Kansas Capital Investment Plan

KCC Workshop
December 13, 2022

evergy

Presentation Agenda

Workshop objectives from Commission Order:

- Explain and discuss the necessity and impact of capital investments
- Compare current capital plan to previous capital plan and explain differences in a comprehensive and transparent fashion
- Explain and discuss the customer benefits and expected rate impacts of capital investments
- File updated comprehensive financial modeling in parallel

Presentation Agenda

1. Overview of Capital Investment Plan
2. Regional Comparisons
3. Current Rate Projections
4. Benefits of Capital Plan

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Overview of Capital Investment Plan

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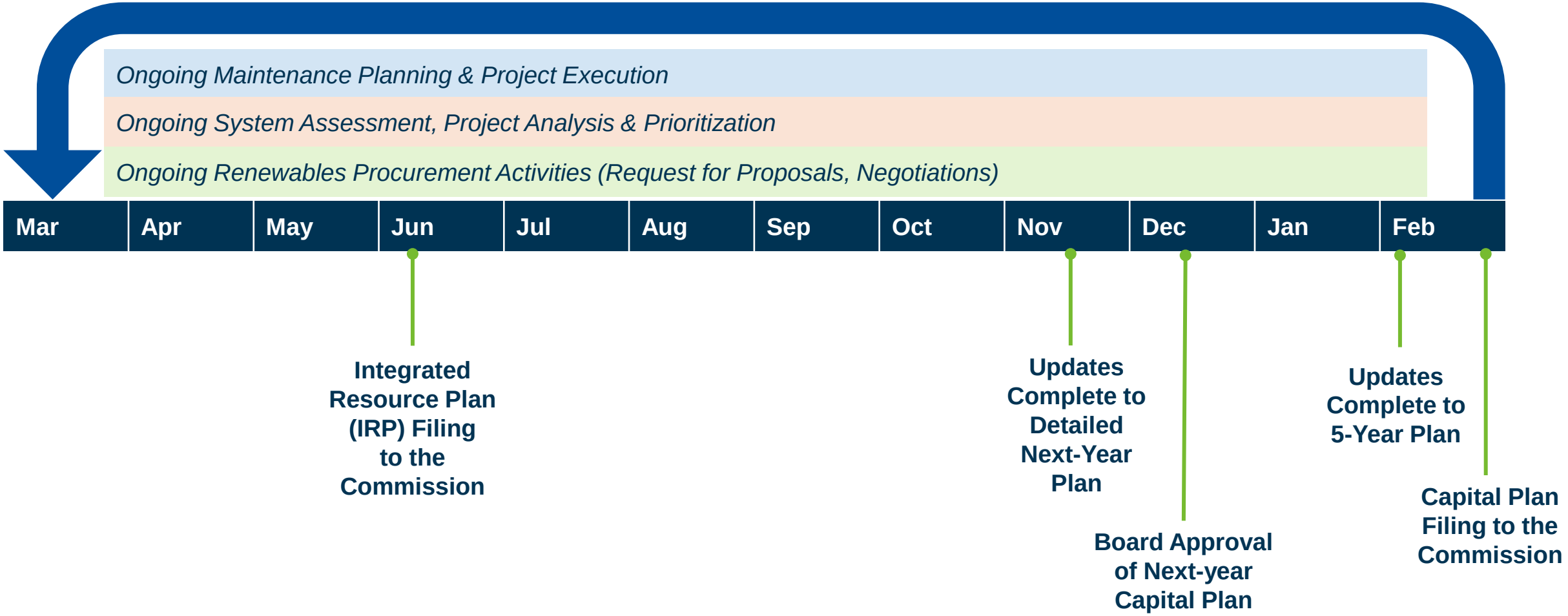
Evergy's five-year capital plan is updated annually through a dynamic process to incorporate changing conditions

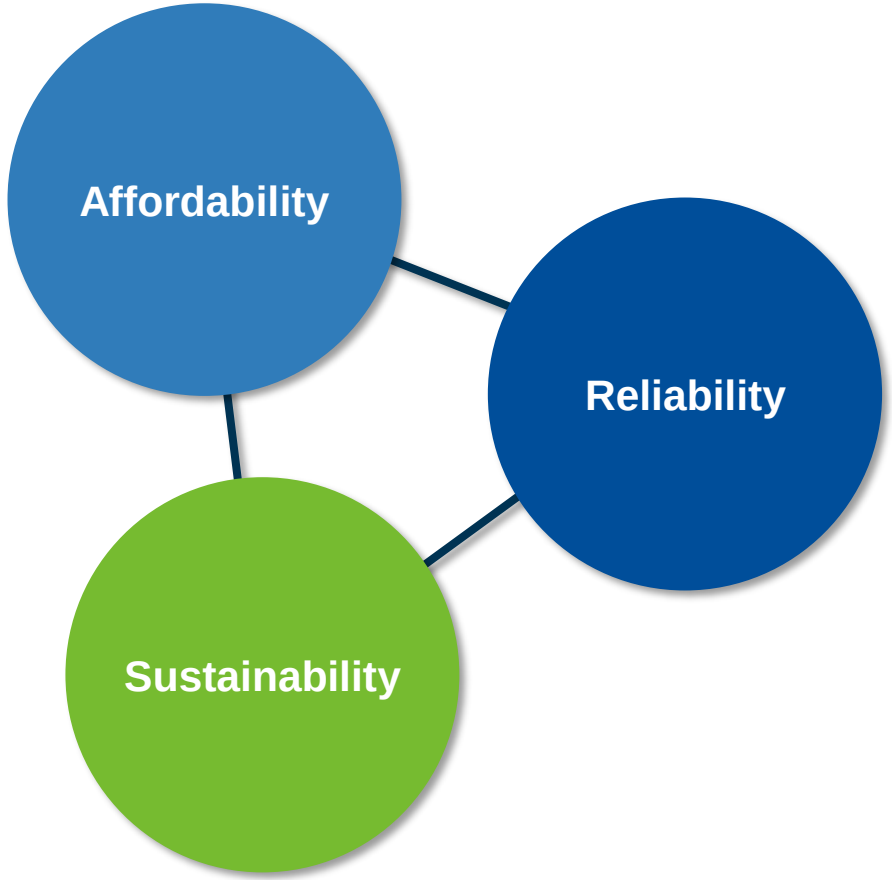


Each capital plan is focused on balancing affordability, reliability, and sustainability for the benefit of customers

- Investing in technology and infrastructure to keep rates affordable and improve regional rate competitiveness
- Mitigating fuel and purchased power volatility by investing in a diverse generation fleet

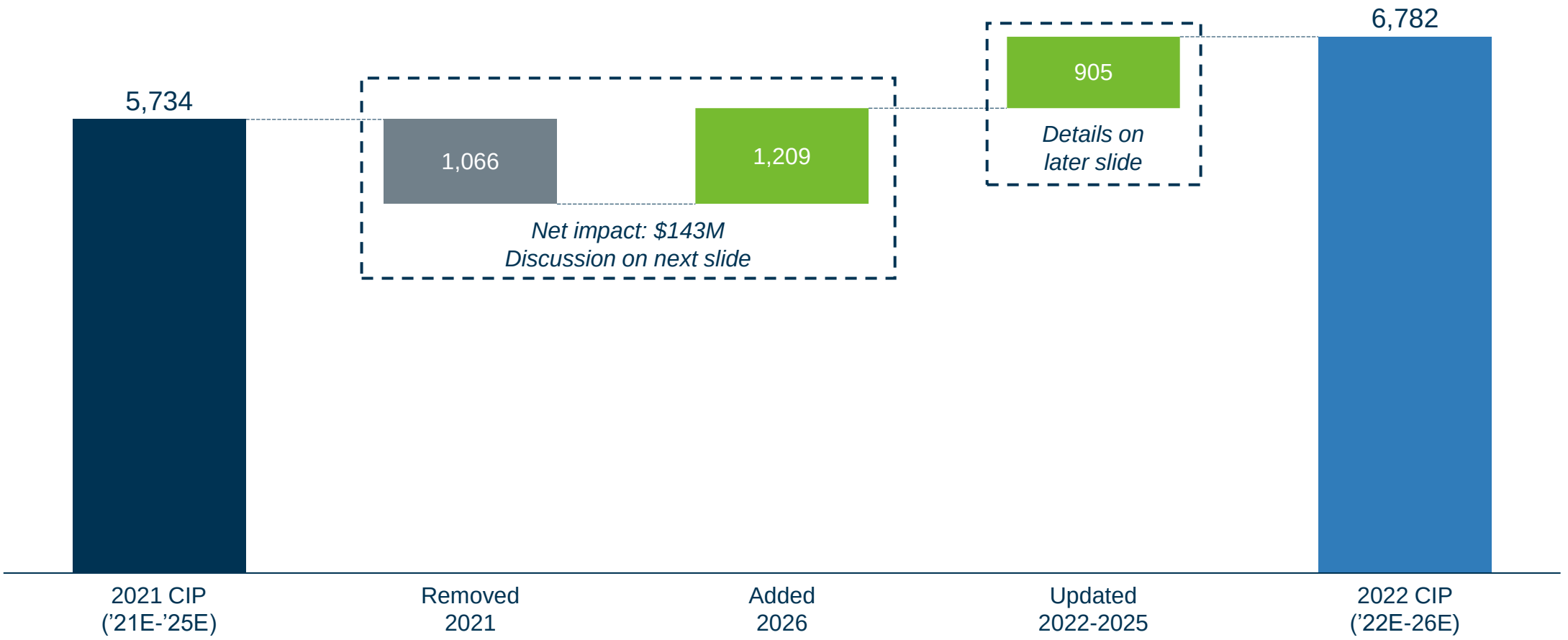
- Targeting transmission and distribution infrastructure investment to support reliability, flexibility, public safety, and resiliency
- Deploying new technology to improve preventive maintenance and customer restoration times

- Investing at sustainable capital expenditure levels to maintain reliability and customer affordability for the long-term
- Balancing clean energy investment to continue fuel diversification and enable a responsible generation portfolio transition



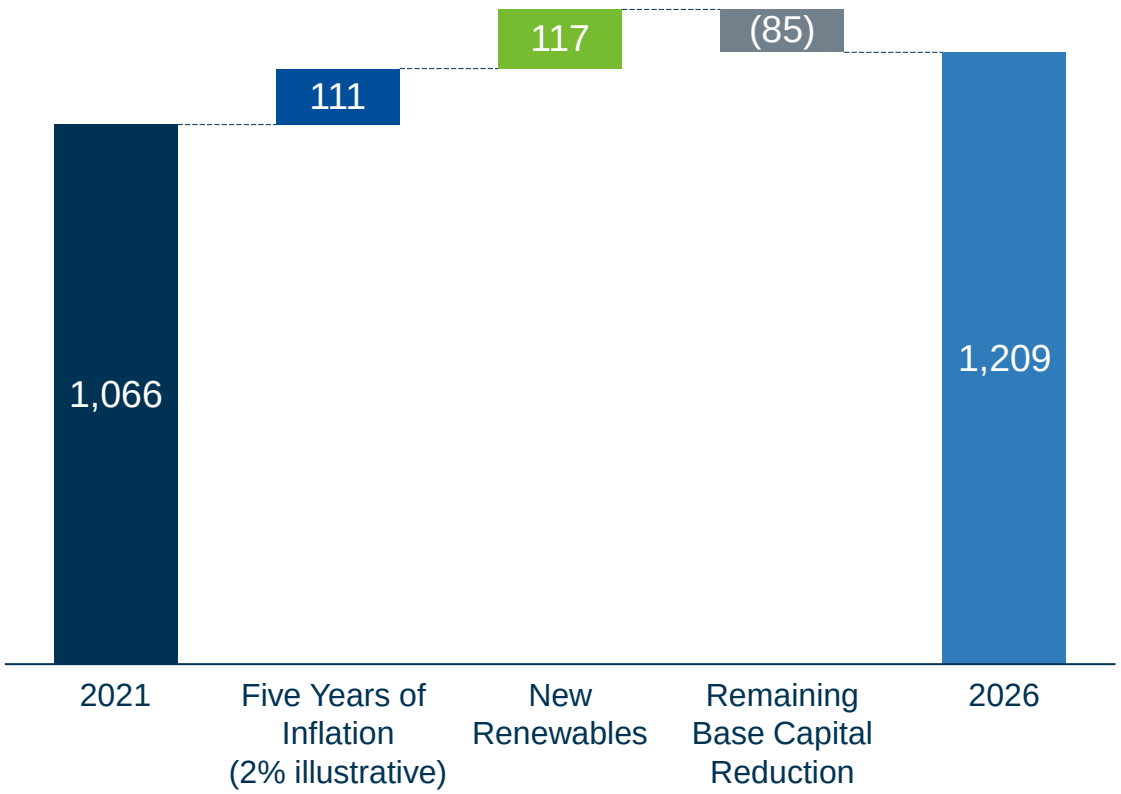
Investment levels in capital plan reflect inflation and expansion of grid investment and fleet transition efforts

Five-Year Evergy KS Capital Investment Plan Comparison
($ in millions)



2026 investment is higher than 2021 due to inflation and new renewables, with other reductions offsetting these impacts

Change in Evergy KS Annual Capital: 2021 versus 2026
($ in millions)



- 2026 Annual Forecasted Capital is $1,209M compared to $1,066M of Capital in 2021
- Assuming a relatively low level of inflation (2%) annually between 2021 and 2026 equates to $111M of the $143M increase
- 2026 also includes investment in new renewables; 2021 did not include new renewables
- Excluding the new renewables investment, this means that base capital is $85M lower in 2026 than 2021 on a real basis

80% of the 2022-2025 increase is driven by our updated resource plan and investment in distribution

2022-2025 Evergy KS Capital Plan Changes
(% of total increase)

Ongoing Drivers of Capital Plan

New Generation	• Overall Integrated Resource Plan (IRP): Capacity requirements, commodity price expectations, environmental regulations • Technology economics: Available incentives, supply chain constraints, equipment costs	**$553M (61%)**
Existing Generation	• Market environment: Wholesale price increases, market mission of different resources • Predictive Maintenance & Resiliency: Targeted investment in equipment reliability and preparation for extreme weather	**$103M (11%)**
Distribution	• New Technology and System Flexibility: Deploying automation and system redundancy to improve resiliency • Aged Asset Replacement: Targeted investment in equipment reliability	**$172M (19%)**
Transmission	• System Hardening and Flexibility: Reconfiguring system topology to increase resiliency and prepare for future growth • Aged Asset Replacement: Targeted investment in equipment reliability	**$27M (3%)**
Customer & Technology[1]	• Customer Experience: Customer-facing tools to improve overall satisfaction • System Consolidation and Enhancement: Deployment of productivity-enhancing, standardized tools to enable operational efficiencies	**$50M (6%)**
Total Change:		**$905M**

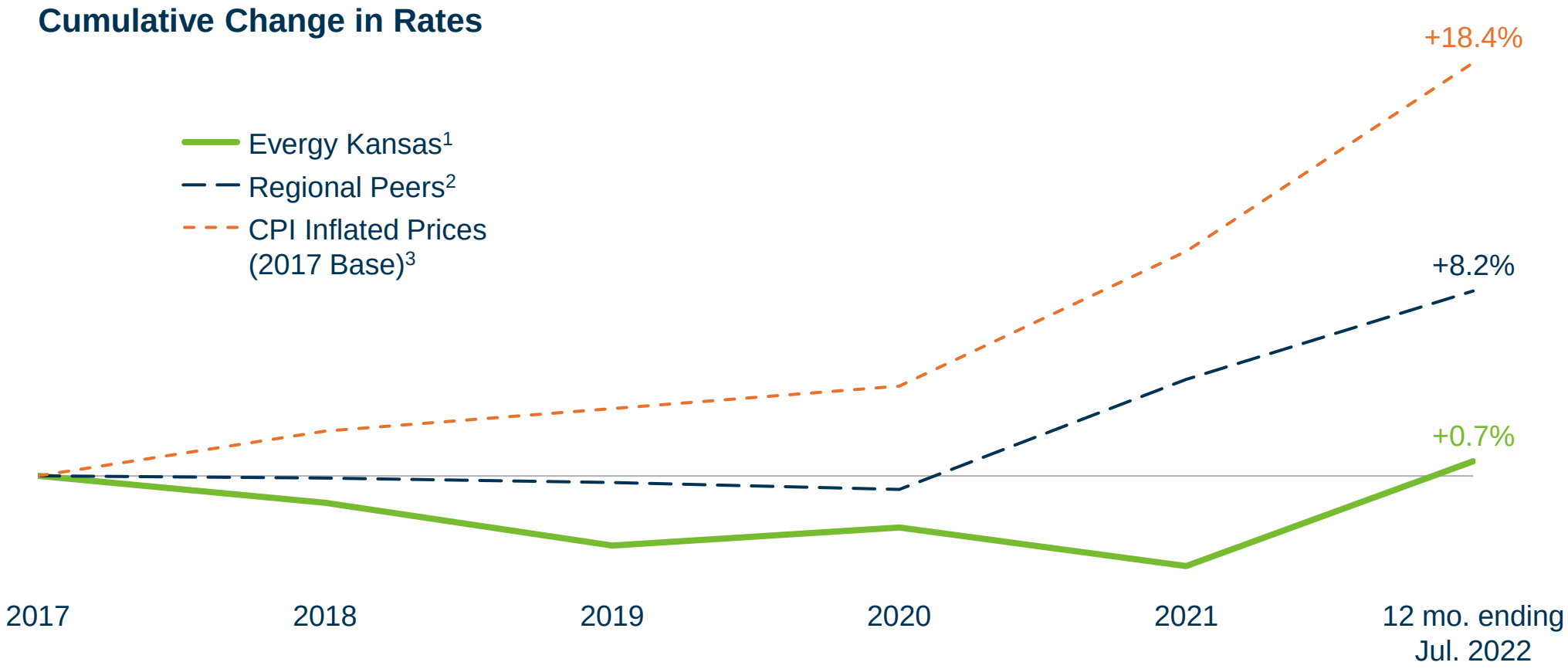
1) "Information Technology" and "General" categories in Capital Investment Plan

Section Takeaways

- Our capital plan is updated on an ongoing basis as market conditions change and filed each year in the Capital Investment Plan (CIP)
- In updating our capital plan, our goal is to balance affordability, reliability, and sustainability for the benefit of customers
- The 2022 CIP included updates to our resource plan, new customer technology investments, increased investment for distribution modernization and generation maintenance as well as inflation

Regional Comparisons

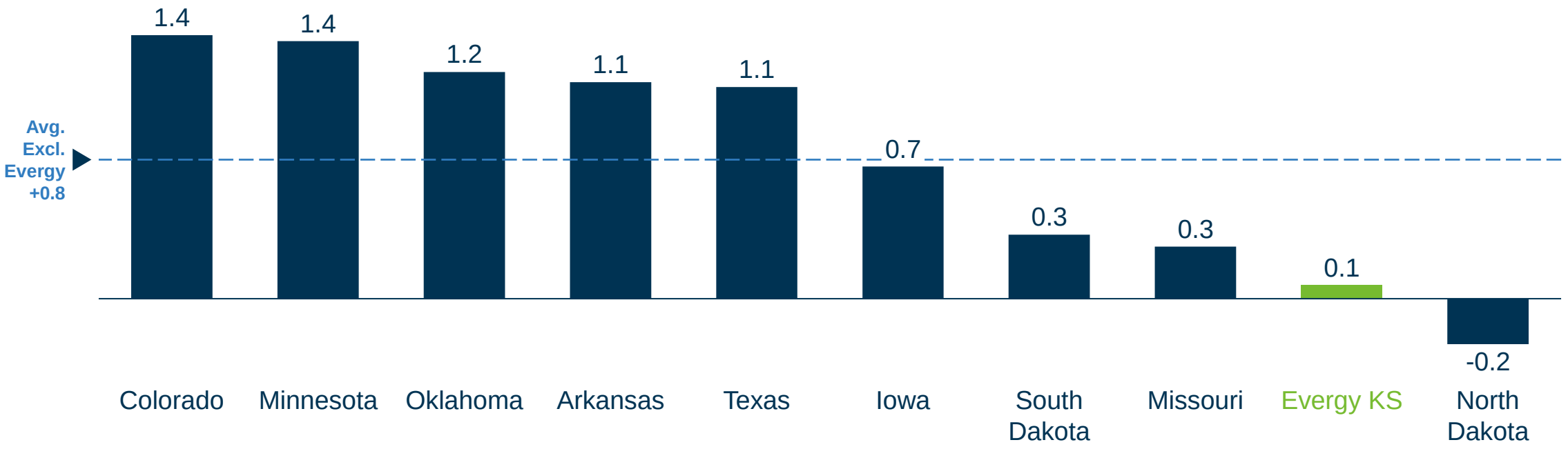
Since 2017, Evergy rates have been flat while regional rates rose 8% and inflation was 18%



1) Evergy data is sourced from FERC Form 1 pg. 304 and general ledger and inclusive of customer bill credits. 2) Regional peer data is sourced from EIA and is comprised of revenues and sales for all sectors based for the following states: Iowa, Kansas, Missouri, Minnesota, North Dakota, South Dakota, Arkansas, Oklahoma, Texas, and Colorado. 2022 is preliminary EIA data (reporting primarily from investor-owned utilities) that is subject to change; full state 2022 annual data expected to be finalized by EIA in October 2023. 3) Source: US Bureau of Labor Statistics for historic CPI.

