

Climate Risk and Resiliency Report 2026

PPL CORPORATION



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FORWARD LOOKING STATEMENT

This Climate Risk & Resiliency (“Report”) contains forward-looking statements regarding, among other things, our clean energy targets and achievement of climate commitments by certain dates, and strategies or goals related to environmental performance. These statements, and all others that reflect beliefs, plans, estimates, projections, goals, targets, expectations, strategy or any other forward-looking information, are “forward-looking statements” within the meaning of the federal securities laws. PPL Corporation believes that the forward-looking statements in this Report reflect reasonable expectations and assumptions. However, it is important to understand that forward-looking statements, and their underlying assumptions, are subject to a wide range of risks and uncertainties, both known and unknown.

ABOUT THIS REPORT

This Climate Risk & Resiliency Report updates on continued efforts to evaluate how climate-related physical risks may affect our assets, operations and customers over the short, medium and long term. Our utilities have invested in system resiliency for decades to help mitigate the impacts of severe weather and other disruptive events. As climate science, risk modeling and data availability continue to evolve, we will refine our assessments and resiliency strategies while maintaining our commitment to safe, reliable and affordable service.

PPL Corporation's approach to climate risk management and operational resiliency includes assessing how severe storms, flooding, extreme temperatures and other physical climate-related hazards may affect infrastructure and operations, evaluating potential vulnerabilities, and strengthening systems to support safe, reliable service in a changing climate.

Climate-related risks are integrated into PPL's enterprise risk management, capital planning and operational decision-making processes to help ensure the resilience of our infrastructure and the continued delivery of safe, reliable and affordable energy service.

This Climate Risk & Resiliency Report was prepared with reference to leading climate-related disclosure frameworks and industry guidance, including the International Financial Reporting Standards (IFRS) Sustainability Disclosure Standards, the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and the Electric Power Research Institute's (EPRI) SMARTarget project.

Throughout this report, we discuss climate-related risks, opportunities, assumptions and resiliency initiatives relevant to our business. The information presented reflects the best available data and analysis at the time of publication and should be considered alongside other publicly available disclosures issued by PPL Corporation.

Unless otherwise noted, this report covers activities and data through Dec. 31, 2025.

Published October TK, 2026.



MESSAGE FROM PRESIDENT AND CEO

The energy industry is undergoing one of the most significant transformations in its history. Across our service territories, energy demand is increasing, customers are adopting new technologies and severe weather events are becoming more frequent and intense. These changes reinforce the importance of maintaining a resilient energy system capable of delivering safe, affordable, reliable and resilient service while supporting economic growth and evolving customer needs.

Since publishing our 2021 Climate Assessment Report, we have strengthened our understanding of climate-related risks and opportunities through enhanced scenario analysis, expanded physical risk assessments and deeper integration of climate considerations into enterprise planning and risk management. This report reflects that continued evolution and highlights how climate resilience is increasingly embedded in our operational, capital expenditures and business planning decisions.

Our updated analysis also reflects the realities of a changing energy landscape. Rising energy demand, the growth of data centers and advanced manufacturing, increasing infrastructure needs, changing technology economics and evolving policy frameworks have altered the pace at which emissions reductions are practical. As a result, we no longer expect to achieve the interim emissions-reduction targets established in 2021. However, this does not change our long-term direction. We remain committed to achieving net-zero greenhouse gas emissions by 2050 and have already reduced generation-related carbon emissions by approximately 56% from our 2010 baseline.

We believe our net-zero goal remains an important guidepost. It helps focus decision-making, encourages innovation, supports long-term planning and challenges us to make meaningful progress wherever opportunities exist. While the path forward may change as technologies, markets and customer needs change, our commitment to responsible stewardship and continuous improvement remains unchanged. We will continue to pursue practical, cost-effective solutions that advance environmental progress while preserving the reliability, resilience and affordability our customers expect and deserve.

As you read this report, you will see how the company and its employees are strengthening our electric and natural gas systems, investing in resilience, evaluating emerging technologies and preparing for the future. I am proud of the progress we have made and confident that by maintaining a balanced approach, we can continue delivering value for our customers, communities, employees and shareowners while building a stronger, more resilient energy future.

Vincent Sorgi

WHAT'S NEW IN THIS REPORT

Since publishing our last Climate Assessment Report in 2021, PPL has continued to assess climate-related risks to its assets and its ability to reliably serve customers, while identifying opportunities to mitigate potential impacts. This report reflects advancements in climate data, risk assessment methodologies, disclosure practices, and resiliency planning, while highlighting actions taken to support safe, reliable, affordable energy service in a changing climate.



Updated Climate Data & Modeling

Enhanced climate risk assessment using enhanced data and modeling tools



Expanded Physical Risk Assessment

Completed additional analysis of climate impacts on utility operations and infrastructure



Resiliency Planning Enhancements

Continued focus on system hardening and resiliency investments designed to reduce customer impacts



Enhanced Disclosure Practices

Aligned with evolving climate reporting expectations and frameworks



Risk Management Integration

Continued discussion of climate-related governance, oversight and risk management practices

ABOUT PPL

PPL Corporation is a leading U.S. energy company headquartered in Allentown, Pennsylvania. Through our family of regulated utility companies, we provide safe, reliable and affordable electricity and natural gas service to approximately 3.6 million customers across Pennsylvania, Rhode Island, Kentucky and Virginia. Our high-performing utilities are helping meet today's energy challenges by building smarter, more resilient and more dynamic energy networks while advancing sustainable energy solutions that support economic growth and customer needs.

As energy demand grows and extreme weather events become more frequent, we continue to invest in modern infrastructure, advanced technologies and operational excellence to strengthen reliability, enhance resiliency and prepare our systems for the future. Through our Utility of the Future strategy, we are building stronger, smarter, cleaner and more efficient utilities that serve customers reliably customers while supporting the evolving energy landscape.

Collectively, our companies manage extensive electric and natural gas infrastructure and are executing approximately \$23 billion in planned infrastructure investments through 2029 to improve reliability, strengthen resiliency and prepare the grid for future customer and economic development needs.

Our approximately 6,500 employees are united by a clear purpose: powering communities and improving lives. Beyond delivering essential energy services, we partner with local organizations, invest in workforce development and education and support initiatives that strengthen the vitality and sustainability of the communities we serve. Through our philanthropic programs, employee volunteerism and community partnerships, we strive to create lasting, positive impacts across the regions we serve.



AT A GLANCE

3.6 million
customers served

6,500+
employees

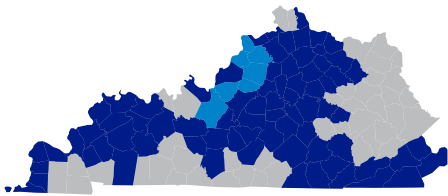
4
States with regulated electric
and natural gas utilities

\$23 billion
planned infrastructure
investments through 2029

2050
Emissions goal to achieve
net-zero carbon

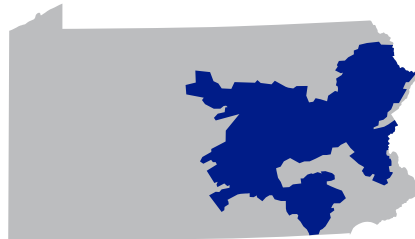
Our Structure

PPL Corporation's regulated utility portfolio includes:



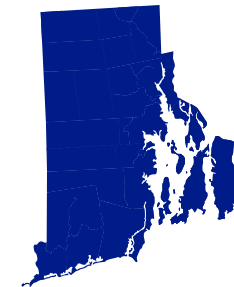
Louisville Gas & Electric (LG&E) and Kentucky Utilities (KU)

Fully integrated regulated electric and natural gas utilities serving more than 1.3 million customers in Kentucky and Virginia. Together, LG&E and KU operate approximately 7,500 megawatts of regulated generation capacity and extensive electric and natural gas infrastructure.



PPL Electric Utilities

A transmission and distribution utility serving approximately 1.5 million customers in eastern and central Pennsylvania. The company operates one of the nation's most advanced electric grids and continues to invest in technologies that improve reliability, resiliency and customer service.



Rhode Island Energy

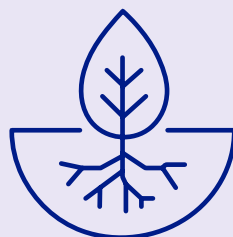
Rhode Island's primary electric and natural gas utility, serving more than 800,000 customers across the state. Rhode Island Energy delivers essential energy services while supporting the state's clean energy and resiliency goals.

