Board action to meet these goals.

NOW, THEREFORE, BE IT RESOLVED AND ORDAINED BY THE KANSAS CITY BOARD OF PUBLIC UTILITIES:

1. That the General Manager is authorized to provide the program incentives to developers and/or builders in the form of waiving electric and water fees for the Infill Housing Development Program created by the Unified Government.

2. The majority of the incentives will be targeted for East of I-635 but will also be available for some areas between I-635 and 78th Street.

3. BPU Permit and Connection Fees Waived for certain UG Land Bank Lots East of 78th Street to be used for residential construction of single-family homes or duplexes. The BPU waivers will be reviewed annually. Below is an example of fees that may be waived:

BPU Example:

Type	Average Value
Temporary Electric Service Fee	\$ 350
Overhead Electric Service Drop Allowance	\$ 200
Residential Water Tap Fee (3/4" tap)	\$ 300
Water System Development Fee (5/8" meter)	\$ 2,000
Average savings per home	**\$ 2850**

4. The landowner or potential landowner will start the process by contacting the BPU water and electric engineering departments and completing a simple form requesting evaluation of the property. The BPU will review the current infrastructure and what makeready work is needed and the BPU will inform the potential customer what incentives will be offered. As properties have different service requirements and makeready costs the BPU is unable to provide a blanket waiver but will consider each property on an individual basis.

5. Any underground electric service will need to be reviewed separately as costs will likely be significantly higher.

6. To qualify the water service will be no larger than ¾" and the meter size of 5/8".

7. This resolution shall remain in effect until December 31, 2026. The General Manager is hereby directed to update the Board annually on residential development in these areas.

ADOPTED BY THE GOVERNING BODY OF THE KANSAS CITY BOARD OF PUBLIC UTILITIES THIS 21ST DAY OF JANUARY, 2026.

By: ______________________________
Board President

Attest: ___________________________
Board Secretary

Approved as to form:

____

General Manager/Team Reports

Agenda Item #V

KANSAS CITY BPU
THE POWER OF COMMUNITY

Cybersecurity Update: "Staying Ahead"

Information Technology
February 4, 2026

KANSAS CITY BPU
THE POWER OF COMMUNITY

Agenda
"Staying Ahead"

JS2

1. Cybersecurity Threat Landscape

2. Our Current Security Posture – Our Assessment

3. Operations Center (SNOC)

Slide 2

JS2 adjust these if needed to match the content in followig slides
Jerry Sullivan, 1/26/2026

KANSAS CITY BPU
THE POWER OF COMMUNITY

Cybersecurity Threat Landscape

3 Very Recent Utility Cyber Events

These were utilities, like ours

Nova Scotia Power - 2025

- Cyber-attack targeted power (smart) meter communications
- Ransomware related breach affected 280,000 customers

Greenville Electric Utility System (GEUS) - Jan 2026

- Ransomware initially reported, but issue was through a third-party vulnerability
- Customers were **unable to use the online bill payment system** and couldn't access billing information while utility systems were isolated as a protective measure.

Texas State Utilities - Jan 26, 2026

- The scope of impact (e.g., internal IT vs. operational systems, customer data exposure) not confirmed. This appears to be classic claim by ransomware gangs that an event occurred, and attackers claimed they would leak customer data. Not clear as to whether a ransom was paid or negotiations occurred in public or authoritative reporting as of now.

Vendor risk is now one of the **largest cybersecurity exposure areas** for utilities, another risk is employee behaviors on the web or email

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Cyber Risk Landscape
Means and Methods Vary

1. Utilities Remain a Prime Target – But Attacks Are Getting Smarter
   – This is no longer about "if," but **how quietly and how long attackers can remain undetected.**

2. Ransomware Has Shifted from Encryption to Extortion but employees are frequent targets
   – Cyber incidents increasingly create **business and governance risk**, not just IT outages.