On an absolute basis, regional state average rates have increased by ~8x relative to Evergy Kansas' change

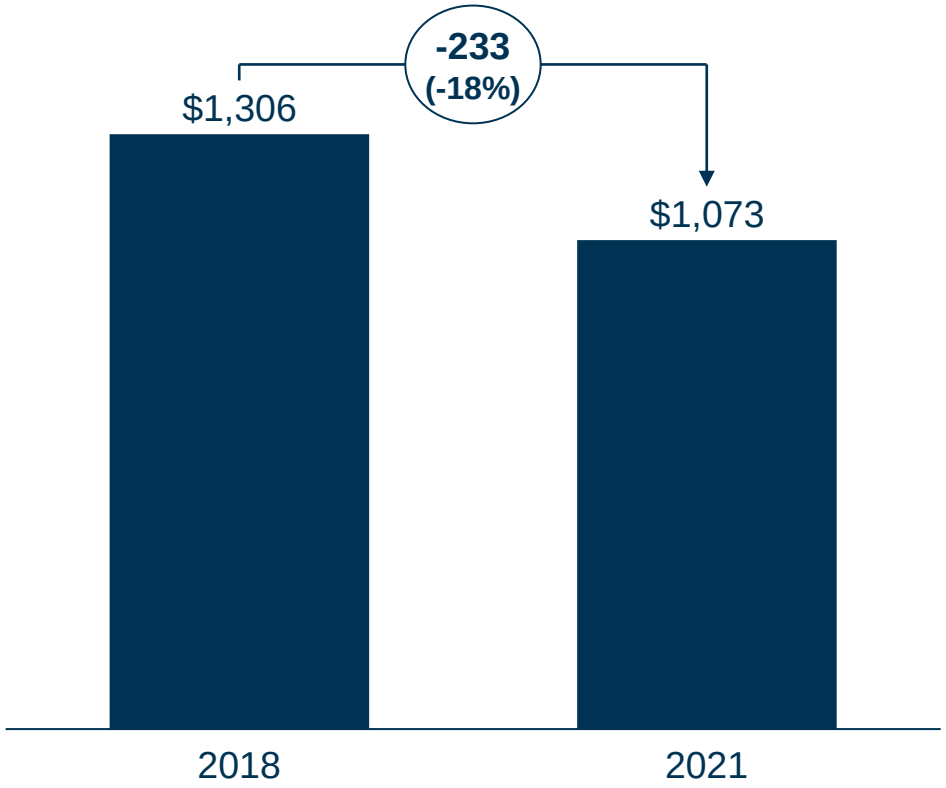
Total Rate Change From 2017 Through 12 mo. Ending July 2022 [1,2]
(¢ per kWh)



1) Evergy data is company general ledger data and inclusive of customer bill credits in 2022. 2) Regional peer data is sourced from EIA and 2022 is preliminary EIA data (reporting primarily from investor-owned utilities) that is subject to change; full state 2022 annual data expected to be finalized by EIA in October 2023.

This progress was driven by a ~20% reduction in operating costs, exceeding expected merger savings

Adjusted O&M[1]
($ in millions)



Operating Efficiency Sources...

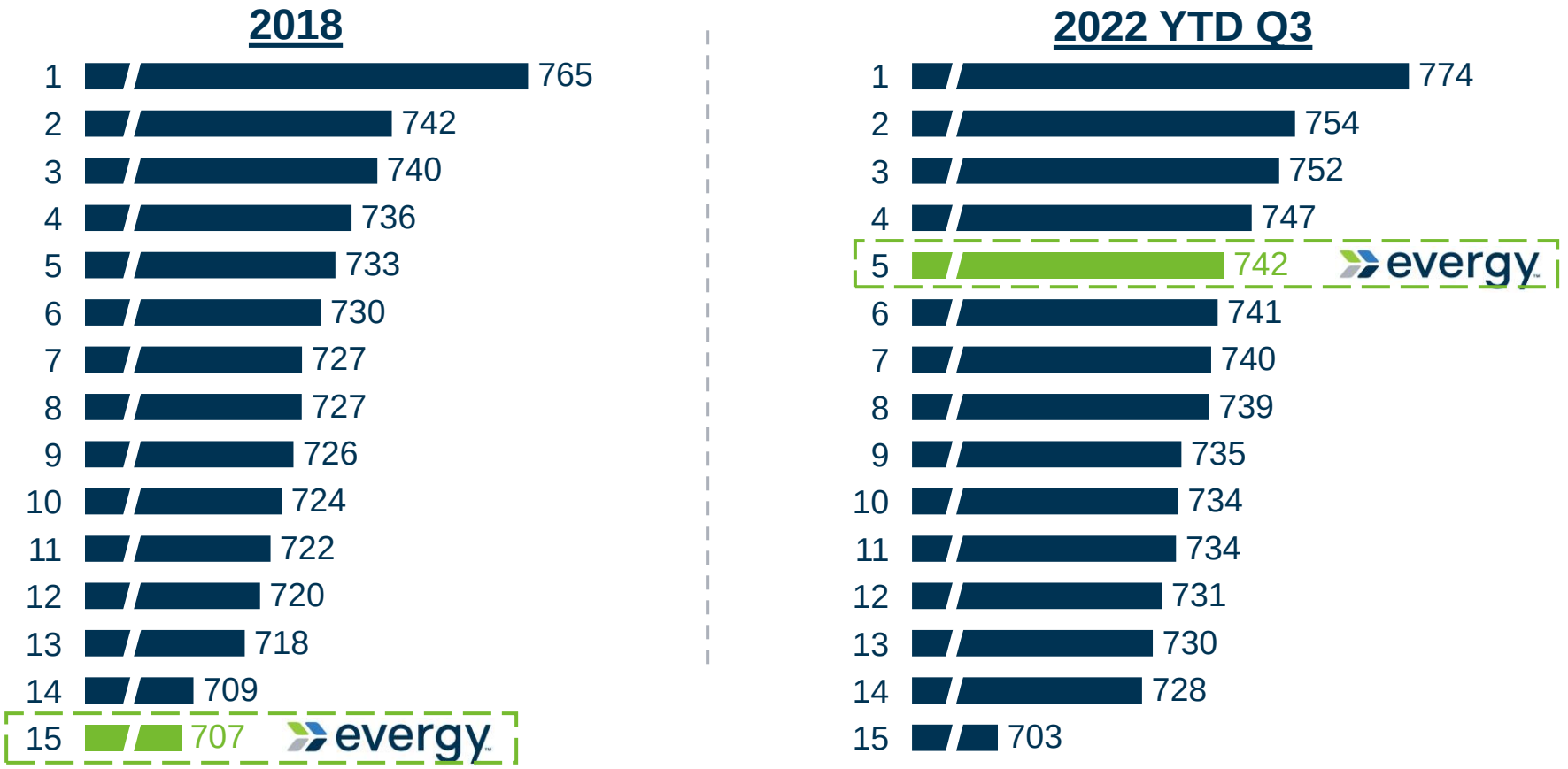
- Process standardization and organizational streamlining
- Information technology software consolidation
- Predictive maintenance and vegetation management optimization
- Customer operations and billing consolidation
- Technology investment enabling automation and process improvements

...allowed Evergy to deliver to our customers over $225M of Kansas merger savings and bill credits 2019-2023

1) Adjusted O&M is a non-GAAP financial measure. See Evergy's 2021 Form 10-K for reconciliation to most comparable GAAP information.

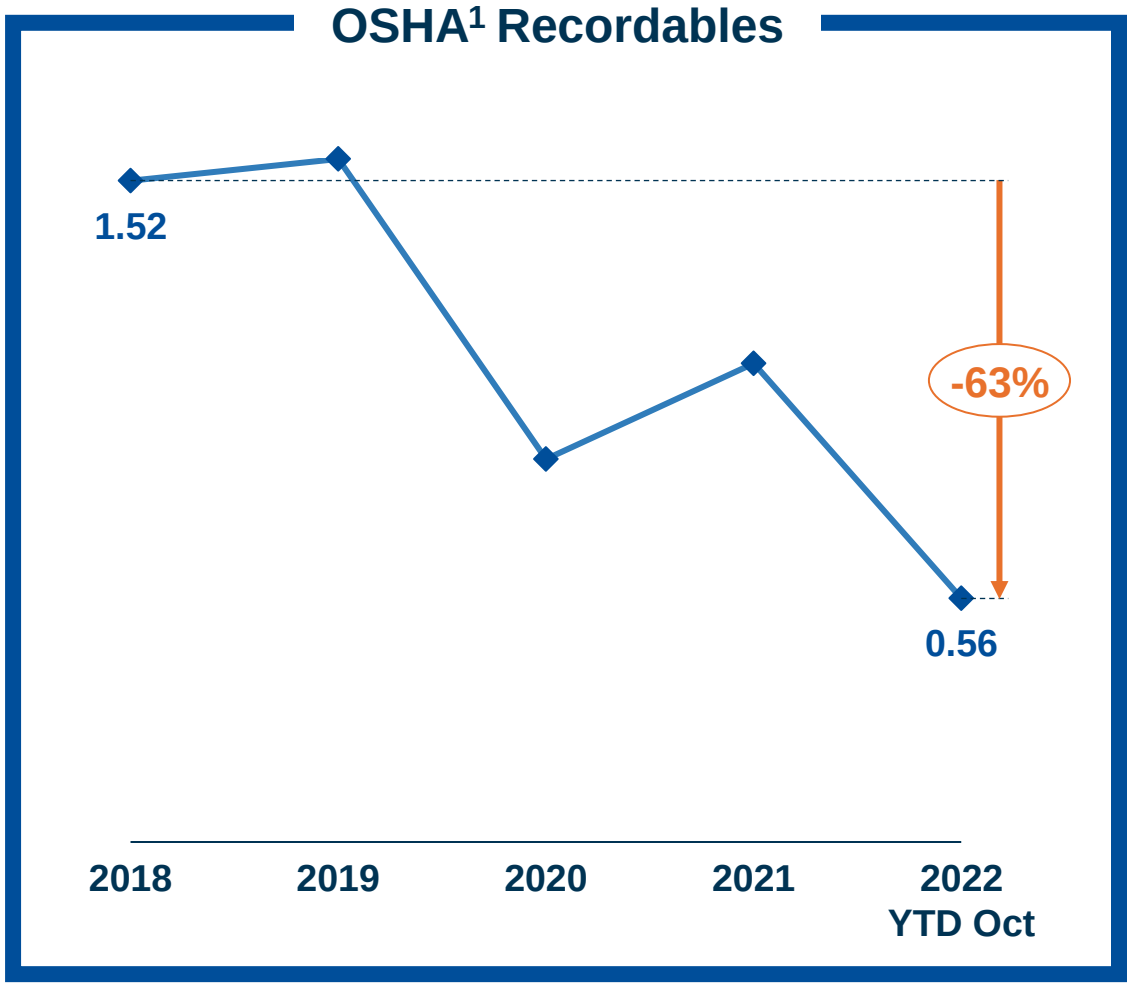
Evergy has made significant improvement in JD Power customer satisfaction scores, increasing 10 out of 15 spots

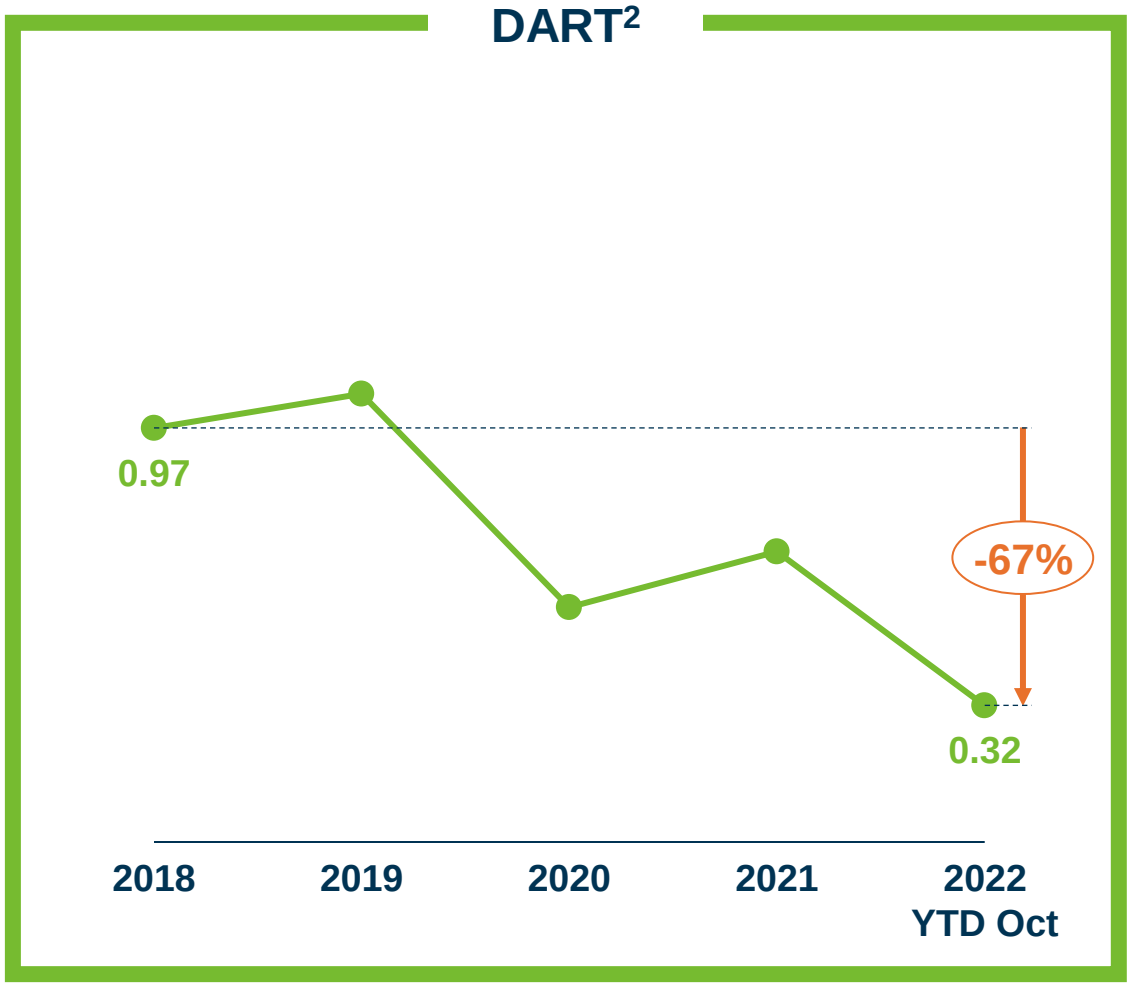
JD Power's OSAT[1] Rankings for 15 "Midwest Large" Utilities



1) OSAT = Overall satisfaction with the Company

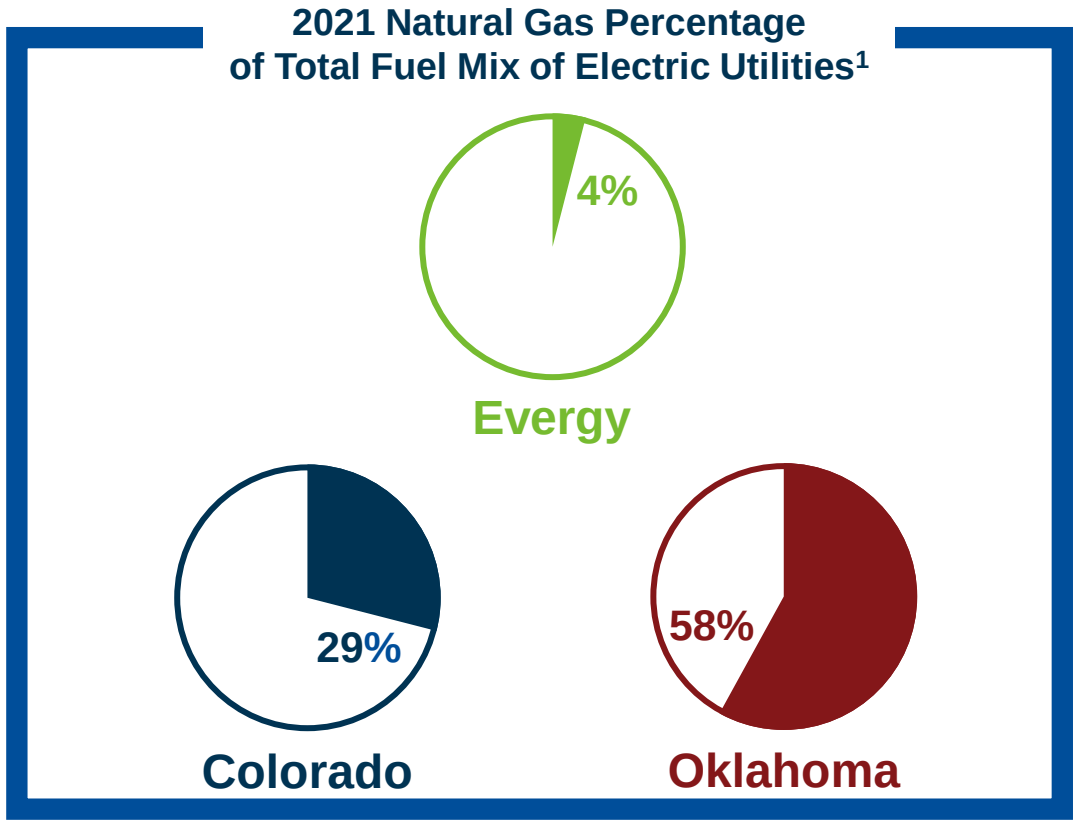
Safety metrics have improved by >60% in parallel with cost efficiencies and customer satisfaction enhancement