OUR STRATEGY

PPL's strategy is focused on creating value for all stakeholders and centers on six strategic objectives to enable long-term growth and success:



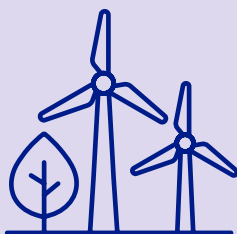
Improve the reliability and resiliency of our electric and gas networks



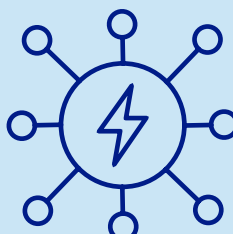
Advance a cleaner energy future affordably and reliably



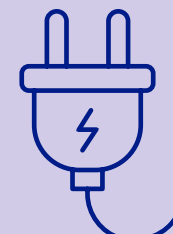
Deliver operational efficiencies to support customer affordability



Build scale and deliver sustainable growth



Empower customers through digital solutions and better customer service



Develop/empower employees to thrive in a rapidly changing energy landscape

UPDATED EMISSIONS OUTLOOK

Since publishing our 2021 Climate Assessment, the energy and policy landscape has changed significantly. Rising energy demand, including anticipated growth from economic development and data centers, increasing infrastructure needs, changes in technology costs and evolving regulatory and market conditions have narrowed the range of potential pathways for reducing emissions across our electric and gas networks.

As part of our 2026 Climate Risk & Resiliency Report, we evaluated a range of planning scenarios informed by recent integrated resource planning and generation expansion studies. Based on the planning scenarios evaluated for this report, PPL no longer expects to achieve the previously announced 70% reduction by 2035 or 80% reduction by 2040. PPL is therefore reassessing those interim targets in light of customer demand, reliability requirements, technology availability, cost and evolving regulatory conditions.

Similarly, the planning scenarios evaluated for this report indicate that unabated coal generation may remain part of the resource mix beyond 2050 under currently foreseeable conditions. PPL will continue to evaluate emerging technologies, policy developments and customer needs to identify cost-effective pathways that support emissions reductions while maintaining the safe, reliable and affordable energy service on which our customers depend.

While our interim outlook has changed, our long-term direction has not. We continue to evaluate means and methods to achieve net-zero greenhouse gas emissions by 2050. We have made significant progress since establishing our 2010 baseline, reducing generation-related carbon emissions by approximately 56% through a combination of fleet optimization, operational improvements and strategic investments.

Investors and other stakeholders continue to focus on the relationship among emissions reductions, power generation planning, capital investment and long-term resiliency. PPL's planning processes evaluate these considerations together, recognizing that future resource decisions must balance environmental objectives with safety, reliability, affordability, infrastructure requirements and changing customer demand.

We believe that maintaining flexibility in our planning process allows us to adapt to changing conditions while continuing to make meaningful progress toward our long-term climate goals.

KENTUCKY GENERATION RESOURCES⁽¹⁾

Power Plant	Owned capacity MW
Coal	
E.W. Brown	412
Ghent	1,919
Mill Creek	1,165
Trimble	919
Natural Gas	
Cane Run (CCGT)	691
E.W. Brown	906
Trimble County	954
Paddy's Run	170
Haefling	24
Hydro	
Ohio Falls	100.8
Dix Dam	31.5
Solar	
Brown Solar	10
Simpsonville Solar	2

⁽¹⁾Based upon 2025 generation.

CAPACITY MIX (MW)

	2025	%	2035	%	2040	%	2050	%
Coal	4,415	60.4%	3,854	39%	3,702	37%	2,834	28%
CCCT	691	9.4%	2,632	27%	2,632	26%	3,277	33%
SCCT	2,054	28.1%	2,007	20%	2,250	23%	2,493	25%
BESS	-	-	1,025	10%	1,025	10%	1,025	10%
Solar	12	0.1%	252	3%	252	3%	252	3%
Hydro	132	2%	132	1%	132	1%	132	1%

ENERGY MIX (%)

	2025	2035	2040	2050
Coal	78.7%	52.3%	51.7%	38.2%
Gas	20.3%	45.9%	46.5%	59.9%
Solar	0.06%	1.1%	1.1%	1.1%
Hydro	1.0%	0.8%	0.7%	0.7%

CARBON INTENSITY (METRIC TONS / MWH)

2010	2025	2035	2040	2050
0.894	0.842	0.667	0.676	0.603

CLIMATE SCENARIO ANALYSIS

In this report, we evaluate climate-related risks and opportunities through a range of plausible future energy transition scenarios informed by PPL's long-term planning processes, including integrated resource planning, power generation expansion studies and business planning analyses. These scenarios consider how changing regulatory requirements, customer demand growth, technology development and economic conditions could influence future energy needs, generation resources and greenhouse gas emissions.

The scenarios are designed to assess the potential range of emissions that may result from different resource planning outcomes while maintaining our commitment to provide safe, reliable and affordable energy service. Consistent with our approach to climate risk management, the scenarios also help inform strategic decision-making by identifying key uncertainties that could influence the pace and pathway of the energy transition.

To evaluate potential future outcomes, PPL analyzed two bounding scenarios derived from recent generation and energy demand planning studies. Together, these scenarios provide a range of potential outcomes that illustrate how future emissions could vary depending on factors such as customer demand growth, regulatory developments, technology costs, resource availability and system reliability requirements.

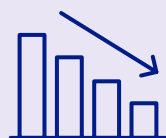
This approach better reflects today's planning reality where safety, reliability, affordability, resource adequacy and load growth are major drivers alongside emissions reduction objectives.

While based on reasonable planning assumptions, these scenarios are not predictions of future performance and do not represent specific business plans. Rather, they serve as analytical tools to help evaluate potential risks, opportunities and strategic considerations associated with the transition to a lower-carbon energy future.

Climate Scenario Highlights

Our 2026 climate assessment evaluates a range of plausible emissions pathways using scenarios developed through recent integrated resource planning and generation expansion analyses. The scenarios reflect differing assumptions related to economic growth, data center demand, regulatory requirements, technology deployment and resource availability.

The resulting emissions range demonstrates that future emissions outcomes will depend on a complex set of factors, including customer energy needs, the pace of electrification, the availability and cost of new technologies, environmental regulations and the continued need to maintain safe, reliable and affordable service. By evaluating a range of potential futures rather than a single forecast, PPL can better understand climate-related risks and opportunities and support informed decision-making across the enterprise.



Lower Demand Planning Scenario

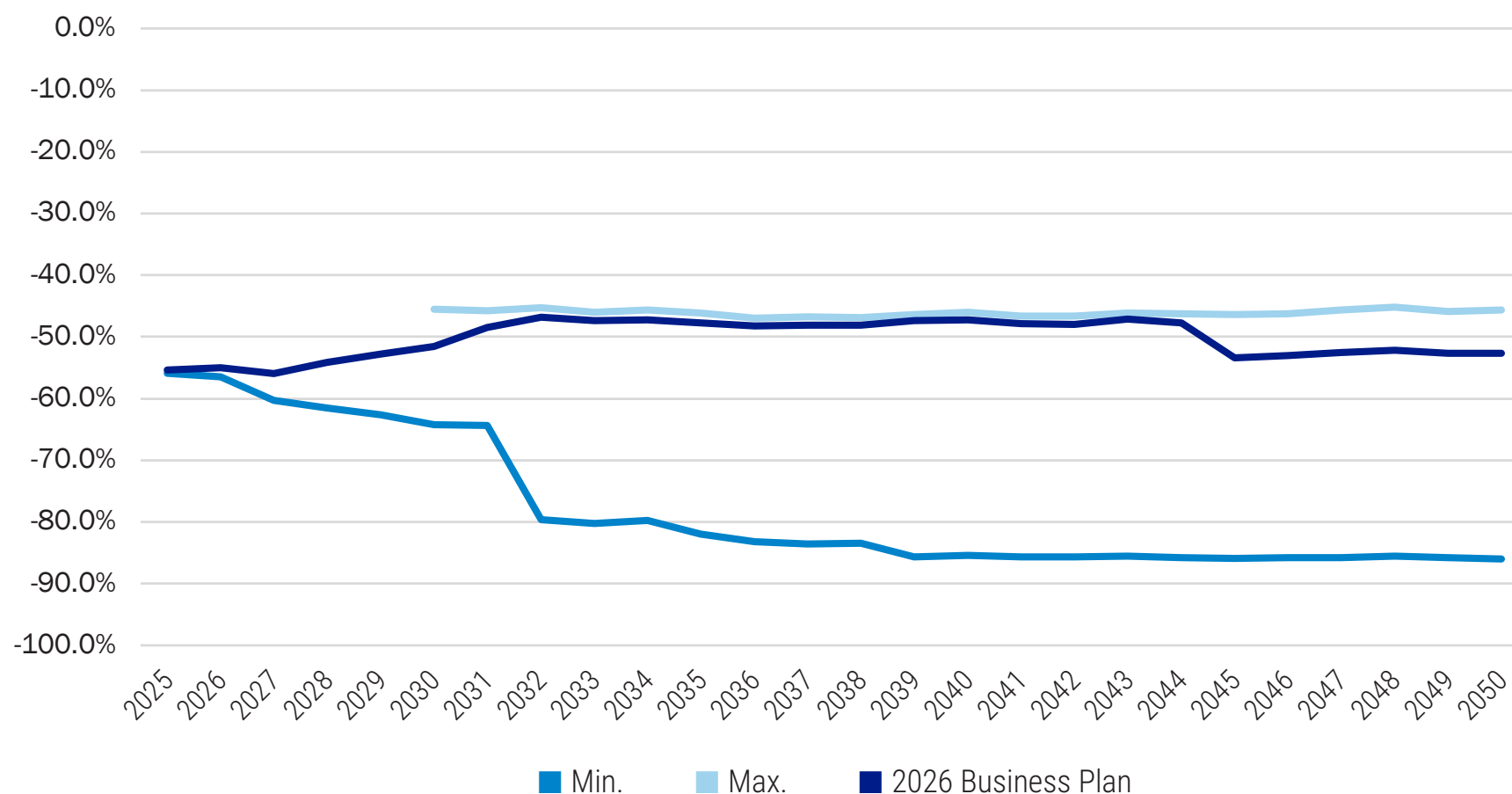
- Reflects a future characterized by lower customer load growth, accelerated energy efficiency and distributed energy resources and more stringent environmental regulations.
- Includes earlier retirement of coal-fired generation, significant additions of renewable energy resources and new natural gas generation to maintain system reliability.
- This pathway results in the greatest modeled emissions reductions among the planning cases evaluated.



