Welcome to your CDP Climate Change Questionnaire 2023

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Submitted on September 22, 2023. Headquartered in Allentown, Pennsylvania, PPL Corporation (NYSE: PPL) and our family of companies provide essential energy services to 3.6 million customers. PPL is one of the largest regulated utility holding companies in the United States, with more than $37 billion in total assets. PPL Corporation is comprised of four regulated utility subsidiaries: PPL Electric Utilities Corporation (PPL Electric), Louisville Gas and Electric Company (LG&E), Kentucky Utilities Company (KU), and Rhode Island Energy (RIE), which was acquired by PPL Corporation in 2022. Through our regulated utility subsidiaries, we deliver electricity to customers in Kentucky, Pennsylvania, Rhode Island and Virginia. We also deliver natural gas in Kentucky and Rhode Island and generate power in Kentucky.

Sustainability is embedded in the company's strategic framework to thrive in a changing energy landscape. Our vision is to be the best utility in the U.S. as we strive to achieve the ranking of first decile in safety and first quartile in customer satisfaction, reliability and cost efficiency. The company's strategy to create the utilities of the future is focused on advancing the clean energy transition while maintaining reliability and affordability, enhancing the reliability and resiliency of our gas and electric networks, and leveraging best practices to drive operational efficiency and long-term value. Our clean energy transition strategy is centered around the following key areas that we believe will enable us to advance new opportunities for the company and our customers as we help deliver a net-zero economy: decarbonize our generation and non-generation operations, drive digital innovation and R&D to enable new technologies, and position the grid as an enabler for clean energy resources, energy efficiency and demand-side management.

Our talented workforce of more than 6,500 employees works every day to deliver on our mission to provide safe, reliable, affordable and sustainable energy to our customers and competitive returns to our shareowners. Our regulated utility companies consistently rank among the best utilities in the U.S. for customer satisfaction and reliability.

We are a positive force in the cities and towns where we do business. PPL, its foundations and its employees contributed more than $16 million in 2022 to support local organizations through

annual grant and charitable giving programs in Kentucky, Pennsylvania and Rhode Island with financial support focused on developing a strong, skilled workforce; revitalizing our communities; enhancing education; and promoting diversity, equity and inclusion.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date

January 1, 2022

End date

December 31, 2022

Indicate if you are providing emissions data for past reporting years

No

C0.3

(C0.3) Select the countries/areas in which you operate.

United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Equity share

C-EU0.7

(C-EU0.7) Which part of the electric utilities value chain does your organization operate in? Select all that apply.

Row 1

Electric utilities value chain

Electricity generation
Transmission
Distribution

Other divisions

Gas storage, transmission and distribution
Smart grids / demand response
Battery storage

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a Ticker symbol	PPL

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	Systemic risk oversight is a function of the full Board, including strategic, operational, legal and regulatory. As detailed below, climate-related risks have been delegated to the Committees; In addition, the full Board receives management sustainability updates as significant issues arise.
Board-level committee	The Board's Governance, Nominating and Sustainability Committee (GNSC) oversees the company's sustainability-related policies and practices; reviews key corporate sustainability disclosures and receives regular sustainability and environmental, social and governance (ESG) reports, including discussion of key climate and clean energy trends, risks and opportunities.
Board-level committee	The Board's Audit Committee receives quarterly reports on enterprise risk management. The Audit Committee regularly reviews risk management activities, including issues related to the transition of the utility sector, such as sustainability and climate-related issues, as well as activities related to the company's financial statements and disclosures, and certain legal and compliance matters.

Board-level committee	The Board's Compensation Committee reviews and approves annually the compensation structure, including ESG goals and objectives, for the company's executive officers.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Monitoring progress towards corporate targets Overseeing and guiding public policy engagement Reviewing and guiding the risk management process	The Board's GNSC oversees the Company's practices and positions to further its corporate citizenship, including sustainability, environmental and corporate social responsibility initiatives. The GNSC has regularly scheduled meetings during which sustainability strategy is discussed and climate-related issues are regularly incorporated into those discussions. The full Board receives reports from the GNSC after each GNSC meeting. Management also provides the full Board with periodic updates on climate and other ESG matters, including in conjunction with the publication of the Corporate Sustainability Report. The Board periodically reviews climate and ESG-related issues as part of strategy discussions, including carbon emissions-related goals. The GNSC receives an annual report of corporate political engagement, and the full Board receives a report of public policy engagement on key policy issues on an annual basis, with periodic updates as important matters arise.
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding the risk management process Other, please specify	The Board's Audit Committee receives quarterly reports on enterprise risk management. The Audit Committee regularly reviews risk management activities related to the company's financial

	Monitoring reporting and disclosure requirements	statements and disclosures, certain legal and compliance matters, transition of the utility sector, and other key areas including but not limited to sustainability and climate-related issues. The full Board is also updated as important matters arise and receives reports from the Audit Committee after each Audit Committee meeting.
Scheduled – some meetings	Reviewing and guiding annual budgets Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Reviewing and guiding strategy Reviewing and guiding the risk management process	The Board's Finance Committee annually reviews and approves the business plan, typically three years, and capital expenditure plan, typically five years. The Finance Committee also approves major capital expenditures, acquisitions and divestitures, risk management policies and potential borrowing at PPL and operating companies. Climate-related issues are addressed in the business and capital plans. The full Board is also updated as important matters arise and receives reports from the Finance Committee after each Finance Committee meeting.
Scheduled – some meetings	Overseeing and guiding employee incentives Other, please specify 1) Setting incentive compensation objectives, including corporate incentive compensation objectives; 2) Monitoring implementation and progress against incentive compensation objectives, including corporate incentive compensation objectives	The Board's Compensation Committee annually reviews and approves the compensation structure, including ESG goals and objectives, for the Company's executive officers. The full Board is also updated as important matters arise and receives reports from the Compensation Committee after each Compensation Committee meeting.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	Experience related to oversight of climate risk and clean energy strategy.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee

Chief Executive Officer (CEO)

Climate-related responsibilities of this position

Developing a climate transition plan
Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

The Corporate Leadership Council (CEO, COO, CFO, GC, CHRO, collectively “CLC”) provides management and oversight of the company’s overall risk management practices and business strategy, including the company’s clean energy transition plans, targets and metrics. Guided by PPL’s Investor Relations, CLC and other company leaders inform our investors of the company’s business strategy, clean energy transition plans and progress toward climate goals.

Position or committee

Chief Operating Officer (COO)

Climate-related responsibilities of this position

Developing a climate transition plan
Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

The Corporate Leadership Council (CEO, COO, CFO, GC, CHRO, collectively “CLC”) provides management and oversight of the company’s overall risk management practices and business strategy, including the company’s clean energy transition plans, targets and metrics. Guided by PPL’s Investor Relations, CLC and other company leaders inform our investors of the company’s business strategy, clean energy transition plans and progress toward climate goals.

Position or committee

Chief Financial Officer (CFO)

Climate-related responsibilities of this position

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities
Other, please specify
Monitoring reporting and disclosure requirements

Coverage of responsibilities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

The Corporate Leadership Council (CEO, COO, CFO, GC, CHRO, collectively “CLC”) provides management and oversight of the company’s overall risk management practices and business strategy, including the company’s clean energy transition plans, targets and metrics. Guided by PPL’s Investor Relations, CLC and other company leaders inform our investors of the company’s business strategy, clean energy transition plans and progress toward climate goals.

The CFO has overall responsibility for managing major capital and operation expenditures, including those related to low-carbon products and services.

Position or committee

Other C-Suite Officer, please specify

Chief Legal Officer and Corporate Secretary

Climate-related responsibilities of this position

Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

The Corporate Leadership Council (CEO, COO, CFO, GC, CHRO, collectively “CLC”) provides management and oversight of the company’s overall risk management practices and business strategy, including the company’s clean energy transition plans, targets and metrics. Guided by PPL’s Investor Relations, CLC and other company leaders inform our investors of the company’s business strategy, clean energy transition plans and progress toward climate goals.

Position or committee

Chief Sustainability Officer (CSO)

Climate-related responsibilities of this position

Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Conducting climate-related scenario analysis
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Managing public policy engagement that may impact the climate
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities
Other, please specify

Monitoring reporting and disclosure requirements

Coverage of responsibilities

Reporting line

CEO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

More frequently than quarterly

Please explain

The Senior Vice President – Public Affairs and Chief Sustainability Officer has overall responsibility for PPL's public policy engagement that may impact climate chairs the corporate sustainability committee, to ensure that PPL is effectively managing, monitoring and disclosing key ESG risk areas. CLC and operating company presidents review all corporate sustainability disclosures and receive updates and reports from ERM and sustainability management throughout the year and as important matters arise.

The Chief Sustainability Officer provides updated information and reports to the Governance, Nominating and Sustainability Committee at each regularly scheduled meeting.

Position or committee

President

Climate-related responsibilities of this position

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Operations - COO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

As important matters arise

Please explain

Each president of PPL's operating companies is responsible for assessing climate-related risks and opportunities and managing climate-related risks and opportunities. Each president monitors the company's climate-related targets.

PPL maintains a robust enterprise risk management (ERM) process that provides a business portfolio view of material risks that may impact achievement of the company's business strategy. As part of the ERM process, operating company leadership and service groups identify, assess, monitor and report on ongoing and emerging risks, including climate-related and broader ESG risks.

Position or committee

Other, please specify

Senior Director, Risk Management

Climate-related responsibilities of this position

Conducting climate-related scenario analysis

Assessing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Finance - CFO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

PPL maintains a robust enterprise risk management (ERM) process that provides a business portfolio view of material risks that may impact achievement of the company's business strategy. As part of the ERM process, operating company leadership and service groups identify, assess, monitor and report on ongoing and emerging risks, including climate-related and broader ESG risks.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment

Row 1	Yes	In 2022, the Compensation Committee evaluated PPL's LTI mix and considered how to further link executive compensation to its future strategy, which resulted in adding earnings growth (EG) and environmental, social and governance (ESG) metrics to the LTI mix at 20% each. Priority ESG metrics are tied to climate-related performance (see PPL's 2023 Proxy Statement at investors.pplweb.com). There are several specific goals identified in our Corporate Sustainability Report with a 2030 target, including fleet electrification and facility energy use goals. Emissions associated with these activities are included in PPL's CO2e reduction goal (net-zero by 2050). See also: https://www.pplweb.com/sustainability/climate-action/ In 2021, ESG was added to the annual discretionary component of compensation for top executives, with 10% specifically focused on environment, safety and DEI. In addition, all employees in LG&E and KU are entitled to a monetary reward for taking mass transit.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive

Other, please specify

Designated employees

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Other (please specify)

Management of programs and initiatives

Incentive plan(s) this incentive is linked to

Further details of incentive(s)

2022 Incentive compensation for certain employees includes management of certain programs and initiatives highlighted in this CDP response, including customer facing programs for energy efficiency integration and development of distributed energy resources.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

---

Entitled to incentive

Corporate executive team

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Other, please specify

Long-term incentive - performance units

Performance indicator(s)

Progress towards a climate-related target

Other (please specify)

Management of programs and initiatives

Incentive plan(s) this incentive is linked to

Further details of incentive(s)

Progress toward the company's 2050 net-zero emissions goal is included in executive compensation. The Board's Compensation Committee approved an incentive mix for CLC and other top executives that includes goals tied to priority ESG areas and climate-related performance, including goals linked to coal plant retirements, fleet electrification and building energy use.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

---

Entitled to incentive

Other, please specify

All LG&E and KU employees

Type of incentive

Monetary reward

Incentive(s)

Other, please specify

Reimbursement

Performance indicator(s)

Other (please specify)

Behavior change related indicator

Incentive plan(s) this incentive is linked to

Further details of incentive(s)

Reimbursement for employees who take mass transit to work.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	2	
Medium-term	3	5	
Long-term	6	25	Integrated Resource Plan (IRP) and T&D planning horizon is typically a 15-year timeframe; climate assessment and CO2e goal are more than 25 years from the date of this response (to 2050).

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

We define substantive impact as risks or opportunities driven by factors such as shareowner and consumer preferences, market and regulatory changes that alone or in combination can drive a substantial change in the Company's business model, including its services, and portfolio of assets.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term

Medium-term

Description of process

The company maintains a robust enterprise risk management process that provides a business portfolio view of material risks that may impact achievement of the company's business strategy. As part of the Enterprise Risk Management (ERM) process, representatives from the company's operating companies and service groups identify, assess, monitor and report on ongoing and emerging risks, including climate-related and broader ESG risks. PPL's full board reviews overall strategy and risks, with the Audit Committee receiving ERM reports and the Board GNSC receiving regular sustainability reports with a discussion of key ESG risks and opportunities.

Value chain stage(s) covered

Direct operations

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

Annually

Time horizon(s) covered

Long-term

Description of process

Across our enterprise, PPL's operating companies conduct robust transmission and distribution planning each year to maintain compliance with rigorous federal, state and industry standards, enable us to deliver energy safely and reliably, and position PPL to support the clean energy transition.

PPL's planning strengthens grid resilience to reduce damage and speed recovery from severe weather impacts that could result from climate change. It also incorporates smart grid technology to reliably and efficiently integrate increased Distributed Energy Resources (DERs), including renewable generation and energy storage.

Value chain stage(s) covered

Direct operations

Risk management process

A specific climate-related risk management process

Frequency of assessment

Every three years or more

Time horizon(s) covered

Long-term

Description of process

We have assessed climate risk using a long-term view (2050 endpoint). We have conducted a comprehensive climate assessment, including a scenario analysis consistent with keeping global warming to no more than 1.5°C, and we followed the recommendations of the Task Force on Climate-Related Financial Disclosures.

As a result of our actions over the past decade, PPL has reduced its risk associated with climate change. The company's portfolio is now heavily weighted toward electricity transmission and distribution. We believe there will be significant future investment opportunities in our electricity delivery infrastructure and cleaner energy resources.

As PPL looks to the future, we will continue to take steps to identify, understand and manage risks and opportunities associated with climate change and the transition to a cleaner energy future. This includes evaluating different options to inform business strategy, using modeling and input from our internal experts and third parties, as needed, and reviewing assessments with senior management and our Board on an ongoing basis.

Value chain stage(s) covered

Direct operations

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

Every three years or more

Time horizon(s) covered

Long-term

Description of process

LG&E and KU prepare an Integrated Resource Plan (IRP) every three years and submit the plan to the Kentucky Public Service Commission (KPSC). The planning horizon is 15 years. The primary focus of resource planning is risk management. Key categories of risk stem from uncertainties related to the way customers use electricity, the performance of generation units, the price of fuel and other commodities, and the future impact of new state and federal regulations.

Through the IRP process, LG&E and KU model the most reliable and affordable way to meet current and future demand, including considering demand-side management, energy efficiency, renewable resources, environmental policies and carbon pricing.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	As investor-owned utilities are heavily regulated, PPL's ERM process, as well as compliance risk management processes, consider the risks and impacts of a wide variety of state and federal regulations, many of which are climate-related and can have material impact (both as risks as well as opportunities) to the company.
Emerging regulation	Relevant, always included	PPL operates in a dynamic regulatory environment in all of its geographic locations and carefully monitors evolving and emerging legislation and regulations at the state and federal levels, including renewable and clean energy standards, carbon cap-and-trade, energy efficiency requirements, EPA regulation of greenhouse gases and SEC disclosure requirements.
Technology	Relevant, always included	PPL's ERM process includes analysis of emerging technologies that present risks and opportunities. These include energy storage, electric vehicles, renewable energy, smart energy grids, small nuclear reactors and carbon capture and sequestration.
Legal	Relevant, always included	Legal challenges, particularly to new regulations and company-specific regulatory approvals, can result in significant changes in risk and must always be considered in the company's risk assessments.
Market	Relevant, always included	The demand for power and natural gas are influenced by economic conditions, consumer preferences and weather and factored into company forecasts, programs and initiatives.
Reputation	Relevant, always included	PPL's customers, investors and other stakeholders are increasingly interested in PPL's carbon footprint, and PPL's risk assessments factor stakeholder input into long-term investment decisions.