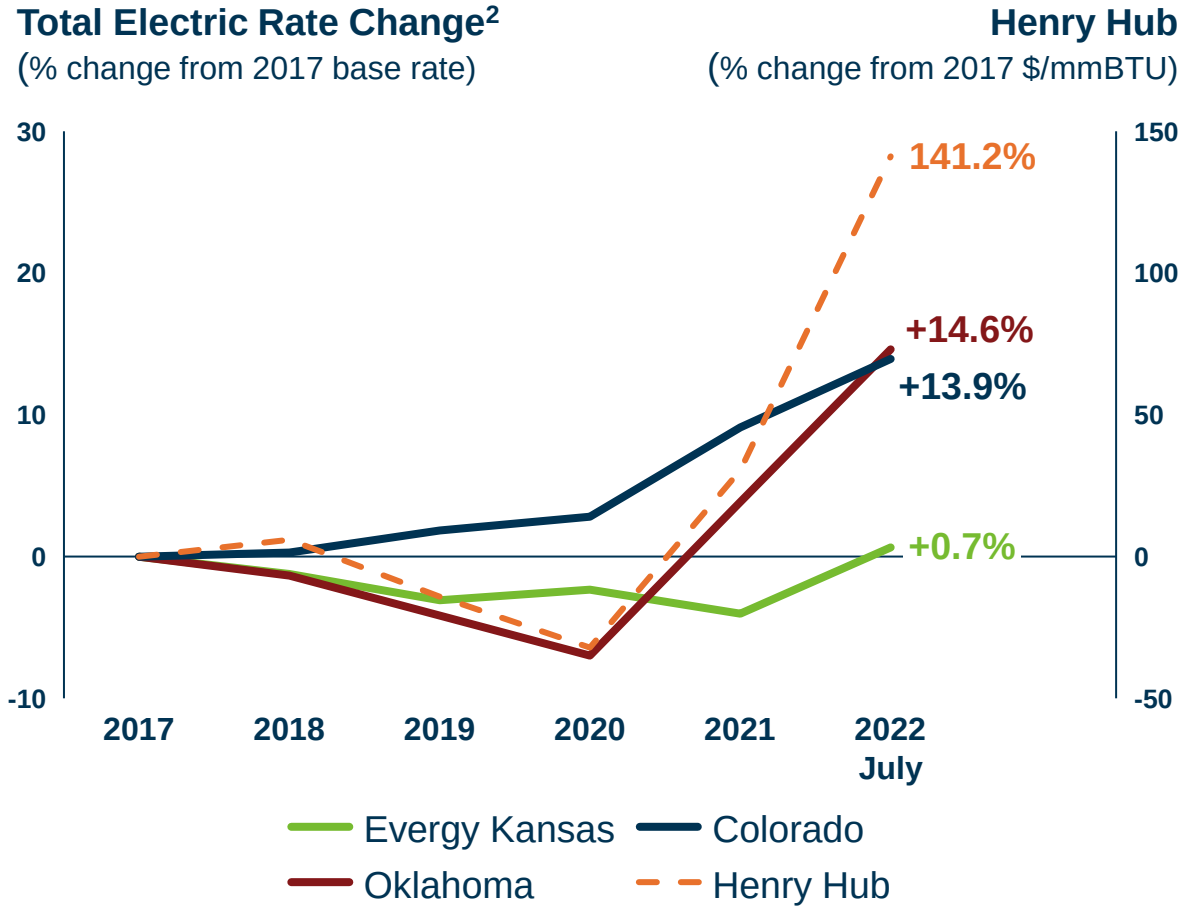




1) OSHA = Occupational Safety and Health Administration 2) DART = Days Away, Restricted or Transferred

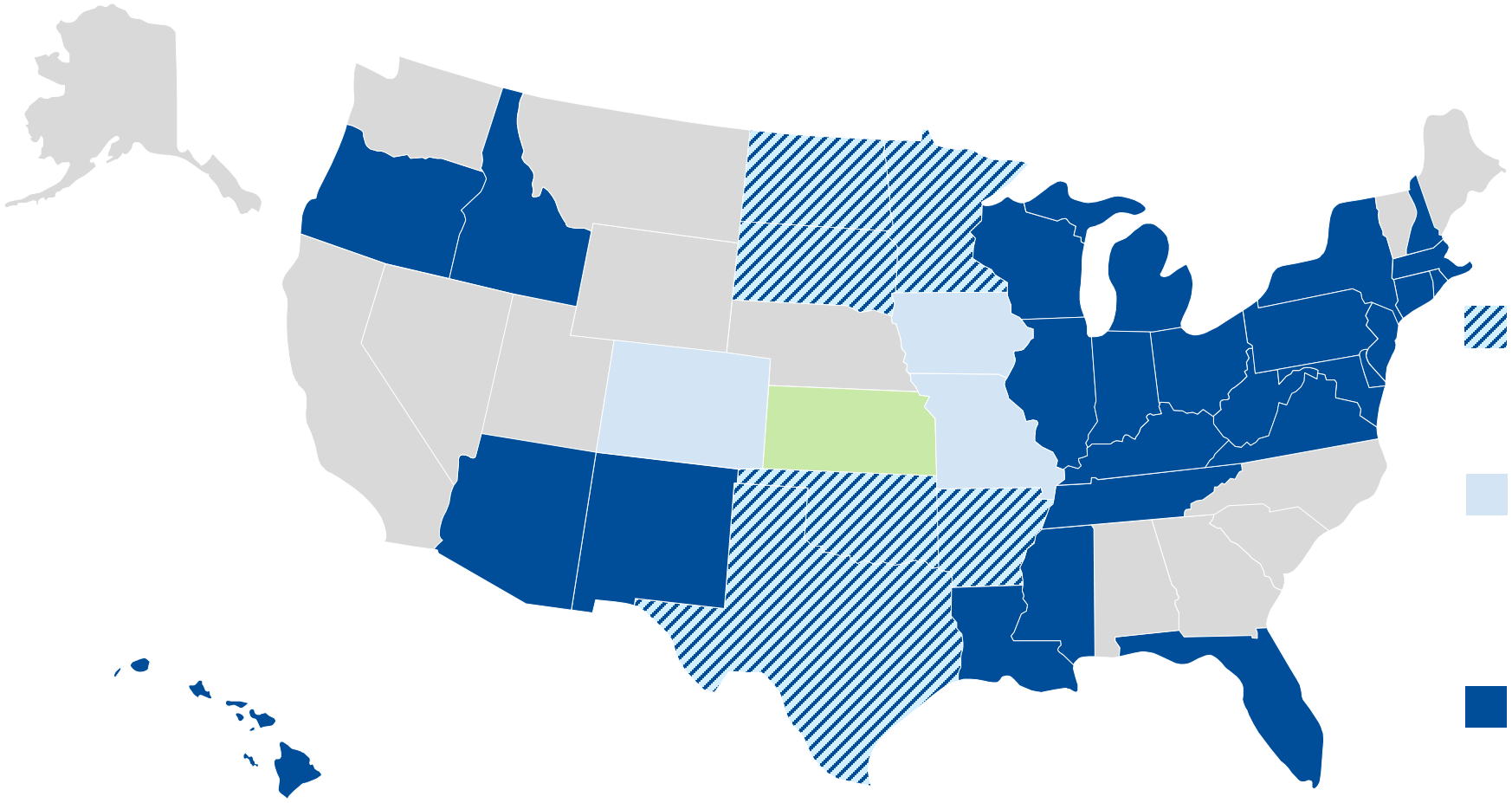
Evergy's diverse fleet has also softened the impact of high gas prices when compared to more gas-dependent states





1) Sourced from EIA 923 Power Plant Operations report. 2) Sourced from EIA 861 Annual Rate report. 2022 Electric rate data is as of 12 months ending July 2022. Note: Evergy data is sourced from FERC Form 1 pg. 304 and general ledger and inclusive of customer bill credits.

For the purposes of more detailed regional comparisons, multiple peer groups have been evaluated



- Regional peer in rate study also included in KCC's 7/8/22 Capital Expenditure comparison
- Regional peer in rate study excluded from KCC Capital Expenditure comparison (no publicly-traded electric-only holding companies)
- Additional state (with electric-only holding companies) included in KCC Capital Expenditure comparison and not included in rate study

KCC Staff utilized an electric-only peer set to compare capital investment levels in their July 2022 report

"What this analysis indicates is that Evergy's capital expenditure projections remain comparable to other publicly-traded electric utilities and its regional peers. In other words, while Evergy's budgeted capital expenditures have increased significantly since the STP evaluation, so have the budgeted capital expenditures of its peers.

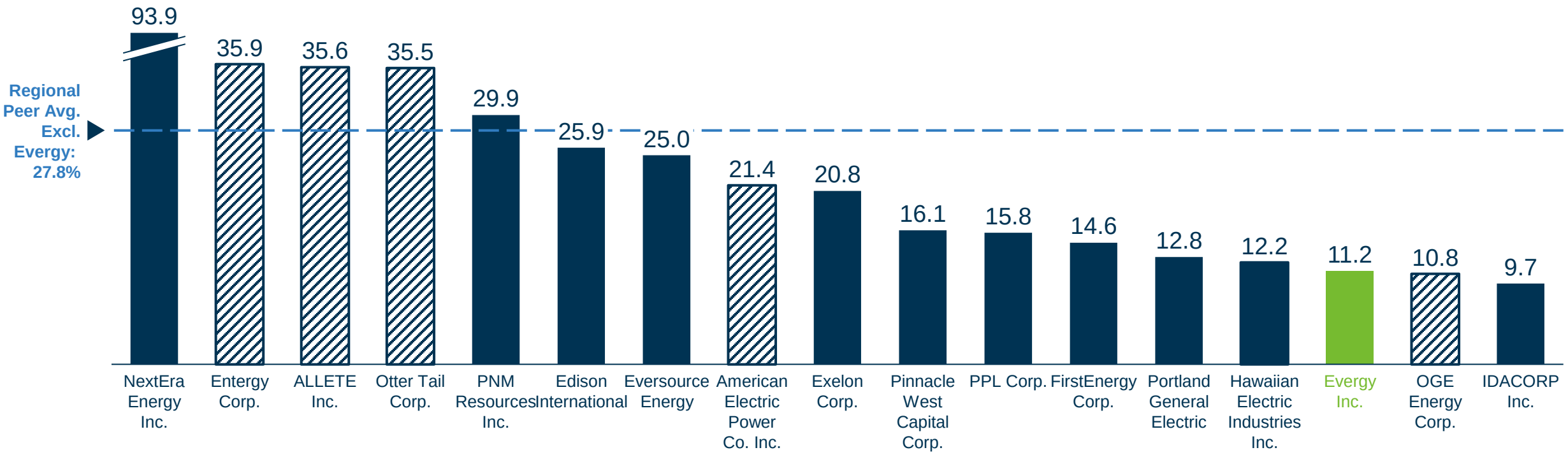
While Evergy's total capital expenditure projections and proxy rate base growth levels are not overly excessive relative to other publicly-traded electric utilities, we remain concerned about Evergy's projected level of capital expenditures, the growth trajectory of those expenditures, the projected transmission spend relative to distribution spend, the assumption that future renewable investments will be utility-owned projects instead of Purchased Power Agreements (PPAs) and the projected rate impact of these capital expenditures."

"If Evergy's regional peers are increasing their projected capital expenditures, Evergy has an opportunity to hold the line on capital expenditures in order to make further progress on the goal of achieving regionally competitive rates and reliable electric service. Instead, Evergy's projected capital expenditures grew even faster than its peers since last year. Specifically, if we compare average projected capital expenditures of Evergy's regional peers for the years 2022-2024 ($7.838 billion) and compare that to last years' average of 2021-2023 ($7.582 billion), we see that average grew by 3.38% over the last year. Evergy's projected capital expenditures for these same time frames grew by 8.70%"

Using this same peer set, Evergy has had one of the lowest investment levels

2019A-2021A Capital Expenditures Relative To 2018A Property, Plant & Equipment[1,2]
(%)

Indicates a Regional Peer Holding Company included in KCC Staff's Rate Study

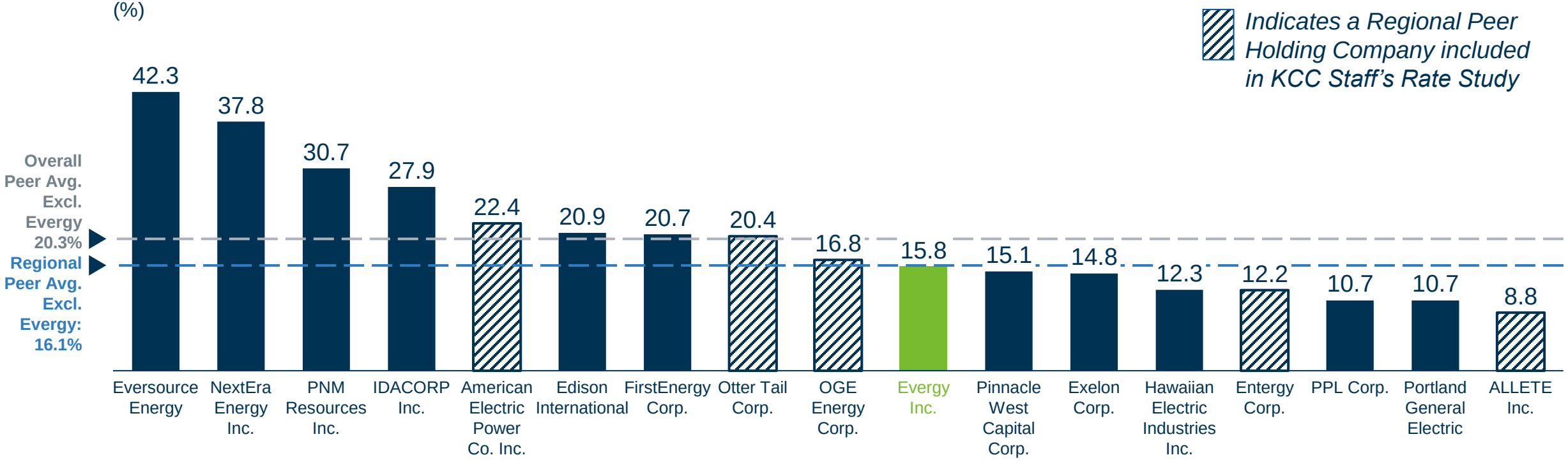


1) Source: S&P Global Market Intelligence as of 11/7/22. Represents actual capital expenditures 2019-2021, relative to actual 2018 Property, Plant and Equipment. 2) Electric only holding companies used in KCC Staff's capital expenditure analysis filed on 7/8/22 in Docket No. 19-KCPE-096-CPL.

Looking forward, Evergy is projected to remain below average on investment levels

Electric Only Holding Company Capital Expenditure Analysis

2022E-2024E Capital Expenditures Relative To 2021A Property, Plant & Equipment[1,2]
(%)

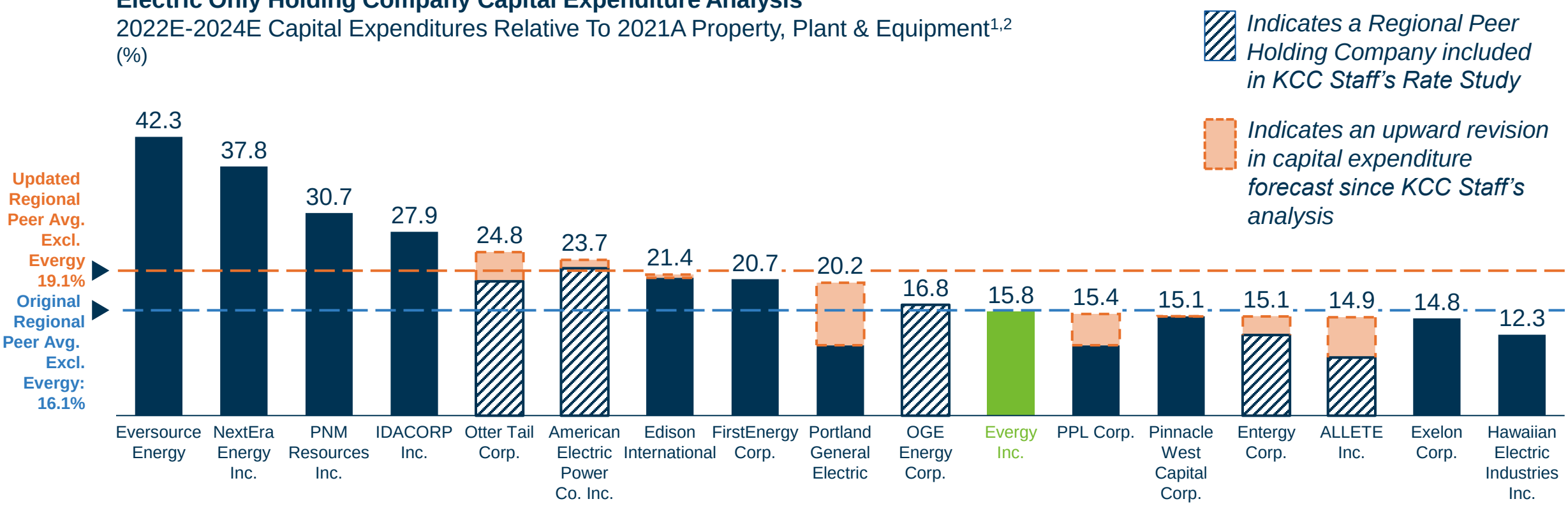


1) Source: S&P Global Market Intelligence as of 11/7/22. Represents projected capital expenditures 2022-2024, relative to actual 2021 Property, Plant and Equipment. 2) Electric only holding companies used in KCC Staff's capital expenditure analysis filed on 7/8/22 in Docket No. 19-KCPE-096-CPL.

When factoring in updates to peer capital plans since July, Evergy is even more favorable to the peer average

Electric Only Holding Company Capital Expenditure Analysis

2022E-2024E Capital Expenditures Relative To 2021A Property, Plant & Equipment[1,2]
(%)

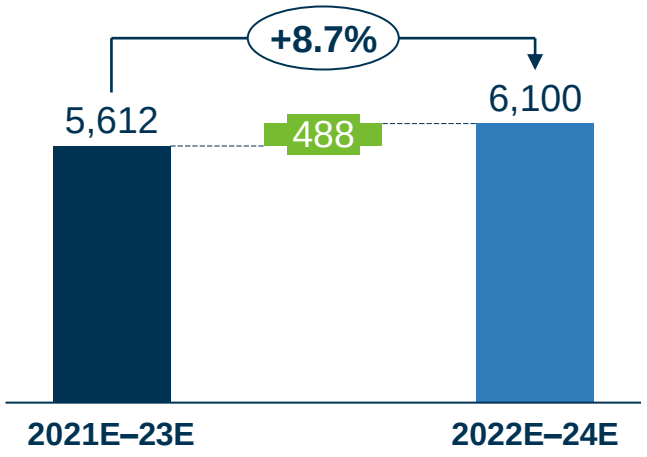


1) Source: S&P Global Market Intelligence as of 11/7/22. Represents projected capital expenditures 2022-2024, relative to actual 2021 Property, Plant and Equipment. 2) Electric only holding companies used in KCC Staff's capital expenditure analysis filed on 7/8/22 in Docket No. 19-KCPE-096-CPL.

Including these updates, Evergy's growth rate for 2022-2024 is in line with peers, with a lower ending-point

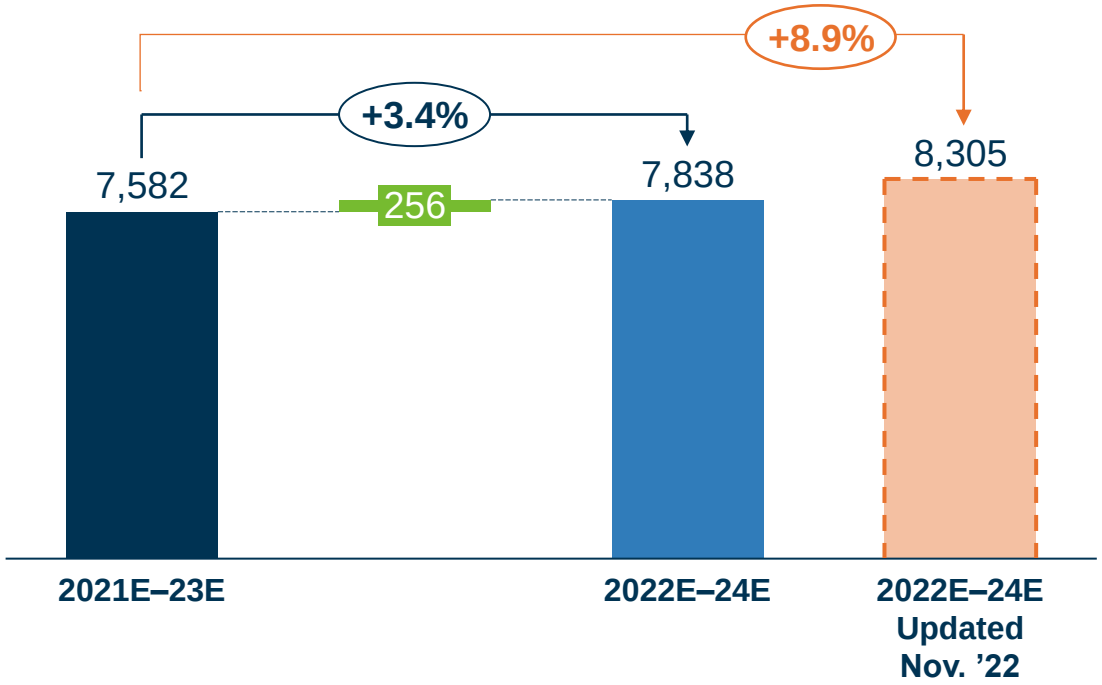
Evergy

Projected Capital Expenditures
($M)



Regional Peer Average

Projected Capital Expenditures[1]
($M)



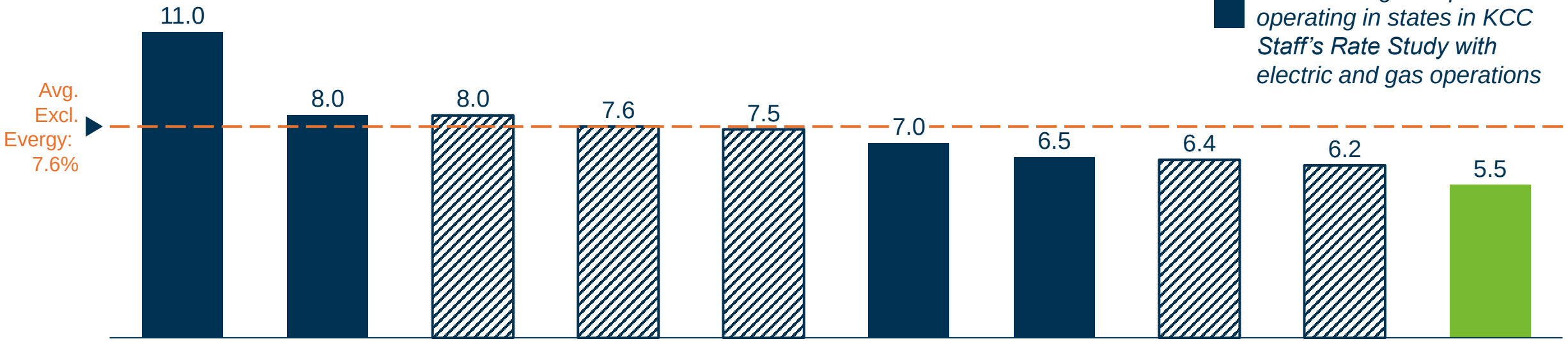
1) Regional Peer Holding Companies from KCC Staff's Rate Study include American Electric Power Company, Inc., Otter Tail Corp., OGE Energy Corp., Entergy Corporation, ALLETE, Inc.