Higher Demand Planning Scenario

- Reflects a future characterized by significant economic growth and increased energy demand, including substantial data center development across our service territory.
- Assumes continued operation of certain generating assets for longer periods, additional natural gas generation to support load growth and reliability and more limited renewable resource additions beyond currently planned projects.
- This pathway results in the lowest modeled emissions reductions among the planning cases evaluated.

Range of CO₂e Emissions Reductions from 2010 Baseline¹



¹ Emission reduction projections are based upon publicly available generation planning report values.
 The Min. value follows the LG&E and KU 2025 Integrated Resource Plan.
 The Max. value is based upon the LG&E and KU 2026 Certificate of Public Convenience and Necessity.

Climate Risks and Opportunities

Climate change, changing customer expectations, public policy requirements, technological innovation and economic growth are reshaping the energy landscape. These trends present both challenges and opportunities for PPL as we work to deliver safe, reliable and affordable energy while supporting long-term sustainability goals.

Our planning processes help us evaluate a broad range of potential futures, allowing us to identify climate-related risks and opportunities, strengthen resiliency and inform investment decisions across our business. These assessments are regularly reviewed by senior management and the Board of Directors and are integrated into long-term business planning and enterprise risk management.

Risks

Physical Risks

More frequent and severe storms, flooding, extreme temperatures and other weather-related events may damage infrastructure, disrupt operations and increase operating and capital costs.

Growing Energy Demand

Rapid economic development, electrification and the emergence of large energy users, such as data centers, are expected to drive significant growth in energy demand.

Energy Transition Risks

Changes in technology, fuel markets and customer preferences may influence the pace of the energy transition.

Regulatory Uncertainty

Changes in environmental policy and regulation may influence the pace of the energy transition.

Opportunities

Grid Modernization

Investments in transmission and distribution infrastructure create opportunities to enhance reliability, strengthen resiliency and support the integration of new energy resources.

Economic Development and Load Growth

Increasing demand from data centers, advanced manufacturing and electrification creates opportunities for strategic investments that support economic growth across our service territories.

Innovation and Emerging Technologies

Advancements in energy storage, grid technologies, distributed energy resources and other emerging solutions may support a more efficient, resilient and lower-carbon energy system.

Regulated Infrastructure Investments

PPL's regulated utility model enables prudent investments in infrastructure that benefit customers while supporting long-term value creation.

CLIMATE-RELATED RISKS AND OPPORTUNITIES BY ASSET CLASS

Climate-related risks and opportunities vary across PPL's asset portfolio. The following summary identifies key physical and transition factors that may affect our infrastructure and operations, along with actions that support safety, reliability, resiliency, affordability and informed long-term planning. The examples are not exhaustive and may change as climate conditions, customer needs, technologies, markets and public policies change.

ELECTRIC TRANSMISSION



Physical Risks

Severe storms, high winds, flooding, extreme heat, extreme cold, ice and wildfire may damage structures and equipment, reduce line capacity, limit access to facilities and contribute to outages or longer restoration periods. Supply chain disruptions may also delay the availability of critical equipment.



Transition Risks

Rapid load growth, including demand associated with electrification, economic development and data centers, may require accelerated transmission expansion. Permitting, siting, regulatory uncertainty, customer affordability and capital execution may affect the timing and cost of new infrastructure. Resource adequacy pressures and retirements of existing generation may also challenge grid reliability.



Mitigation Actions

System hardening, vegetation management, automation, new and expanded lines and substations, weather-informed planning, equipment monitoring, supplier diversification, critical-equipment inventory and regulatory engagement.



Opportunities

Modernize and expand the transmission network; improve flexibility and redundancy; support new generation resources, economic development and load growth; and strengthen the ability of the system to respond to changing energy needs.

ELECTRIC DISTRIBUTION

**Physical Risks**

Severe storms, high winds, flooding, ice, extreme heat, extreme cold and wildfire may damage poles, wires, substations and other equipment, increase outages and restoration costs, and affect customer satisfaction. Higher temperatures and demand may also reduce transformer capacity, accelerate equipment aging and decrease operational flexibility.

**Transition Risks**

Electrification, distributed energy resources, changing customer usage, data center growth and new technologies may create more variable or concentrated demand. These changes may require additional system capacity and more advanced operating capabilities. Affordability, regulatory structures and IT execution could affect the pace of modernization.

**Mitigation Actions**

Stronger poles and wires, targeted vegetation management, automation that reroutes power, additional substations and circuits, flood protection for critical facilities, enhanced forecasting and planning, cybersecurity controls, and storm-response preparation.

**Opportunities**

Deploy advanced grid technologies; improve reliability and restoration; integrate distributed energy resources; support electrification and customer growth; and develop a more flexible and responsive distribution network.

NATURAL GAS OPERATIONS

**Physical Risks**

Flooding, severe storms, extreme cold, loss of power and catastrophic events such as pipeline failures and major LNG tank leaks may damage facilities, interrupt operations or affect access to critical equipment.

**Transition Risks**

Changing climate and regulatory policies, technology costs, customer preferences and affordability considerations may influence long-term demand and investment requirements for natural gas systems. Limited commercial availability of deep-decarbonization technologies is a potential constraint for generation and gas distribution emission reductions.

**Mitigation Actions**

Pipeline integrity management, replacement of aging infrastructure, backup generation, protection of sensitive equipment, enhanced heating and monitoring systems, water-resiliency evaluations, emergency preparedness, regulatory compliance and business continuity planning.

**Opportunities**

Modernize pipelines and facilities; improve safety and operational resilience; reduce system losses and methane emissions where supported by operating programs; and evaluate emerging technologies and lower-carbon solutions as they become technically and economically viable.

POWER GENERATION

**Physical Risks**

Extreme heat may reduce plant efficiency and available generating capacity, affect cooling performance and accelerate equipment wear. Extreme cold may freeze equipment or disrupt fuel supplies. Flooding, high winds and other severe weather may damage facilities, restrict access or affect fuel and reagent deliveries. Equipment failure may also result in outages or derates.

**Transition Risks**

Resource adequacy, customer affordability, environmental requirements, fuel and technology costs, changing load forecasts and the commercial availability of decarbonization technologies may influence the timing and selection of future resources. Increasing demand from electrification and data centers, coal plant retirements and insufficient dispatchable generation could also be potential reliability challenges.

**Mitigation Actions**

Integrated resource planning, generation expansion analysis, preventive maintenance, strategic spare-parts inventories, cold-weather procedures, fuel inventory management, cooling-system enhancements, flood protection, scenario planning, regulatory engagement and ongoing evaluation of emerging technologies.

**Opportunities**

Invest in efficient and reliable replacement capacity; evaluate energy storage and emerging generation technologies, including geothermal, advanced nuclear and renewable generation; improve plant resilience and operational performance; and support economic growth while preserving system reliability and customer affordability.