Acute physical	Relevant, always included	Increasingly frequent severe weather is presenting physical risks to PPL's system, presenting risks to reliability that must be considered as we prioritize infrastructure-related investments. We are also monitoring supply chain risk and taking steps to mitigate potential disruptions, including diversifying suppliers.
Chronic physical	Relevant, always included	Long-term, ambient temperature changes can affect PPL's facilities and operations, as well as demand for electricity. PPL considers long-term temperature trends in its operational and business planning. We are also monitoring supply chain risks and taking steps to mitigate potential disruptions, including diversifying suppliers.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Carbon pricing mechanisms

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Regulations and policies from renewable mandates, permitting and siting, and utility ratemaking can impact operations. Specifically considering regulations that impose a cost of carbon either through a cap-and-trade program, clean energy standard or a tax, such policies would result in additional operational costs to our power delivery and power generation operations with the greatest potential impact in our Kentucky power generation operations.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

400,000,000

Potential financial impact figure – maximum (currency)

670,000,000

Explanation of financial impact figure

Proxy for financial impact (rounded) calculated using PPL's 2022 domestic Scope 1 emissions and the carbon price used for analysis in LG&E and KU's most recent Integrated Resource Plan submitted to the KY PSC in October 2021. The carbon prices of $15 and $25 per short ton are based on the RGGI and CA Markets, the two largest CO2 markets in the U.S.

A carbon price is not currently contemplated in Kentucky. The financial impact to the company is anticipated to be low because all prudent costs, including those to comply with regulations, are included in utility rates.

Cost of response to risk

610,000

Description of response and explanation of cost calculation

Proxy for cost of response is total 2022 federal lobbying expenditures. One of the ways that PPL manages the risk of emerging regulation and legislation is through direct engagement with public officials and in partnership with our industry associations to educate and inform about policy implications and solutions.

Comment

Financial impact and cost figures are estimates and are provided here as examples of potential implications of climate-related policy and regulation.

The time horizon for this risk is based on Kentucky's regulatory environment as the greatest potential for financial impact would be in Kentucky.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Mandates on and regulation of existing products and services

Primary potential financial impact

Other, please specify

Unable to predict the outcome and specific requirements

Company-specific description

In Rhode Island, the Public Utilities Commission is undertaking a regulatory proceeding to investigate the future of gas use and infrastructure in the state, a response to the 2021 Act on Climate, which requires economy-wide greenhouse gas emissions reductions to reach net-zero by 2050.

The investigation into the gas distribution business will look at changes, such as moratoriums on new hookups, incentives for renewable natural gas, and transitioning customers to alternative heating sources like electricity.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

As part of the proceeding, RIE is conducting a technical analysis to evaluate options that will achieve the emissions goals of the 2021 Act on Climate and identify investments in the natural gas infrastructure that are needed to maintain safety, reliability and affordability for customers.

The financial impact to the company is anticipated to be low because all prudent costs, including those to comply with regulations, are included in utility rates. Further the company anticipates opportunities due to increased electrification.

Cost of response to risk

Description of response and explanation of cost calculation

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Market

Changing customer behavior

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

This risk includes shifts in demand due to changing customer preferences, policy changes and evolving technologies that facilitate new entrants into the market.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1,800,000

Potential financial impact figure – maximum (currency)

5,100,000

Explanation of financial impact figure

Proxy for financial impact is total net income range for our Kentucky operations, the only company owning generation, based upon current and future forecasts of reduced sales and cost from distributed energy resources.

This risk is identified as low, however, because higher than expected growth in distributed solar would temporarily impact revenue between rate cases.

Financial information is based on current regulation and tax benefits.

Cost of response to risk

Description of response and explanation of cost calculation

There are many ways that PPL is mitigating this risk, including enabling the deployment of renewables and distributed energy resources through direct investments, actively pursuing clean energy options for our customers and enabling greater electrification. We have not assessed the aggregate cost of these and other mitigation efforts, many of which also represent opportunities for the company as noted in C2.4a.

Comment

Financial impact is an estimate and is provided here as an example of a potential negative market impact. LG&E and KU's sales are used as a proxy since that is the PPL company that provides energy supply. Potential regulatory frameworks may also emerge from the RI Future of Gas proceeding notes in Risk 2. Over the long term, grid alternatives could negatively affect customer load and sales revenue for all operating companies.

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Cyclone, hurricane, typhoon

Primary potential financial impact

Increased indirect (operating) costs

Company-specific description

Increasingly frequent and severe storms producing high winds and precipitation, and extreme heat and cold can disrupt PPL's operations, increase costs and hurt the reliability of PPL's service in a variety of ways. For example, increased flooding and severe storms could damage equipment or disrupt fuel supply, fallen trees and debris can lead to outages, bring down power lines and block access for restoration efforts.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

83,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Proxy for financial impact is the estimated cost of a March 2023 windstorm, which occurred in LG&E and KU's service territory. Total storm expense of $83 million is a preliminary estimate and may be recovered through rates pending regulatory approval.

Cost of response to risk

2,100,000,000

Description of response and explanation of cost calculation

Mitigation of physical risk entails a variety of measures across our generation, transmission and distribution systems. Specific to severe storms with the potential for high winds and flooding damage, all of PPL's operating companies monitor their reliability performance and conduct planning analyses of their systems, looking at trends in weather, vegetation management and other impacts to system reliability. Based on these analyses, PPL made multi-billion-dollar investments in infrastructure improvements, the bulk of which is for investments to modernize and strengthen its grid to be more resilient to storm impacts and other stresses on the system. The cost of response of approximately $2.1 billion represents 2022 capital investments from PPL's utilities.

Comment

Financial impact and cost figure are estimates and are provided here as examples of potential implications of physical risks.

Magnitude of financial impact is assessed as low due to ability of company to recover costs of storms.

Storm expense is subject to regulatory recovery. PPL also maintains insurance coverage to protect from potential property damage losses due to the extreme weather impact on our physical assets such as generation units, substations and buildings.

PPL is a member of EPRI's Climate READi initiative to address energy system climate resilience and adaptation to increasing weather events.

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Upstream

Risk type & Primary climate-related risk driver

Current regulation

Mandates on and regulation of existing products and services

Primary potential financial impact

Other, please specify

Increased cost of electricity supply due to compliance with renewable energy mandate

Company-specific description

100% Renewable Energy Standard by 2033 in Rhode Island and enacted similarly/emerging in other New England states will promote more renewable electricity sources and purchase/settlement of RECs, which can impact overall supply costs up to the allowed cost of an Alternative Compliance Payment.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The financial impact to the company is unknown. The cost of purchased power is passed through to customers. RI state report found total cost of 100% Renewable Energy by 2030 to be on the order of $1-2 billion (energy.ri.gov/100percent).

Cost of response to risk

Description of response and explanation of cost calculation

Comment

Impact to the company identified as medium-low due to potential for increased costs passed to customers to impact overall affordability of electricity, as well as reliability of electricity supply. Costs of purchased power are recoverable.

Pennsylvania is also expected to consider legislation modifying the state's Alternative Energy Portfolio Standard to increase the percentage of renewables that utilities must purchase.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of climate adaptation, resilience and insurance risk solutions

Primary potential financial impact

Increased value of fixed assets

Company-specific description

Additional enhancements to the grid are necessary to make it stronger, more resilient and flexible to withstand increasingly frequent severe storm events, as well as to enable the connection of distributed renewable and low-carbon generation sources. Such projects support long-term earnings growth and have typically offered favorable returns on investment.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

200,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The magnitude of financial impact is a proxy reflecting the return expected on investments needed to enhance and modernize the grid, including transmission and distribution enhancements. The 2022 average authorized ROE for electric utilities of 9.5% was used as a proxy to derive approximate impact of $200,000,000.

Cost to realize opportunity

2,100,000,000

Strategy to realize opportunity and explanation of cost calculation

All of PPL's operating companies monitor their reliability performance and conduct planning analyses of their systems, looking at trends in weather, vegetation management and other impacts to system reliability. Proxy for cost of approximately $2.1 billion represents 2022 capital investments from PPL's utilities.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Ability to diversify business activities

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Decarbonization of the economy will lead to increased electrification, directly impacting electricity sales and supportive investments. Additionally, increased demand for renewable energy and declining cost of renewables provides new investment opportunities in the renewable and distributed energy space, including solar generation and energy storage solutions driven by customer demand, favorable policies, and retirement of existing coal plants.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Not currently assessed but expected to be potentially significant.

Opportunities exist across the enterprise to support electrification and customer solutions.

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

Cost to realize not specifically calculated. Entails a key pillar of our clean energy strategy to enable customer decarbonization.

Comment

PPL leverages our utilities leading performance to expand and modernize the grid and integrate utility scale renewables and distributed energy resources.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

The State of Rhode Island is adopting California's Advance Clean Cars II regulation and will initiate rulemaking in 2023. This regulation will phase out sales of new internal combustion engine light-duty vehicles fully by 2035 (differing rules between light-duty and heavier vehicles). This policy will drive the market predominantly toward electric vehicles, causing an increase in electricity demand.

Rhode Island's new regulation aligns with PPL's fleet electrification goals.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

Not specifically calculated for this opportunity. Proxy for opportunity is Rhode Island state policy, which is the most advanced among the states in which PPL operates.

RIE has and will continue to support electrifying transportation through its Electric Transportation Initiative, Grid Modernization, and other distribution investments in new or additional infrastructure required to support the increase in electricity demand.

Comment

Transportation electrification is expected to be a driver for increased electricity demand nationwide. This opportunity exists for all of PPL's operating companies to varying degrees driven by national and state policies and growing customer demand.

Estimates in Rhode Island indicate that transportation electrification may lead to a potential near doubling of electricity demand by 2050 (see the State of Rhode Island's 100% Renewable Electricity by 2030 report www.energy.ri.gov/100percent).

RIE will incur some costs associated with this regulation due to our own fleet electrification. Many of these costs are already accounted for due to PPL's existing fleet electrification goals.

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

Yes, we have a climate transition plan which aligns with a 1.5°C world

Publicly available climate transition plan

Yes

Mechanism by which feedback is collected from shareholders on your climate transition plan

We have a different feedback mechanism in place

Description of feedback mechanism

Feedback is presented at quarterly earnings meetings and annual shareowner meetings. Additionally, PPL holds meetings with investors throughout the year in one-on-one meetings, at financial conferences and through a focused fall shareowner outreach to ESG/Stewardship teams. The meetings contain information on PPL's business review, financial progress and environmental, social and governance updates (https://investors.pplweb.com/events).

Frequency of feedback collection

More frequently than annually

Attach any relevant documents which detail your climate transition plan (optional)

PPL's 2021 Climate Assessment Report (https://www.pplweb.com/wp-content/uploads/2022/01/PPL_Corp-2021-Climate-Assessment_2022-01-04.pdf)

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy
Row 1	Yes, qualitative and quantitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios Customized publicly available transition scenario	Company-wide	1.5ºC	Our 2021 climate assessment report takes a company-wide view of transition scenarios including a scenario consistent with limiting global temperature to 1.5°C. As emissions from generation resources that we own represent the largest component of PPL's carbon emissions footprint and corporate-wide CO2e reduction goal, much of the 2021 analysis was focused on three distinct future generation-related transition scenarios that consider PPL's owned generation emissions and future resource mix: • A Current Policies Scenario establishing PPL's future carbon emissions trajectory and potential range of reductions assuming no new regulatory requirements. • A 1.5°C Scenario benchmarking the range of reductions against an Intergovernmental Panel on Climate Change (IPCC) global climate mitigation pathway. • A Fast Transition Future Policy Scenario benchmarking the range of reductions and forecasted resource mix against the expected contribution pathway for the power sector under the U.S. Nationally Determined Contributions (NDC) to the Paris Agreement.

			These scenarios are designed to describe possible future states and potential implications for PPL within those future states. While grounded in plausible assumptions, PPL's scenarios and forecasts are not specific predictors of the future and do not constitute future business plans. The results of our climate scenario analysis and assessment are shown in the section of 2021 Climate Assessment titled, "Results and Implications for Our Business."
Transition scenarios Customized publicly available transition scenario	Company-wide	1.5ºC	PPL's operating companies conduct T&D planning each year to maintain compliance with federal, state and industry standards; enable us to deliver energy safely and reliably; and position PPL to support the clean energy transition. PPL's planning focuses on strengthening grid resilience to reduce damage and speed recovery from severe weather impacts that could result from climate change. It also incorporates smart grid technology to reliably and efficiently integrate increased DERs, including renewable generation and energy storage. PPL Electric, RIE, and LG&E and KU use a five-year asset planning model to prioritize T&D capital allocation, as well as operation and maintenance activities. PPL Electric submits this 5-year plan to PJM Interconnection, the regional transmission operator, for inclusion in PJM's annual Regional Transmission Expansion Plan (RTEP) process. A further future planning horizon is done with a 10-year planning model to anticipate upcoming system upgrades that may be needed. LG&E and KU develop a 10-year Transmission Expansion Plan, coordinating closely with their independent operator, TranServ International Incorporated; their Stakeholder Planning Committee; and their reliability coordinator, the TVA, to ensure the companies' ability to meet existing and future requirements. In addition, they actively participate in the Southeast Regional Transmission Planning process. Planning approach focused on requirements for Kentucky IRP - identification of future scenarios to reliably meet load at the lowest cost. While not directly assessed against a transition

			pathway as part of the IRP process, the scenario planning was an input to PPL's Climate Assessment Report scenario analysis. RIE plan undergoes yearly revisions to align with actual customer technology adoption and with existing and emerging state programs, including climate related programs and recently proposed a grid modernization plan which proposes a number of visibility and control investments to handle a variety of possible climate scenarios. We use LIDAR technology to map trees along transmission rights-of-way and predictive data science to map vegetation risk and better target our efforts to improve reliability without increasing costs. In addition, we can monitor waveforms recorded by relays to proactively identify when electrical equipment is at a higher risk of failure.
Transition scenarios Customized publicly available transition scenario	Business division	Unknown	In Kentucky, LG&E and KU routinely evaluate the best ways to serve customers under a wide range of scenarios. The IRP process begins with 30-year forecasts of customers' energy needs. LG&E and KU use information from a variety of sources to develop reasonable long-term forecasts that reflect not only the quantity of electricity required, but also the hour-by-hour demand. The companies' load forecast models consider such factors as weather conditions, daily usage patterns, future economic activity, population, and potential adoption rates of demand-side management programs, electric vehicles, private solar generation, energy efficiency measures and more. Seasonal and daily variability of customers' energy needs drive the development of a generation portfolio that can reliably meet customers' needs in every hour of the year and under a broad range of weather conditions. For example, over the course of the year, approximately 50% of customers' energy needs occur at night when solar power is not generating electricity, with up to 65% occurring at night during the winter months. Considering all the above factors, LG&E and KU

			submit an IRP to the Kentucky Public Service Commission (KPSC) once every three years, as required. However, the companies annually review and update their plan to reflect the latest information and forecasts and must affirm the adequacy of their resources annually in filings with the KPSC. As a result of LG&E and KU's attention to planning and maintenance, the companies have demonstrated sustained excellence in generation reliability in recent years, reflecting top-quartile performance in its equivalent forced outage rates that are well below industry averages as tracked by ReliabilityFirst Corporation. Seasonal and daily variability of customers' energy needs drive the development of a generation portfolio that can reliably meet customers' needs in every hour of the year and under a broad range of weather conditions.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

PPL uses scenario analysis for system planning as discussed in detail in section 3.2a. Additionally, PPL used transition climate scenario analysis to benchmark our progress to reduce the company's generation-related carbon emissions against 1.5°Celsius emission pathways and Paris Agreement-aligned commitments.