Finally, when comparing projected rate base growth versus regional peers, Evergy is the lowest

2022E+ Annualized Rate Base Growth Based On Investor Materials/Public Comments
(%)

Indicates a Regional Peer Holding Company included in KCC Staff's Rate Study

Indicates regional peers operating in states in KCC Staff's Rate Study with electric and gas operations



1) Rate base growth projection uses 2020 base year. 2) Rate base growth projection uses 2021 base year.

Section Takeaways

- Enabled by a nearly 20% reduction in operating costs, Evergy has improved its regional rate competitiveness. Since 2017, Evergy Kansas' rates are virtually flat while regional peers are up more than 8%
- Our diverse generation mix has insulated customers from the significant increase in natural gas prices, which are having a more dramatic impact on regional peers
- While all regional peers are investing significantly to improve infrastructure, we are improving rate competitiveness by doing so at an investment rate well below average, and among the lowest in the entire peer group

Current Rate Projections

Evergy's current plan enables additional investment while keeping rate increases below prior forecasts and inflation

Average Retail Rates Excluding Fuel (RECA/ECA); ¢ per kWh

	2020E	2024E	4-yr CAGR
Previous (STP Workshop – Dec 2020) (1)			
Kansas Central	8.03	9.08	3.1%
Kansas Metro	9.73	10.08	0.9%
Kansas Total	**8.47**	**9.34**	**2.5%**

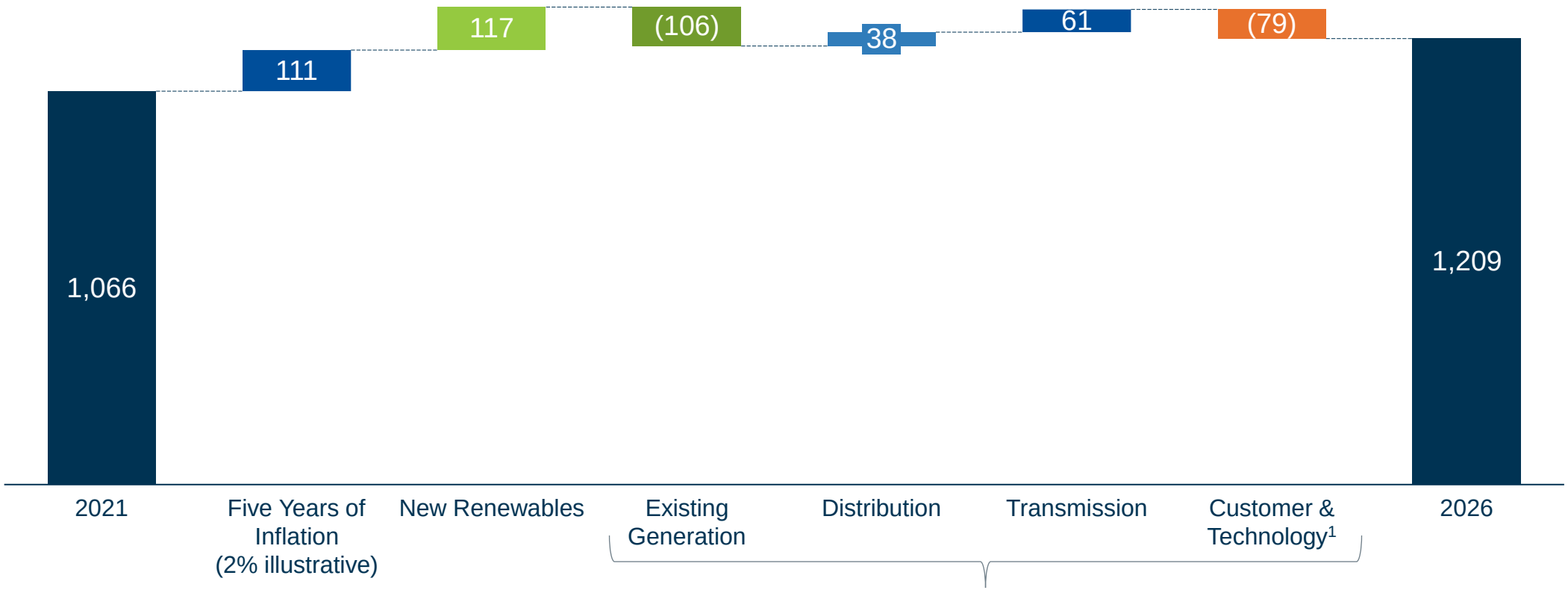
	2022E	2026E	4-yr CAGR
Current 2022 Capital Plan (Feb 2022)			
Kansas Central	8.95	9.84 – 10.03	2.4 – 2.9%
Kansas Metro	9.98	10.26 – 10.36	0.7 – 0.9%
Kansas Total	**9.09**	**9.95 – 10.11**	**1.9 – 2.4%**

1) Per revised STP Operational Efficiency Workshop Supplemental Information filed under Docket No. 21-EKME-088-GIE with the KCC on April 6, 2021, adjusted to exclude RECA/ECA average rates.

Benefits of Capital Plan

2026 investment is higher than 2021 due to inflation and new renewables, with other reductions offsetting these impacts

Change in Evergy KS 2021 Annual Plan versus 2026 Annual Plan
($ in millions)



1) "Information Technology" and "General" categories in Capital Investment Plan

80% of the 2022-2025 increase is driven by the updated resource plan and investment in distribution

2022-2025 Evergy KS Capital Plan Changes
(% of total increase)

Ongoing Drivers of Capital Plan

New Generation	• Overall Integrated Resource Plan (IRP): Capacity requirements, commodity price expectations, environmental regulations • Technology economics: Available incentives, supply chain constraints, equipment costs	**$553M (61%)**
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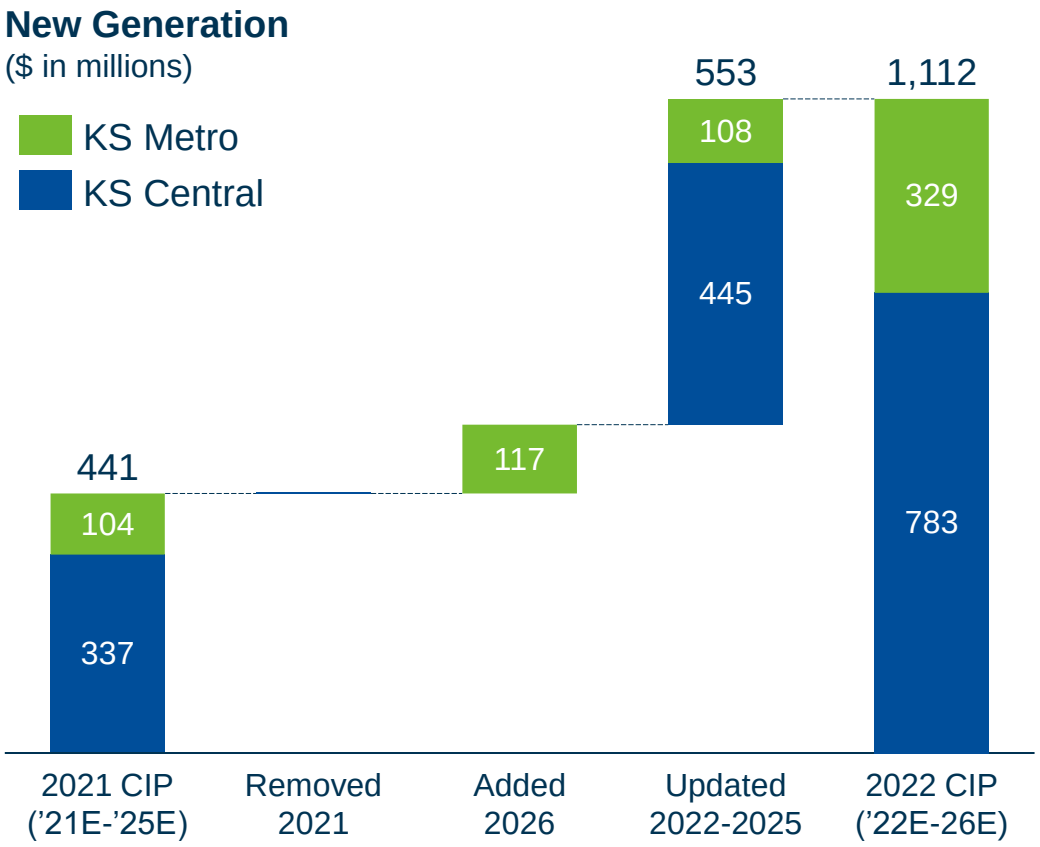
Total Change:		**$905M**

1) "Information Technology" and "General" categories in Capital Investment Plan

New generation investment aligns with updated resource plans and unlocks long-term customer benefits



Updates To Plan

- Incorporation of additional renewable investment based on 2021 Triennial IRP, solving for energy and capacity needs
- Upcoming 2022 update will incorporate lower renewables costs from the federal IRA[1]

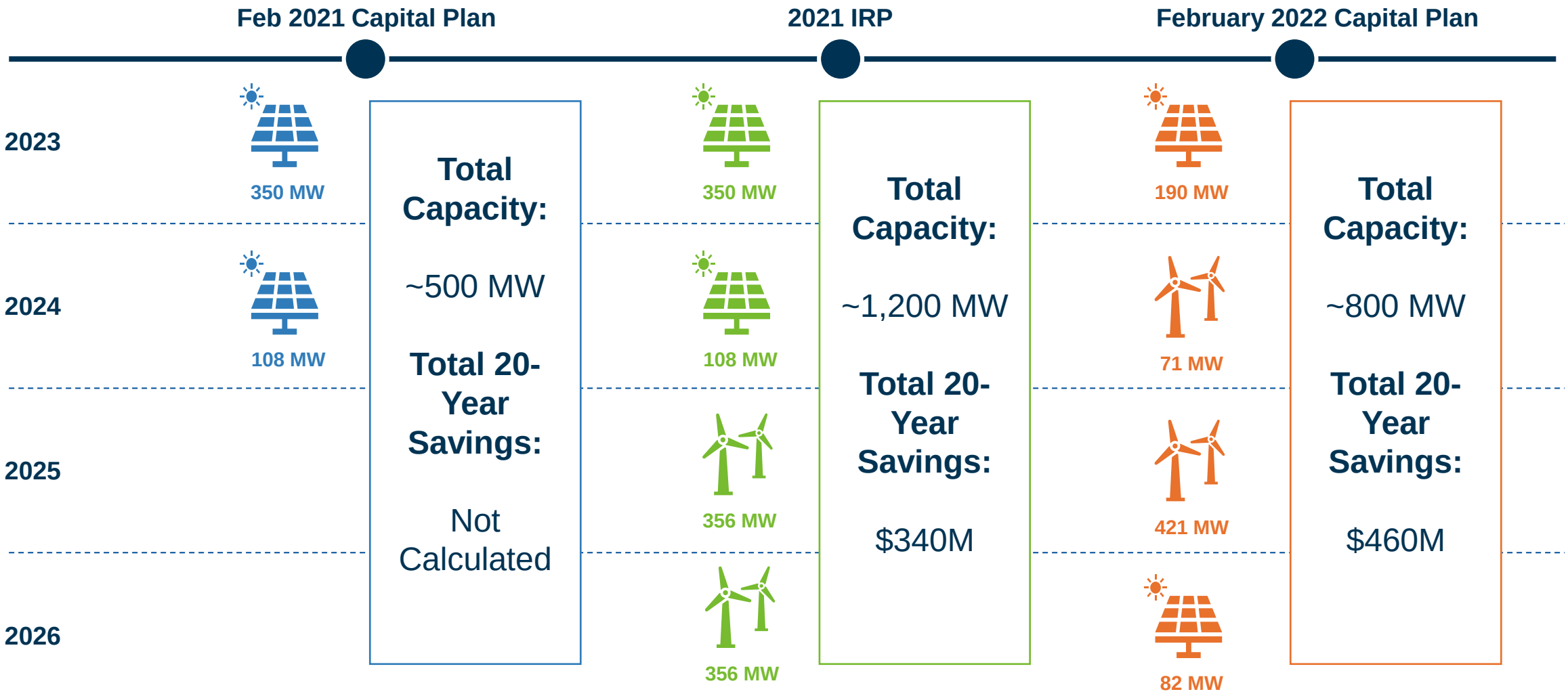
Investment Benefits

- Adds new green energy sources to reduce costs and further diversify existing generation portfolio
- Harnesses renewable resources in Kansas and surrounding regions to meet ongoing demand growth
- Takes advantage of federal tax incentives to advance customer affordability

1) Inflation Reduction Act

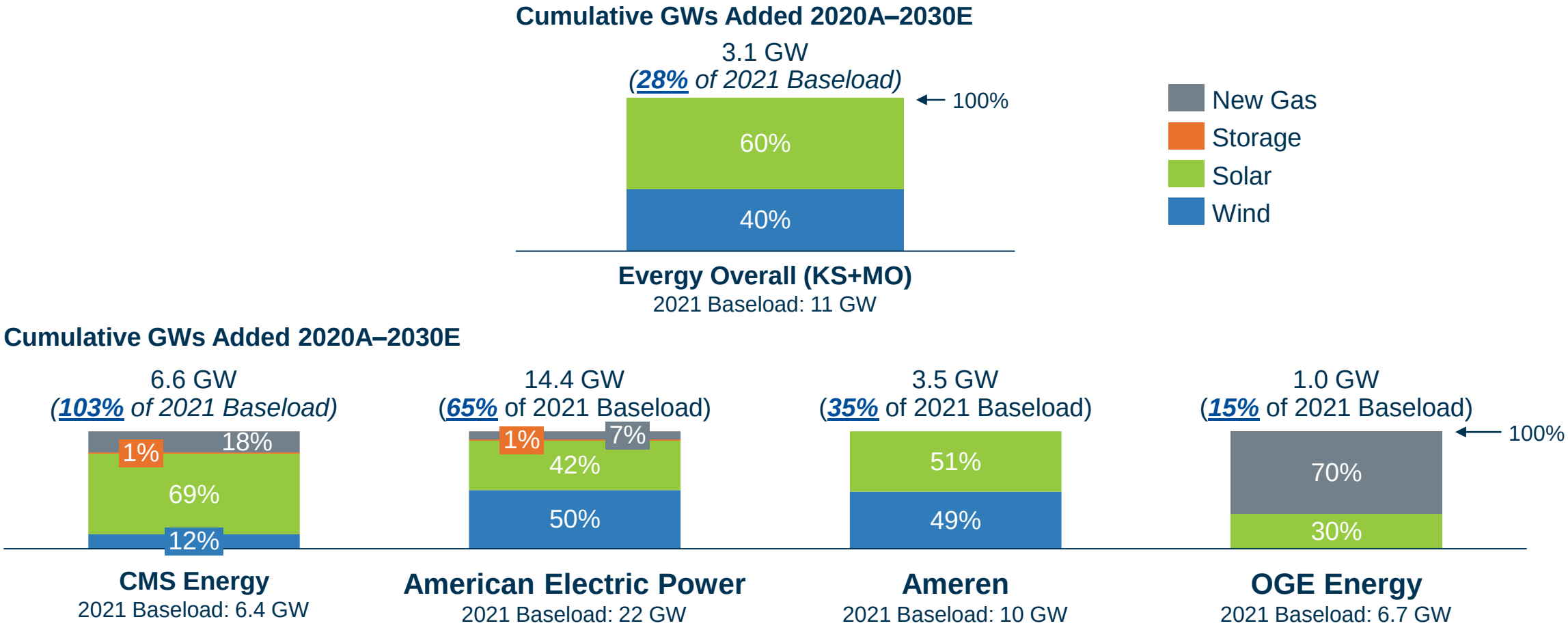
New Generation

Integrated Resource Plans have demonstrated ~$500M in customer savings from new renewables



Note: Savings values based on 20-year net present value revenue requirement (NPVRR) in 2021 and 2022 IRPs for Kansas Central & Metro (KS Metro portion estimated based on capacity split); Savings calculated based only on the renewables shown in 2023-2026 and each column reflects the cumulative impact of moving from no new renewables to the plan shown

Evergy's plans for renewable additions are less aggressive than regional peers'



Note: "2021 Baseload" based on latest Company filings for coal, natural gas, oil, and nuclear facilities (excludes renewables) to give a representative scale for current fleet.