RESILIENCE PLANNING ACROSS THE ENTERPRISE

Across PPL's operating companies, resilience is a core component of how we plan, build, operate and maintain our electric and natural gas systems. As climate-related weather events become more frequent and severe, and as customer demand and system complexity continue to grow, PPL is focused on strengthening the resilience of its infrastructure while maintaining safe, reliable and affordable service. Resilience considerations are integrated into operational planning, capital investment decisions, emergency preparedness activities, transmission and distribution planning, resource planning and enterprise risk management processes.

ENTERPRISE RESILIENCE PLANNING FRAMEWORK



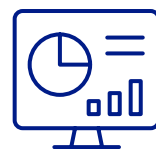
Monitor

- Reliability metrics for electric and natural gas delivery and generation operations



Assess

- Weather and Climate Trends
- Resource Adequacy
- Economic Growth & Data Centers



Plan

- Transmission Expansion
- Grid Modernization
- Gas Supply Reliability
- Generation Planning



Invest

- System Hardening
- Vegetation Management
- Automation & Advanced Technologies



Deliver

- Safe and Reliable Service
- Faster Restoration
- Greater Resilience
- Customer Affordability

Infrastructure Resilience

PPL's operating companies continue to invest in system hardening, modernization and asset management programs designed to improve the performance of critical infrastructure under both routine operating conditions and severe weather events. These efforts include strengthening electric transmission and distribution systems, enhancing vegetation management programs, replacing aging infrastructure, maintaining generation assets and advancing pipeline integrity and modernization programs.

Our utilities' transmission hardening and resiliency plans are designed to address risks associated with extreme heat, extreme cold, flooding, tornadoes and high winds. Long-term transmission expansion planning helps ensure the system can meet both current and future capacity needs while incorporating reliability and resiliency requirements. In addition, we continue to advance grid modernization initiatives, including deployment of advanced meters, automated devices and other technologies that improve visibility into system conditions and improve operational performance.

Climate Adaptation and Emergency Preparedness

Operating companies across the enterprise continuously evaluate how changing weather conditions may affect infrastructure, operations and customers. Severe storms, flooding, high winds, extreme temperatures and other weather-related events can increase operational challenges and place additional stress on utility systems. As a result, PPL's utilities maintain emergency response plans, conduct regular preparedness exercises with external stakeholders and invest in operational capabilities that support faster restoration and improved resilience.

Vegetation management, weather monitoring, system hardening, operational planning and wildfire mitigation efforts all contribute to reducing the impacts of severe weather events and strengthening recovery capabilities following disruptions. As weather patterns change, the company expects resilience planning and adaptation efforts to remain an increasingly important component of utility operations.

Reliability and Resource Adequacy

Ensuring adequate infrastructure and energy resources are available to meet customer needs is a key element of resilience planning. PPL's planning teams conduct long-term load forecasting, generation expansion studies, transmission and distribution planning and resource adequacy analyses to evaluate future system needs under a range of potential conditions.

Rapid growth in energy demand, including increased electrification, economic development and large-load customers such as data centers, has increased uncertainty and reinforced the importance of long-term planning. These trends are driving additional focus on generation resources, transmission infrastructure and system flexibility to ensure reliable service can be maintained as customer needs change.

Balancing Reliability, Affordability and the Energy Transition

As the energy landscape evolves, resilience planning increasingly requires balancing multiple objectives, including reliability, affordability, sustainability and customer expectations. PPL's planning and operational teams evaluate a broad range of factors, including weather and climate trends, fuel markets, technology development, environmental regulations, customer growth and emerging energy needs.

The company continues to focus on maintaining safe, reliable and affordable service while evaluating pathways to support long-term environmental objectives. Integrated planning processes help ensure that infrastructure investments, generation resources, natural gas operations and emerging technologies are evaluated holistically to support resilient, cost-effective and sustainable outcomes for customers and communities.

TECHNOLOGY, INNOVATION AND SYSTEM FLEXIBILITY

Advanced technologies are playing an increasingly important role in supporting resilience. Across the enterprise, utilities continue to deploy smart grid technologies, advanced metering infrastructure, automated distribution devices and enhanced monitoring systems that improve situational awareness and operational flexibility.

These technologies help utilities identify and respond to system issues more quickly, improve outage management capabilities and support the integration of emerging technologies and distributed energy resources. Rhode Island Energy is also advancing distributed energy resource management capabilities and Volt/Var optimization technologies that improve system efficiency and flexibility while supporting the state's climate and clean energy objectives.

Research and development plays an important role in PPL's resilience and long-term planning activities. Through partnerships with universities, national laboratories, industry organizations and technology developers, PPL evaluates emerging technologies that may support reliability, resiliency, affordability and sustainability objectives. The company maintains a portfolio of research projects focused on areas including grid modernization, energy storage, renewable energy integration, carbon capture, geothermal technologies and advanced nuclear generation.

Growing energy demand associated with electrification, advanced manufacturing, artificial intelligence and data centers is increasing interest in technologies that can provide reliable, scalable and lower-carbon energy solutions. Areas of particular focus include advanced nuclear technologies, long-duration energy storage, artificial intelligence, predictive analytics and grid automation. These technologies may play an increasingly important role in supporting reliability, resilience and future resource adequacy.

INNOVATION PIPELINE FOR A RESILIENT ENERGY FUTURE

ADVANCING ENERGY INNOVATION AND RESILIENCE

175+ active R&D projects

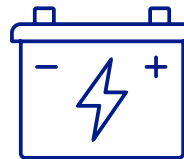
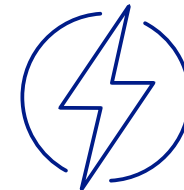
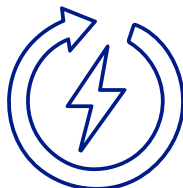
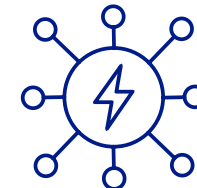
**Research Partnerships**

- EPRI
- Universities
- National laboratories

**Renewable Integration Research Facility**

- Real-world technology testing
- Renewable integration research

TECHNOLOGIES SHAPING THE FUTURE GRID

**Advanced Nuclear (SMRs & Microreactors)****Energy Storage****Renewable Integration****Carbon Capture****AI & Predictive Analytics****Grid Automation**

RISK MANAGEMENT

PPL maintains a robust enterprise risk management process that provides a portfolio-wide view of material risks that may impact the achievement of PPL's business strategy.

Climate-related risks are evaluated through a cross-functional process that includes Environmental Compliance, Regulatory Affairs, Financial, Legal, Energy Supply, Supply Chain, Operations, Sustainability and Enterprise Risk Management. These groups monitor developments in environmental policy, energy regulation, litigation, disclosure requirements, resource adequacy, infrastructure investment and customer affordability to identify emerging risks and opportunities. Risk assessments are incorporated into planning, capital investment, regulatory strategy and business decision-making processes across the enterprise.

ENTERPRISE RISK MANAGEMENT PROCESS

Identify >

Business Planning & Decision Making

Representatives from PPL's operating companies and service groups identify, assess, monitor and report ongoing and emerging risks, including climate-related and broader environmental, social and governance risks.

Assess & Prioritize >

Methodology

- The ERM process identifies and evaluates risks by both severity of impact and probability of occurrence. An internal process is in place to monitor and manage identified risks.
- Risks are categorized according to impact after considering mitigating controls using a four-point scale (immaterial, low, medium, high).
- Current and planned mitigation activities are captured and assigned ownership at the appropriate level.

Respond >

Monitor >

REPORT

Board oversight

The Risk Management group oversees this process, reviews it with executive leadership and reports quarterly to the Audit Committee of the Board of Directors.

REGULATORY ENGAGEMENT AND THE EVOLVING ENERGY LANDSCAPE

Federal and state energy policies play an important role in PPL's ability to plan, invest and operate for a more reliable, resilient and lower-carbon energy future. Regulatory and legislative decisions can affect infrastructure permitting, transmission development, generation resources, environmental compliance, customer affordability and the pace at which emerging technologies can be deployed.

Although the regulatory priorities and energy systems in each jurisdiction differ, several consistent themes are emerging across PPL's footprint. Growing energy demand is increasing the need for generation, transmission and distribution investment. Severe weather and infrastructure needs are elevating the importance of resilience. New technologies and changing environmental requirements are creating both opportunities and planning uncertainty. At the same time, affordability remains an essential consideration in determining the timing, design and implementation of energy and climate policies.