Results of the climate-related scenario analysis with respect to the focal questions

A full description of that analysis and findings can be found on pages 16-22 of PPL's Climate Assessment Report (https://www.pplweb.com/wp-content/uploads/2022/01/PPL_Corp-2021-Climate-Assessment_2022-01-04.pdf).

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and	Description of influence

	opportunities influenced your strategy in this area?	
Products and services	Yes	The reliability of PPL's electric service is at risk of being impacted by increasingly frequent severe storm events as well as the increase in distributed energy resources and private renewable energy. This poses a risk of adversely affecting PPL's reputation and future rate recovery but also presents the opportunity to invest in modernizing the grid with more storm-resistant materials, increased redundancies, automated systems and more data-driven management of the grid. PPL is also making enhancements necessary to meet electricity demand over the longer-term to support the adoption of electricity fueled transportation. In addition to grid enhancements, PPL is offering new types of products and services in response to increasing public desire for renewable energy. The subscription-based Solar Share program is a cost-effective option available to residential, business and industrial customers who want to support solar energy. More than 2,800 LG&E and KU customers across Kentucky have enrolled in the program. Upon completion, the Solar Share facility will have eight sections and a total capacity of 4 megawatts. PPL Electric's user-friendly Renewable Energy Connection website makes it easier for customers to apply to connect solar panels and other generation systems to the grid. Since deploying the portal in 2018, the company has received 5,000 applications for connection, processing 90% of those within 24 hours. RIE contributed $2.5 million to support the Rhode Island Commerce Corporation's Renewable Energy Fund (REF), which provides grants for renewable energy projects that have the potential to produce electricity in a cleaner, more sustainable manner. These grants also help stimulate job growth in the green technology and energy sectors. RIE also offers two customer programs to encourage local renewable energy connections. RIE's feed-in-tariff program awarded 15.34 MW of nameplate capacity for renewable energy resources in 2022, while 40.54 MW of renewable energy resources went through its net metering program. Cumulatively, 5.13 MW/10.47 MWh of energy storage was connected by year-end 2022.

Supply chain and/or value chain	Yes	Through PPL's Supplier Code of Conduct, suppliers have an obligation to carry out all of their activities on our behalf in ways that preserve and promote a clean, safe and healthy environment, which includes understanding and abiding by our environmental policies and the environmental laws and regulations applicable to the locations in which we operate. PPL Electric requires electricity suppliers to provide sufficient renewable energy credits to allow PPL Electric to meet Pennsylvania's Alternative Energy Portfolio Standards requirements. Additionally, PPL Electric is purchasing remanufactured furniture from its furniture manufacturer and supplier and intends to purchase remanufactured office panels going forward. PPL anticipates retiring 2,000 megawatts of coal generation over the next 15 years, including 1,500 megawatts proposed for retirement by 2028. Our Kentucky utilities have proposed a generation replacement plan with a mix of cleaner energy resources — a combination of new gas and solar generation, energy storage and customer demand-side management — to power the needs of the state while maintaining the affordability and reliability our customers expect. If approved by the Kentucky Public Service Commission, this mix of resources will reduce the carbon intensity of our Kentucky generation from 2021 levels by roughly 26% by 2030. Additionally, LG&E and KU executed two purchased power agreements ("PPA") in 2020 and 2021 for a combined 225 megawatts of solar generation. These PPAs support our customers' interest in renewable generation and will enable us to meet our obligations to serve our Kentucky customers' energy needs in the most reliable, least-cost fashion. The state of Rhode Island has adopted aggressive clean energy goals including reaching net-zero carbon emissions by 2050 and achieving 100% renewable energy by 2033. Additionally, in July 2022, Rhode Island passed an amendment to the Affordable Clean Energy Security Act (ACES) that required RIE to issue a request for proposals (RFP) for at least 600 MW but no greater than 1,000 MW of newly developed offshore wind capacity no later than October 15, 2022. The company issued the RFP last fall and received one bid. After thorough evaluation, the company determined that the bid received did not meet statutory requirements. RIE anticipates additional solicitation processes in the future.

Investment in R&D	Yes	As of April 2023, PPL was engaged in more than 140 active research projects, with more than $20 million in active federal funding, steering key industry partnerships and collaborating with industry and academia to enable decarbonization, advance clean energy technology, strengthen grid resilience and explore energy storage. PPL is a long-time member of the Electric Power Research Institute (EPRI), which conducts research and development on a variety of electric sector topics, including climate change, carbon capture and electrification. PPL serves as an anchor sponsor of the Low Carbon Resources Initiative, a five-year initiative led by EPRI and Gas Technology Institute to collaborate on identifying, developing and demonstrating affordable pathways to economy-wide decarbonization. PPL's CEO is first chair of EPRI's board of directors. PPL has invested $50 million across Energy Impacts Partner's (EIP) investment platform, which aims to provide PPL greater visibility into emerging technologies that can be leveraged to advance the clean energy transition and accelerate the shift to a low-carbon future and driving commercial-scale solutions needed to deliver deep, economy-wide decarbonization. We have also created innovative partnerships with academia across all of our territories, including our longstanding partnership with the University of Kentucky's Institute for Decarbonization and Energy Advancement (IDEA) at the PPL R&D Center. PPL joined Climate READi, a three-year initiative launched by EPRI to address energy system climate resilience and adaptation as extreme weather events continue to increase. The collaborative effort is focused on strengthening grid resilience against potential climate and weather impacts. RIE is piloting two battery-energy storage systems to improve resiliency and performance. The systems are designed to store electrical energy during low-usage periods to be utilized when needed, one front-of-the-meter system to aid during outages and one behind-the-meter system that can be charged/discharged daily to provide additional power at peak times.
Operations	Yes	Operational impacts are primarily related to enhancing and managing the grid in all of PPL's service areas to meet the

		growing demand for renewable energy, and to address physical risks from increasingly frequent severe storms. Generation planning in KY balances reliability and affordability in transition to clean energy. Impacts to RIE's gas distribution system are being assessed as part of a regulatory proceeding mentioned in other areas of this CDP response.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures Capital allocation Acquisitions and divestments Access to capital Assets Liabilities	PPL has adopted a clean energy transition strategy that positions the company to be a clean energy leader in the regions that we serve. Our transition strategy is centered around four key areas that we believe will enable us to advance new opportunities for the company and help deliver a net-zero economy by 2050: • Decarbonize our generation. • Decarbonize our non-generation operations. • Drive Digital Innovation and R&D to Enable New Technologies. • Position the Grid as an Enabler for Clean Energy Resources and Drive Energy Efficiency and Demand Side Management. Our commitment to achieve net-zero carbon emissions by 2050 is backed by the actions that we are taking and will continue to take to support a low-carbon energy system that is affordable and reliable for our customers and provides the time needed for technology to advance. Our rigorous capital expenditure program is designed to deliver long-term value for our stakeholders and align with our corporate strategy, including our clean energy strategy described elsewhere in this report. We plan to invest $12 billion across our energy grid to strengthen grid resilience in the face of future storms, reduce power plant emissions and prepare networks to better integrate more distributed energy resources, including renewables and energy storage. Advancing a cleaner energy future and reducing the largest source of PPL's direct emissions involves investing in renewable and non-emitting generation. PPL's only fossil-fueled power plants are located in Kentucky, where LG&E and KU have plans to economically retire aging power plants and replace them with lower-carbon and non-emitting generation. Based on the current retirement schedule, we expect our coal capacity to be reduced from current level of just over 4,700

		megawatts to approximately 550 megawatts in 2050 based on expected retirement dates; and, the company has committed to not burn unabated coal by 2050. Acquisitions and divestments PPL acquired Rhode Island's primary electric and gas utility, The Narragansett Electric Company, from National Grid. The acquisition was completed in May 2022 with the utility rebranded as Rhode Island Energy (RIE). The state of Rhode Island has adopted aggressive clean energy goals including reaching net-zero carbon emissions by 2050 and achieving 100% renewable energy by 2033. Additionally, in July 2022, Rhode Island passed an amendment to the Affordable Clean Energy Security Act (ACES) that required RIE to issue a request for proposals (RFP) for at least 600 MW but no greater than 1,000 MW of newly developed offshore wind capacity no later than October 15, 2022. The company issued the RFP last fall and received one bid. After thorough evaluation, the company determined that the bid received did not meet statutory requirements. RIE anticipates additional solicitation processes in the future. PPL anticipates retiring 2,000 megawatts of coal generation over the next 15 years, including 1,500 megawatts proposed for retirement by 2028 and subject to regulatory approval. Our Kentucky utilities have proposed a generation replacement plan with a mix of cleaner energy resources — a combination of new gas and solar generation, energy storage and customer demand-side management — to power the needs of the state while maintaining the affordability and reliability our customers expect. If approved by the Kentucky Public Service Commission, this mix of resources will lower emissions by 25% and reduce the carbon intensity of our Kentucky generation from 2021 levels by roughly 26% by 2030. Additionally, LG&E and KU executed two purchased power agreements ("PPA") in 2020 and 2021 for a combined 225 megawatts of solar generation. These PPAs support our customers' interest in renewable generation and will enable us to meet our obligations to serve our Kentucky customers' energy needs in the most reliable, least-cost fashion.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition
Row 1	

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number

Abs 1

Is this a science-based target?

No, and we do not anticipate setting one in the next two years

Target ambition

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1
Scope 2
Scope 3

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Base year

2010

Base year Scope 1 emissions covered by target (metric tons CO2e)

60,924,814

Base year Scope 2 emissions covered by target (metric tons CO2e)

55,325

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

1,597,157

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

Base year total Scope 3 emissions covered by target (metric tons CO2e)

1,597,157

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

62,577,296

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

97.3

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

0.1

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

2.6

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

2.6

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2035

Targeted reduction from base year (%)

70

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

18,773,188.8

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

26,952,447

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

26,020

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

246,078

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

246,078

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

27,224,545

Does this target cover any land-related emissions?

% of target achieved relative to base year [auto-calculated]

80.7064753964

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

PPL's target includes Scope 1 (Gross MWh of Owned Generation, Fleet Vehicles, Small Plant Stationary Fuel Combustion Sources not included in Stack Emissions, Plant Mobile Equipment, Fugitive SF6, and Gas Use in Facilities (stationary fuel combustion);Scope 2 (Electricity Use in Facilities); and Scope 3 (LG&E and KU) Electricity Purchased for End Use Customers. PPL's original 2050 goal was publicly announced in January 2018 and revised in 2020. In August 2021, PPL set a new goal to achieve net-zero carbon emissions by 2050 and established new interim targets – 70% reduction by 2035 and 80% reduction by 2040 from a 2010 baseline.

Regarding calculation of Scope 2 emissions, LG&E and KU's emissions are calculated using a hybrid of location- based and market-based factors. LG&E and KU have access to location-based factors for power procured from specific contracted units. LG&E and KU also purchase a small amount of power in the wholesale market.

Emissions associated with all electric and gas use in buildings across all PPL operations

are calculated based on market-based factors.

Scope 2: Gas Use in Facilities (stationary fuel combustion) was reclassified as Scope 1: Gas Use in Facilities (stationary fuel combustion) and will remain part of PPL's 2050 goal.

Plan for achieving target, and progress made to the end of the reporting year

To help achieve these reductions and support our net-zero-by 2050 goal, PPL has a four-part clean energy strategy aimed at decarbonizing our owned generation and operations, bringing smart grid technology and renewable energy solutions to our customers, and investing in research and development necessary to support the deployment of affordable and reliable clean energy technologies.

Our commitment to achieve net-zero carbon emissions by 2050 is backed by the actions that we are and will continue to take to support a low-carbon energy system that is affordable and reliable and provides the time needed for technology to advance. As the majority of our carbon emissions come from our Kentucky generation operations, the expected retirement of aging coal-fired generation and replacement with clean and non-emitting resources will have the greatest impact to PPL's goal-related emissions.

PPL expects to transition our Kentucky coal-fired generation with an expected 2,000 megawatts of coal plant retirements over the next 15 years and replace it with non-emitting generation. Based on the current retirement schedule, we expect our coal capacity to be reduced from just over 4,700 megawatts in 2020 to approximately 550 megawatts in 2050.

List the emissions reduction initiatives which contributed most to achieving this target

---

Target reference number

Abs 2

Is this a science-based target?

No, and we do not anticipate setting one in the next two years

Target ambition

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1
Scope 2

Scope 3

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Base year

2010

Base year Scope 1 emissions covered by target (metric tons CO2e)

60,924,814

Base year Scope 2 emissions covered by target (metric tons CO2e)

55,325

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

1,597,157

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

Base year total Scope 3 emissions covered by target (metric tons CO2e)

1,597,157

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

62,577,296

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

97.3

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

0.1

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

2.6

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

2.6

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2040

Targeted reduction from base year (%)

80

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

12,515,459.2

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

26,952,447

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

26,020

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

246,078

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

246,078

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

27,224,545

Does this target cover any land-related emissions?

% of target achieved relative to base year [auto-calculated]

70.6181659719

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

PPL's target includes Scope 1 (Gross MWh of Owned Generation, Fleet Vehicles, Small Plant Stationary Fuel Combustion Sources not included in Stack Emissions, Plant Mobile Equipment, Fugitive SF6, and Gas Use in Facilities (stationary fuel combustion);Scope 2 (Electricity Use in Facilities); and Scope 3 (LG&E and KU) Electricity Purchased for End Use Customers. PPL's original 2050 goal was publicly announced in January 2018 and revised in 2020. In August 2021, PPL set a new goal to achieve net-zero carbon emissions by 2050 and established new interim targets – 70% reduction by 2035 and 80% reduction by 2040 from a 2010 baseline.

Regarding calculation of Scope 2 emissions, LG&E and KU's emissions are calculated using a hybrid of location- based and market-based factors. LG&E and KU have access to location-based factors for power procured from specific contracted units. LG&E and KU also purchase a small amount of power in the wholesale market.

Emissions associated with all electric and gas use in buildings across all PPL operations are calculated based on market-based factors.

Scope 2: Gas Use in Facilities (stationary fuel combustion) was reclassified as Scope 1: Gas Use in Facilities (stationary fuel combustion) and will remain part of PPL's 2050 goal.

Plan for achieving target, and progress made to the end of the reporting year

To help achieve these reductions and support our net-zero-by 2050 goal, PPL has a four-part clean energy strategy aimed at decarbonizing our owned generation and operations, bringing smart grid technology and renewable energy solutions to our customers, and investing in research and development necessary to support the deployment of affordable and reliable clean energy technologies.