As the plan is executed, both ownership and PPA options will be thoroughly evaluated

2023 RFP Process To Market Check IRA Impacts

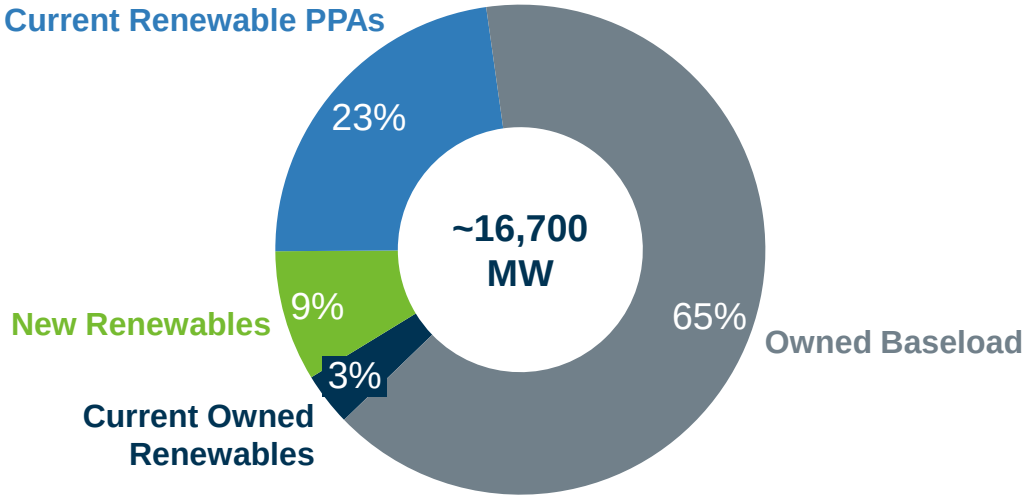
	2022	2023
Phase I	Peer RFP benchmarking analysis; integration of risk-appropriate PPA scoring criteria	
Phase II		Write RFP, establish timeline and associated scoring criteria
Phase III		Solicitation of bids and short listing
Phase IV		Contract negotiations

Renewables Evaluation Process

1. **Participation Criteria** – requirements, application review
2. **Direct Cost Screening** – levelized cost of energy, reliable levelized cost of capacity
3. **Indirect Cost Screening** – long-term ownership and operation, project and bidder risk, community impacts
4. **Shortlist Portfolio Evaluations**

This evaluation will consider trade-offs between ownership and PPAs in the context of Evergy's current fleet make-up

Illustrative 2027 Projected Total Overall Portfolio



Nearly a quarter of our current generation fleet is owned by parties not regulated by the KCC; adding owned renewables results in a more balanced mix and offers tangible and intangible benefits

Intangible Benefits of Owned Renewables

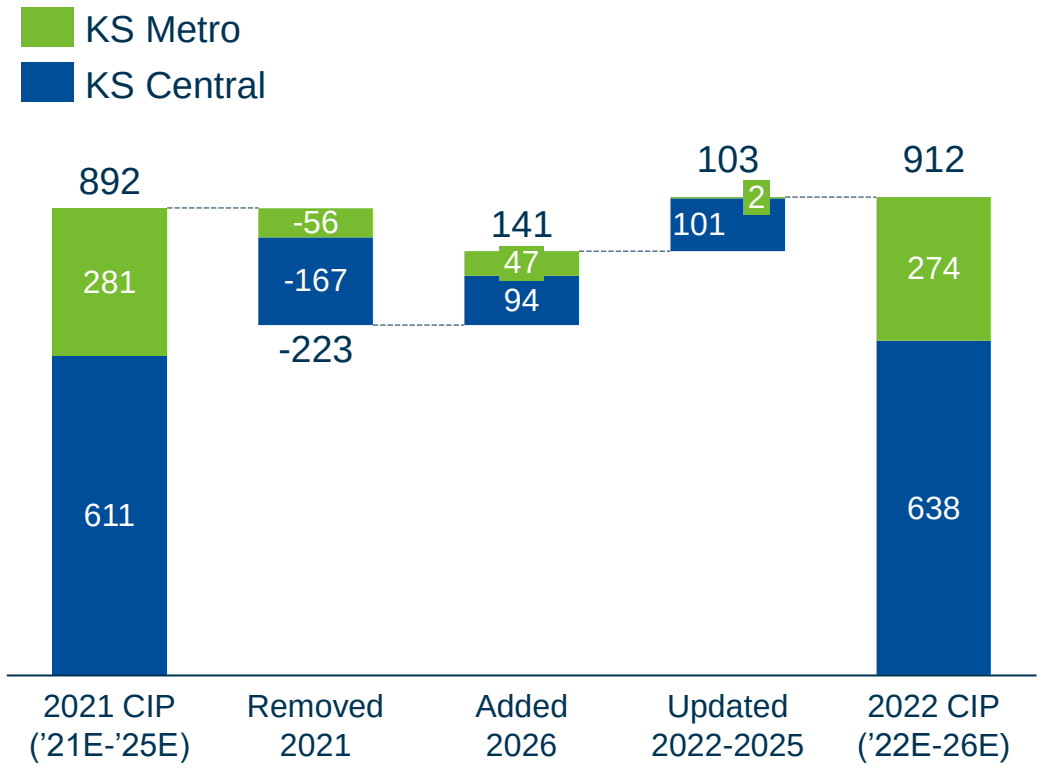
- Commission oversight of renewable generation portfolio
- Owned by a local, long-term energy supplier and corporation with a history of extending asset life
- Utility owner has investment grade credit profile with minimal risk of default
- Keeps prime renewable locations under domestic, local control

Tangible Benefits of Owned Renewables

- Customer does not pay for market-curtailed megawatts
- Eliminates 'generation cliff' at the end of a PPA
- Own the interconnection for future control of tech optimization (e.g. storage additions, green hydrogen production, etc.)
- Site built to utility standards with a focus on reliability and system compatibility

For existing generation, slightly higher investment level drives sustained reliability in a high market price environment

Generating Facilities: Other
($ in millions)



Updates to Plan

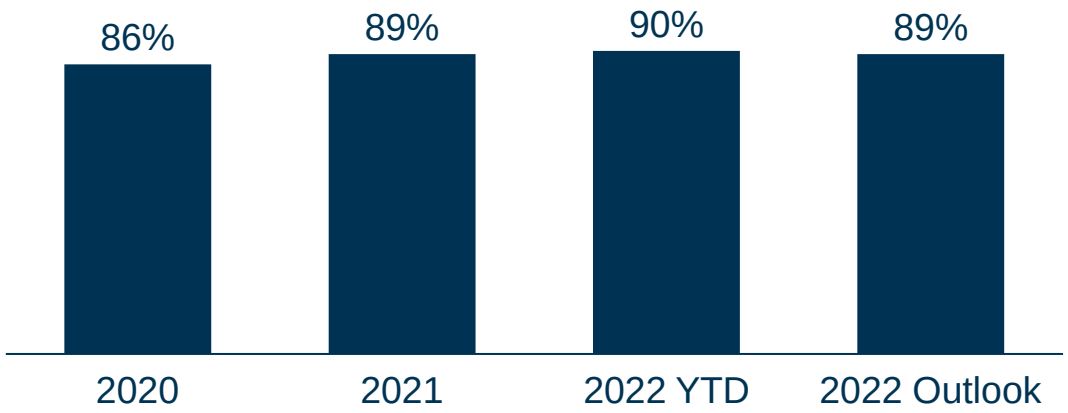
- Slight increase in investment for greater winter resiliency at La Cygne, Jeffrey, and Western Plains
- Additional work at coal plants identified through project development & prioritization process

Investment Benefits

- Generation diversity pays off for customers in stability and insulation from market volatility and extremes – like 2021 and 2022
- Prolonged asset life through key equipment overhauls while investing below depreciation
- Investment in critical spares to improve reliability in high market price environment where plants are running at higher capacity factors

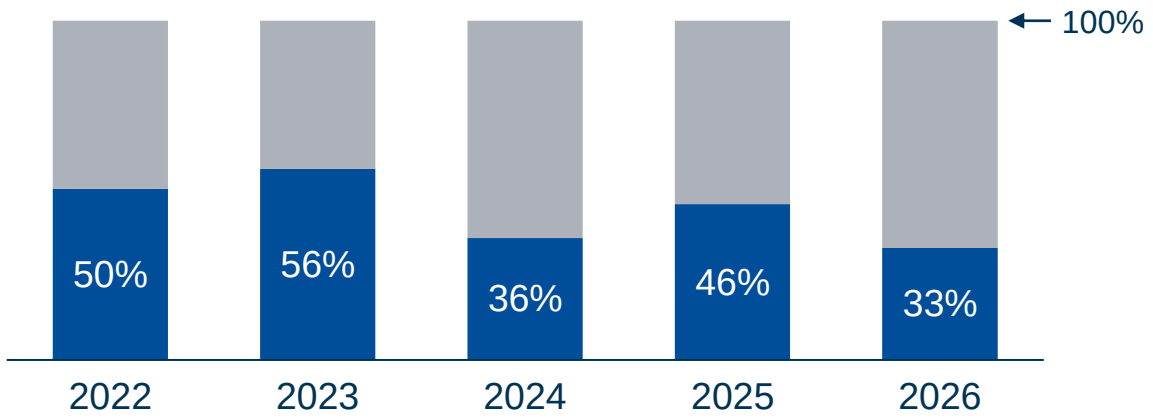
Investment focuses on maintaining high availability while managing down plant balances toward eventual retirement

Fleet Commercial Availability[1]



- Capital plans are developed to maintain safety and reliability (commercial availability)
- Maintaining high commercial availability in conjunction with flexible operations at our coal sites creates lower customer bills

Capital Plan Investment as % Coal Fleet Depreciation Expense



- Investing at a rate of 1/3 to 1/2 of annual depreciation reduces remaining net asset value when plants are ultimately retired

1) Commercial Availability = 1-(Lost Revenue Opportunity / Market Opportunity)

Transmission and distribution investments are focused on enabling an aging grid to meet increasing demands

Aging System

Nationwide, utilities are coping with an aging grid – often built in the decades following World War II

Partially due to failures of aging equipment, reliability performance is declining across the industry – despite increased investment

More Severe Weather

In parallel, storms and weather patterns are becoming more severe

In our service territory, 2022 has seen a ~50% increase in wind gusts over 40 mph compared to 2016-2021

Winter Storm Uri also highlighted the criticality of a resilient grid to withstand more prolonged extremes

Changing Demands

The proliferation of large-scale renewables and behind-the-meter resources are taxing the system in new ways

As aged plants retire and renewables are added, system stability and voltage control will have to be maintained using mitigating technologies

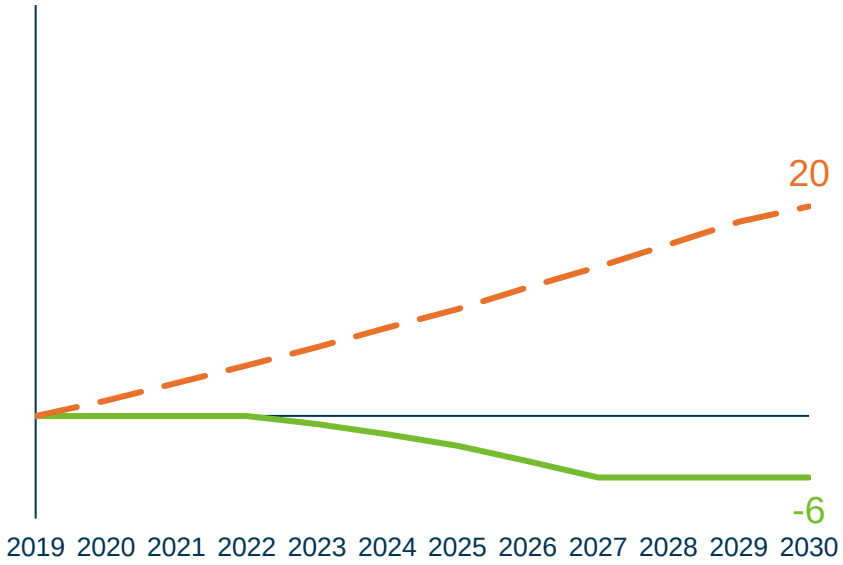
Technology Enhancements

New technologies (sensors, automated devices) are being developed and becoming increasingly cost-effective

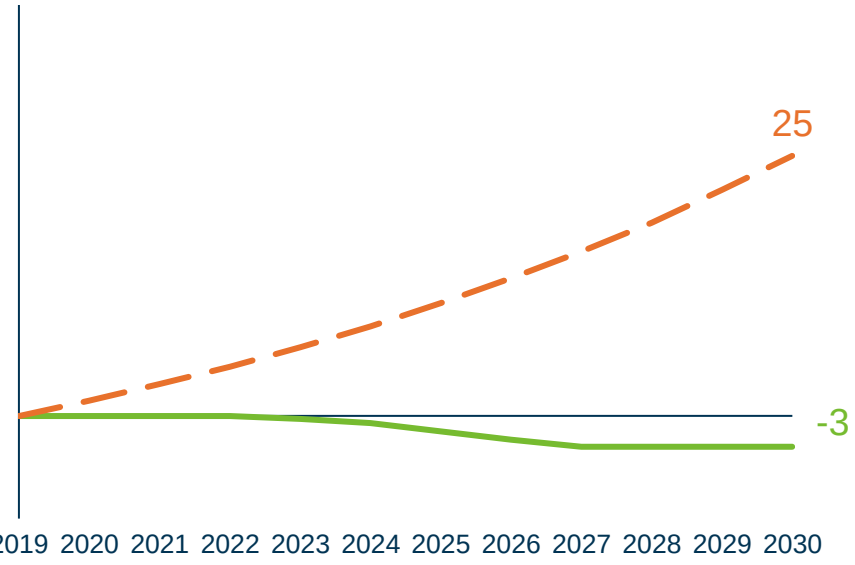
Deployment of such technology improves outage performance and enables predictive rather than more costly reactive maintenance

If Evergy does not execute on its plan, reliability will degrade significantly as the system ages[1]

KS Central Projected SAIDI Impact



KS Metro Projected SAIDI Impact



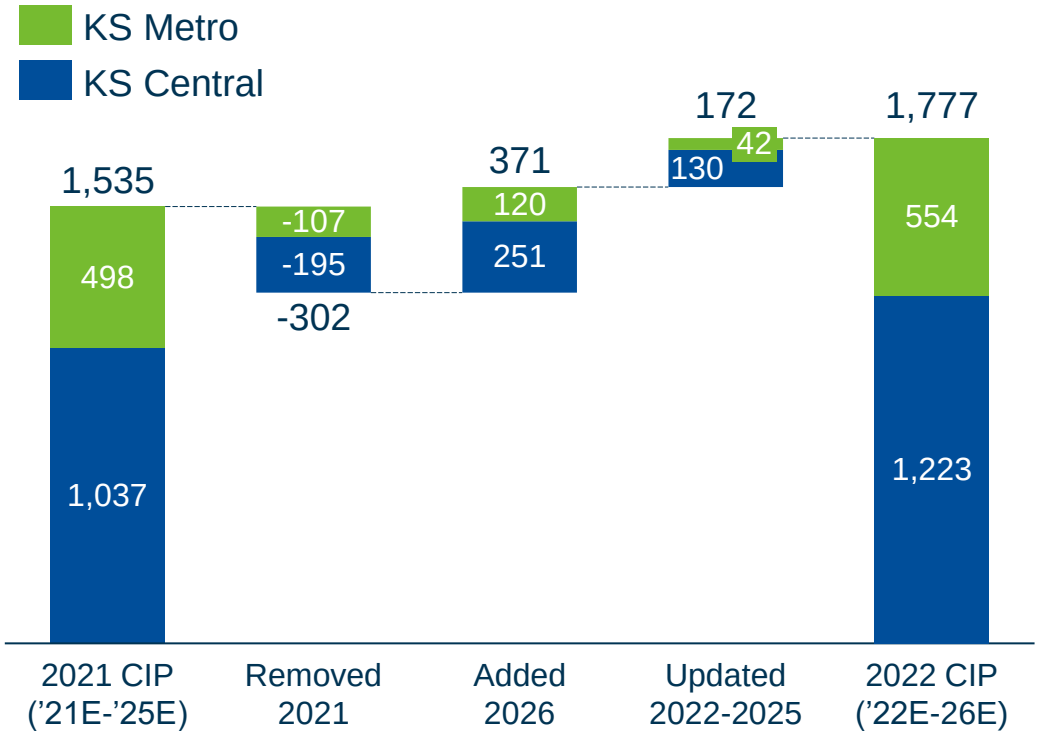
Execute Plan (Based on 2020-2024 Capital Plan) **Without Incremental Capital (Pre-2020 Investment Levels)**

= Nominal Reliability Improvement

1) Projections from "Review of Electric Transmission and Distribution (T&D) 2020 - 2024 Grid Modernization Plan" report completed by UMS Group, Inc. in January 2022. Estimated benefits of incremental investment 2020-2024 compared to prior levels of investment. Estimated impacts on net reliability, not a projection of absolute SAIFI performance targets.

Distribution investments have increased by ~$240M, prioritizing resiliency and targeted asset replacement

Distribution Facilities
($ in millions)



Updates To Plan

- Expansion of targeted, condition-based asset replacements
- Growth in new customers/expansion
- Inflation in input costs

Investment Benefits

- Enhanced distribution grid resiliency to ensure robust infrastructure, public safety, and reduce outages due to equipment failure
- Increased distribution automation and technology to support digitalization and optimization of infrastructure and more efficient operations

Given the sheer scale of the distribution system, the focus is on using data to prioritize highest-value investments

Evergy Kansas System Statistics

~40,000 Line Miles

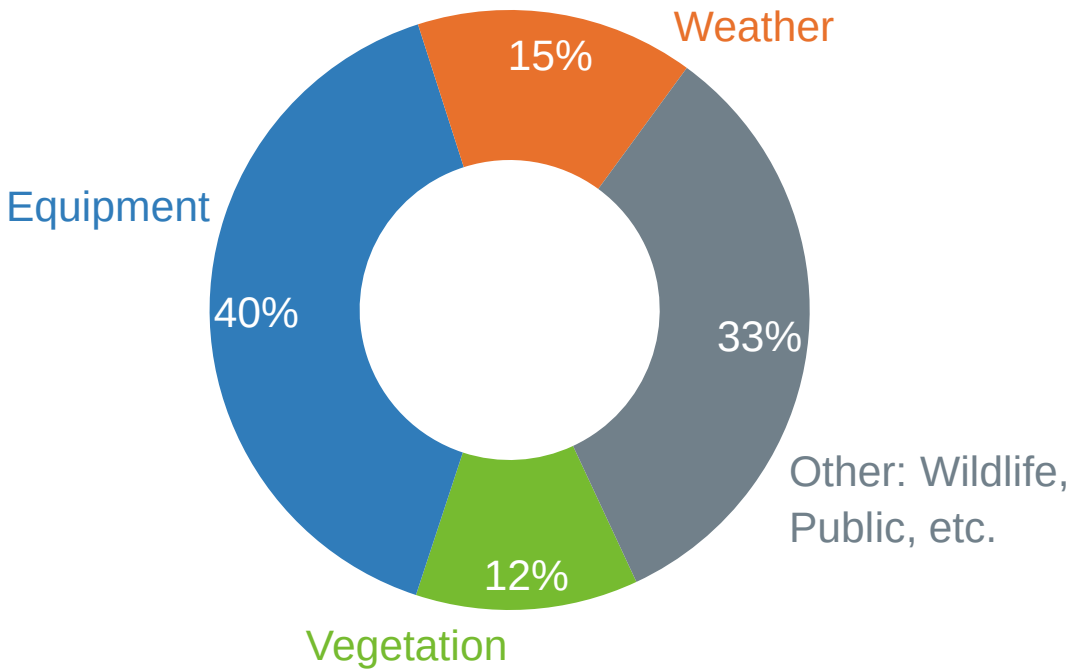
~242,000 Overhead Transformers

~800,000 Distribution Poles

~100,000 Underground Transformers

Drivers of Customer Outages[1]

By Cause



1) Institute of Electrical and Electronics Engineers (IEEE) normalized percent of Evergy Kansas SAIDI.

Systematic replacement programs are utilized to target the most critical assets

Targeted Lateral and Feeder Improvement Programs

Targets aging infrastructure, excessive outage events, and customer complaints generated from these events. Built on a risk-based investment model (AssetLens) using several sources of data.

Wood Pole Life-Extension & Replacements

Wood pole life extension program including inspection, rehabilitation, and replacement. The scope follows an industry standard 12-year inspection cycle over the ~800K wood poles throughout our Kansas service territory.

Underground Lateral Cable Replacements

Targets underground electrical cable feeding residential customers / neighborhoods. Program uses partial discharge testing along with analytics to predict impending cable failures and then proactively replaces them.

Customers Experience Multiple Interruptions (CEMI) Improvement Program

Focuses on making improvements for customers experiencing 6+ interruptions over a 12-month period. Interruption data is analyzed to determine the root causes and appropriate corrective actions required.