PPL's federal and state External Affairs and Regulatory Affairs teams monitor these developments, participate in legislative and regulatory proceedings and engage with policymakers, regulators and other stakeholders. These activities help the company anticipate potential changes, evaluate risks and opportunities and advocate for policies that support safe, reliable and affordable energy service.

Federal

- Grid resilience, advanced generation and emerging technologies
- Reliability and resource adequacy
- Permitting and environmental review
- Transmission planning and infrastructure expansion
- Environmental regulation and compliance
- Federal tax, grant and financing programs
- Policy uncertainty and litigation

Kentucky

- Reliability and resource adequacy
- Dispatchable generation and advanced nuclear technology
- Generation and transmission investment
- Customer affordability and infrastructure cost allocation
- Air, water and coal combustion residual compliance
- Data center and industrial load growth
- Integrated resource planning and regulatory approvals

Pennsylvania

- Resource adequacy and potential utility-owned generation
- Utility regulation and cost recovery
- Data center load, infrastructure requirements and local impacts
- Potential future shifts in climate and energy policy
- Customer affordability and rate design
- Advanced transmission technologies
- PJM capacity costs and regional market participation

Rhode Island

- Renewable Energy Standard compliance
- Customer affordability and rate impacts
- Infrastructure, safety and reliability investment
- Future role of the natural gas distribution system
- Resource adequacy and regional energy constraints
- Implementation of the Act on Climate
- Land availability and competing policy priorities

Federal

At the federal level, decisions by Congress, federal agencies and regulators influence nearly every part of the energy system. Key areas include environmental review and permitting under laws such as the National Environmental Policy Act, Clean Air Act, Clean Water Act and Endangered Species Act; Federal Energy Regulatory Commission oversight of transmission planning, interconnection, reliability and wholesale markets; congressional decisions on taxes and federal spending; Department of Energy financing, grant and demonstration programs; and Environmental Protection Agency regulation of air emissions, water discharges, coal combustion residuals, methane and other environmental matters.

The federal policy environment has recently shifted toward deregulation, domestic energy production, reliability and infrastructure development, accompanied by reductions or changes to some climate-focused policies and programs. At the same time, continued federal support in selected areas may contribute to a lower-carbon and more resilient energy system, including advanced nuclear energy, geothermal development, transmission expansion and grid hardening. There also have been continued bipartisan discussions around permitting reform, transmission development and grid resilience.

Legal challenges and changing administrative priorities have increased uncertainty for long-term energy and climate planning. Meanwhile, energy demand from data centers, domestic manufacturing and other large-load customers is increasing the focus on resource adequacy. As a result, reliability, resilience and affordability are increasingly prioritized alongside emissions reductions and other climate-related considerations.

Looking ahead, federal attention is expected to remain focused on accommodating large-load growth, expanding transmission infrastructure, improving grid resilience and streamlining permitting. Climate and sustainability priorities will likely continue to be considered in conjunction with affordability, reliability and cybersecurity. Changes in political leadership may also contribute to shifts in regulatory direction and oversight. Environmental and energy policies continue to evolve at both the federal and state levels. Changes in environmental regulations affecting air emissions, water discharges, coal combustion residuals, permitting requirements and greenhouse gas reporting can influence long-term planning assumptions, investment decisions and operational requirements. PPL's Environmental Compliance and legal teams monitor policy developments, litigation outcomes, regulatory proceedings and emerging disclosure requirements to help ensure compliance and support informed business decision-making. Environmental, energy and resource adequacy policies are increasingly interconnected, requiring consideration of reliability, affordability, customer needs and environmental objectives when evaluating future infrastructure and resource investments.

PRIORITIES AT A GLANCE

- Grid resilience, advanced generation and emerging technologies
- Reliability and resource adequacy
- Permitting and environmental review
- Transmission planning and infrastructure expansion
- Environmental regulation and compliance
- Federal tax, grant and financing programs
- Policy uncertainty and litigation

Kentucky

In Kentucky, recent legislative and regulatory activity has focused primarily on reliability, resource adequacy, customer affordability, dispatchable generation, advanced nuclear development and the management of significant new electric loads.

During the 2025 and 2026 legislative sessions, policymakers continued to focus on maintaining sufficient dispatchable resources to meet growing customer demand. Proposed legislation in 2026 addressed integrated resource planning and generation sufficiency, including limiting prolonged reliance on capacity purchases from regional transmission organizations. Although the legislation did not pass, it reflected continued interest in generation ownership, resource adequacy and system reliability. At the same time, Kentucky has advanced policies supporting nuclear energy. Recent measures have established a nuclear energy development grant program and a pilot program focused on nuclear reactor site readiness, licensing and related economic development.

Data centers and other large-load customers have also become significant energy policy issues. Proposed legislation has addressed cost-of-service analysis, minimum contract provisions, infrastructure cost allocation and protections intended to prevent costs associated with serving data centers from being shifted to other customers. Other proposals have considered siting, water availability, infrastructure capacity and energy and water reporting. The Kentucky Public Service Commission is also addressing large-load growth through utility proceedings and specialized tariff structures, including LG&E and KU's Extremely High Load Factor tariff. These developments reflect the

PRIORITIES AT A GLANCE

- Reliability and resource adequacy
- Dispatchable generation and advanced nuclear technology
- Generation and transmission investment
- Customer affordability and infrastructure cost allocation
- Air, water and coal combustion residual compliance
- Data center and industrial load growth
- Integrated resource planning and regulatory approvals

potential effects of large loads on generation needs, transmission planning, load forecasts, system reliability and customer affordability.

Kentucky Public Service Commission proceedings involving rate cases, certificates of public convenience and necessity, integrated resource planning, generation and transmission investment, tariffs and environmental compliance cost recovery continue to shape LG&E and KU's operations and long-term planning.

Looking ahead, Kentucky is expected to remain focused on reliability, resource adequacy, dispatchable generation, advanced nuclear technologies and the infrastructure needed to serve economic development and large-load growth.

Pennsylvania

In Pennsylvania, the two-year legislative session is a primary vehicle for addressing energy, environmental and utility policy. Current activity is heavily focused on resource adequacy, data center growth, affordability, transmission technology and utility regulation. PPL Electric Utilities participates in these discussions and in Pennsylvania Public Utility Commission proceedings, including rate cases and other utility filings.

Resource adequacy has become a central concern as energy demand grows and the region faces questions about the pace of new generation development. PPL has engaged with legislative leaders regarding proposals that would permit public utilities to own and operate generation when resource adequacy shortfalls occur. The company anticipates continued interest in this approach if capacity prices remain high and independent generation development does not keep pace with demand.

Data center policy has also changed rapidly. Initial efforts to attract data center investment have been accompanied by proposals addressing energy and water reporting, tax treatment, local zoning and development pauses. On Aug. 18, 2026, the governor signed an executive order implementing the GRID program, which, according to the regulatory response, requires data centers to provide generation and fund transmission upgrades, report water and energy needs, engage with communities and meet environmental performance standards.

PRIORITIES AT A GLANCE

- Resource adequacy and potential utility-owned generation
- Utility regulation and cost recovery
- Data center load, infrastructure requirements and local impacts
- Potential future shifts in climate and energy policy
- Customer affordability and rate design
- Advanced transmission technologies
- PJM capacity costs and regional market participation

Affordability has become another dominant consideration as higher PJM capacity prices and growing energy demand affect customer bills. Proposed legislation has addressed default electric service, customer deposits and payment arrangements, net metering, the Gross Receipts Tax, utility participation in regional transmission organizations and allowed returns on equity. The fiscal year 2026-27 budget package also authorized the Pennsylvania Public Utility Commission to require utility evaluations of advanced transmission technologies, including high-performance conductors, dynamic line ratings, advanced power-flow controllers and topology-optimization software.

Rhode Island

Rhode Island has established ambitious climate and clean energy policies, including the 2021 Act on Climate, which sets an economy-wide goal of net-zero emissions by 2050, and a Renewable Energy Standard that currently calls for 100% renewable electricity supply by 2033.

Rhode Island Energy operates within this framework while also responding to requirements related to least-cost procurement, net metering, facility siting, infrastructure investment, safety and reliability. State planning processes, including the State Resilience Plan, State Energy Plan, State Resiliency Plan and Climate Action Plan, also inform the broader policy environment.

The annual legislative session is a central forum for considering energy and climate policies that may affect Rhode Island Energy's operations. In 2026, proposals addressed subjects that included nuclear procurement, climate-related financial responsibility, thermal energy networks, gas-system policy, clean heat requirements, insurance coverage for fossil fuel-related infrastructure and utility investment. Rhode Island Energy also participates in regulatory proceedings involving utility benefit-cost assessments, the future of the gas distribution system, annual infrastructure, safety and reliability plans and its rate case.