3. Third-Party & Supply Chain Risk Is the Fastest-Growing Exposure

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Landscape *continued*
The Speed of the Adversary

- Bad actors are moving faster, using automation and AI to find vulnerabilities
- Phishing and social engineering attacks are more convincing and scalable
- Ransomware-as-a-Service has lowered the barrier for attackers
- Supply chain attacks are growing - trust in partners is now a risk

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BPU Cyber Security
Our High-Level Assessment

Bad (what we are experiencing)

1. Nation State sponsored attacks are growing but attackers can come from anywhere.
2. Attackers seem to have unlimited resources and use AI enabled attacks
3. Attacks scale rapidly
4. Email phishing and social engineering is at industrial scale
5. Attempts to exploit human error and insider threats
6. Fast, targeted attacks often via supply chain
7. Constant probing for security gaps

Good (what we have)

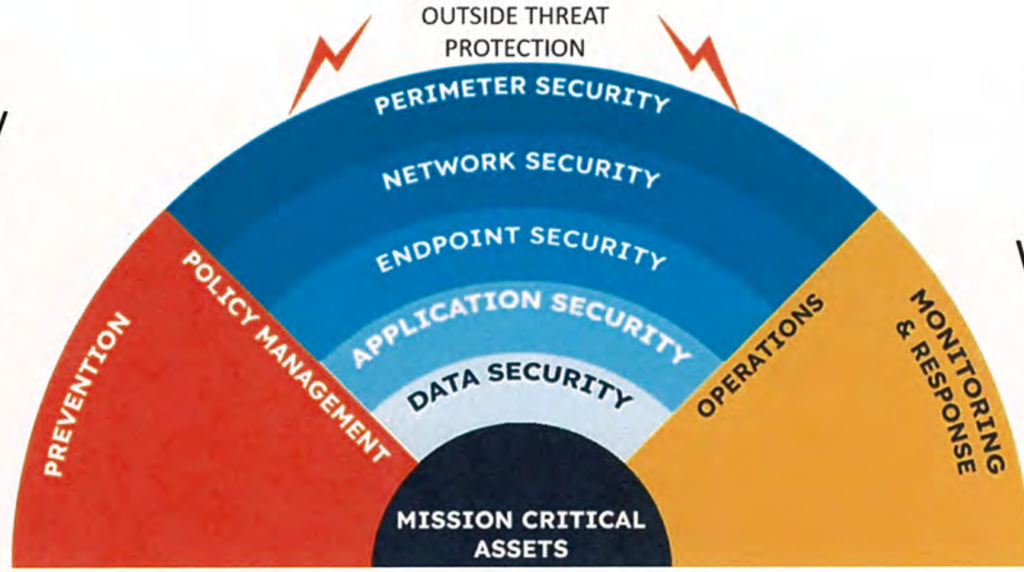
1. Great Cyber staff, tools, and support
2. Best practices approach using "defense in depth" methodology
3. Proactive threat detection tools
4. Access rights to data and system are limited to least accessible (Least Privileged)
5. Employee awareness and training
6. We have 24/7 monitoring but not 24/7 staffing
7. BPU's Security & Network Operations Center (SNOC) is staffed and operational

KANSAS CITY BPU THE POWER OF COMMUNITY

We use a Defense in Depth Protocol

"Layered defense reduces vulnerability by ensuring that no single weakness—human, technical, or vendor—can directly compromise our mission-critical systems."

A layered defense reduces the possibility that one vulnerability can continue throughout our layers



It Eliminates Single Points of Failure

Weakness in one layer does not equal a breach of mission-critical assets.