Within a ~35% increase in distribution investment since 2020, investment in risk-based programs has increased 2-3x

Kansas Central: Annual investment in asset management programs 3x 2020 levels

- 12-year wood pole inspection program implemented which proactively identifies and mitigates against wood pole failure or decay
- Implementation of underground cable testing program to identify direct burial cables in degraded condition which proactively identifies cables for replacement
- Lateral improvement program starting in 2024 focused on improving customer reliability
- Specific feeder improvement projects identified based on reliability and risk

Kansas Metro: Annual investment in asset management programs 2x 2020 levels

- Additional funding focused on 34kV circuits to rebuild ~48 miles of aging infrastructure
- Large increase in lateral improvement projects focused on highest priority projects which directly improve reliability to customers
- Expansion of CEMI program to Kansas Metro focusing on improving reliability to customers experiencing multiple outages
- Specific feeder improvement projects identified based on risk which includes age, condition, among other factors to improve reliability

Finally, targeted deployments of automation unlock new capabilities and provide lower-cost ways to improve reliability

Planned Grid Automation Deployments
(Kansas, 2022-2025)

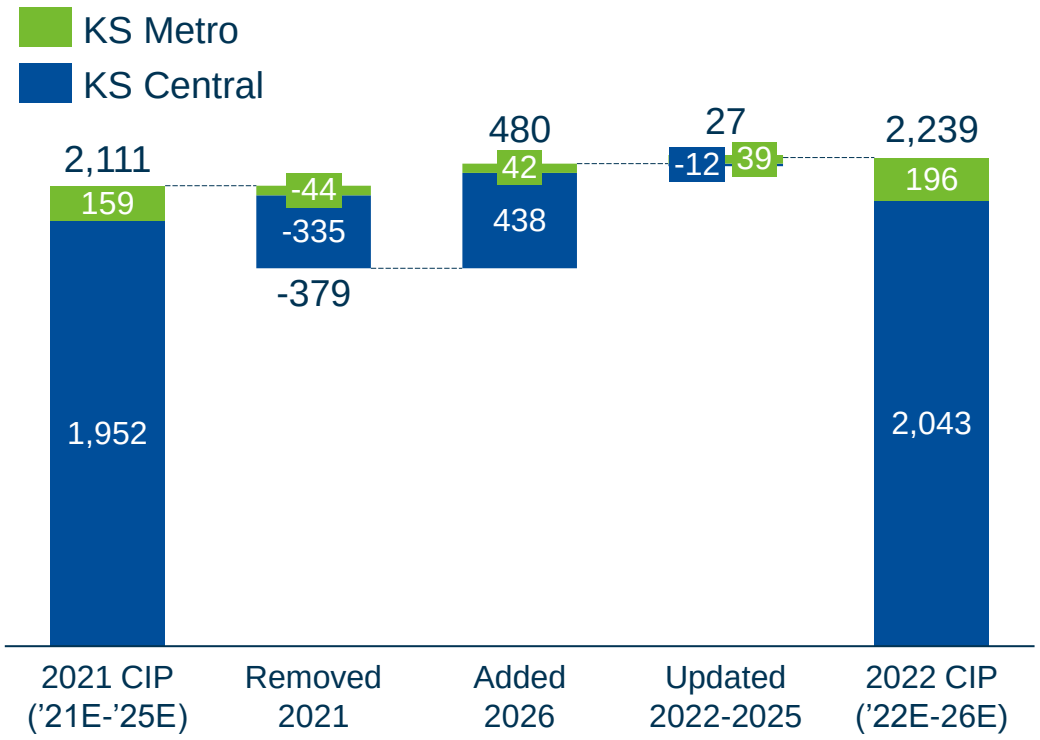
- **>1,000** Reclosers
- **>400** Voltage Regulators
- **>300** Capacitor Banks
- **>1,000** Other IoT[1] Sensors *(e.g., battery, transformer sensors)*
- **>500** SCADA[2]-enabled breakers and load-tap changers
- **>2,500** Communicating Faulted Circuit Indicators *(CFCIs)*

- Targeted automation investment over the next four years of $92M (6% of overall distribution investment) enables the deployment of thousands of communicating, automated devices across the service territory as well as enabling new software
- These investments will unlock key new capabilities that increase the resiliency of the system and prepare it for the future:
  - **Fault Location, Isolation, and Service Restoration (2022)**: Allows the system to identify and automatically isolate faults using CFCIs and reclosers
  - **Volt-Var Optimization (2023-2024):** Uses remotely controlled equipment to adjust system voltage – promoting energy efficiency and managing impacts of distributed energy resources
  - **Advanced Distribution Management System (2023-2025):** Integrated distribution SCADA[2] system which enables centralized visibility and/or control of automation devices and distributed energy resources

1) Internet of Things. 2) Supervisory Control and Data Acquisition

Changes in transmission investment levels are primarily due to the effects of inflation

Transmission Facilities
($ in millions)



Updates To Plan

- Minor changes in detailed project plans to enable additional investment in key resiliency projects and aged asset replacements
- Inflation in input costs (far higher than 2% in this category)

Investment Benefits

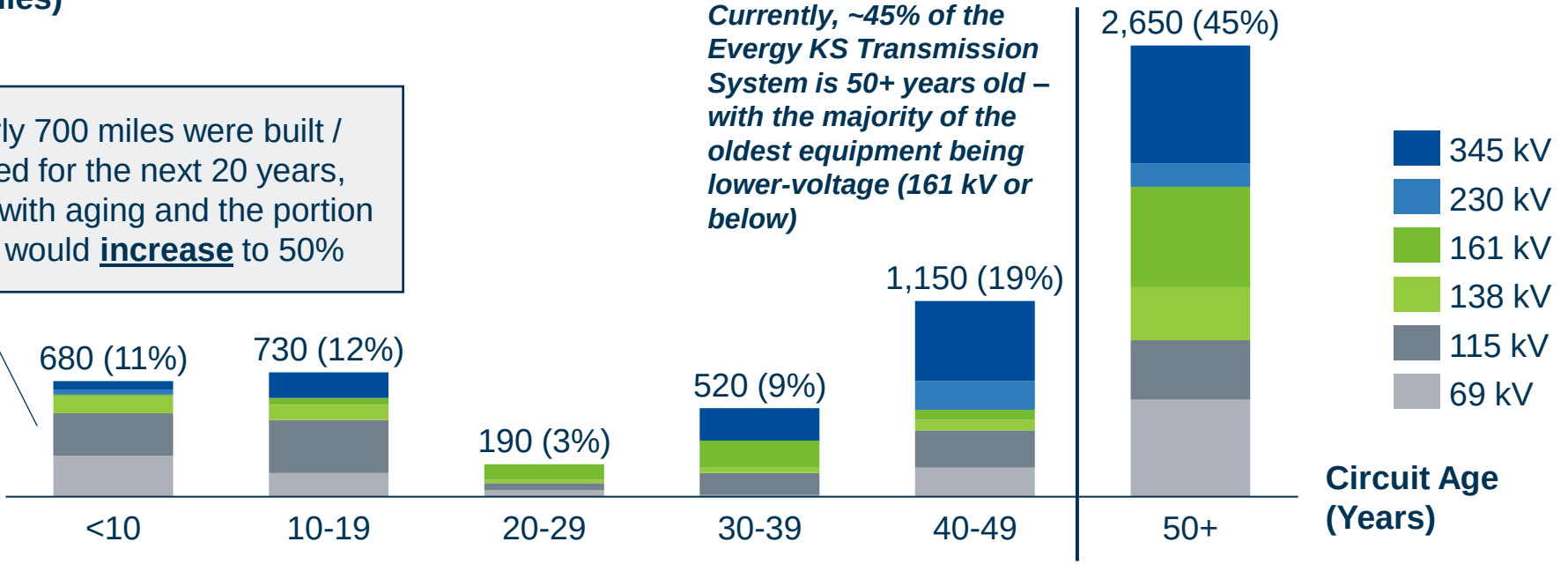
- Replacement of aged assets to improve resiliency to storms, reduce outages caused by equipment failures, and mitigate risk of congestion caused by outages
- Increase system resiliency by looping in radial facilities and improving substation configurations

~45% of the transmission system is more than 50 years old; past investment levels do not keep up with aging

Breakdown by Age Group and Voltage (Miles)

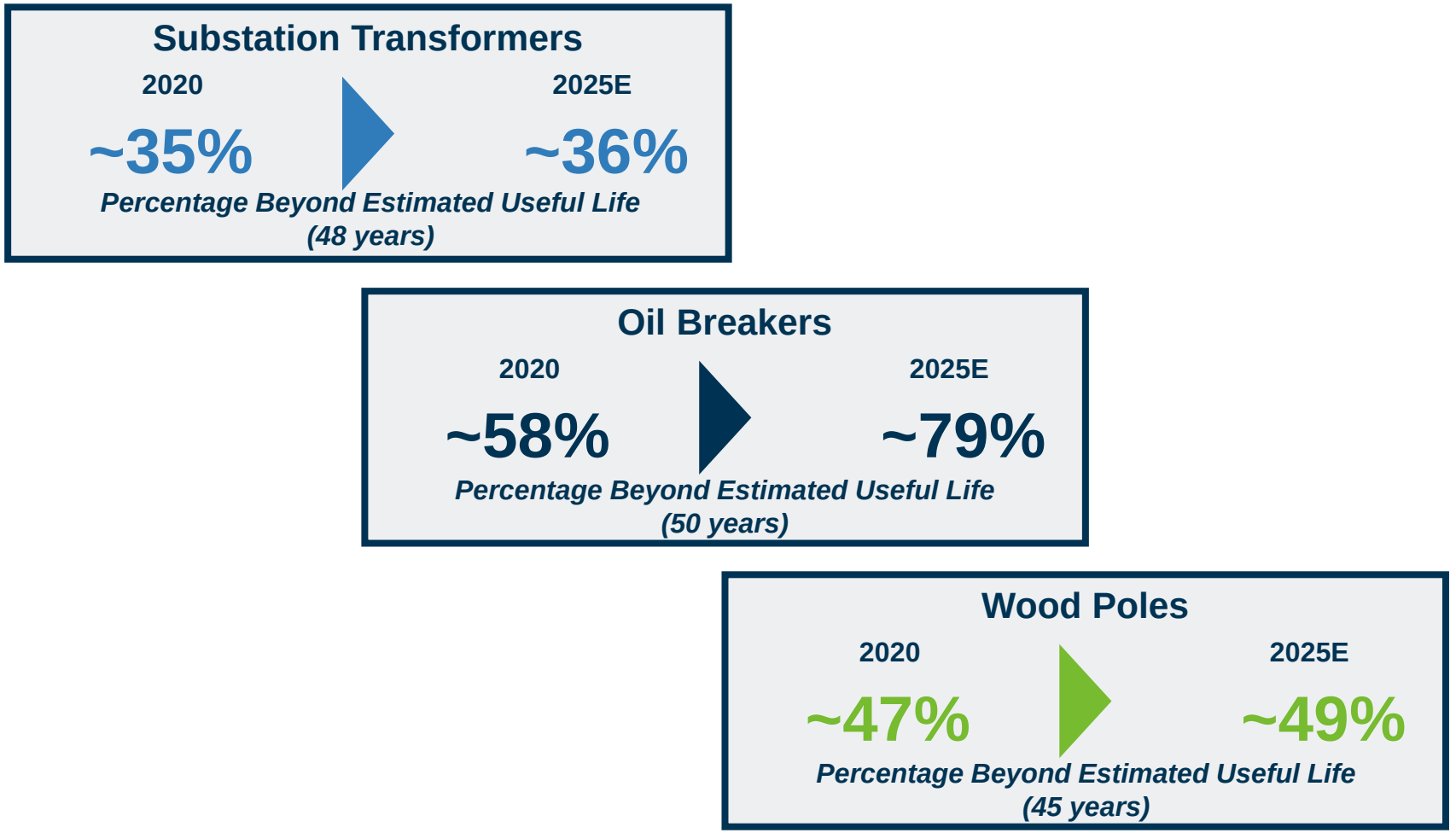
Over the last 10 years, nearly 700 miles were built / rebuilt – if that pace continued for the next 20 years, rebuilds would not keep pace with aging and the portion of the system >50 years old would **increase** to 50%

Currently, ~45% of the Evergy KS Transmission System is 50+ years old – with the majority of the oldest equipment being lower-voltage (161 kV or below)



Note: Circuit age is determined based on oldest conductor on circuit.

Even based on the current plan, transmission investment levels will not keep pace with aging of key asset types

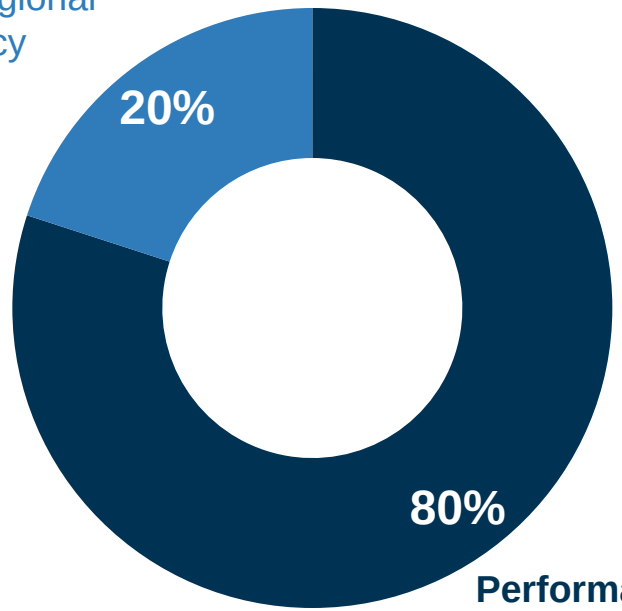


Note: Data shown based on Kansas Central transmission assets

80% of projected transmission investment is prioritized to drive improved system resiliency

Percentage of ~$2.2B 2022E-2026E Kansas Transmission Investment
(% by Project Type)

Mandated Projects
to ensure regional grid resiliency



Performance Projects
to replace aged infrastructure while balancing load demands

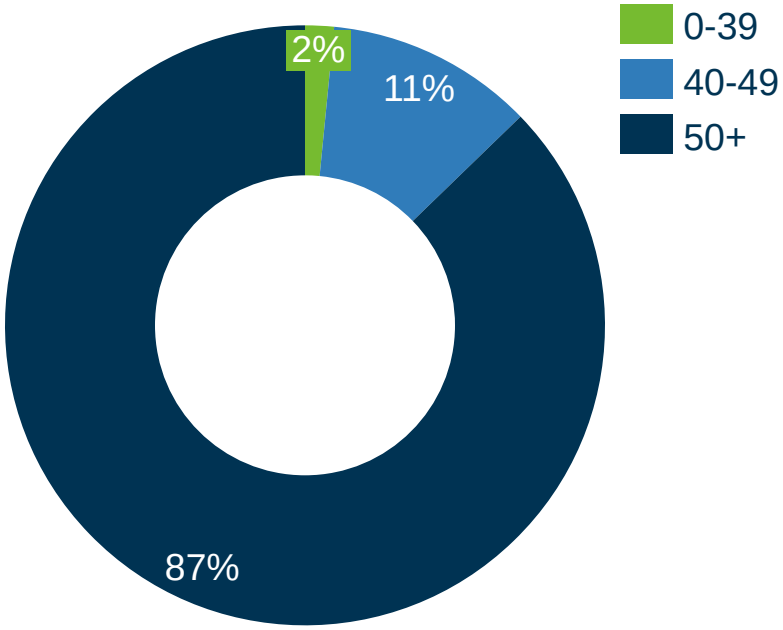
Generally, projects are prioritized between two distinct categories:

1) **Mandated** - investment categories include:
   - National Electric Safety Code (NESC) projects (some exceptions may apply)
   - Notices to construct from the SPP
   - Projects required to serve existing, growing load
   - New revenue and new customers
   - Road projects as required by government entities

2) **Performance Projects:**
   - Target replacement of aged, poor performing infrastructure to a more weather-resilient reliability standard
   - Prioritize based on reliability and system impacts

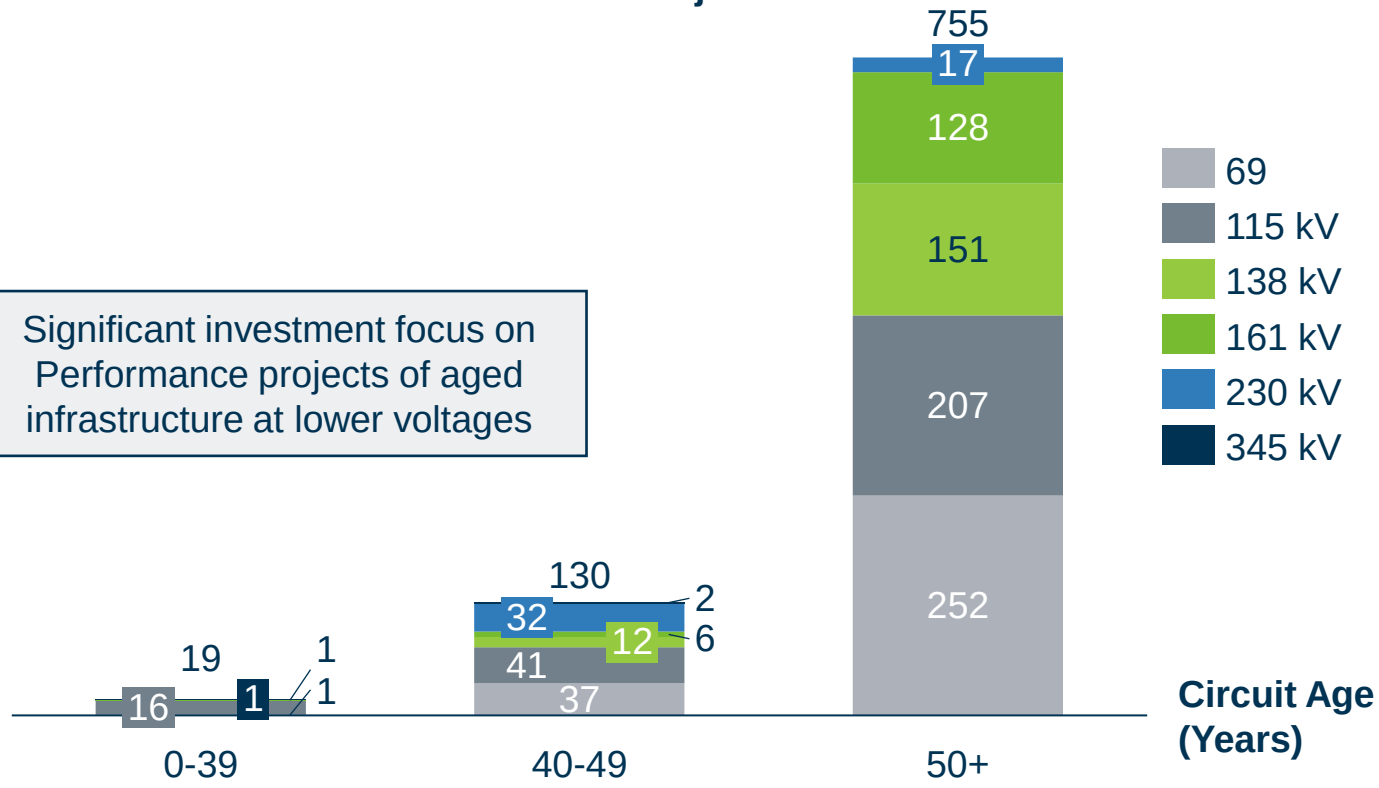
98% of our Performance project investment is allocated to transmission infrastructure 40 years or older

Breakdown of 2022E-2026E by Age Group of Performance Project Investment



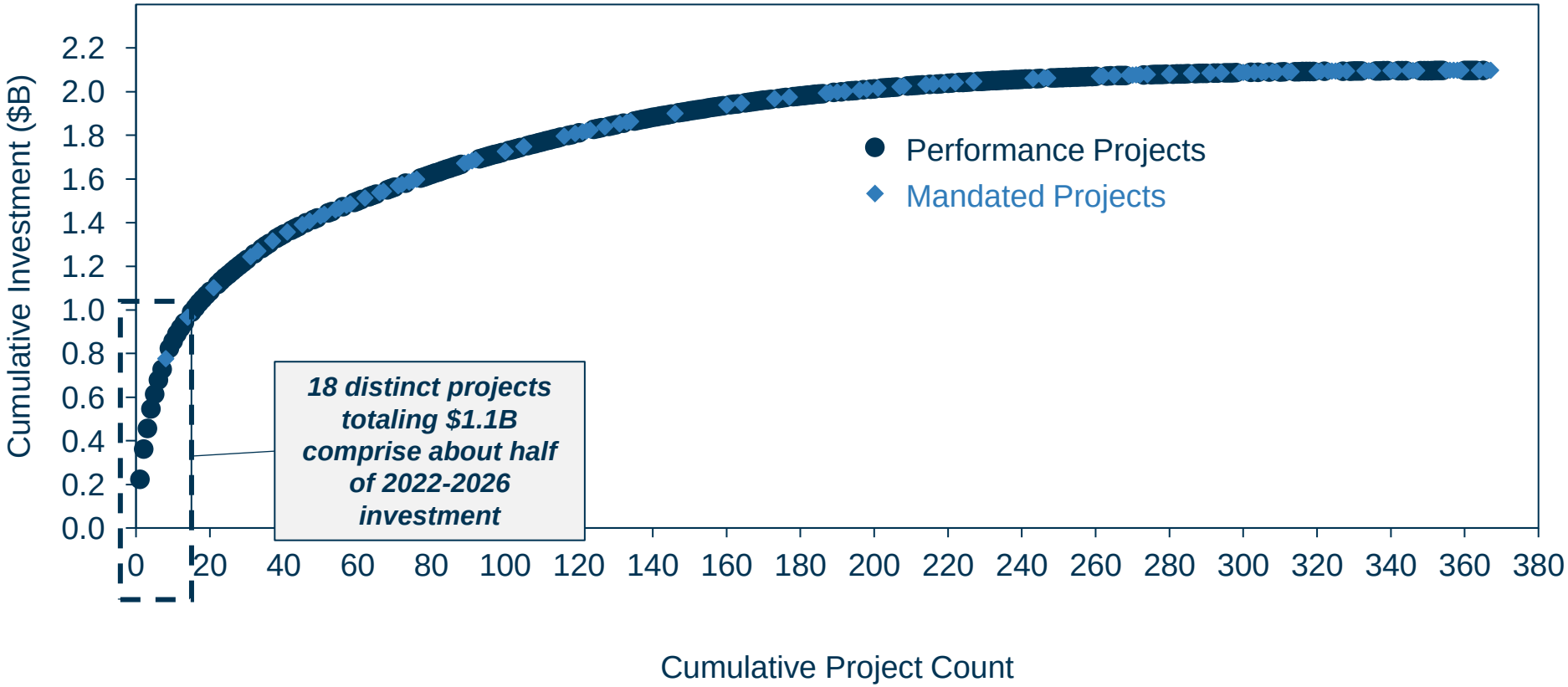
Breakdown by Age Group and Voltage of Miles of Performance Projects