Rhode Island's policy discussion increasingly reflects tension between climate objectives, energy affordability and preserving customer choice, with growing advocacy for restrictions on gas distribution investment and demonstration of gas-system decommissioning alongside consideration of adjustments to certain clean energy

PRIORITIES AT A GLANCE

- Renewable Energy Standard compliance
- Customer affordability and rate impacts
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- Land availability and competing policy priorities

mandates to reduce pressure on customer costs. The governor's proposed fiscal year 2027 budget, for example, proposed moving the Renewable Energy Standard's 100% compliance date from 2033 to 2050, although the General Assembly ultimately rejected this change.

Rhode Island is expected to remain active in climate and clean energy policy, but the direction and pace of future action will likely be shaped by customer affordability, resource adequacy, wholesale-market viability, technological evolution and regional energy constraints. Regulatory treatment of the natural gas distribution system, including policies related to gas line extensions, is expected to receive increasing attention.

STAKEHOLDER ENGAGEMENT

Continuous engagement is critical as we work to create the utility of the future. Whether building and maintaining more resilient infrastructure or transitioning to cleaner energy sources, we strive to ensure a balanced, responsible and just transition that considers the impact on employees, communities and customers.

PPL engages with stakeholders regularly and values the insights they provide as we work to deliver results today and set strategic goals for the future.

Empowering customers and communities

PPL invests in infrastructure improvements that enhance resiliency, deliver cleaner energy and expand programs such as electric vehicle charging and energy efficiency. We believe cleaner energy and grid resiliency provide broad benefits for all communities and work to ensure these opportunities reach customers who want and need them.

Environmental impact and engagement

Infrastructure projects can affect local communities, and PPL leverages decades of experience to minimize impacts through early engagement and transparent communication. Our practices include environmental screening, public meetings, stakeholder surveys and collaboration with local leaders. We support research and innovation to advance sustainable resource management. We also responsibly manage and remediate former operational sites, including legacy manufactured gas plant locations, working closely with state environmental agencies and local stakeholders to restore properties, protect human health and the environment and support productive future land use.

Across our service territories, we partner with conservation organizations to protect biodiversity and ecosystems. Efforts include grants for community revitalization, pollinator habitat management, stream rehabilitation, species protection and distribution of trees and native plants to parks, schools and environmental groups.

Responsible business practices

We consider environmental and economic factors when planning development activities and have a structured engagement strategy for projects with significant community impact. This includes identifying stakeholders, assessing outreach needs and creating strategic communications plans.

Plant retirements are managed to minimize disruption to employees and communities. In Kentucky, where power plants provide hundreds of jobs and tax revenue, we work closely with regulators, employees and local leaders during a multi-year process. Strategies include retraining programs, internal transfers and staffing new facilities, often at the same sites as retired units. Our planning provides flexibility for each location, supports reinvestment and reuse of generation sites and promotes economic development through reliable, affordable and resilient energy.

PPL's utilities maintain strong community relationships through active engagement with local boards, neighborhood groups and elected officials. Past plant retirements have been completed with minimal workforce disruption, and future plans through 2027 include multi-year workforce strategies to reduce impacts through attrition, planned retirements and retraining.

GOVERNANCE

An engaged, experienced and diverse board aligned with and responsive to shareowner interests ensures we continue to deliver safe, reliable and affordable energy to our customers and long-term value for shareowners.

PPL's Board of Directors is committed to its role in exercising independent oversight of the company's business strategies and risk management. The board's responsibilities include overseeing the company's long-term strategy and execution, risk management policies and practices, selecting the company's leaders and advising senior management.

PPL's Board of Directors reviews climate and environmental, social and governance issues as part of corporate strategy discussions, including the company's transition to cleaner energy and the adoption of and progress toward carbon emissions-related goals. The board has designated its Governance, Nominating and Sustainability Committee (GNSC) as the body responsible for overseeing PPL's sustainability strategy and responsible business practices and positions. The board stays informed on these matters through regular updates from subject matter experts.

SUSTAINABILITY GOVERNANCE



GOVERNANCE, NOMINATING AND SUSTAINABILITY COMMITTEE, BOARD OF DIRECTORS

Oversees the company's practices and positions to further its sustainability strategy and corporate governance, including specific environmental and corporate social responsibility initiatives.



CORPORATE LEADERSHIP COUNCIL AND KEY LEADERS

Review and provide strategic input on and approve the company's sustainability strategy and priorities. Executive leadership (CEO, CFO, COO, CTIO, CLO, CHRO), business segment presidents, the sustainability officer, and chief security officer guide the development of the sustainability strategy and enable the integration of sustainability across the enterprise and in the corporate strategy.



CORPORATE SUSTAINABILITY COMMITTEE

Provides oversight and establishes priorities and performance metrics. This committee is led by the senior sustainability officer and includes senior leadership membership from operating companies, human resources, compliance, risk, investor relations, controller, legal, supply chain and corporate audit.



SUSTAINABILITY CORE TEAM

Cross-functional and enterprise-wide team of subject matter experts that conducts analyses of sustainability priority issues and environmental, social and governance trends, and is responsible for developing environmental, social and governance disclosures.

METRICS AND TARGETS

Net Zero

PPL remains committed to achieving net-zero greenhouse gas emissions by 2050. We have made significant progress since establishing our 2010 baseline, reducing generation-related carbon emissions by approximately 56% through a combination of fleet optimization, operational improvements and strategic investments.

SCOPE 1 NET-ZERO GOAL-RELATED EMISSIONS (2010 BASELINE)

	2010	2024	2025
Scope 1: Gross MWh of Owned Generation (metric tonnes of CO ₂ e)	60,736,086 ¹	26,443,629	27,038,766
Scope 1: Fleet Vehicles (metric tonnes of CO ₂ e)	48,343	33,008	33,447
Scope 1: Small Plant Stationary Fuel Combustion Sources (metric tonnes of CO ₂ e)	2,515	5,539	4,280
Scope 1: Plant Mobile Equipment (metric tonnes of CO ₂ e)	4,893	5,668	2,978
Scope 1: Fugitive SF₆ Emissions (metric tonnes of CO ₂ e)	114,727	16,222	15,031
Scope 1: Gas Used in Facilities (stationary fuel combustion) (metric tonnes of CO ₂ e)	18,250	13,913	15,031
Scope 2: Electricity Use in Facilities (metric tonnes of CO ₂ e) ²	89,732	18,611	19,196
Scope 3: Electricity Purchased for End Use Customers - LG&E and KU (MWh)	1,906,442	634,813	176,591
Scope 3: Electricity Purchased for End Use Customers - LG&E and KU (metric tonnes of CO ₂ e)	1,597,157	558,171	183,747
Total Goal-Related Emissions (metric tonnes of CO ₂ e)	62,577,296	27,094,761	27,312,588

¹2010 Scope 1 Plant Emissions is the only data point that includes former PPL affiliate, PPL Energy Supply, LLC.

²Emissions for facilities served by LG&E and KU are included in scope 1 generation emissions.

Reducing emissions across our operations

PPL is working to reduce emissions associated with operations of our electric and natural gas delivery networks. We are assessing opportunities for efficiency and renewable self-generation to reduce energy usage at buildings we own by 28% by 2030 (compared to a 2019 baseline for PPL and LG&E and KU; 2022 baseline for RIE).

We're making system enhancements necessary to meet energy demand over the long term to support electrification efforts by our customers, including the adoption of electric vehicle transportation. We are also working to reduce our own carbon footprint, taking a common-sense approach to electrification of our fleet vehicles through the following efforts:



Right-sizing

Eliminating under-utilized vehicles in our fleet to reduce support costs and emissions.



Anti-idling

Adding automated anti-idle systems and vehicle shut off for select vehicles.



Electric-powered lifts

Replacing diesel-powered hydraulic aerial lifts on 100% of bucket trucks with electric-powered lifts by 2035.



Electrify where possible

Electrifying 35% of light-duty vehicles and forklifts, which make up about 55% of our fleet.



Annual analysis

Committing to annual assessment of technology maturity and electrification targets.

Through these efforts, PPL expects to reduce fleet emissions by 41% by 2035 (compared to a 2021 baseline) through measures selected with consideration of operational requirements, lifecycle costs and customer affordability.

REDUCING EMISSIONS ACROSS OUR OPERATIONS: FLEET VEHICLES

35% fleet to be electrified by 2035 (forklifts and light-duty vehicles), 25% anti-idle policy to be enforced on all fleet vehicles, 100% bucket trucks fitted with electric lift technology by 2035.