Our commitment to achieve net-zero carbon emissions by 2050 is backed by the actions that we are and will continue to take to support a low-carbon energy system that is affordable and reliable and provides the time needed for technology to advance. As the majority of our carbon emissions come from our Kentucky generation operations, the expected retirement of aging coal-fired generation and replacement with clean and non-emitting resources will have the greatest impact to PPL's goal-related emissions.

PPL expects to transition our Kentucky coal-fired generation with an expected 2,000 megawatts of coal plant retirements over the next 15 years and replace it with non-emitting generation. Based on the current retirement schedule, we expect our coal capacity to be reduced from just over 4,700 megawatts in 2020 to approximately 550 megawatts in 2050.

List the emissions reduction initiatives which contributed most to achieving this target

Target reference number

Abs 3

Is this a science-based target?

No, and we do not anticipate setting one in the next two years

Target ambition

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1
Scope 2
Scope 3

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Base year

2010

Base year Scope 1 emissions covered by target (metric tons CO2e)

60,924,814

Base year Scope 2 emissions covered by target (metric tons CO2e)

55,325

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)

1,597,157

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)

Base year total Scope 3 emissions covered by target (metric tons CO2e)

1,597,157

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

62,577,269

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

97.3

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

0.1

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

2.6

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

2.6

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2050

Targeted reduction from base year (%)

100

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

0

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

26,952,447

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

26,020

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)

246,078

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)

246,078

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

27,224,545

Does this target cover any land-related emissions?

% of target achieved relative to base year [auto-calculated]

56.4945140064

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

PPL's target includes Scope 1 (Gross MWh of Owned Generation, Fleet Vehicles, Small Plant Stationary Fuel Combustion Sources not included in Stack Emissions, Plant Mobile Equipment, Fugitive SF6, and Gas Use in Facilities (stationary fuel combustion);Scope 2 (Electricity Use in Facilities); and Scope 3 (LG&E and KU) Electricity Purchased for End Use Customers. PPL's original 2050 goal was publicly announced in January 2018 and revised in 2020. In August 2021, PPL set a new goal to achieve net-zero carbon emissions by 2050 and established new interim targets – 70% reduction by 2035 and 80% reduction by 2040 from a 2010 baseline.

Regarding calculation of Scope 2 emissions, LG&E and KU's emissions are calculated using a hybrid of location- based and market-based factors. LG&E and KU have access to location-based factors for power procured from specific contracted units. LG&E and KU also purchase a small amount of power in the wholesale market.

Emissions associated with all electric and gas use in buildings across all PPL operations are calculated based on market-based factors.

Scope 2: Gas Use in Facilities (stationary fuel combustion) was reclassified as Scope 1: Gas Use in Facilities (stationary fuel combustion) and will remain part of PPL's 2050 goal.

Plan for achieving target, and progress made to the end of the reporting year

To help achieve these reductions and support our net-zero-by 2050 goal, PPL has a four-part clean energy strategy aimed at decarbonizing our owned generation and operations, bringing smart grid technology and renewable energy solutions to our customers, and investing in research and development necessary to support the deployment of affordable and reliable clean energy technologies.

Our commitment to achieve net-zero carbon emissions by 2050 is backed by the actions that we are and will continue to take to support a low-carbon energy system that is affordable and reliable and provides the time needed for technology to advance. As the majority of our carbon emissions come from our Kentucky generation operations, the expected retirement of aging coal-fired generation and replacement with clean and non-emitting resources will have the greatest impact to PPL's goal-related emissions.

PPL expects to transition our Kentucky coal-fired generation with an expected 2,000 megawatts of coal plant retirements over the next 15 years and replace it with non-emitting generation. Based on the current retirement schedule, we expect our coal capacity to be reduced from just over 4,700 megawatts in 2020 to approximately 550 megawatts in 2050.

List the emissions reduction initiatives which contributed most to achieving this target

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Target(s) to increase low-carbon energy consumption or production
Net-zero target(s)
Other climate-related target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2007

Target coverage

Business division

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2007

Consumption or production of selected energy carrier in base year (MWh)

% share of low-carbon or renewable energy in base year

5.7

Target year

2021

% share of low-carbon or renewable energy in target year

18

% share of low-carbon or renewable energy in reporting year

18

% of target achieved relative to base year [auto-calculated]

100

Target status in reporting year

Achieved

Is this target part of an emissions target?

No

Is this target part of an overarching initiative?

Other, please specify

Pennsylvania Act 129

Please explain target coverage and identify any exclusions

PPL Electric: PPL Electric's PA Alternative Energy Portfolio Standard (PA AEPS) for CY2022 is 18%.

Plan for achieving target, and progress made to the end of the reporting year

List the actions which contributed most to achieving this target

The final target under the PA AEPS Act was achieved in CY2020 – one year ahead of its target.

The 2022 target was fully achieved through competitive solicitation for PA-eligible RECs and approved by the PA Public Utility Commission.

Target reference number

Low 2

Year target was set
2004

Target coverage
Business division

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Base year
2007

Consumption or production of selected energy carrier in base year (MWh)

% share of low-carbon or renewable energy in base year
3

Target year
2022

% share of low-carbon or renewable energy in target year
19

% share of low-carbon or renewable energy in reporting year
19

% of target achieved relative to base year [auto-calculated]
100

Target status in reporting year
Achieved

Is this target part of an emissions target?

Is this target part of an overarching initiative?
Other, please specify
Rhode Island Renewable Energy Standard

Please explain target coverage and identify any exclusions
RIE: Rhode Island's Renewable Energy Standard that requires all obligated entities to obtain a certain percentage of the electricity they sell at retail to Rhode Island end-use customers, adjusted for electric line losses, from eligible renewable energy resources, escalating annually until reaching 100% in 2033. All compliance reports can be found on the Rhode Island Renewable Energy Standard website

(https://rhodeislandres.com/ripuc-annual-reports/).

In 2022, RIE was required to meet a 19% Renewable Portfolio Standard (RPS).

Plan for achieving target, and progress made to the end of the reporting year

List the actions which contributed most to achieving this target

RIE is supporting offshore wind development for RIE customers. Further, RIE conducts annual open enrollment for small and medium scale renewable energy through the RI Renewable Energy Growth Program. The company also plans to develop and an RFP to meet renewable energy procurement obligations under the RI Long-term Contracting Standards statute.

Target reference number

Low 3

Year target was set

2004

Target coverage

Business division

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2007

Consumption or production of selected energy carrier in base year (MWh)

% share of low-carbon or renewable energy in base year

3

Target year

2033

% share of low-carbon or renewable energy in target year

100

% share of low-carbon or renewable energy in reporting year

19

% of target achieved relative to base year [auto-calculated]

16.4948453608

Target status in reporting year

Underway

Is this target part of an emissions target?

Is this target part of an overarching initiative?

Other, please specify

Island Renewable Energy Standard

Please explain target coverage and identify any exclusions

RIE: Rhode Island's Renewable Energy Standard that requires all obligated entities to obtain a certain percentage of the electricity they sell at retail to Rhode Island end-use customers, adjusted for electric line losses, from eligible renewable energy resources, escalating annually until reaching 100% in 2033. All compliance reports can be found on the Rhode Island Renewable Energy Standard website (https://rhodeislandres.com/ripuc-annual-reports/).

In 2022, RIE was required to meet a 19% Renewable Portfolio Standard (RPS).

Plan for achieving target, and progress made to the end of the reporting year

RIE is supporting offshore wind development for RIE customers. Further, RIE conducts annual open enrollment for small and medium scale renewable energy through the RI Renewable Energy Growth Program. The company also plans to develop and an RFP to meet renewable energy procurement obligations under the RI Long-term Contracting Standards statute.

List the actions which contributed most to achieving this target

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2016

Target coverage

Business division

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Energy consumption or efficiency

MWh

Target denominator (intensity targets only)

Base year

2021

Figure or percentage in base year

187,891

Target year

2026

Figure or percentage in target year

1,250,157

Figure or percentage in reporting year

290,291

% of target achieved relative to base year [auto-calculated]

9.6397700764

Target status in reporting year

Underway

Is this target part of an emissions target?

No

Is this target part of an overarching initiative?

Other, please specify

Part of PPL's enterprise carbon reduction goal

Please explain target coverage and identify any exclusions

PPL Electric: The target under PPL Electric's Phase IV plan is to implement energy efficiency and demand response targeting customers in the residential, low-income and non-residential sectors, that would achieve additional annual savings of 1,250,157 MWh.

PPL Electric has achieved Act 129 Phase 3 targets. The PPL Electric Phase IV plan is currently in effect (effective 2021), having been approved by the Pennsylvania Public Utility Commissions (PUC).

Plan for achieving target, and progress made to the end of the reporting year

PPL Electric plans to achieve its targets using a portfolio of comprehensive programs, targeting customers in the residential, low-income, and non-residential sectors with a 5-

year budget of $307 million. Figure in base year and reporting year are annual figures. Through 2022, PPL Electric has seen a cumulative savings of 478,182 MWh.

List the actions which contributed most to achieving this target

---

Target reference number

Oth 2

Year target was set

2021

Target coverage

Business division

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Low-carbon vehicles

Other, please specify

Carbon reduction by utilizing electric vehicles (MT of CO2e)

Target denominator (intensity targets only)

Base year

2019

Figure or percentage in base year

11,084

Target year

2030

Figure or percentage in target year

1,600

Figure or percentage in reporting year

10,926

% of target achieved relative to base year [auto-calculated]

1.6659637284

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, part of PPL's goal to achieve net-zero emissions by 2050.

Is this target part of an overarching initiative?

Other, please specify

Part of PPL's enterprise carbon reduction goal

Please explain target coverage and identify any exclusions

PPL Electric: PPL Electric set vehicle electrification a goal to electrify 50% of medium/heavy duty vehicles by 2030; 100% of light-duty vehicles and indoor forklifts by 2030; and converting 80% of heavy-duty vehicles with electric lift technology (ePTO) by 2025. Target year emissions are an estimate and dependent upon vehicle availability.

Plan for achieving target, and progress made to the end of the reporting year

PPL's plans include converting light-duty vehicles from carbon-based fuels using a combination of fully electric vehicles or plug-in hybrids. For heavy-duty vehicles, electric lift technology uses battery power to operate the boom, bucket and lifts used by lineworkers, reducing the need for engine idling. This reduces fuel consumption and maintenance costs and minimizes job site noise. Fuel consumption is reduced by as much as a gallon of diesel fuel per hour of eliminated idling.

List the actions which contributed most to achieving this target

---

Target reference number

Oth 3

Year target was set

2021

Target coverage

Business division

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Low-carbon vehicles

Other, please specify

Carbon reduction by utilizing electric vehicles (MT of CO2e)

Target denominator (intensity targets only)

Base year

2019

Figure or percentage in base year

14,654

Target year

2030

Figure or percentage in target year

2,800

Figure or percentage in reporting year

14,070

% of target achieved relative to base year [auto-calculated]

4.9266070525

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, part of PPL's goal to achieve net-zero emissions by 2050.

Is this target part of an overarching initiative?

Other, please specify

Part of PPL’s enterprise carbon reduction goal

Please explain target coverage and identify any exclusions

LG&E and KU: LG&E and KU set a goal to electrify 50% of medium/heavy duty vehicles by 2030; 100% of light-duty vehicles and indoor forklifts by 2030; and converting 80% of heavy-duty vehicles with electric lift technology (ePTO) by 2030. Target year emissions are an estimate and dependent upon vehicle availability.

Plan for achieving target, and progress made to the end of the reporting year

PPL’s plans include converting light-duty vehicles from carbon-based fuels using a combination of fully electric vehicles or plug-in hybrids. For heavy-duty vehicles, electric lift technology uses battery power to operate the boom, bucket and lifts used by lineworkers, reducing the need for engine idling. This reduces fuel consumption and maintenance costs and minimizes job site noise. Fuel consumption is reduced by as much as a gallon of diesel fuel per hour of eliminated idling.

List the actions which contributed most to achieving this target

---

Target reference number

Oth 4

Year target was set

2022

Target coverage

Business division

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Low-carbon vehicles

Other, please specify

Carbon reduction by utilizing electric vehicles (MT of CO2e)

Target denominator (intensity targets only)

Base year

2022

Figure or percentage in base year

6,056

Target year

2030

Figure or percentage in target year

Figure or percentage in reporting year

6,056

% of target achieved relative to base year [auto-calculated]

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, part of PPL's goal to achieve net-zero emissions by 2050.

Is this target part of an overarching initiative?

Other, please specify

Part of PPL’s enterprise carbon reduction goal

Please explain target coverage and identify any exclusions

RIE: RIE set a goal to electrify 50% of medium/heavy duty vehicles by 2030; 100% of light-duty vehicles and indoor forklifts by 2030; and converting 80% of heavy-duty vehicles with electric lift technology (ePTO) by 2030. Target year emission estimates continue to be calculated and will be dependent upon vehicle availability.

Plan for achieving target, and progress made to the end of the reporting year

PPL’s plans include converting light-duty vehicles from carbon-based fuels using a combination of fully electric vehicles or plug-in hybrids. For heavy-duty vehicles, electric lift technology uses battery power to operate the boom, bucket and lifts used by lineworkers, reducing the need for engine idling. This reduces fuel consumption and maintenance costs and minimizes job site noise. Fuel consumption is reduced by as much as a gallon of diesel fuel per hour of eliminated idling.

List the actions which contributed most to achieving this target

Target reference number
Oth 5

Year target was set
2021

Target coverage
Business division

Target type: absolute or intensity
Absolute

Target type: category & Metric (target numerator if reporting an intensity target)
Low-carbon buildings
Other, please specify
Carbon emissions reduction through reduced energy use (MT CO2e)

Target denominator (intensity targets only)

Base year
2019

Figure or percentage in base year
24,192

Target year
2030

Figure or percentage in target year
15,000

Figure or percentage in reporting year
18,311

% of target achieved relative to base year [auto-calculated]
63.9795474326

Target status in reporting year
Underway

Is this target part of an emissions target?
Yes, part of PPL's goal to achieve net-zero emissions by 2050.

Is this target part of an overarching initiative?
Other, please specify

Part of PPL's enterprise carbon reduction goal

Please explain target coverage and identify any exclusions

PPL Electric: PPL Electric set a goal to decrease electricity use in buildings 28% by 2030 from a 2019 baseline. PPL Electric will undertake facilities planning to reduce emissions associated with our electric and gas use, including increasing renewables consumption for our owned buildings. We have already begun to identify opportunities to serve our energy needs through clean energy options.

Plan for achieving target, and progress made to the end of the reporting year

In Pennsylvania, we completed our second solar project at a PPL Electric facility to help meet our energy needs. We expect to install systems at additional service centers in the future.

List the actions which contributed most to achieving this target

---

Target reference number

Oth 6

Year target was set

2021

Target coverage

Business division

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Low-carbon buildings

Other, please specify

Carbon emissions reduction through reduced energy use (MT CO2e)

Target denominator (intensity targets only)

Base year

2019

Figure or percentage in base year

36,903

Target year

2030

Figure or percentage in target year

26,000

Figure or percentage in reporting year

33,743

% of target achieved relative to base year [auto-calculated]

28.9828487572

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, part of PPL's goal to achieve net-zero emissions by 2050.

Is this target part of an overarching initiative?