Significant investment focus on Performance projects of aged infrastructure at lower voltages



Eighteen high-impact projects make up 50% of projected transmission investment 2022-2026

Cumulative Transmission Investment 2022-2026
($ in billions)



Five largest projects account for 24% of investment and replace key aged transmission paths with modern designs

Altoona-Butler 138 kV

- Built in 1924 – already known for its advanced age, was identified by NERC as having one of the highest outage rates in the US Eastern Interconnect for its voltage class
- ~$230M rebuild cost enables reconfiguration to provide additional source for Eureka and new substations at Otter Creek and Altoona. When complete the capacity of this line will be increased by 3 times. Limiting congestion

Marmaton-Litchfield 161 kV

- Built in 1965 – historical reliability issues caused by weather, wildlife, failed equipment
- ~$95M rebuild cost enables greater reliability and adds capacity

Marmaton-Neosho 161 kV

- Built in 1952 – historical reliability issues caused by weather, wildlife, failed equipment
- ~$60M rebuild cost enables greater reliability and adds capacity

County Line-Arnold 69 kV

- Originally built in the 1920's – historical reliability issues caused by wildlife, weather, failed equipment
- ~$85M rebuild cost enables improved reliability, restoration efficiency and capacity

Summit-Union Ridge 230 kV

- Built in 1978 – historical reliability issues caused by poor design, weather and failed equipment
- ~$50M rebuild cost enables improved reliability, safety and increased capacity

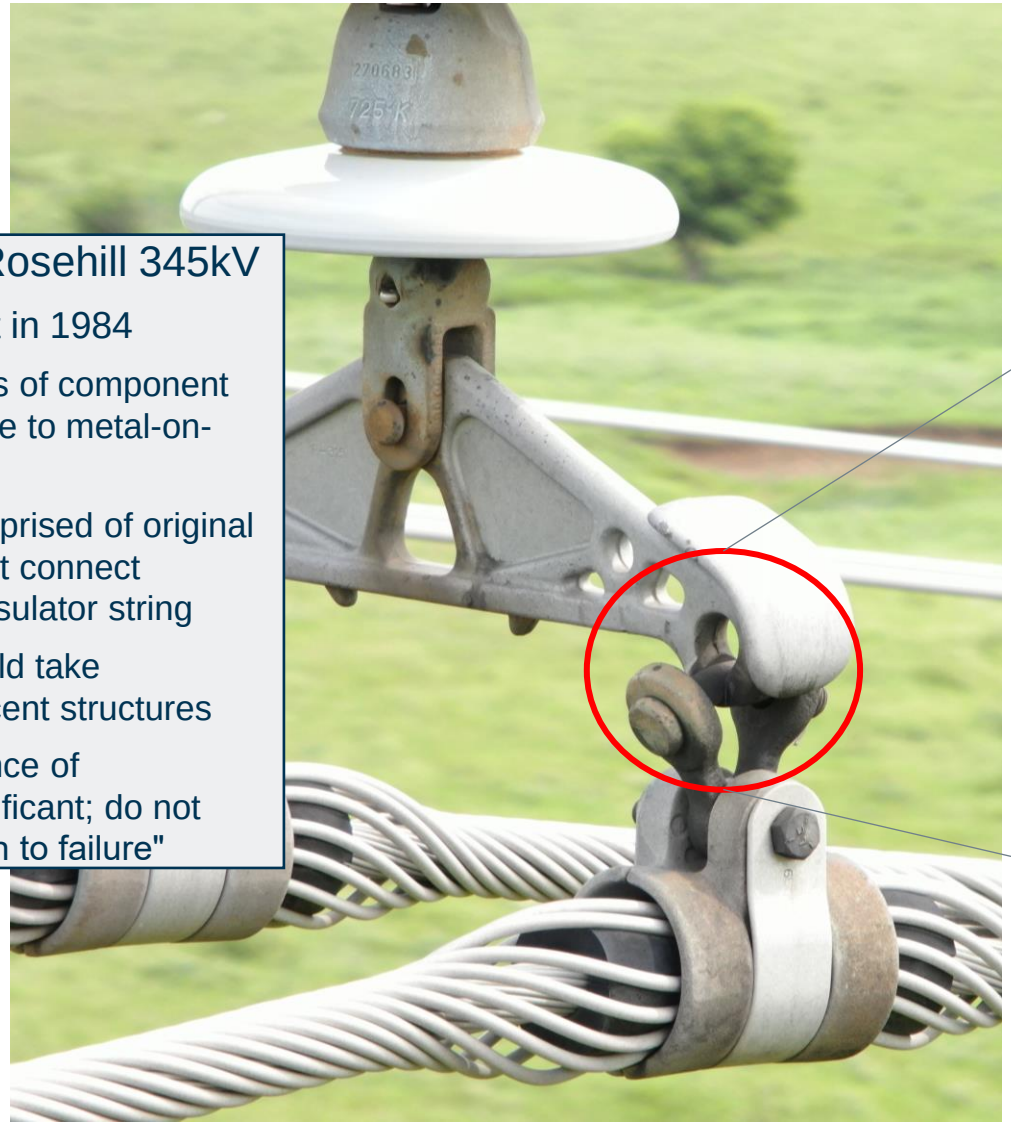
Substation replacements create more resilient, flexible and safe configurations

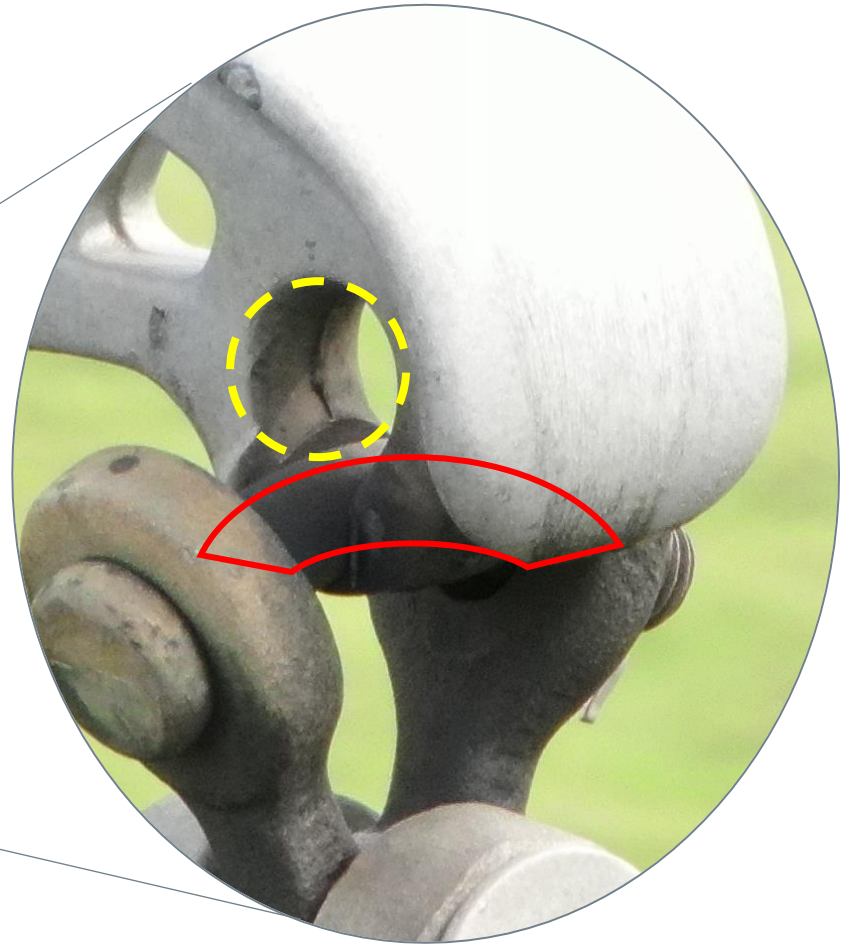
Original Rock Creek Substation
- Built in 1970
- Serves communities of Meriden, KS and surrounding areas
- Existing physical footprint of 11k sq. ft.
- Substation structure comprised solely of aged wood component materials
- Open-air breakers exposed to outside conditions

New Rock Creek Substation (Cooks Ford)
- In-service February 2023
- Physical footprint of 90k sq. ft.
  - Increased footprint & spacing mitigate weather and wildlife-induced outages and enable use of emergency mobile substation for sustained outages
- Improved construction materials (i.e. galvanized steel)
- New circuit switchers allow remote switching
- Enclosed switchgear mitigates breaker exposure to outside conditions

Representative size of prior substation

While often not readily visible, the effects of aging on even “small” assets can create large impacts if not addressed

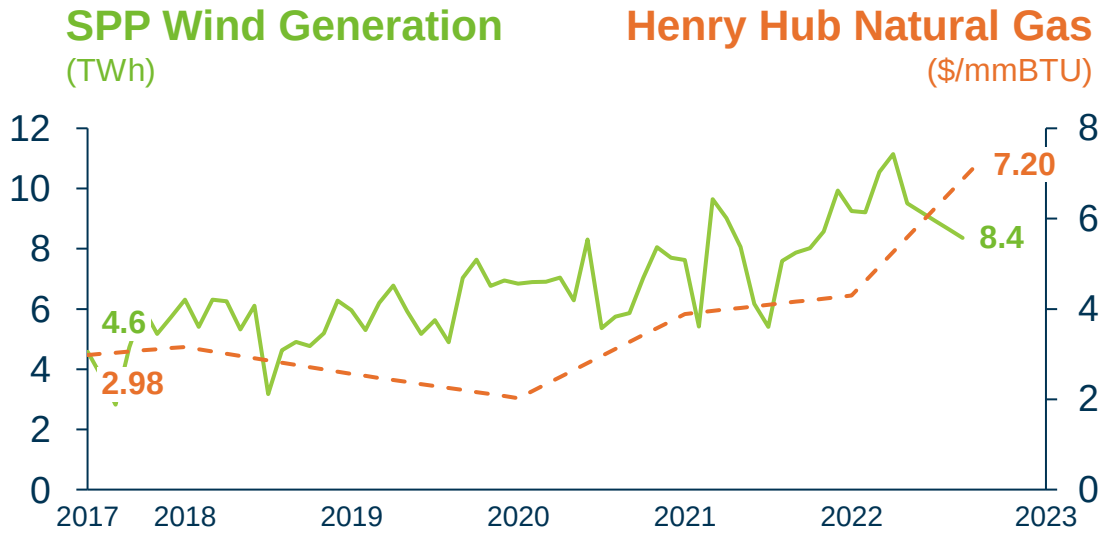


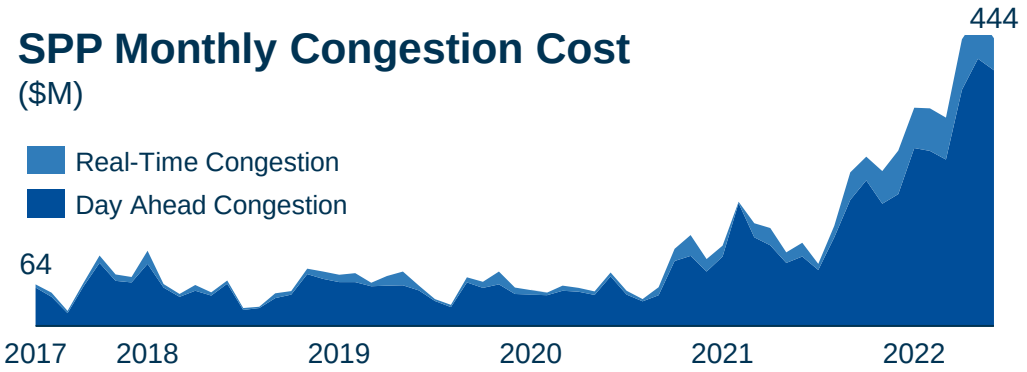


Wolf Creek to Rosehill 345kV

- Originally built in 1984
- Nearly 40 years of component degradation due to metal-on-metal wear
- Structures comprised of original yoke plates that connect conductor to insulator string
  - Failure could take down adjacent structures
  - Consequence of failure significant; do not want to “run to failure"

Beyond just reliability impacts, transmission outages can drive up customer costs by adding to system congestion





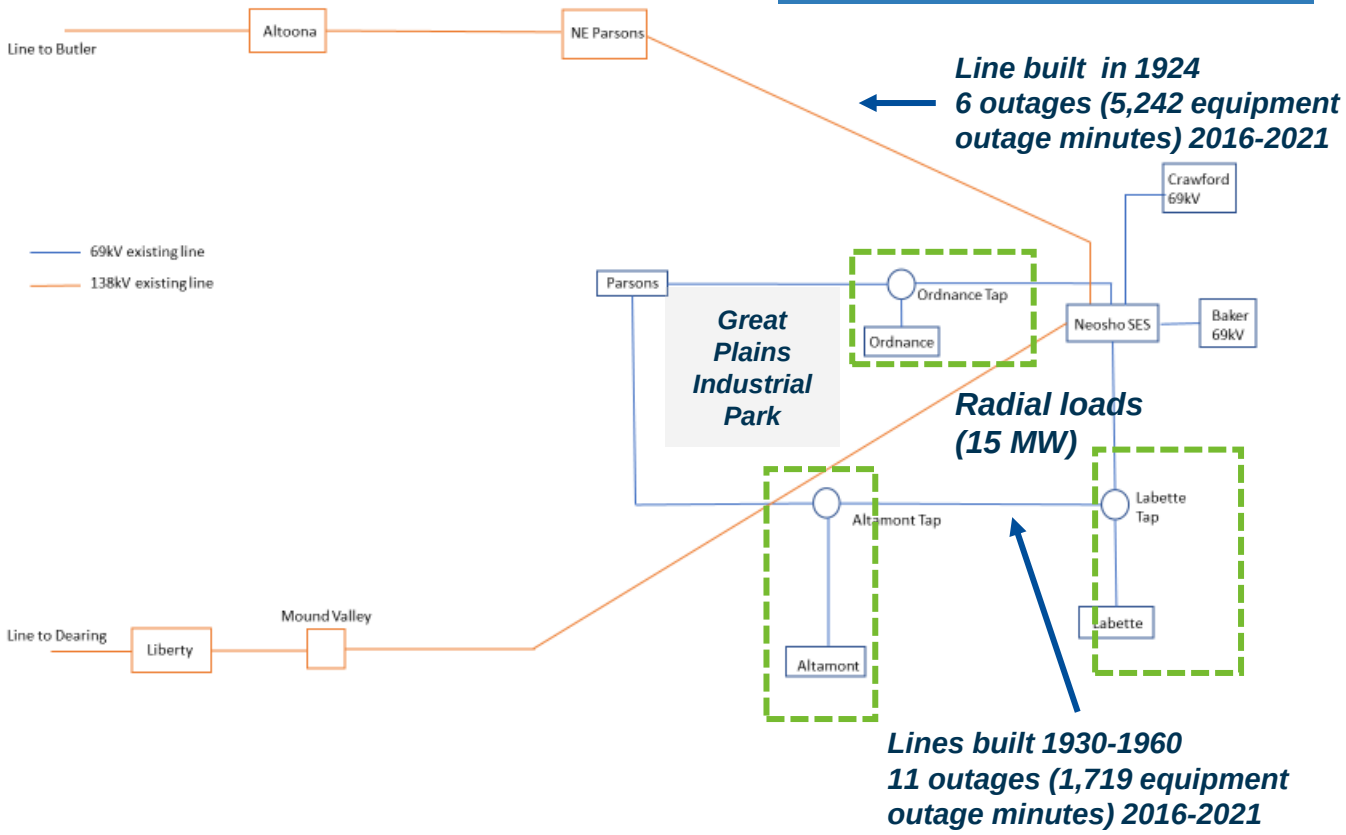
- With elevated market prices and higher wind generation, congestion costs have increased dramatically across the SPP region
- Hardening the transmission system mitigates the risk of outages, reducing constraints on the transmission system and resulting congestion costs and higher costs for customers
- Rebuilding lines can also increase capacity on the system and reduce “base case” congestion – for example, ~15 Evergy transmission projects completed or planned 2021-2023 were calculated to create ~$50M of annual production cost (congestion) savings for the benefit of customers

When transmission investments are targeted in a specific area, they create multi-faceted benefits for local communities

Parsons Area Drivers

- Age & condition of 69kV transmission system; parts built in 1930s, others in 1950s and 1960s
- Some loads radially fed from three different sections totaling 10.36 miles long
- Customer reliability issues on south Parsons 69 kV loop and NE Parsons-Neosho line
- Economic development inquiries highlighted lack of available capacity to support growth in the area

Current Parsons Configuration



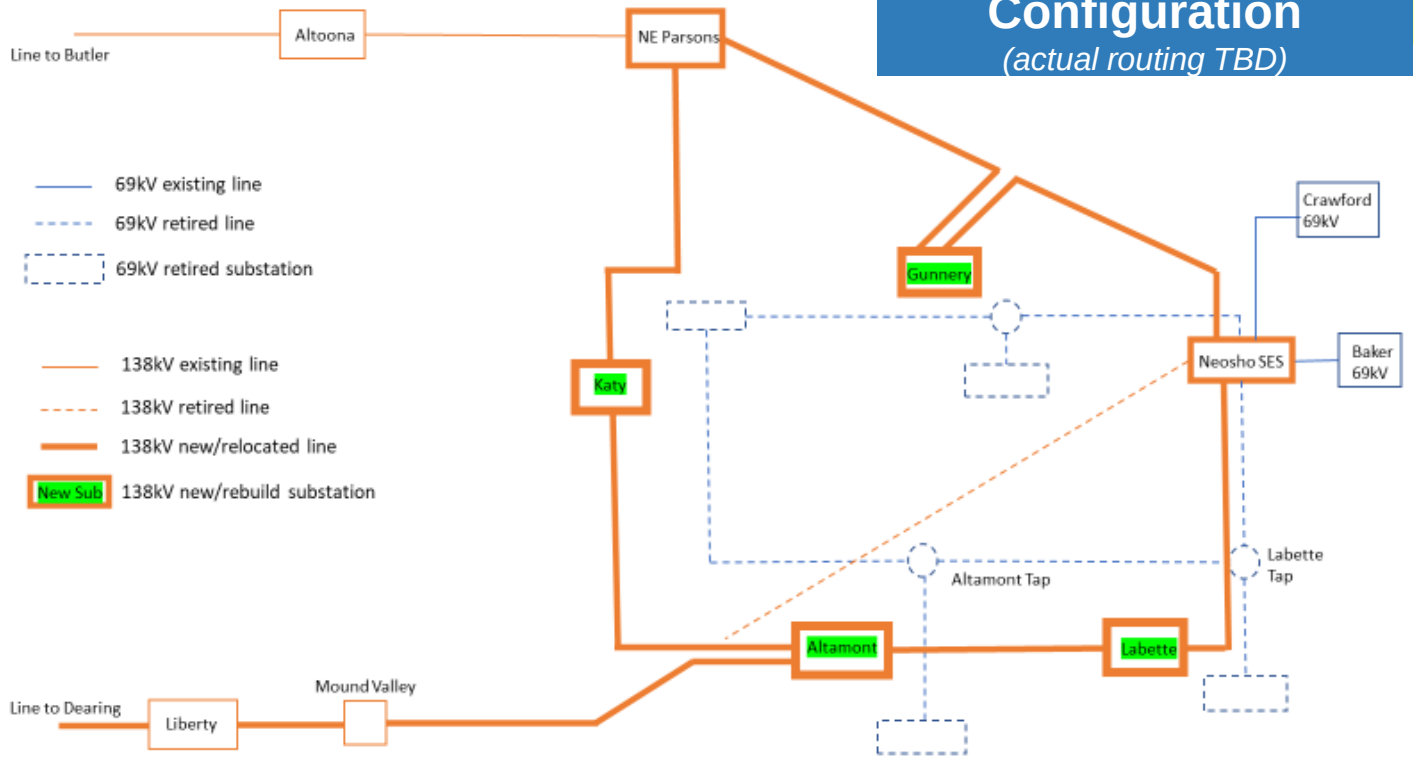
While replacing aged transmission requires capital, it positions communities for reliable service & growth for decades