Operating Company	Base Year	Base Year (metric tonnes CO ₂ e) ¹	Reporting Year - 2025 (metric tonnes CO ₂ e)
RIE	2022	6,056	7,437
PPL EU	2019	11,377	11,451
LG&E and KU	2019	14,654	14,559

¹Baseline metric tonnes CO₂e recalculated to follow current more inclusive calculations to include additional related Kyoto Protocol gases. EPA and GHG Protocol data used for CO₂, CH₄ and N₂O calculations.

REDUCE ENERGY USAGE AT PPL-OWNED BUILDINGS BY UP TO 28% BY 2030: ELECTRICITY

Operating Company	Base Year	Base Year (metric tonnes CO ₂ e) ¹	Reporting Year - 2025 (metric tonnes CO ₂ e)
RIE	2022	4,860	3,112
PPL EU	2019	22,941	15,745
LG&E and KU	2019	29,774	34,993

¹Baseline metric tonnes CO₂e recalculated to follow current more inclusive calculations to include additional related Kyoto Protocol gases. EPA eGRID data used for CO₂, CH₄ and N₂O calculations.

REDUCE ENERGY USAGE AT PPL-OWNED BUILDINGS BY UP TO 28% BY 2030: GAS

Operating Company	Base Year	Base Year (metric tonnes CO ₂ e)	Reporting Year - 2025 (metric tonnes CO ₂ e)
RIE	2022	10,913	9,106
LG&E and KU	2019	8,349	5,925

GREENHOUSE GAS INVENTORY AND BASE YEAR

Methodology Used

PPL Corporation develops its [Greenhouse Gas \(GHG\) Inventory Management Plan](#) in accordance with the GHG Protocol: A Corporate Accounting and Reporting Standard, published by the World Resources Institute and the World Business Council for Sustainable Development. The inventory includes all operations under PPL's operational control and is updated annually to reflect regulatory changes, new emissions factors and strategic updates. Emissions are quantified using a combination of direct measurements (e.g. continuous emission monitoring systems) and calculated estimates based on the Environmental Protection Agency (EPA) and GHG Protocol emission factors.

Base Year Selection and Rationale

PPL uses 2010 as the base year for its corporate-wide GHG emissions reduction goals. This year was selected due to the availability of comprehensive emissions data and its alignment with historical reporting practices. The base year serves as the benchmark for tracking progress toward interim and long-term goals, including the company's net-zero goal by 2050.

Auditing and Verification

PPL's GHG inventory is subject to internal audits conducted by Corporate Audit, with findings reviewed by the VP of Public Affairs and Sustainability. Discrepancies exceeding 5% are documented in the Inventory Management Plan Revision Log. The company follows EPA's Mandatory GHG Reporting Rule for applicable emissions categories and uses the EPA's Electronic Greenhouse Gas Reporting Tool (eGGRT) for regulatory submissions.

CLIMATE-RELATED RISKS AND OPPORTUNITIES BY ASSET CLASS

This chart summarizes key physical, transition and cross-cutting factors that may affect PPL assets, along with potential impacts, risk management actions and related opportunities.

Asset Category	Risk Type	Risk or Driver	Potential Impact	PPL Response	Opportunity
Electric Transmission	Physical	Severe storms, ice and high winds	Damage to structures and equipment; outages; reduced access; higher restoration, O&M and capital costs.	System hardening; vegetation management; weather forecasting; restoration planning; new lines and substations for flexibility and redundancy.	Modernize and expand the transmission network to improve reliability, flexibility and resilience.
Electric Transmission	Physical	Flooding and heavy precipitation	Flooding may damage equipment, restrict access and slow restoration.	Evaluate protection for critical equipment and flood-prone substations; maintain alternate access and recovery plans.	Use resilience investments to reduce exposure and improve restoration capability.
Electric Transmission	Physical	Extreme heat	Higher temperatures may derate lines or transformers, reduce transfer capability and accelerate equipment aging.	Weather-informed transmission planning; monitoring; cooling systems where applicable; expansion that provides redundancy.	Deploy advanced monitoring and targeted capacity upgrades to support growth.
Electric Transmission	Physical	Extreme cold	Damage due to severe icing on electrical equipment and downed trees and limbs, leading to extended power outages.	System hardening; vegetation management; weather forecasting; restoration planning; new lines and substations for flexibility and redundancy.	Use resilience investments to reduce exposure and improve restoration capability.
Electric Transmission	Physical	Wildfire	Wildfire may damage infrastructure, interrupt service and increase restoration and safety-related costs.	Vegetation management; system hardening; wildfire response plans and public safety power shutoff procedures where applicable.	Improve situational awareness and resilience through targeted technology and operating practices.
Electric Transmission	Physical and Transition	Supply chain	Long lead times, equipment shortages or budget variance may delay projects and affect reliability or cost.	Supplier diversification; critical-equipment inventory; lead-time monitoring; capital planning, forecasting and variance analysis.	Strengthen procurement and project delivery capabilities for planned grid investment.
Electric Transmission	Physical and Transition	Cybersecurity and IT execution	Compromised or delayed digital systems may affect operations, reliability, data protection and customer service.	Enterprise cybersecurity governance; NIST baseline; applicable NERC CIP compliance; architecture reviews; disaster recovery and system hardening.	Deploy secure digital tools that improve grid visibility, automation and customer service.

Asset Category	Risk Type	Risk or Driver	Potential Impact	PPL Response	Opportunity
Electric Transmission	Transition	Resource adequacy and rapid load growth	Electrification, economic development and data centers may require accelerated transmission expansion; delays could constrain reliability.	Load forecasting; system planning; regulatory and policy engagement; coordinated generation and transmission planning.	Invest in infrastructure that supports customer growth, new generation and economic development.
Electric Transmission	Transition	Electrification, DERs and rapid load growth	Concentrated or variable demand may require additional capacity and more advanced operating capabilities.	Load forecasting; distribution planning; automation; DER integration capabilities; coordinated transmission and distribution operations.	Support electrification, DER integration, customer growth and a more flexible distribution network.
Electric Transmission	Transition	Reputation, Public concern over climate change, shifts in consumer preference, cost of clean energy, volatile wholesale energy markets	Stock valuation, increased volatility in fossil fuel costs leading to volatile wholesale energy prices and associated rates impacting customer bills, decreased customer satisfaction, regulatory pressure on allowed returned, reduced pool of insurance carriers due to carriers' concern on coal exposure.	Align with stakeholder expectations, reduce emissions through cleaner energy investments, maintain affordable customer energy options.	Enable customer-driven energy innovation and options, support economy-wide electrification, enhance customer choice and energy value.
Electric Transmission	Transition	Permitting, siting, regulation and affordability	Approval delays, cost recovery uncertainty or customer bill impacts may affect infrastructure timing and scope.	Early stakeholder engagement; regulatory strategy; documentation supporting investments; disciplined cost management.	Advance prudent regulated investment and alternative planning approaches that balance reliability and affordability.
Electric Distribution	Physical	Severe storms, ice and high winds	Damage from falling trees, wind and icing may increase outages, restoration costs and customer impacts.	Stronger poles and wires; vegetation management; automation to reroute power; storm forecasting and restoration planning.	Improve reliability and restoration through system hardening and automation.
Electric Distribution	Physical	Flooding and heavy precipitation	Flooding may damage equipment, cause loss of facilities or reduce access, slowing restoration.	Evaluate mitigation for critical equipment and flood-prone substations; improve water resilience and access planning.	Target resilience investments to protect critical facilities and communities.