Other, please specify

Part of PPL’s enterprise carbon reduction goal

Please explain target coverage and identify any exclusions

LG&E and KU: LG&E and KU set a goal to decrease electricity use in buildings 28% by 2030 from a 2019 baseline. LG&E and KU will undertake facilities planning to reduce emissions associated with our electric and gas use, including increasing renewables consumption for our owned buildings. We have already begun to identify opportunities to serve our energy needs through clean energy options.

Plan for achieving target, and progress made to the end of the reporting year

In Kentucky, a fully regulated state, reductions in building electricity use will help to reduce scope 1 emissions from our owned generation.

List the actions which contributed most to achieving this target

---

Target reference number

Oth 7

Year target was set

2022

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Low-carbon buildings

Other, please specify

Carbon emissions reduction through reduced energy use (MT CO2e)

Target denominator (intensity targets only)

Base year

2022

Figure or percentage in base year

4,860

Target year

2030

Figure or percentage in target year

3,500

Figure or percentage in reporting year

4,860

% of target achieved relative to base year [auto-calculated]

0

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, part of PPL's goal to achieve net-zero emissions by 2050.

Is this target part of an overarching initiative?

Other, please specify

Part of PPL’s enterprise carbon reduction goal

Please explain target coverage and identify any exclusions

RIE: Following its acquisition by PPL in 2022, RIE established a goal to reduce electricity use in buildings 28% by 2030 from a 2022 baseline. RIE will undertake facilities planning to reduce emissions associated with our electric and gas use, including increasing renewables consumption for our owned buildings. We have already begun to identify opportunities to serve our energy needs through clean energy options

Plan for achieving target, and progress made to the end of the reporting year

List the actions which contributed most to achieving this target

---

Target reference number

Oth 8

Year target was set

2021

Target coverage

Business division

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Low-carbon buildings

Other, please specify

Reduction of carbon emissions

Target denominator (intensity targets only)

Base year

2019

Figure or percentage in base year

8,349

Target year

2030

Figure or percentage in target year

6,000

Figure or percentage in reporting year

7,058

% of target achieved relative to base year [auto-calculated]

54.9595572584

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, part of PPL's goal to achieve net-zero emissions by 2050.

Is this target part of an overarching initiative?

Other, please specify

Part of PPL's enterprise carbon reduction goal

Please explain target coverage and identify any exclusions

LG&E and KU: LG&E and KU set a goal to decrease gas use in buildings 28% by 2030 from a 2019 baseline. 2019 baseline and figure in target year have been recalculated in 2022 as usage was being double counted.

Plan for achieving target, and progress made to the end of the reporting year

A natural gas boiler was retired at one of LG&E and KU's facilities, which accounts for the larger decrease in the 2022 reporting year.

List the actions which contributed most to achieving this target

Target reference number
Oth 9

Year target was set
2021

Target coverage
Business division

Target type: absolute or intensity
Absolute

Target type: category & Metric (target numerator if reporting an intensity target)
Low-carbon buildings
Other, please specify
Reduction of carbon emissions

Target denominator (intensity targets only)

Base year
2022

Figure or percentage in base year
10,913

Target year
2030

Figure or percentage in target year
7,900

Figure or percentage in reporting year
10,913

% of target achieved relative to base year [auto-calculated]
0

Target status in reporting year
Underway

Is this target part of an emissions target?
Yes, part of PPL's goal to achieve net-zero emissions by 2050.

Is this target part of an overarching initiative?
Other, please specify
Part of PPL's enterprise carbon reduction goal

Please explain target coverage and identify any exclusions

RIE: Following its acquisition by PPL in 2022, RIE established a goal to decrease gas use in buildings 28% by 2030 from a 2022 baseline.

Plan for achieving target, and progress made to the end of the reporting year

List the actions which contributed most to achieving this target

---

Target reference number

Oth 10

Year target was set

2021

Target coverage

Company-wide

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Target denominator (intensity targets only)

Base year

2021

Figure or percentage in base year

Target year

Figure or percentage in target year

Figure or percentage in reporting year

% of target achieved relative to base year [auto-calculated]

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, part of PPL's goal to achieve net-zero emissions by 2050.

Is this target part of an overarching initiative?

Other, please specify

Part of PPL's enterprise carbon reduction goal

Please explain target coverage and identify any exclusions

Reduction of building energy use goals include the installation of solar arrays to offset energy use.

Plan for achieving target, and progress made to the end of the reporting year

List the actions which contributed most to achieving this target

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs1

Abs2

Abs3

Target year for achieving net zero

2050

Is this a science-based target?

No, and we do not anticipate setting one in the next two years

Please explain target coverage and identify any exclusions

PPL has set a goal to achieve net-zero carbon emissions by 2050. In addition, we are targeting a 70% reduction from 2010 levels by 2035 and an 80% reduction by 2040. This goal covers at least 95% of our Scopes 1 and 2 emissions and also includes Scope 3 emissions associated with our purchased electricity for LG&E and KU customers. Scope 1 emissions from gas operation are not included in the target. The company has not sought verification through SBTi.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Yes

Planned milestones and/or near-term investments for neutralization at target year

We view our path to net-zero emissions on a continuum, with a primary focus on eliminating our gross emissions, leveraging technology to remove emissions where they cannot be eliminated due to cost or reliability constraints, and finally, considering carbon offsets for any remaining emissions as the least preferred option.

We expect to retire 2,000 MW of coal-fired generation by 2034 and are preparing for energy and capacity needs created by 2028 retirements. We have also committed to not burn unabated coal by 2050. In addition to decarbonizing our generation portfolio, PPL's carbon emissions goal and clean energy transition strategy include decarbonizing other areas of our business by reducing company energy use, increasing electrification of fleet vehicles and reducing emissions associated with transmission and distribution equipment. We have set 2030 targets for fleet electrification and reductions in building energy use. We have made improvements to our gas distribution system in Kentucky resulting in reduced leaks and greenhouse gas emissions; we are exploring other options to reduce the methane intensity of the system, as well as alternative heating options for customers. In Rhode Island, we are taking part in the Rhode Island Public Utility Commission's ("PUC") regulatory proceeding to investigate the future of gas use and infrastructure in the state.

Planned actions to mitigate emissions beyond your value chain (optional)

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	1	431
To be implemented*		
Implementation commenced*		
Implemented*	15	266,306
Not to be implemented		

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Demand side management programs

Estimated annual CO2e savings (metric tonnes CO2e)

47,603

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

13,412,676

Payback period

No payback

Estimated lifetime of the initiative

6-10 years

Comment

LG&E and KU: In 2022 LG&E and KU invested $13.4M in Demand Side Management Programs, which includes:
• Low-Income Weatherization Program,
• Advanced Metering Program Residential and Commercial Demand Response Programs,
• Nonresidential Rebates Program.

LG&E and KU generates and delivers electricity, as such these initiatives directly reduced Scope 1 emissions.

Note: Payback period is applicable to customers and varies based on each project.

Initiative category & Initiative type

Fugitive emissions reductions

Other, please specify
Reduction of SF6 emissions

Estimated annual CO2e savings (metric tonnes CO2e)
50,948

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative
Ongoing

Comment
LG&E and KU: Reductions are the 12-year average reduction in 2022 emissions compared to 2010 emissions. LG&E and KU are replacing equipment to reduce SF6 emissions (O&M expense).

Note: Payback period not calculated.

Initiative category & Initiative type
Fugitive emissions reductions
Oil/natural gas methane leak capture/prevention

Estimated annual CO2e savings (metric tonnes CO2e)
0.2

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative
11-15 years

Comment
LG&E and KU: LG&E and KU are using advanced in-line inspection tools to identify gas leaks more quickly and effectively.

Note: Calculated by calculating annual difference for Subpart W LDC Service Line emissions (i.e. 2021 9.8 metric tons minus 2022 9.6 metric tons = 0.2 mt CO2e).

Note: Payback period not calculated.

Initiative category & Initiative type
Company policy or behavioral change
Other, please specify
Carbon sequestration

Estimated annual CO2e savings (metric tonnes CO2e)

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 3: Other (downstream)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period
No payback

Estimated lifetime of the initiative
Ongoing

Comment
LG&E and KU: LG&E and KU's Plant for the Planet matching grant program, which began in 2009, has contributed to more than 56,000 plantings. These projects have occurred in a range of urban and rural areas that offer public access, including parks and nature preserves. The company has designated up to $75,000 each year toward this initiative.

The carbon sequestration benefits resulted were calculated using a 1998 publication by

the U.S. Department of Energy for the “Calculation process for determining CO2e sequestration from planting various trees.” Since the program starting in 2009, LG&E and KU has sequestered at least 3,140 tons of CO2. Actual annual sequestration is dependent on success rate of plants.

Initiative category & Initiative type

Company policy or behavioral change

Other, please specify

Fugitive emissions from lawncare

Estimated annual CO2e savings (metric tonnes CO2e)

0.45

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 1: Purchased goods & services

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

LG&E and KU: LG&E and KU has a livestock vegetation management project for the solar generation sites to develop a sustainable model for using sheep to manage up to 25 acres, while substantially increasing the beneficial use of the land at solar generation sites. The ongoing use of sheep for vegetation management is expected to reduce costs by approximately 30% compared to mowing and reduce mowing related emissions.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Customer energy efficiency programs reducing consumption and peak demands

Estimated annual CO2e savings (metric tonnes CO2e)

111,001

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Voluntary/Mandatory

Mandatory

Annual monetary savings (unit currency – as specified in C0.4)

24,583,903

Investment required (unit currency – as specified in C0.4)

46,652,745

Payback period

No payback

Estimated lifetime of the initiative

11-15 years

Comment

PPL Electric: Pennsylvania Act 129 legislation, which became effective in November 2008, requires EDC's to cost-effectively reduce electricity consumption and peak demand on their systems. The reported calendar year 2020 period marks the final full year of the current plan. Total energy savings for CY2020 was 224,916 MWh.

The current phase of Act 129 began on June 1, 2021, with PPL Electric having already submitted and received PA PUC approval for its next phase plan. PPL Electric total energy savings for CY2022 was 290,291 MWh.

Note: Payback period is applicable to customers and varies based on each project.

Initiative category & Initiative type

Company policy or behavioral change

Other, please specify

Carbon sequestration

Estimated annual CO2e savings (metric tonnes CO2e)

179

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3: Other (downstream)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

19,000

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

PPL Electric: Beginning in 2017, PPL Electric developed a new program within its service territory that focused on community environmental awareness and engagement through tree donations and school outreach. Investment required reflects costs since program inception.

The carbon sequestration benefits resulted were calculated using a 1998 publication by the U.S. Department of Energy for the “Calculation process for determining CO2e sequestration from planting various trees.” Through 2022, PPL Electric has realized 908,702 lbs. of CO2 sequestration through this tree program. The program is funded in the current budget and by 2024 it is estimated a total CO2 sequestration of approximately 21.9 million lbs. will have been realized. Note actual annual sequestration is dependent on success rate of plants.

Initiative category & Initiative type

Company policy or behavioral change
Supplier engagement

Estimated annual CO2e savings (metric tonnes CO2e)

6

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 1: Purchased goods & services

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

PPL Electric: The use of remanufactured furniture for PPL Electric is ongoing and it is our intent to buy all furniture panels going forward as remanufactured. Our furniture manufacturer has significantly reduced the amount of waste and CO2 in their production

product. Using them as our furniture supplier demonstrates our commitment to a cleaner environment.

Initiative category & Initiative type

Low-carbon energy consumption
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

16.53

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

11-15 years

Estimated lifetime of the initiative

Ongoing

Comment

PPL Electric: The first major solar project was completed at our Quarryville Service Center. This system produced 43.2 MWh in 2022. The CO2 equivalency since 2018 installation is 67.4 metric tonnes CO2. PPL Electric is working to develop and install a second system at another service center in the near future.

Initiative category & Initiative type

Fugitive emissions reductions
Other, please specify
Reduction of SF6 emissions

Estimated annual CO2e savings (metric tonnes CO2e)

2,340

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

47,000,000

Payback period

Estimated lifetime of the initiative

Ongoing

Comment

PPL Electric: In an effort to increase efficiency in system performance and maintenance as well as meet evolving environmental standards, for all voltage classes with the available technology, PPL Electric is at the implementation stage of installing Vacuum Circuit Breakers to replace existing Gas Circuit Breakers. Vacuum Circuit Breakers are an environmentally friendly alternative to SF6 for insulating medium and high-voltage electrical equipment. Vacuum technology uses dry air as insulation material and has been demonstrated as highly reliable through 10,000 open/close mechanical operations tests. In addition to resolving the environmental and safety concerns associated with the use of chemical insulation, vacuum technology has an extended maintenance cycle and reduced arcing time, which allows for substantially more switching operations prior to required maintenance.

PPL Electric utilizes a compounded annualized growth rate (CAGR) approach to represent reductions in CO2e emissions related to SF6 since 2010. Currently, PPL Electric CO2 emissions are reducing at an annualized rate of 14.6% since 2010. PPL Electric has improved its leak rate performance faster than industry peers while increasing the total SF6 gas on the system by 209%. PPL Electric is below reporting thresholds.

Note: Payback period has not been calculated.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Demand side management programs

Estimated annual CO2e savings (metric tonnes CO2e)

27,283

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

48,878,020

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

RIE: RIE has a long-standing history of robust energy efficiency programs for residential and commercial customers. Measures cover energy efficiency in buildings and in production processes.

The 2022 programs created electric cost savings of $179M for Rhode Island customers over the life of the installed energy efficiency measures.

Note: Payback period is applicable to customers and varies based on each project.

Initiative category & Initiative type

Energy efficiency in buildings

Other, please specify

Demand side management programs

Estimated annual CO2e savings (metric tonnes CO2e)

20,356

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3 category 11: Use of sold products

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

31,392,841

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

RIE: Measures cover gas energy efficiency in buildings and in production processes.

The 2022 programs created gas cost savings of $110M for Rhode Island customers over the life of the installed energy efficiency measures.

RIE achieved 3,642,284 lifetime MMBtu which equates to 89.7% of target set forth for the 2022 program year by Three-Year Plan.

Note: Payback period is applicable to customers and varies based on each project.

Initiative category & Initiative type

Transportation

Other, please specify

Electric transportation initiative

Estimated annual CO2e savings (metric tonnes CO2e)

44.24

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 3: Other (downstream)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

RIE: RIE has offered programs to encourage and support vehicle electrification in Rhode Island. See https://ripuc.ri.gov/eventsactions/docket/4770page.html for annual program evaluations with metrics. Through 2022, the Charging Station Demonstration Program has activated 479 charging ports (465 Level 2 and 14 DCFC). The initiative concluded in September 2022. RIE is evaluating expanded programs.

Note: Payback period is applicable to customers and varies based on each project.

Initiative category & Initiative type

Energy efficiency in buildings

Maintenance program

Estimated annual CO2e savings (metric tonnes CO2e)

1,053

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

4-10 years

Estimated lifetime of the initiative

Ongoing

Comment

PPL Corporate: PPL will undertake facilities planning to reduce emissions associated with our electric and gas use, including increasing renewables consumption for our owned buildings. We have already begun to identify opportunities to serve our energy needs through clean energy options. Developed in 2021 and publicly announced in April 2022, PPL has set a goal to decrease electricity use in buildings 28% by 2030 from a 2019 baseline. In 2022, RIE set the same goal with a 2022 baseline.