Parsons Area Plan

- 10-year plan (through 2033) to enhance reliability of SE Kansas area and enable continued industrial growth
- Streamlines local topology, eliminates radial loads – increasing resiliency and system flexibility for existing and new customers
- Replaces lines that are nearing 100 years old
- Overall cost of ~$220M spread over 10+ years

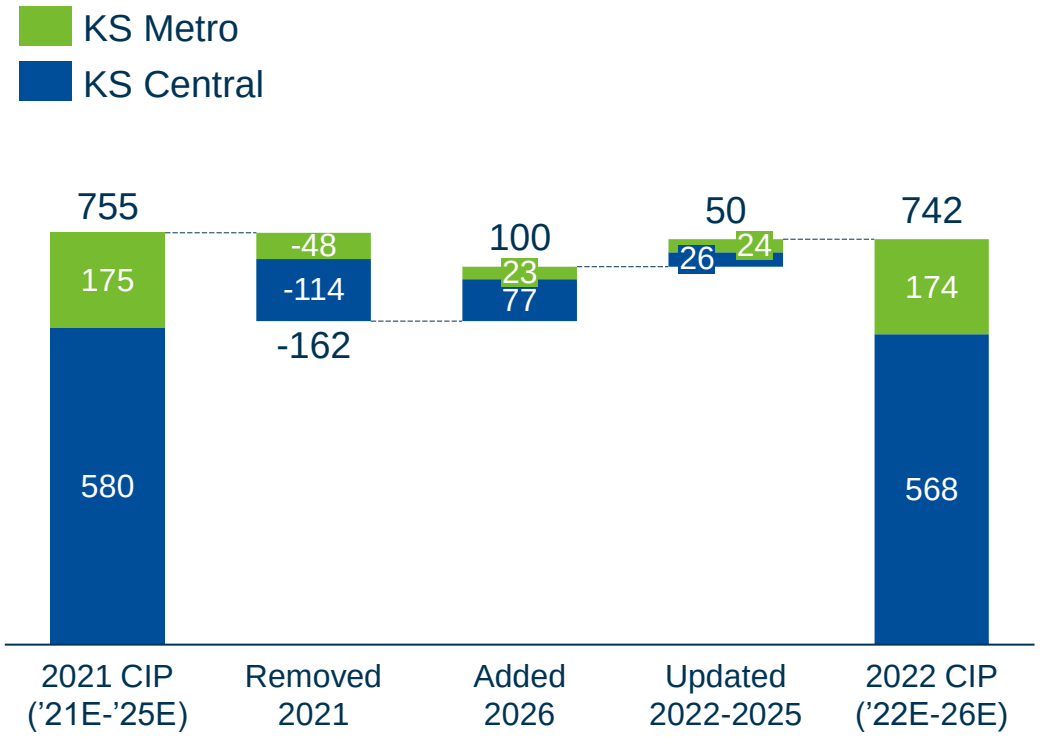
Future Parsons Configuration

(actual routing TBD)



Technology & customer investments have declined slightly as most system consolidations have been completed

Customer & Technology
($ in millions)



Updates To Plan

- Completion of enterprise asset management consolidations to enable common processes and efficiencies
- Enablement of new customer functionality (Uplight)
- Software/infrastructure supporting grid automation

High-level Investment Benefits

- Modern systems reduce security risks of outdated tech and increase reliability
- Enables a seamless multichannel experience for our customers and customer service employees
- Expansion of communications infrastructure including Private LTE network enables ongoing grid modernization

2017-2020 core system investments provided foundation for security and customer experience improvements

- Customer Care and Billing (CCB)
- Customer Self-Service (CSS)
- Meter Data Management (MDM)
- Operational Device Management (ODM)
- Integrated Voice Response (IVR)
- Outage Management System (OMS)
- Customer Relationship Management (CRM)
- Knowledge Management System (BEN)

Key Drivers

- Significant technology investments required to replace outdated, custom legacy accounting, operations and customer systems no longer capable of being maintained
- Increased regulatory and compliance requirements
- Increased security threats and requirements
- Increased cost to maintain legacy systems
- Increased data storage and handling requirements
- Increased demand to integrate systems with emerging technology solutions providers

Uplight is an example of technology investment that reduces cost, increases security and enhances customer experience

Customer Benefits:

- Customer Experience
- Cost Savings
- Grid-enhanced EE / DR
- Enhanced Security
- Grid Management

Current Customer Solutions

- Web Portal
- Mobile App
- Contact Center Interface — ORACLE
- Outage Map & Notification — KUBRA

Uplight Provided Customer Solutions

- Behavioral Energy Efficiency
- Digital Customer Engagement
- Utility Marketplace
- Rates Adoption & Experience
- Demand Management
- Personalized Digital Customer Activation
- Business Customer Solutions
- Electric Vehicle Solutions

Emerging Ecosystem

- Tech Giants — Google, Schneider Electric, amazon, Apple
- Niche Innovators — innowatts, LIBRESTREAM

Uplight Connect Platform: One Standard Interface for Customer-Facing Solutions

Evergy Core Systems: Customer Information System and Grid Management Tools

Technology integration investment enables omnichannel solutions for enhanced customer experience and lower costs

Single Channel

Traditional: Phone, direct mail and/or face-to-face interactions

Blended Channel

Transactional: Physical and digital channels working independently for customer interactions

Multi-Channel

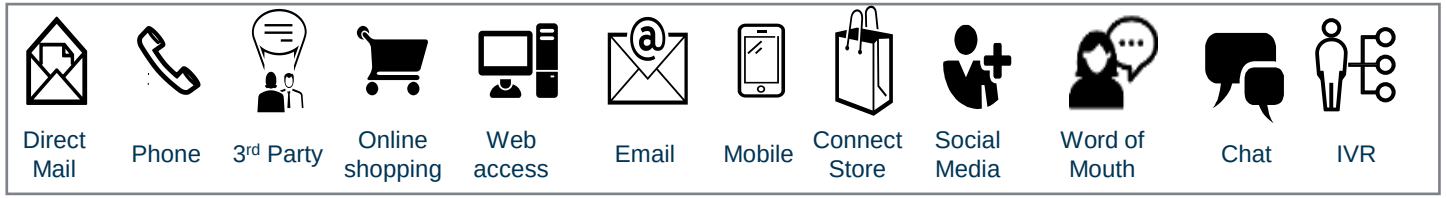
Combination: Single view of customer, with multiple customer touchpoints for service that operate independently of each other and have little cross-channel interaction

Omnichannel

Experiential: Consistent and united customer experience across complementary and fully integrated channels, centered on ease of transaction for the customer and cost-efficiency for the utility

Core Systems Replacement → **Integration and Solutions Suite**

Legend - Channels



Section Takeaways

- New renewables and inflation impacts are the primary drivers for higher 2026 annual investment levels relative to 2021
- 80% of the 2022-2025 uptick in investment is driven by our updated resource plan, which is focused on achieving the lowest long-term costs for customers, and increased distribution system investment
- In evaluating new generation investments, we will continue to evaluate ownership vs. PPAs through a detailed sourcing process that considers total benefits to customers
- Distribution and transmission investments are focused on enabling an aging grid to meet increasing demands
  - Distribution investments prioritize resiliency and replacing aging equipment in order to ensure robust infrastructure and public safety, enable more efficient operations, and reduce outages
  - Planned transmission investment does not keep up with aging of key asset types; therefore, we take a risk-based approach to prioritize transmission projects with greatest benefit
- Planned technology & customer investments have declined slightly. Projects focus on improving infrastructure, lowering costs, and delivering an enhanced customer experience

Summary & Next Steps

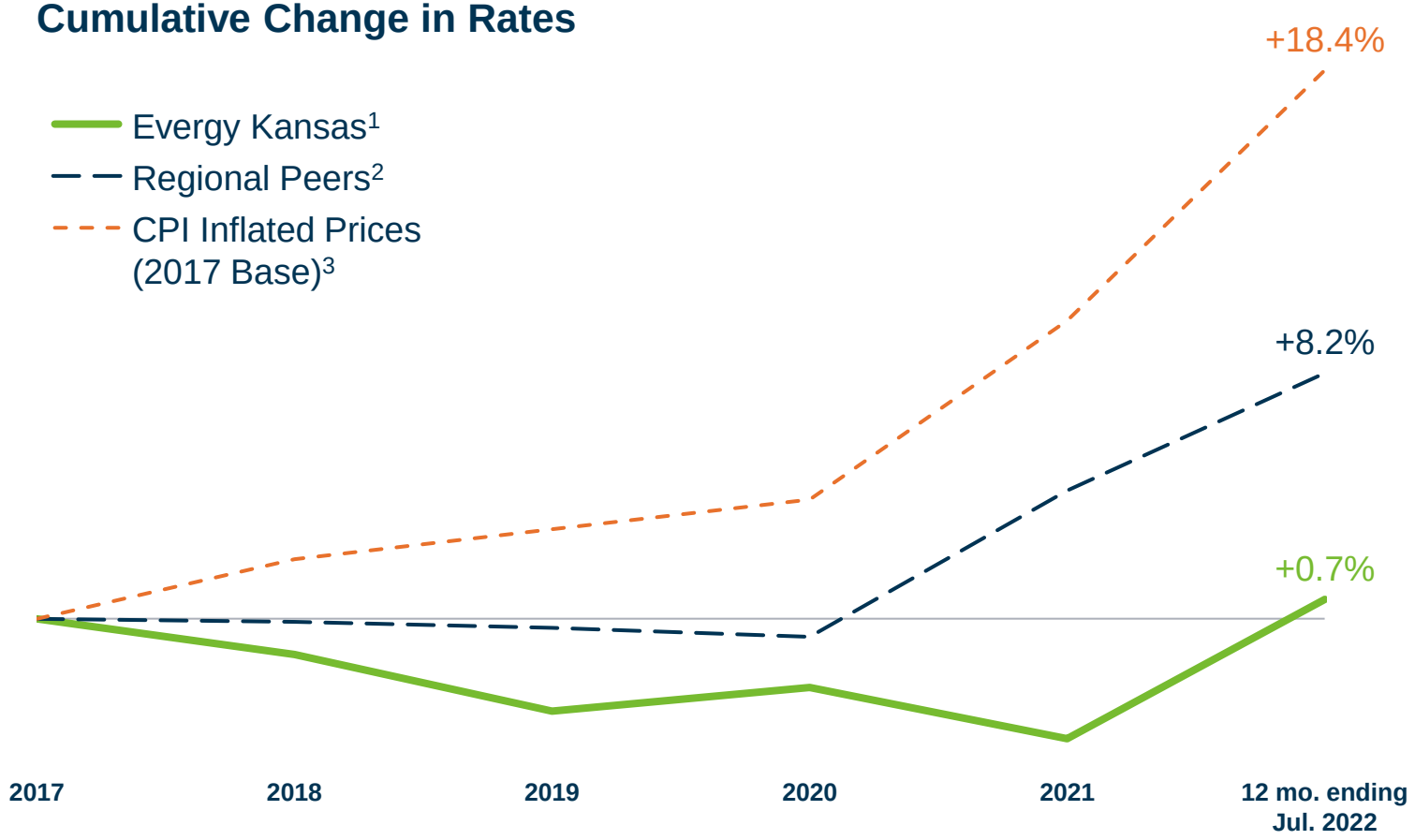
Summary and next steps

- In updating our Capital Investment Plan, our goal is to advance affordability, reliability, and sustainability for the benefit of customers
- We have improved regional rate competitiveness since Evergy's formation in 2018 and we expect to continue that progress due to our ongoing focus on efficiency, a lower rate of investment relative to peers, and a balanced generation mix
- 80% of growth in the capital plan is investment in new generation and distribution focused on lowering costs and enhancing reliability and resiliency for customers
- We will file our 2023 Capital Investment Plan in February 2023 and the annual update to our Integrated Resource Plan in the 2nd quarter of 2023

Appendix

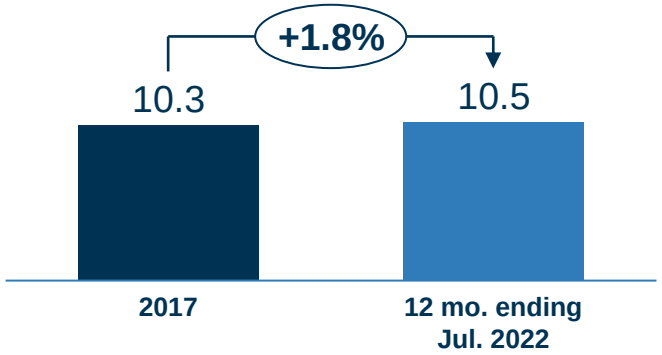
Since 2017, Evergy rates have been flat while regional rates rose 8% and inflation was 18%

Cumulative Change in Rates



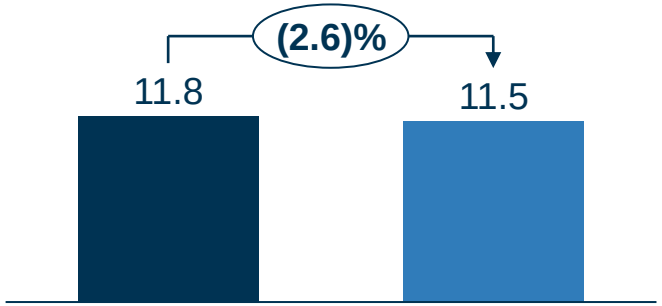
Evergy Kansas Central[1]

¢/kWh



Evergy Kansas Metro[1]

¢/kWh



1) Evergy data is sourced from FERC Form 1 pg. 304 and general ledger and inclusive of customer bill credits. 2) Regional peer data is sourced from EIA and is comprised of revenues and sales for all sectors based for the following states: Iowa, Kansas, Missouri, Minnesota, North Dakota, South Dakota, Arkansas, Oklahoma, Texas, and Colorado. 2022 is preliminary EIA data that is subject to change and is expected to be finalized in October 2023. 3) Source: US Bureau of Labor Statistics for historic CPI.

Comparative capital expenditure analysis from KCC Staff's Report And Recommendation, July 8, 2022

Electric Only Holding Company Capital Expenditure Analysis

	A		B		C		D		E	
	2021 Depr. and Amort. (millions$)	Rank	2021 Net PPE (millions$)	Rank	Capex 3 Year Total 2022-2024 (millions$)	Rank	Average 2022-2024 Cap Ex/2021 Depr. and Amort.	Rank	2022-2024 Growth in Net PPE as a % of 2021 PPE	Rank
Eversource Energy	$ 1,103	8	$ 24,659	7	$ 13,743	5	4.15	1	42.31%	1
IDACORP, Inc.	$ 179	16	$ 4,701	14	$ 1,848	14	3.44	2	27.89%	2
NextEra Energy, Inc.	$ 3,924	2	$ 56,623	3	$ 33,175	1	2.82	3	37.80%	3
PNM Resources, Inc.	$ 320	13	$ 5,594	13	$ 2,679	12	2.79	4	30.73%	4
American Electric Power Company, Inc.*	$ 2,826	3	$ 63,529	2	$ 22,680	3	2.68	5	22.36%	5
Edison International	$ 2,288	4	$ 49,883	4	$ 17,300	4	2.52	7	20.92%	6
FirstEnergy Corp.	$ 1,302	6	$ 30,647	6	$ 10,250	7	2.62	6	20.70%	7
Otter Tail Corporation*	$ 91	17	$ 1,906	17	$ 662	17	2.42	8	20.41%	8
OGE Energy Corp.*	$ 416	11	$ 9,529	11	$ 2,850	11	2.28	9	16.81%	9
Evergy Inc.	$ 896	9	$ 21,558	9	$ 6,100	8	2.27	10	15.83%	10
Pinnacle West Capital Corporation	$ 719	10	$ 16,890	10	$ 4,700	10	2.18	11	15.06%	11
Exelon Corporation	$ 5,442	1	$ 65,683	1	$ 26,025	2	1.59	15	14.77%	12
Hawaiian Electric Industries, Inc.	$ 279	14	$ 3,999	15	$ 1,328	15	1.59	16	12.28%	13
Entergy Corporation*	$ 2,243	5	$ 43,176	5	$ 12,015	6	1.79	12	12.24%	14
PPL Corporation	$ 1,121	7	$ 24,227	8	$ 5,950	9	1.77	13	10.68%	15
PG&E Corporation	$ 404	12	$ 7,005	12	$ 1,960	13	1.62	14	10.68%	16
ALLETE, Inc.*	$ 232	15	$ 3,272	16	$ 985	16	1.42	17	8.83%	17
Avg. Ex Evergy	$ 1,431		$ 25,708		$ 9,884		2.35		20.28%	
Average Regional Peers Ex Evergy	$ 1,162		$ 24,282		$ 7,838		2.12		16.13%	

Sources: S&P Global Market Intelligence, FERC Form 1 Data

* Indicates a Regional Peer Holding Company included in KCC Staff's Rate Study

Publicly-traded Holding Company capital expenditure updates since mid-2022

Company	Ticker	Company Forecast			
		Q2 2022 CapEx	Q3 2022 CapEx	% Change	Time Period
ALLETE, Inc.	ALE	1,800	2,690	49.4%	23-27 vs 22-26
Entergy Corporation	ETR	11,700	15,500	32.5%	22-26 v 23-25
Portland General Electric Company	POR	3,355	4,200	25.2%	23-27 vs. 22-26
DTE Energy Company	DTE	18,100	21,600	19.3%	23-27 vs. 22-26
Alliant Energy Corporation	LNT	6,100	8,500	14.9%	23-26 vs 22-25
WEC Energy Group, Inc.	WEC	17,700	20,100	13.6%	23-27 vs 22-26
Excel Realty Trust, Inc.	XEL	26,000	29,500	13.5%	23-27 vs 22-26
Fortis Inc.	FTS	20,000	22,300	11.5%	23-27 vs 22-26
Atmos Energy Corporation	ATO	~13,500	15,000	11.2%	23-27 vs 22-26
Spire Inc.	SR	3,050	3,340	9.5%	23-27 vs 22-26
American Water Works Company, Inc.	AWK	11,750	12,750	8.5%	23-27 vs. '22-26
Black Hills Corporation	BKH	3,202	3,455	7.9%	22-26 vs '22-26
PNM Resources, Inc.	PNM	3,458	3,693	6.8%	22-25
PG&E Corporation	PCG	46,500	49,250	5.9%	22-26
NiSource Inc.	NI	8,200	8,650	5.5%	22-24
American Electric Power Company, Inc.	AEP	38,000	40,000	5.3%	22-26 vs 23-27
CenterPoint Energy, Inc.	CNP	19,300	20,300	5.2%	21-25
Public Service Enterprise Group Incorporated	PEG	16,000	16,750	4.7%	22-26 v 23-27
Hawaiian Electric Industries, Inc.	HE	1,150	1,123	-2.4%	22-24

Source: Company filings