Asset Category	Risk Type	Risk or Driver	Potential Impact	PPL Response	Opportunity
Electric Distribution	Physical	Extreme heat	Higher temperatures and demand may reduce equipment capacity, accelerate aging and decrease operational flexibility.	Performance monitoring; substation cooling; remote adjustments; weather-informed load forecasting; capacity expansion.	Use advanced analytics and targeted upgrades to optimize asset life and support new load.
Electric Distribution	Physical	Extreme cold	Damage due to severe icing on electrical equipment and downed trees and limbs, leading to extended power outages.	System hardening; vegetation management; weather forecasting; restoration planning; new lines and substations for flexibility and redundancy.	Use resilience investments to reduce exposure and improve restoration capability.
Electric Distribution	Physical	Wildfire	Wildfire may damage infrastructure, interrupt service and increase restoration and safety-related costs.	Vegetation management; system hardening; wildfire response plans and public safety power shutoff procedures where applicable.	Improve situational awareness and resilience through targeted technology and operating practices.
Electric Distribution	Physical and Transition	Cybersecurity and IT execution	Compromised or delayed digital systems may affect operations, reliability, data protection and customer service.	Enterprise cybersecurity governance; NIST baseline; applicable NERC CIP compliance; architecture reviews; disaster recovery and system hardening.	Deploy secure digital tools that improve grid visibility, automation and customer service.
Electric Distribution	Physical and Transition	Supply chain	Long lead times, equipment shortages or budget variance may delay projects and affect reliability or cost.	Supplier diversification; critical-equipment inventory; lead-time monitoring; capital planning, forecasting and variance analysis.	Strengthen procurement and project delivery capabilities for planned grid investment.
Electric Distribution	Transition	Electrification, DERs and rapid load growth	Concentrated or variable demand may require additional capacity and more advanced operating capabilities.	Load forecasting; distribution planning; automation; DER integration capabilities; coordinated transmission and distribution operations.	Support electrification, DER integration, customer growth and a more flexible distribution network.
Electric Distribution	Transition	Reputation, public concern over climate change, shifts in consumer preference, cost of clean energy, volatile wholesale energy markets	Stock valuation, increased volatility in fossil fuel costs leading to volatile wholesale energy prices and associated rates impacting customer bills, decreased customer satisfaction, regulatory pressure on allowed return, reduced pool of insurance carriers due to carriers' concern on coal exposure.	Align with stakeholder expectations, reduce emissions through cleaner energy investments, maintain affordable customer energy options.	Enable customer-driven energy innovation and options, support economy-wide electrification, enhance customer choice and energy value.

Asset Category	Risk Type	Risk or Driver	Potential Impact	PPL Response	Opportunity
Electric Distribution	Transition	Customer affordability and regulatory structures	Rate impacts or inflexible regulatory mechanisms may constrain the pace of resilience and modernization investments.	Operational efficiencies; proactive policy and regulatory engagement; rate-design evaluation; disciplined capital planning.	Pursue prudent investments and regulatory approaches that deliver customer benefits while supporting affordability.
Natural Gas Transmission and Distribution	Physical	Flooding, storms and high winds	Weather events may damage facilities, restrict access or interrupt operations.	Engineering evaluations; water-resilience testing; protection of critical equipment; structural upgrades and alternate access planning.	Modernize facilities to improve safety, reliability and resilience.
Natural Gas Transmission and Distribution	Physical	Extreme cold	Frozen equipment or power loss may disrupt gas-system operations.	Enclosures; heat trace and insulation; catalytic heaters; enhanced alarms; backup generation; cold-weather procedures.	Upgrade monitoring, backup power and weatherization to strengthen continuity of service.
Natural Gas Transmission and Distribution	Physical	Catastrophic asset event	Pipeline failure, major LNG tank leak, energy-supply loss or control-center loss could affect public safety, customers, the environment and operations.	Pipeline integrity management; ongoing O&M and capital investment; emergency, security, business continuity and disaster recovery plans.	Enhance system integrity, emergency readiness and recovery capability.
Natural Gas Transmission and Distribution	Physical and Transition	Supply chain	Shortages or technology disruption may affect project delivery, operations and service reliability.	Supplier and inventory management; cybersecurity controls; vendor requirements; recovery planning and testing.	Improve digital monitoring, procurement resilience and project execution.
Natural Gas Transmission and Distribution	Physical and Transition	Cybersecurity and IT execution	Compromised or delayed digital systems may affect operations, reliability, data protection and customer service.	Enterprise cybersecurity governance; NIST baseline; applicable NERC CIP compliance; architecture reviews; disaster recovery and system hardening.	Deploy secure digital tools that improve grid visibility, automation and customer service.
Natural Gas Transmission and Distribution	Transition	Policy, technology and changing customer demand	Evolving policy, technology availability, costs and customer preferences may influence long-term demand and investment needs.	Monitor policy and technology; scenario planning; regulatory engagement; evaluate emerging lower-carbon solutions as viable.	Modernize the system and evaluate emerging technologies and lower-carbon solutions as technically and economically viable.

Asset Category	Risk Type	Risk or Driver	Potential Impact	PPL Response	Opportunity
Natural Gas Transmission and Distribution	Transition	Reputation, public concern over climate change, shifts in consumer preference, cost of clean energy, volatile wholesale energy markets	Stock valuation, increased volatility in fossil fuel costs leading to volatile wholesale energy prices and associated rates impacting customer bills, decreased customer satisfaction, regulatory pressure on allowed returned, reduced pool of insurance carriers due to carriers' concern on coal exposure.	Align with stakeholder expectations, reduce emissions through cleaner energy investments, maintain affordable customer energy options.	Enable customer-driven energy innovation and options, support economy-wide electrification, enhance customer choice and energy value.
Natural Gas Transmission and Distribution	Transition	Customer affordability and investment recovery	Infrastructure costs and rate impacts may affect affordability and regulatory outcomes.	Operational efficiency; disciplined capital planning; stakeholder engagement and sound rate-case support.	Prioritize investments that improve safety and reliability while managing customer impacts.
Generation	Physical	Extreme heat	Higher ambient and cooling-water temperatures may reduce efficiency and available capacity, accelerate wear or create thermal-discharge constraints.	Cooling-system improvements; inlet-air cooling where applicable; equipment redundancy; critical spares and operating procedures.	Improve plant efficiency and resilience through targeted upgrades and monitoring.
Generation	Physical	Extreme cold	Frozen equipment, severe icing or disrupted, frozen fuel supply may cause derates or outages.	Heat trace and insulation; equipment enclosures; cold-weather procedures; enhanced fuel inventory and delivery strategies.	Improve winter performance and continuity through weatherization and inventory planning.
Generation	Physical	Flooding, precipitation and severe storms	Weather events may damage equipment, restrict access, cause discharges or disrupt fuel and reagent deliveries.	Flood protection and drainage; water-resilience improvements; alternate access; plant inspections; fuel and reagent planning.	Strengthen site resilience and reduce outage and environmental exposure.
Generation	Physical	Generation failure or extended outage	Equipment failure may cause outages or derates and affect operating costs, capital spending and margins.	Capital planning; preventive maintenance; strategic spare-parts inventory; insurance where applicable.	Improve asset performance and reliability through disciplined maintenance and modernization.
Generation	Physical and Transition	Supply chain	Shortages or technology disruption may affect project delivery, operations and service reliability.	Supplier and inventory management; cybersecurity controls; vendor requirements; recovery planning and testing.	Improve digital monitoring, procurement resilience and project execution.

Asset Category	Risk Type	Risk or Driver	Potential Impact	PPL Response	Opportunity
Generation	Physical and Transition	Cybersecurity and IT execution	Compromised or delayed digital systems may affect operations, reliability, data protection and customer service.	Enterprise cybersecurity governance; NIST baseline; applicable NERC CIP compliance; architecture reviews; disaster recovery and system hardening.	Deploy secure digital tools that improve grid visibility, automation and customer service.
Generation	Transition	Resource adequacy, coal retirements and load growth	Retirements, insufficient dispatchable capacity and demand from electrification and data centers may challenge reliability and affordability.	Integrated resource planning; generation expansion analysis; policy engagement; resource and technology evaluation; coordinated system planning.	Invest in reliable replacement capacity and emerging resources that support growth and system needs.
Generation	Transition	Decarbonization technology availability and cost	Limited commercial availability or high costs of deep-decarbonization technologies may constrain pathways and affect reliability or affordability.	Technology-neutral R&D; industry and academic partnerships; demonstrations; ongoing evaluation of storage, carbon capture and other emerging options.	Deploy commercially viable lower-carbon and non-emitting technologies as they mature.
Generation	Transition	Policy, regulation, commodity prices and financing	Policy changes, environmental requirements, fuel-price volatility and financing conditions may affect resource timing, operating costs and customer rates.	Regulatory and policy engagement; scenario planning; fuel strategy; capital discipline; monitoring of markets and financing conditions.	Use flexible planning to identify cost-effective resources and preserve optionality.
Generation	Transition	Reputation, public concern over climate change, shifts in consumer preference, cost of clean energy, volatile wholesale energy markets	Stock valuation, increased volatility in fossil fuel costs leading to volatile wholesale energy prices and associated rates impacting customer bills, decreased customer satisfaction, regulatory pressure on allowed returned, reduced pool of insurance carriers due to carriers' concern on coal exposure.	Align with stakeholder expectations, reduce emissions through cleaner energy investments, maintain affordable customer energy options.	Enable customer-driven energy innovation and options, support economy-wide electrification, enhance customer choice and energy value.
Generation	Transition	Customer affordability and stranded-cost exposure	Transition costs and generation investment may increase customer rates or create stranded-cost concerns.	Operational efficiency; least-cost planning; staged investment; regulatory engagement; customer-impact analysis.	Sequence investments to balance emissions reduction, reliability and affordability.