Electricity use reductions result in Scope 1 emissions reductions for LG&E and KU.

Payback calculated for energy efficiency maintenance programs are project dependent.

Initiative category & Initiative type

Transportation

Company fleet vehicle replacement

Estimated annual CO2e savings (metric tonnes CO2e)

14

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

4-10 years

Estimated lifetime of the initiative

Ongoing

Comment

PPL Corporation: Our goals include electrifying 50% of medium/heavy duty vehicles by 2030; 100% of light-duty vehicles and indoor forklifts by 2030; and converting 80% of heavy-duty vehicles with electric lift technology (ePTO) by 2025 (PPL Electric) and 2030 (LG&E and KU and RIE).

Payback calculated for ePTO based on PPL Electric experience.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	Regulatory requirements related to energy efficiency and reliability standards, coupled with proactive efforts to support customer DER integration and electrification, are driving smart grid investments.
Dedicated budget for energy efficiency	PPL Utilities have approved energy efficiency/DSM customer programs under implementation with dedicated budgets and targets.
Financial optimization calculations	Financial calculations have driven investments in grid modernization, resulting in operational efficiencies and reduced greenhouse gas emissions. Financial calculations have also driven decisions regarding the most beneficial arrangements for renewable energy ownership vs. leases or PPAs.
Partnering with governments on technology development	PPL is steering more than 140 active research projects with industry, government and academia partners, with more than $20 million in federal funding. PPL's utilities have also applied for Federal IIJA and are working with their states to leverage IRA funding to bolster electric grid infrastructure, and clean energy and DER advancements.
Dedicated budget for energy efficiency	PPL Corporation has made multi-year commitments to clean energy research and development partnerships and has a dedicated budget for research and development for clean energy technology research and development.
Dedicated budget for other emissions reduction activities	LG&E and KU and PPL Electric are in the implementation stage of replacing SF6 breakers with vacuum breakers on 69kV transformers.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Power

Solar PV

Description of product(s) or service(s)

LG&E and KU: LG&E and KU's Business Solar Program offers customers the ability to support solar/renewable energy sources without upfront cost and maintenance. LG&E and KU will build, own, and operate a roof mount or ground mount solar array on the customer's property based on their needs. The customers pay a monthly equipment fee and receive monthly bill credits based on the production of the array. Each Business Solar install requires contract approval by the KY Public Service Commission.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Estimating and Reporting the Comparative Emissions Impacts of Products (WRI)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Use stage

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Use stage

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

234

Explain your calculation of avoided emissions, including any assumptions

LG&E and KU's Business Solar Program MWh is used to calculate the avoided emissions.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

---

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Power

Solar PV

Description of product(s) or service(s)

LG&E and KU: LG&E and KU are providing customers the opportunity to purchase low-carbon energy through participating in LG&E and KU's Community Solar Program.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Estimating and Reporting the Comparative Emissions Impacts of Products (WRI)

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Use stage

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Use stage

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

2,780

Explain your calculation of avoided emissions, including any assumptions

LG&E and KU's Community Solar Program MWh is used to calculate avoided emissions.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

---

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Power
Solar PV

Description of product(s) or service(s)

LG&E and KU: LG&E and KU offers a Green Tariff to support the growth of renewable and economic development in Kentucky. New or existing businesses can choose from several options to meet their renewable energy goals, including purchasing renewable energy certificates through the Green Energy Program, building a solar array, or purchasing solar, hydro or wind power through the utility's renewable energy power agreement.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

---

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Power

Solar PV

Description of product(s) or service(s)

LG&E and KU: LG&E and KU implemented a Renewable Power Agreement for customers interested in purchasing renewable power. LG&E and KU received approval from the Kentucky Public Service Commission for three separate renewable power agreements. These agreements include:

(1) Renewable Power Agreement with Toyota Motor Manufacturing in Georgetown for LG&E and KU Energy to supply solar energy to site (50% Rhudes Creek Solar facility, or 50 MW).

(2) Renewable Power Agreement with Dow Silicones Corporation in Carrollton for LG&E and KU Energy to supply solar energy to site (25% Rhudes Creek Solar facility, or 25 MW).

(3) Renewable Power Agreement with Rhudes Creek Solar to build a new 100-megawatt solar photovoltaic facility in Hardin County (LG&E and KU will utilize 25% to serve customers, or 25 MW). Rhudes Creek Solar received a CPCN from KY PSC in 2022 for construction.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

---

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Power

Solar PV

Description of product(s) or service(s)

PPL Electric: Pennsylvania PUC approval was granted in December 2020 to the Distribution Energy Resources (DER) petition agreed upon between PPL Electric and external stakeholders. The petition requires smart inverters for all new DER interconnections on PPL Electric system as part of a 3-year pilot program for PPL Electric to demonstrate through monitoring and management improved reliability and lower costs for customers. The program began January 1, 2021.

At the end of 2022, PPL has included over 3,100 DER installations into the pilot program. This year to date, there was approximately 350% increase in applications compared to the same period 2021.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

---

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Power

Other, please specify

Energy efficiency

Description of product(s) or service(s)

PPL Electric: For PPL Electric, the Alternative Energy Portfolio Standards Act requires Pennsylvania Electric Distribution Companies to purchase a set amount of power from alternative sources like solar, wind and biofuels. By 2022 this was required to be 18% from renewable and low-carbon sources. These services have no impact on revenue.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Use stage

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Not applicable

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

965,695

Explain your calculation of avoided emissions, including any assumptions

For PPL Electric, the Alternative Energy Portfolio Standards Act requires Pennsylvania Electric Distribution Companies to purchase 18% from renewable and low-carbon sources. CO2e savings are calculated using the 18% of renewable and low-carbon sources for PPL Electric's purchase power.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

---

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Power

Other, please specify

Energy efficiency

Description of product(s) or service(s)

RIE: RIE's Renewable Energy Standard that requires all obligated entities to obtain a certain percentage of the electricity they sell at retail to Rhode Island end-use customers, adjusted for electric line losses, from eligible renewable energy resources, escalating annually until reaching 100% in 2033. In 2022, RIE was required to meet 19% renewable electricity.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Yes

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Use stage

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Not applicable

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

245,258

Explain your calculation of avoided emissions, including any assumptions

In 2022, RIE was required to meet 19% renewable electricity. CO2e savings are calculated using the 19% of renewable and low-carbon sources for RIE's purchase power.

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

---

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Power

Other, please specify

Renewable energy storage and connections to grid

Description of product(s) or service(s)

RIE: RIE offers two customer programs to encourage local renewable energy connections. RIE's feed-in-tariff program awarded 15.34 MW of nameplate capacity for renewable energy resources in 2022, while 40.54 MW of renewable energy resources went through its net metering program. Cumulatively, 5.13 MW/10.47 MWh of energy storage was connected by year-end 2022.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

---

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Power

Other, please specify

Advanced metering and grid modernzation

Description of product(s) or service(s)

RIE: RIE is pursuing regulatory approvals of advanced metering functionality and grid modernization, both of which would result in overall energy savings for customers and associated greenhouse gas emissions reductions. See the following filings (specifically the benefit-cost assessments) for some estimates of magnitude: https://ripuc.ri.gov/events-and-actions/commission-docket

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

C-EU4.6

(C-EU4.6) Describe your organization's efforts to reduce methane emissions from your activities.

PPL's utilities in Kentucky and Rhode Island own and operate natural gas distribution systems. The same type of detailed planning that takes place for the electric system extends to the utilities' natural gas systems.

In Kentucky, LG&E's system is made up of nearly 4,800 miles of natural gas transmission and distribution lines; compressor stations that move the gas through the system to customers; and natural gas storage fields that enable LG&E to purchase gas when costs are low and store it for later use, passing on the savings to customers. RIE's natural gas system consists of 3,227 miles of natural gas distribution lines.

Both utilities employ comprehensive natural gas safety measures that include 24/7 monitoring by a central Gas Control Room; conducting leak surveys; operating a Pipeline Integrity Management Program that identifies and minimizes potential pipeline risks; and educating community partners and the general public about natural gas safety.

LG&E undertook a multi-year asset modernization and replacement program, which has resulted in a reduction in methane leaks and gas loss and improved the safety and reliability of the gas system. Natural gas infrastructure update projects in Kentucky include:

- Replacing approximately 45,000 steel customer service lines. About one-third of the service line replacement is completed.
- Completing the removal of approximately 4,400 steel curbed services.

- Completing the replacement of approximately 15.5 miles of transmission pipeline.
- Upgrading city gate stations and gas regulation facilities with new valves, piping, and modern regulation and measurement equipment. This work is expected to be completed in 2023.

In 2022, EPRI awarded a 2021 Technology Transfer Award to LG&E for the company's use of EPRI's Electrification Portfolio Assessment to identify electrification opportunities for natural gas customers.

In March 2023, the Rhode Island Public Utilities Commission approved $290 million to improve Rhode Island's electric and gas networks in connection with the latest Infrastructure, Safety, and Reliability (ISR) plans proposed by Rhode Island Energy. The approved plans include $163 million in gas network updates to continue to maintain a safe and reliable gas delivery system, including replacing 60.5 miles of leak-prone pipe.

In Rhode Island, the Public Utilities Commission is undertaking a regulatory proceeding to investigate the future of gas use and infrastructure in the state, a response to the 2021 Act on Climate, which requires economy-wide greenhouse gas emissions reductions to net-zero by 2050.

As part of the proceeding, the company is conducting a technical analysis to evaluate options that will achieve the emissions goals of the Act on Climate and identify investments in the natural gas infrastructure that are needed to maintain safety, reliability and affordability for customers.

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

Yes, an acquisition
Yes, a divestment

Name of organization(s) acquired, divested from, or merged with

On May 25, 2022, PPL Rhode Island Holdings acquired 100% of the outstanding shares of common stock of Narragansett Electric from National Grid U.S., a subsidiary of National Grid plc. Following the closing of the acquisition, Narragansett Electric provides

services doing business under the name Rhode Island Energy (RIE).

Safari Energy LLC, which was sold in September 2022, is not included in this report.

Details of structural change(s), including completion dates

On May 25, 2022, PPL Rhode Island Holdings acquired 100% of the outstanding shares of common stock of Narragansett Electric from National Grid U.S., a subsidiary of National Grid plc. Narragansett Electric, whose service area covers substantially all of Rhode Island, is primarily engaged in the transmission and distribution of electricity and distribution of natural gas. The acquisition expands PPL's portfolio of regulated natural gas and electricity transmission and distribution assets, has improved PPL's credit metrics and is expected to enhance long term earnings growth. Following the closing of the acquisition, Narragansett Electric provides services doing business under the name Rhode Island Energy (RIE).

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology	Gas Use in Facilities (stationary fuel combustion), previously reported as Scope 2, is now reported as Scope 1; emissions will remain part of PPL's 2050 goal.

C5.1c

(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	Yes	Scope 1 Scope 2, market-based	Scope reclassification of LG&E and KU Gas Use in Facilities from Scope 2 to Scope 1 did not affect organization emissions reported. Net-zero goal baseline remains unchanged; affected Scopes already covered.	No

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start

January 1, 2010

Base year end

December 31, 2010

Base year emissions (metric tons CO2e)

60,924,814

Comment

Scope 1: 60,736,086 (Gross Generation Emissions) + Scope 1 (Fleet Vehicles): 48,343 + Scope 1 (Small Plant Stationary): 2,515 + Scope 1 (Plant Mobile Equipment): 4,893 + Scope 1 (SF6): 114,727+ Scope 1 (Gas Use in Facilities (stationary fuel combustion) LG&E and KU): 18,250 (note: Gas Use in Facilities (stationary fuel combustion), previously reported as Scope 2, is now reported as Scope 1; emissions will remain part of PPL's 2050 goal.). Base year and emissions are related to PPL's 2050 GHG goal.

Scope 2 (location-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 2 (market-based)

Base year start

January 1, 2010

Base year end

December 31, 2010

Base year emissions (metric tons CO2e)

89,732

Comment

Estimated market-based CO2e emissions. Scope 2 (Electricity Use in Facilities): 89,732 (notes: Beginning in 2019, LG&E and KU Electricity Use in Facilities for buildings in the utility's service territory in only captured in Scope 1 generation emissions; emissions were being double counted in Scope 2 (baseline not recalculated due to lack of threshold significance). Gas Use in Facilities (stationary fuel combustion), previously reported as Scope 2, is now reported as Scope 1; emissions will remain part of PPL's 2050 goal.) Base year and emissions are related to PPL's 2050 GHG goal.

Scope 3 category 1: Purchased goods and services

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

January 1, 2010

Base year end

December 31, 2010

Base year emissions (metric tons CO2e)

1,597,157

Comment

Scope 3 (LG&E and KU Purchased Power for End Use Customers): 1,597,157. Base year and emissions are related to PPL's 2050 GHG goal.

Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 5: Waste generated in operations

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 6: Business travel

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

US EPA Mandatory Greenhouse Gas Reporting Rule

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

27,101,051

Comment

Figure also includes Scope 1 emissions from gas operations, reported but not part of the company's net-zero GHG goal. In May 2022, PPL completed its acquisition of The Narragansett Electric Company from National Grid for approximately $3.8 billion. The Narragansett Electric Company, Rhode Island's primary electric and gas utility, is now

known as “Rhode Island Energy” (RIE), reflecting both the company’s commitment to Rhode Island and its pursuit of a cleaner energy future in line with the state’s renewable energy and net-zero goal.
RIE emissions data is for the full calendar year 2022.

Scope 1(Gross): 26,882,439 + Scope 1 (Fleet Vehicles) 31,052 + Scope 1 (Small Plant Stationary) 2,915 + Scope 1 (Plant Mobile Equipment) 4,944 + Scope 1 (Gas Operations) 148,604 + Scope 1 (SF6) 13,126 + Scope 1 (Gas Use in Facilities (stationary fuel combustion)) 17,971

C6.2

(C6.2) Describe your organization’s approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are not reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

Emissions associated with all electric use in buildings across all operations (PPL Electric, RIE, and LG&E and KU building outside of our utility service territory) are calculated based on market-based factors. Gas Use in Facilities (stationary fuel combustion), previously reported as Scope 2, is now reported as Scope 1; emissions will remain part of PPL’s 2050 goal.

C6.3

(C6.3) What were your organization’s gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, market-based (if applicable)

26,020

Comment

Scope 2 (Electricity use in facilities): 26,020, which includes full calendar year 2022 data for RIE.

LG&E-KU's market-based emissions captured in Scope 1 Gross MWh. LG&E and KU service centers located outside of its territory are counted as Scope 2: Electricity Use in Facilities.

Gas Use in Facilities (stationary fuel combustion), previously reported as Scope 2, is now reported as Scope 1; emissions will remain part of PPL’s 2050 goal.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source of excluded emissions

Excluded categories are not core business activities and are relevant to all or most sectors. The most relevant categories to PPL are calculated to the best of our ability.