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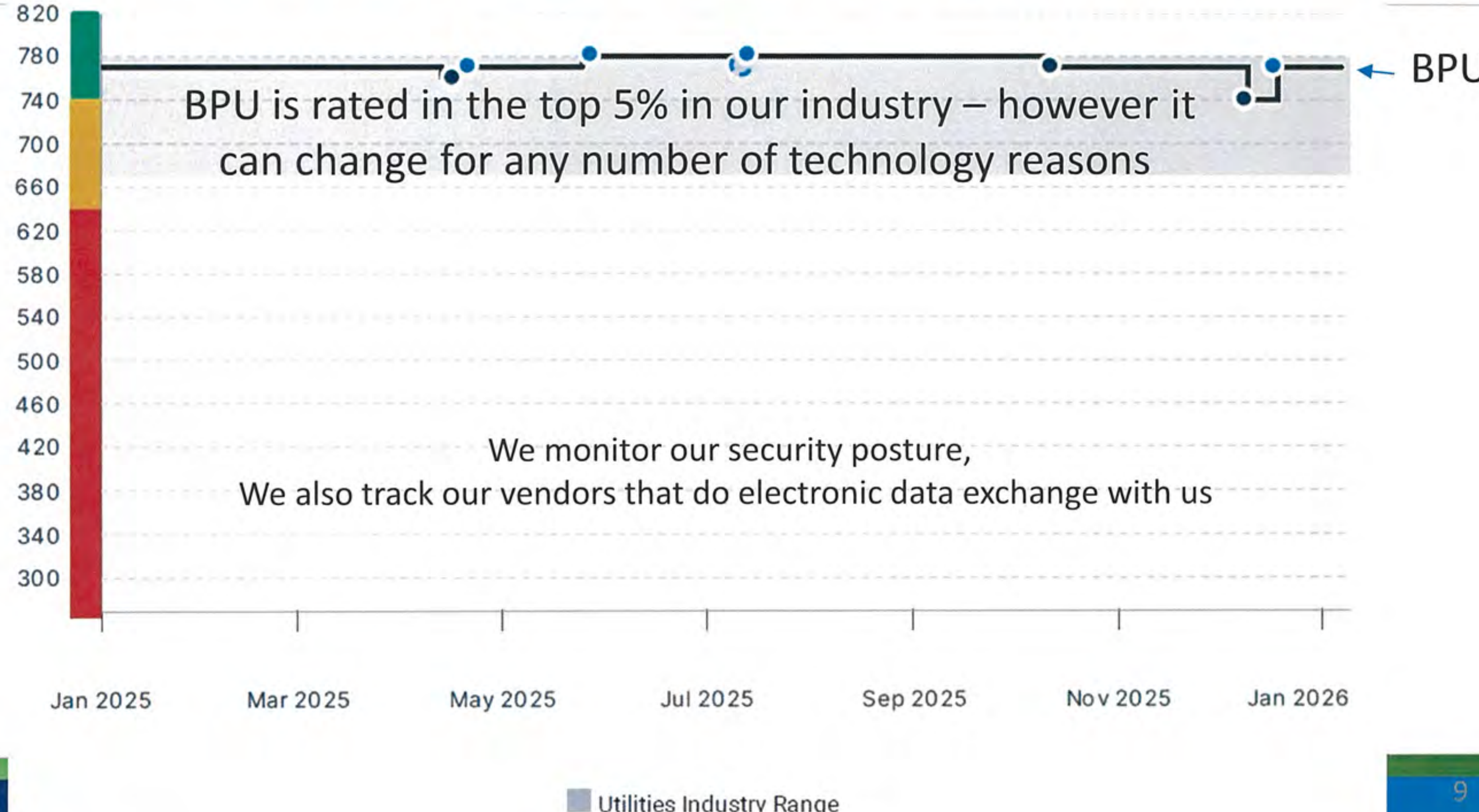
Our Coverage of Areas

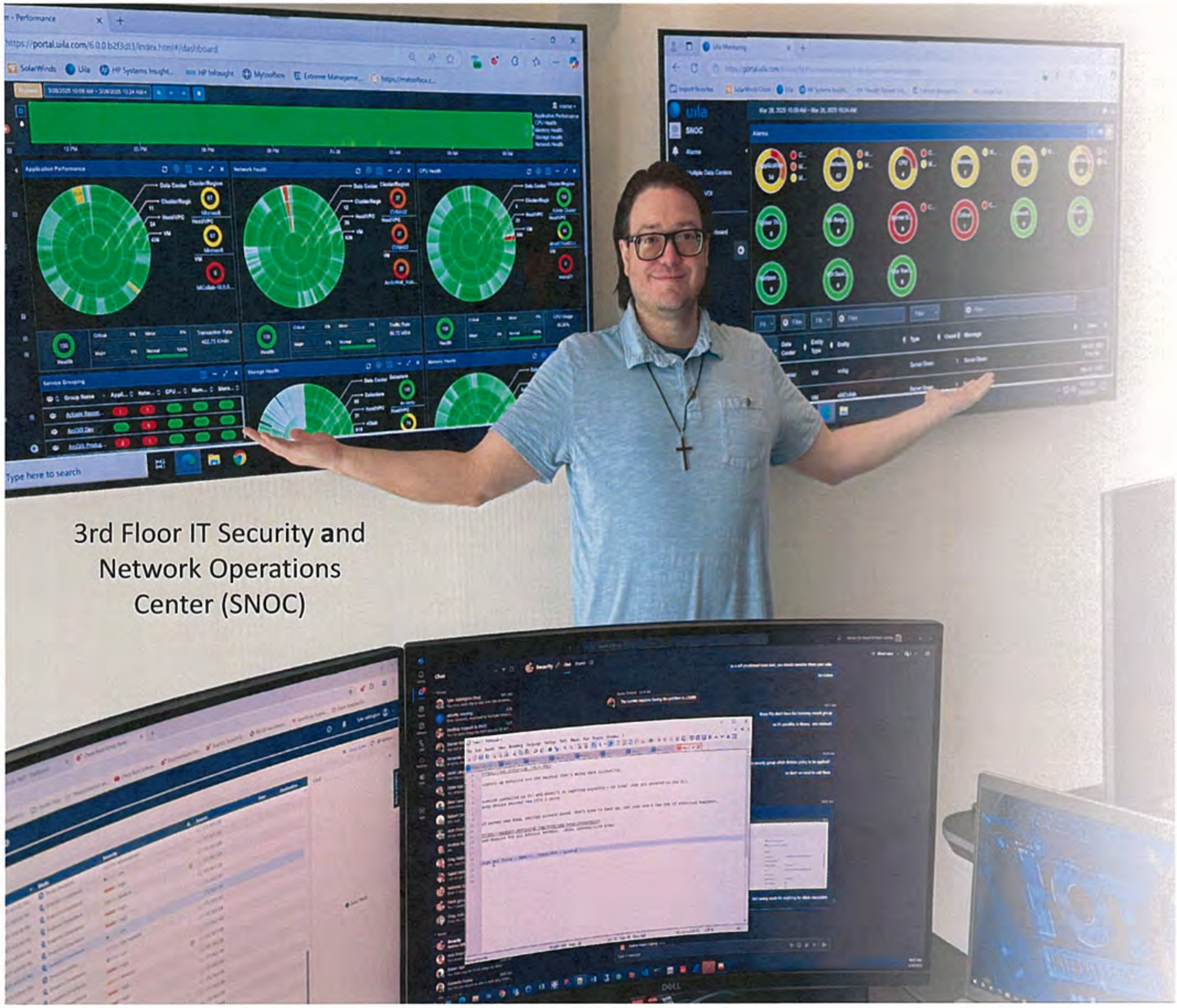
- We use various tools to assess and address cyber security issues in these areas:
  - Software
  - Hardware and all types of devices
  - Servers / Databases
  - Networks
  - Internet & Data Traffic in and out
  - Training, Policies, Procedures

Third Party Monitoring of BPU Risks

We use software to examine of our data flowing out of our systems



Our BPU SNOC



3rd Floor IT Security and
Network Operations
Center (SNOC)