Scope(s) or Scope 3 category(ies)

Scope 3: Purchased goods and services
Scope 3: Capital goods
Scope 3: Upstream transportation and distribution
Scope 3: Waste generated in operations
Scope 3: End-of-life treatment of sold products

Relevance of Scope 1 emissions from this source

Relevance of location-based Scope 2 emissions from this source

Relevance of market-based Scope 2 emissions from this source

Relevance of Scope 3 emissions from this source

Emissions are relevant but not yet calculated

Date of completion of acquisition or merger

Estimated percentage of total Scope 1+2 emissions this excluded source represents

Estimated percentage of total Scope 3 emissions this excluded source represents

Explain why this source is excluded

Explain how you estimated the percentage of emissions this excluded source represents

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, not yet calculated

Please explain

Capital goods

Evaluation status

Relevant, not yet calculated

Please explain

Not core business activity; Relevant for all/most sectors

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

6,901,883

Emissions calculation methodology

Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Please explain

CO2e from generation of electricity purchased for end use customers in PPL Electric, LG&E and KU, and RIE. This does not include gas purchased for end use customers, which will be classified under Use of sold product.

Upstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Please explain

Relevant for all/most sectors

Waste generated in operations

Evaluation status

Relevant, not yet calculated

Please explain

Relevant for all/most sectors

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

862

Emissions calculation methodology

Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Please explain

CO2e emissions emitted from business travel for employees in PPL Electric, LG&E and KU, and RIE.

Not core business activity; Relevant for all/most sectors

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

11,757

Emissions calculation methodology

Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Please explain

CO2e emissions emitted from employees commuting in PPL Electric, LG&E and KU, and RIE.

Not core business activity; Relevant for all/most sectors

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Insignificant as PPL does not generally lease assets from others.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

The electricity and natural gas that we deliver to end users is not further transported or distributed.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

The electricity and natural gas that we deliver to end users is not further processed.

Use of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

4,245,142

Emissions calculation methodology

Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Please explain

CO2e for gas purchased for end use customers.

End of life treatment of sold products

Evaluation status

Relevant, not yet calculated

Please explain

LG&E and KU maximizes the amount of coal combustion residuals that are beneficially reused offsite. Examples of end-of-life treatments are wallboard, cement, concrete, etc.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

PPL does not lease its assets to others.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

PPL has no upstream or downstream franchises

Investments

Evaluation status

Not relevant, explanation provided

Please explain

There are no upstream or downstream investments resulting in any additional CO2e emissions.

Other (upstream)

Evaluation status

Please explain

Other (downstream)

Evaluation status

Please explain

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1		Relevant to vegetation management and siting of facilities. Not yet calculated.

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.00341

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

26,978,467

Metric denominator

unit total revenue

Metric denominator: Unit total

7,902,000,000

Scope 2 figure used

Market-based

% change from previous year

25.4

Direction of change

Decreased

Reason(s) for change

Divestment
Acquisitions

Please explain

In May 2022, PPL completed its acquisition of The Narragansett Electric Company from National Grid for approximately $3.8 billion. The Narragansett Electric Company, Rhode Island's primary electric and gas utility, is now known as "Rhode Island Energy" (RIE). Safari Energy LLC, was sold in September 2022.

Revenue intensity calculated based on PPL's goal-related emissions.

Intensity figure

0.851

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

26,882,439

Metric denominator

megawatt hour generated (MWh)

Metric denominator: Unit total

31,585,910

Scope 2 figure used

Location-based

% change from previous year

1.06

Direction of change

Increased

Reason(s) for change

Change in output

Please explain

In 2022, LG&E and KU had an increased owned gross generation total. Only generation emissions are noted above and used to calculate generation carbon intensity.

Carbon intensity calculated by gross owned generation divided by owned net generation (Scope 1 only).

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	26,689,822	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	219,182	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	121,869	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	13,126	IPCC Fourth Assessment Report (AR4 - 100 year)

C-EU7.1b

(C-EU7.1b) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 SF6 emissions (metric tons SF6)	Total gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives	174	5,937.3	0.579	161,730	Scope 1 (Gas Operations) and Scope 1 (SF6) from Distribution Operations, including RIE.
Combustion (Electric utilities)	26,689,643	2,830		26,760,393	Scope 1 Gross MWh and Small Plant Stationary.
Combustion (Gas utilities)					
Combustion (Other)				17,971	Scope 1 (Gas Use in Facilities (stationary fuel combustion)).
Emissions not elsewhere classified	35,996			35,996	Scope 1 (Plant Mobile Equipment) and Scope 1 (Fleet Vehicles).

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
United States of America	27,101,051

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
PPL Electric	17,680
LG&E and KU	26,937,866
RIE	145,505

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Comment
Electric utility activities	26,890,298	Gross Scope 1: Emissions associated with gross MWh's (includes CO2, N2O and CH4), Emissions from small plant stationary fuel combustion sources not included in stack emissions, and Emissions from plant mobile equipment.

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption				
Other emissions reduction activities				
Divestment				
Acquisitions	150,365	Increased	0.55	In May 2022, PPL completed its acquisition of The Narragansett Electric Company, Rhode Island's primary electric and gas utility, now known as "Rhode Island Energy." Scope 1 and 2 emissions are reported for the entire reporting year (include emissions not covered under 2050 net-zero goal).
Mergers				
Change in output	511,604	Increased	1.89	In 2022, LG&E and KU increased owned generation output over 2021 levels. (Scope 1 Gross + Scope 1 Small Plant Stationary Fuel Combustion Sources).
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified				

Other				

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh

Consumption of fuel (excluding feedstock)	HHV (higher heating value)		239,286	239,286
Consumption of purchased or acquired electricity		11,923	55,739	67,662
Consumption of self-generated non-fuel renewable energy		3,155		3,155
Total energy consumption		15,078	295,025	310,103

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Comment

Other biomass

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Comment

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Comment

Coal

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Comment

Oil

Heating value

Total fuel MWh consumed by the organization

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Comment

Gas

Heating value

HHV

Total fuel MWh consumed by the organization

99,218

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Comment

Calculated from gas use in buildings.

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

LHV

Total fuel MWh consumed by the organization

140,068

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Comment

Fleet consumption of diesel and petrol by PPL Electric, LG&E and KU, and RIE.

Total fuel

Heating value

Total fuel MWh consumed by the organization

239,286

MWh fuel consumed for self-generation of electricity

MWh fuel consumed for self-generation of heat

Comment

C-EU8.2d

(C-EU8.2d) For your electric utility activities, provide a breakdown of your total power plant capacity, generation, and related emissions during the reporting year by source.

Coal – hard

Nameplate capacity (MW)

4,715

Gross electricity generation (GWh)

29,317

Net electricity generation (GWh)

24,368

Absolute scope 1 emissions (metric tons CO2e)

23,697,585

Scope 1 emissions intensity (metric tons CO2e per GWh)

972.5

Comment

Total CO2e associated with gross generation divided by net generation. Net generation data excludes purchased power.

Net summer rating used for generation capacity consistent with SEC reporting (10-K).

Lignite

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Oil

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Gas

Nameplate capacity (MW)
2,716

Gross electricity generation (GWh)
6,997

Net electricity generation (GWh)
6,856

Absolute scope 1 emissions (metric tons CO2e)
3,181,940

Scope 1 emissions intensity (metric tons CO2e per GWh)
464.1

Comment

Net summer rating used for generation capacity consistent with SEC reporting (10-K).

Sustainable biomass

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Other biomass

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Waste (non-biomass)

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Nuclear

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Fossil-fuel plants fitted with CCS

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Geothermal

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Hydropower

Nameplate capacity (MW)

96

Gross electricity generation (GWh)

342

Net electricity generation (GWh)

339

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Net summer rating used for generation capacity consistent with SEC reporting (10-K).

Wind

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Solar

Nameplate capacity (MW)

8

Gross electricity generation (GWh)

17

Net electricity generation (GWh)

17

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Net summer rating used for generation capacity consistent with SEC reporting (10-K).

Marine

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Other renewable

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Other non-renewable

Nameplate capacity (MW)

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO2e)

Scope 1 emissions intensity (metric tons CO2e per GWh)

Comment

Total

Nameplate capacity (MW)

7,535

Gross electricity generation (GWh)

10,287

Net electricity generation (GWh)

31,580

Absolute scope 1 emissions (metric tons CO2e)

26,879,525

Scope 1 emissions intensity (metric tons CO2e per GWh)

851.2

Comment

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
United States of America

Consumption of purchased electricity (MWh)
67,019

Consumption of self-generated electricity (MWh)
39,783

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]

106,802

C-EU8.4

(C-EU8.4) Does your electric utility organization have a transmission and distribution business?
Yes

C-EU8.4a

(C-EU8.4a) Disclose the following information about your transmission and distribution business.

Country/area/region
United States of America

Voltage level
Transmission (high voltage)

Annual load (GWh)
72,979

Annual energy losses (% of annual load)
5

Scope where emissions from energy losses are accounted for

Scope 2 (market-based)

Emissions from energy losses (metric tons CO2e)

Length of network (km)

17,815

Number of connections

1,218

Area covered (km2)

49,728

Comment

Defined as voltage exceeding 69 kV.

Average line loss of 5% across the KY and PA system, average ISO-NE line loss used in RIE is 8%; emissions associated with owned net generation and purchased power. Line loss emissions are not reported separately.

Country/area/region

United States of America

Voltage level

Distribution (low voltage)

Annual load (GWh)

72,979

Annual energy losses (% of annual load)

5

Scope where emissions from energy losses are accounted for

Scope 2 (market-based)

Emissions from energy losses (metric tons CO2e)

Length of network (km)

121,282

Number of connections

2,985,972

Area covered (km2)

49,728

Comment

Defined as voltage not exceeding 69 kV.

Average line loss of 5% across the KY and PA system, average ISO-NE line loss used in RIE is 8%; emissions associated with owned net generation and purchased power. Line loss emissions are not reported separately.

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C-EU9.5a

(C-EU9.5a) Break down, by source, your organization's CAPEX in the reporting year and CAPEX planned over the next 5 years.

Coal – hard

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

149,300,000

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

73.5

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

19.6

Most recent year in which a new power plant using this source was approved for development

2006

Explain your CAPEX calculations, including any assumptions

Percentage is for LG&E and KU alone and covers LG&E and KU 2023- 2027 CAPEX.

Lignite

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Oil

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Gas

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

29,700,000

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

14.6

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

54.4

Most recent year in which a new power plant using this source was approved for development

2012

Explain your CAPEX calculations, including any assumptions

Percentage is for LG&E and KU alone and covers LG&E and KU 2023- 2027 CAPEX. Assumes approval of the two new NGCC's included in the CPCN filing with the KPSC.

Sustainable biomass

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Other biomass

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Waste (non-biomass)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Nuclear

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Geothermal

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Hydropower

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

2,600,000

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

1.3

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

0.1

Most recent year in which a new power plant using this source was approved for development

2005

Explain your CAPEX calculations, including any assumptions

Percentage is for LG&E and KU alone and covers LG&E and KU 2023- 2027 CAPEX.

Wind

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Solar

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

20,800,000

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

10.2

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

16.3

Most recent year in which a new power plant using this source was approved for development

2015

Explain your CAPEX calculations, including any assumptions

Percentage is for LG&E and KU alone and covers LG&E and KU 2023- 2027 CAPEX. Assumes approval of the two new solar projects included in the CPCN filing with the KPSC. Also, includes additional solar share arrays.

Marine

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Fossil-fuel plants fitted with CCS

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Other renewable (e.g. renewable hydrogen)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

800,000

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

0.4

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

9.6

Most recent year in which a new power plant using this source was approved for development

2016

Explain your CAPEX calculations, including any assumptions

Percentage is for LG&E and KU alone and covers LG&E and KU 2023- 2027 CAPEX. Assumes approval of the battery storage project included in the CPCN filing with the KPSC.

Other non-renewable (e.g. non-renewable hydrogen)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

C-EU9.5b

(C-EU9.5b) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Smart grid	LG&E and KU: Meters and related system elements that communicate energy usage information to a utility and its customers in ways that allow customers to manage their energy usage and provide the utility with more dynamic information to use in managing the electric system; and Grid-management technologies such as communication networks and intelligent controls that enable utilities to operate more reliably and efficiently the electric system while providing more visibility and security for system operators.	520,700,000	90.3	2027
Lighting	LG&E and KU: Conversion of streetlights to LED	11,000,000	1.9	2027
Electric vehicles	LG&E and KU: Electrification of fleet including level 2 and level 3 chargers to support charging of bucket trucks/heavy duty vehicles	29,100,000	5	2027

Charging networks	LG&E and KU: Electric vehicle charging stations (public, hosted and fast chargers)	1,000,000	0.2	2027
Other, please specify Carbon capture	LG&E and KU: Carbon capture project	15,000,000	2.6	2025
Other, please specify Gas circuit breaker replacement	PPL Electric: The Gas Circuit Breaker (GCB) replacement strategy helps to improve the reliability of the Transmission system and reduces the use of greenhouse gases in PPL equipment as well as the inadvertent loss of greenhouse gases into the atmosphere. For all voltage classes with the available technology, PPL Electric is at the implementation stage of installing Vacuum Circuit Breakers to replace existing Gas Circuit Breakers, which use SF6 gas as the insulating medium. This shift in strategy will reduce the total pounds of SF6 gas on the PPL system, and in effect reduce the relative incidence of SF6 leaks from that equipment. The strategy also uses Circuit Breaker Monitoring technology coupled with data analytics to predict which GCBs are at the highest risk for SF6 leaks to allow proactive maintenance or replacement of those assets.	47,000,000	1.5	2027
Distributed generation	PPL Electric: Working with multiple research partners on the Keystone Solar Future Project to integrate and manage distributed energy resources (DER) like solar systems onto the electrical system. The project created a fully automated renewable interconnection portal for customers to apply for DERs, provides state of the art inverter(s) to use and establishes communication to DERs through its innovative Distributed Energy Resource Management System (DERMS).	28,000,000	27	2027

Smart grid	PPL Electric: The work associated with the development and installation of Smart Grid work will provide both reliability/operations benefits and CO2e reductions by eliminating a significant number of truck miles/traffic each day. This is done through system automation (i.e., remote switching and sectionalizing) and by using remote sensing (e.g., battery and transformer monitoring) to eliminate routine field inspections that were previously performed by field workers driving to each location. This remote sensing will also allow for better predictive maintenance through analytics that will also further extend the useful life of these assets and avoid indirect CO2e emissions from purchase of new assets.	53,000,000	51	2027
Electric vehicles	PPL Electric: PPL Electric is spending 10% of its Transportation Capital Vehicle budget each year on electrification. The fleet currently includes hybrid and electric cars and SUVs, with electric pickup trucks under consideration. Additionally, PPL Electric utilizes bucket trucks with electric lifts, which allow the truck's engine to be turned off during use, significantly reducing fuel consumption. PPL Electric has partnered with vendors to identify additional opportunities to include more electric technology into the fleet.	17,500,000	17	2027
Other, please specify Dynamic line rating sensors	PPL Electric: PPL Electric is Partnering with PJM Interconnection to pilot dynamic line rating sensors, which allows transmission owners like PPL Electric to maximize our infrastructure by delivering more electricity on existing transmission lines without having to build out additional capacity.	2,000,000	2	2027