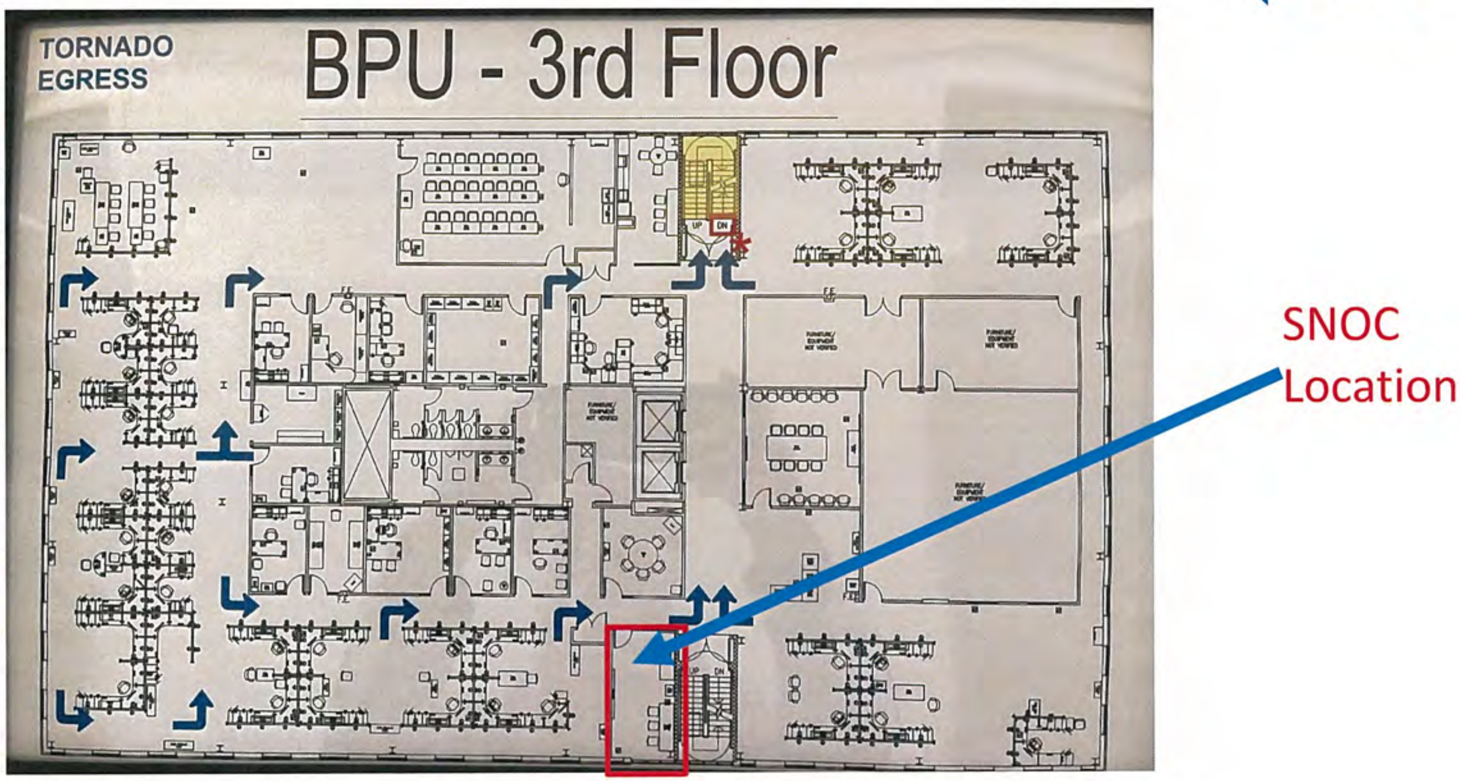
Defense in Depth

- Layered Protections
- Redundancy and Multi-vendors
- Comprehensive Coverage
  - Perimeter Security
  - Endpoint Protection
  - User Authentication
  - Patch Management
  - Security Awareness
  - Incident Response

Security & Network Operations Center (SNOC)

You are welcome to see the SNOC and the staff.

Coordinate with Jeremy and we will make it happen.



KANSAS CITY BPU
THE POWER OF COMMUNITY

Three Major Challenges Ahead

Challenges

1. Pace of Change:
   - Talent Shortage: Skilled cybersecurity professionals are hard to find and retain
2. Complex Ecosystem:
   - Multiple platforms, tools, and vendors create technical challenges
3. Human Factor:
   - Employees remain the most common attack risk

Our Response

1. We have the right staff, trained and have leadership support with almost zero attrition
2. We respond with a layered approach, increase our situational awareness, alerts, patch updates, testing, and a formal incident response team
3. Training and awareness programs, and more on the way

KANSAS CITY BPU
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THANK YOU

QUESTIONS?

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Other Visuals of Live Tracking of Cyber Traffic

- Click for Security Center Live MAP
- CLICK Here for live "World Threat Map"

KANSAS CITY BPU

THE POWER OF COMMUNITY

Credit Card Payments

Abbey Frye
Chief Administrative Officer

Credit Card Payments: Update

What is it?

Beginning March 1, a 2% payment processing fee will apply to utility bill payments made using credit cards, debit cards or digital wallets.

How can I avoid the fee?

- Pay directly from a bank account (ACH)
- Autopay using a bank account
- Check or money order by mail or drop box
- No-fee kiosks

Why?

Costs to BPU:

- 2025 ~$905,000
- 2024 ~$843,000

Assistance:

Customer Care:
913-573-9190

Payment Fee FAQs
(bpu.com)