Other, please specify Facility efficiency programs	PPL Electric: Facilities Efficiency Programs are designed to optimize energy efficiency and resource utilization at the various buildings maintained for PPL Electric. This includes the installation of solar panels at certain service centers, the use of remanufactured furniture to divert usable material from landfills and preserve natural resources, and installation of energy efficient components for Facilities projects, such as HVAC equipment, insulation, windows, and converting all lighting to LED.	2,500,000	2	2027
Smart grid	PPL Electric: PPL Electric in 2022 became the first utility in the United States to implement the grid enhancing Technology Dynamic Line Ratings (DLR) into real-time operations and the regional generation market. PPL EU was faced with recurring generation market contingency overloads leading PJM to distribute higher cost generation to resolve the contingencies. PPL Electric's use of DLR allows for additional capacity on existing infrastructure without having to rebuild or build new transmission lines depending on real-time environmental conditions. PPL Electric and other transmission operators have numerous opportunities for DLR to resolve generation congestion, generation costs, new clean energy interconnections, and real-time asset health monitoring.	12,400,000	0.4	2027
Smart grid	PPL Electric: PPL Electric became the first utility to energize a 69kV recloser on a transmission grid. The 69kV Transmission Recloser provides many benefits to the future clean energy grid. The Transmission 69kV recloser eliminates routine	192,000,000	6.1	2027

	maintenance, enhances reliability, allows smart grid automation, utilizes clean-air vacuum technology, and compact footprint compared to alternative technologies. PPL Electric is installing 69kV Transmission reclosers in place of switches and circuit breakers that typically utilize SF6. The 69kV recloser supports reductions in emissions, infrastructure hardening, and automating our grid to enhance grid resilience and reliability			
Smart grid	RIE: Devices and software associated with the Grid Modernization Plan docket include ADMS Advanced, Reclosers, Smart Capacitors, Regulators, IT Infrastructure, Electromechanical Relays, Fiber Network and Mobile Dispatch. The Company is not requesting approval of specific investments within the Grid Modernization Plan (GMP) Docket. The Company views the GMP as the validation for evolving its investment strategy, which will result in expanded investment proposals. Approval of proposed investments will go through appropriate evidentiary hearings in the relevant dockets, such as the annual ISR or future Rate Cases.	266,662,000	20.3	2027
Smart grid	RIE: Advanced Meter Functionality filed with the RIPUC is the Company's proposal to install smart meter technology. This docket is pending approval.	180,200,000	13.7	2027
Distributed generation	RIE: Rhode Island Energy will be filing two petitions with the RIPUC for Acceleration of a System Modification Due to an Interconnection Request. If the Commission determines that a System Modification of the electric distribution system that was necessary for the Interconnecting customer also benefits all rate payers and has been accelerated due to the	28,175,000	0	2027

	interconnection, the Interconnecting customer shall be entitled to repayment of the depreciated value of the modifications. These values include work to be completed at both the Tiverton and Weaver Hill substations and will be included in the ISR FY25 filing. These values were not included in BP23 so there is 0% of total CAPEX planned for products and services.			

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	PPL's operating utilities participate in a variety of research and development activities, including company research, industry-wide studies and partnerships with government, educational institutions and research organizations. • Leveraging $535,000 in company cost share for $11.3 million in Department of Energy awards. • Investing in Energy Impact Partners' (EIP) global investment platform, which brings together leading companies and entrepreneurs worldwide to foster innovation toward a sustainable energy future and provide PPL greater visibility into emerging technologies that can be leveraged to advance the clean energy transition. • Serving as an anchor sponsor of the Low Carbon Resources Initiative, a 5 year initiative led by the Electric Power Research Institute (EPRI) and Gas Technology Institute to help accelerate research and development of low-carbon and zero-carbon technologies. The Low-Carbon Resources Initiative is a collaborative focused on identifying, developing and demonstrating affordable pathways to economy-wide decarbonization. • Participating in Climate READi, a three-year initiative launched by the Electric Power Research Institute (EPRI) to address energy system climate resilience and adaptation as extreme weather events continue to increase. • Creating innovative partnerships with academia across all PPL territories, including our longstanding partnership with the University of Kentucky's Institute for Decarbonization and Energy Advancement (IDEA) at the PPL

		R&D Center. The research aims to develop a flexible, net negative CO2 emissions technology that will be directly applicable to natural gas combined cycle power generation while minimizing the associated capital costs of installing this technology. • Partnering with EPRI on LG&E and KU's energy storage demonstration site, the first and largest utility-scale energy storage system in Kentucky. The battery is co-located with LG&E and KU's 10-megawatt E.W. Brown solar facility allowing the company to explore how batteries can improve the inherent intermittency of solar power. Battery operations have been automated to charge during sunlight/periods of low demand and discharge overnight/during periods of high demand.

C-CO9.6a/C-EU9.6a/C-OG9.6a

(C-CO9.6a/C-EU9.6a/C-OG9.6a) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)	Average % of total R&D investment planned over the next 5 years	Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan
Other, please specify Difficult to Electrify End-Use decarbonization and zero emission electricity generation	Basic academic/theoretical research	20	600,000		PPL Company Wide EPRI Low Carbon Resource Initiative: PPL is an anchor member of EPRI Low Carbon Resources Initiative that promotes advancements in low-carbon electric generation technologies and low-carbon energy carrier (multi-year financial commitment included). The initiative will

					provide a centralized, collaborative platform to identify and accelerate development of promising technologies from around the world, to demonstrate and assess the performance of selected key technologies and processes and identify possible improvements, and to inform key stakeholders and the public about technology pathways and options.
Battery storage	Pilot demonstration	20			LG&E and KU Battery Storage Demonstration: The companies invested $2,500,000 in 2016 for this battery storage system. No capital investment was made during the reporting year. LG&E and KU operates Kentucky's first and largest utility scale battery—a 1 MW, 2 MWh lithium-ion battery located at the E.W. Brown Generating

					Station. The battery energy storage system includes over 300 modules distributed across two shipping containers, a 1 MVA bidirectional inverter for charge/discharge operations, and a 3-phase transformer for grid connectivity. The 10 MW solar photovoltaic (PV) plant co-located with the battery allows LG&E and KU to explore how the systems can operate together. Beyond solar plant support, the battery system can also provide voltage support, reactive power support, and frequency regulation. This facility also includes a programmable 1 MVA load bank for simulating various grid conditions and to analyze how the battery system will respond to a variety of operational scenarios. The battery is a critical

					tool for understanding how intermittent renewable generation best fits into the company's generation portfolio and how batteries can improve site performance and reliability.
Carbon capture, utilization, and storage (CCUS)	Pilot demonstration	20	135,000		In 2006, LG&E and KU founded the carbon capture program at the University of Kentucky (UK) and continue to partner with the US Department of Energy (DOE) and Electric Power Research Institute (EPRI) on this important research. In 2014, we deployed the capture technology that the team developed in a pilot-scale carbon capture unit at the E.W. Brown Generating Station, which is one of a few power plants in the United States today with an active carbon capture system. This joint research at our site has

					lowered capture costs by forty percent and led to numerous patents and academic publications. In 2022, LG&E and KU continue to partner with UK studying carbon capture with natural gas using the existing carbon capture system at E.W. Brown leveraging $3.7m in federal funding in 2021. The next stage of this research would be to demonstrate carbon capture at LG&E and KU's Cane Run Station, a natural gas combined cycle plant. PPL is working with our partners at UK, DOE, and EPRI's Low Carbon Resource Initiative (LCRI) on hydrogen production and direct air capture technology capable of 90% carbon capture while producing 99.9% purity hydrogen gas.
Battery storage	Applied research and development	20	100,000		LG&E and KU Energy operates

					Kentucky's first and largest utility-scale energy storage system — a 1-megawatt, 2-megawatt-hour lithium-ion battery. The battery is co-located with E.W. Brown Solar, allowing the company to explore how batteries can improve the inherent intermittency of solar power. The battery is operated 24/7, 365 days a year and is continuously collecting data — typically charging during the day when solar power is available and discharging at night. Academic publications, and research on battery degradation, recycling and automation.
Solar energy generation	Basic academic/theoretical research	20	350,000		Researchers from the University of Kentucky Power and Energy Institute of Kentucky (PEIK) and the Research and Development department have analyzed the

					impact of large solar PV penetration on the companies' generation portfolio. Using historical solar irradiance profiles from multiple sites distributed across the state of Kentucky, the study was able to estimate the maximum amount of intermittent renewable energy sources the service area can sustain with the existing infrastructure. Solar PV generation exceeding 1,000 MW requires significant changes to the portfolio that includes fast-ramping natural gas units and additional transmission infrastructure.
Carbon capture, utilization, and storage (CCUS)	Applied research and development	20	450,000		PPL has partnered with the University of Kentucky Institute for Decarbonization and Energy Advancement on direct air capture, net negative carbon dioxide

					emissions at a natural gas plant, and a Front-End Engineering Design (FEED) feasibility study for a carbon capture demonstration unit at Cane Run 7. The direct air capture project involves developing technology that will capture carbon dioxide directly from the air while producing hydrogen. The net negative carbon dioxide emissions project involves creating a flexible carbon capture system for use at natural gas combined cycle (NGCC) power plants that produces hydrogen gas, oxygen gas, and releases less carbon dioxide back into the air compared to ambient concentrations. In August, the DOE awarded the company $5.8 million to perform a Front-End Engineering Design (FEED) at

					PPL's LG&E and KU Cane Run 7 is to study the feasibility of installing a 10 MWe demonstration unit at an existing NGCC power plant. The full FEED study will start in 2023. Additionally, in partnership with UK, PPL funded research to enhance carbon capture reactor performance at natural gas combined cycle power plants, leveraging approximately $1 million in federal funding.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

No, we do not verify any other climate-related information reported in our CDP disclosure

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

No, but we anticipate being regulated in the next three years

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Clean energy policies are continuously debated at the federal level. Given legislative and regulatory uncertainty, we cannot predict the success of any one proposal or the resulting compliance schedule. Kentucky, the state in which the company's generation is located, is not currently considering carbon regulation. However, the state has in place an environmental cost recovery mechanism for prudently incurred costs to comply with environmental requirements.

PPL recognizes that future policies could also impose a compliance obligation on regulated transmission and distribution utilities in restructured markets. We would expect that obligations generally could be met by these utilities purchasing additional clean energy subject to state regulatory approvals. Additionally, Pennsylvania finalized its regulations to implement Regional Greenhouse Gas Initiative (RGGI) in April 2022; however, litigation is pending in the Pennsylvania Commonwealth Court, so the implementation date of the rule is uncertain. PPL Electric is not expected to be directly responsible for RGGI obligations as the utility does not own generation and, details concerning RGGI implementation and any use of proceeds are uncertain. While Rhode Island Energy falls under RGGI jurisdiction, it is not directly responsible for RGGI obligations as the utility does not own generation. Rhode Island Energy currently receives allocations of RGGI funding from the state to be utilized for various incentives within the company’s Energy Efficiency programs. RIE is committed to helping the state achieve its renewable energy and decarbonization goals and will undertake specific initiatives and plans in support of these goals.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Type of internal carbon price

Implicit price

How the price is determined

Cost of required measures to achieve emissions reduction targets

Objective(s) for implementing this internal carbon price

Other, please specify

Used in LG&E and KU's assessment of environmental uncertainty regarding the impact potential future of CO2 regulations' implied cost on resource plans.

Scope(s) covered

Scope 1

Pricing approach used – spatial variance

Uniform

Pricing approach used – temporal variance

Static

Indicate how you expect the price to change over time

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)

15

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)

25

Business decision-making processes this internal carbon price is applied to

Capital expenditure

Risk management

Mandatory enforcement of this internal carbon price within these business decision-making processes

No

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan

Used in LG&E and KU's integrated resources plan; assessment of environmental uncertainty regarding the impact of potential future CO2 regulations' implied cost on resource plans.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers/clients

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Innovation & collaboration (changing markets)

Details of engagement

Other, please specify

The PPL Electric's renewable obligation (set at 18%) is met through independent contracting for RECs – not through wholesale energy supplier contracts.

% of suppliers by number

68

% total procurement spend (direct and indirect)

4.3

% of supplier-related Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

For the June 2021 through May 2022 period, PPL Electric met its AEPS obligations through utilization of REC-only suppliers. As such, supplier outreach for renewable energy obligation support only occurs with those suppliers providing RECs – not PPL Electric's entire wholesale energy supplier base.

Impact of engagement, including measures of success

Success is measured through the confirmation by the PA PUC AEPS Manager that the Company has supplied its required REC obligations. PPL Electric has met its REC obligations for every year, without fail, since its obligation began in 2010.

Comment

From June 2021 to May 2022, alternative power sources comprised at least 18% of the power PPL Electric bought for customers who had not chosen a competitive supplier. The projected renewable energy obligation for June 2022 through May 2023 remains at 18%.

PPL Electric acquired necessary RECs to meet this obligation through competitive

solicitations with those parties that have and sell them. It no longer requires wholesale energy suppliers to bundle RECs with its full requirements supply obligations (as was implemented in prior energy plans). This methodology increases competition for the RECs and substantially expands transparency for the products.

Type of engagement

Innovation & collaboration (changing markets)

Details of engagement

Other, please specify

RIE's renewable obligation (set at 19%) is met through a combination of RECS obtained from RIE Renewable Energy Programs and competitive REC RFPs. RIE is only obligated to meet the obligations for Last Resort Service customers.

% of suppliers by number

% total procurement spend (direct and indirect)

% of supplier-related Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

For the January 2022 through December 2022 period, RIE met it's RES obligations through utilization of REC obtained from RI Renewable Energy programs, such as REGrowth, Long-Term Contracting Standard, Distributed Generation, etc. These programs are responsible for providing RIE with the required amount of RI "New" RECs that are mandated under the RI RES. RIE also conducts REC-only RFP auctions throughout the year that provides RIE with the required amount of RI "Existing" RECs mandated under the RI RES (through the utilization of REC-Only suppliers). Of note: RECs are only acquired for Last Resort Service obligations – not for all customers in the service territory (i.e. not for shopping customers).

Impact of engagement, including measures of success

Success is measured through the confirmation by the RI PUC RES Manager that the Company has supplied its required REC obligations. RIE has met its REC obligations since PPL's acquisition of the Company in 2022 and continues to meet its obligations going forward.

Comment

From January 2022 to December 2022, Renewable energy sources comprised at least 19% of the power RIE bought for customers who had not chosen a competitive supplier. The projected renewable energy obligation for January 2023 through December 2023 will increase to 23%. RIE acquired necessary RECs to meet this obligation through utilization of Renewable Energy programs that were implemented in RI for the past few years, such as REGrowth, Long-Term Contracting Standard, Distributed Generation, etc. and through competitive solicitations with those parties that have RECs and sell

them. Currently our Renewable Energy programs create a surplus of certain RECs types that allow us to sell them to the market for additional profit; however, as the RES obligation increases each year towards a 100% end goal, this surplus will decrease each year until we are at a deficit and need to procure additional RECs through our RFP auction process/REC-only suppliers.

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Education/information sharing

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

0

Please explain the rationale for selecting this group of customers and scope of engagement

PPL's operating utilities in Kentucky, Pennsylvania and Rhode Island provide programs open to all customers to help them reduce their own energy consumption and to increase awareness among all stakeholders regarding PPL's sustainability efforts, carbon goals and energy efficiency programs. Engagement across all levels of customer class – from residential to industrial – ensures all customers have the information they need regarding energy efficiency, PPL's carbon goals and how we can help customers achieve their own sustainability goals. The scope of the engagement is broad and includes a variety of rebate programs, energy efficiency workshops, video and social media profiles highlighting customers' energy savings and in-school curricula that teach students the importance of energy, natural resources and environmental issues. In addition to direct customer engagement programs, the companies also conduct community outreach programs such as tree planting programs, sponsorships of environmental programs with community partners and collaboration with industry and academic partners.

Impact of engagement, including measures of success

The programs are all facilitated by individual operating companies and success is measured in various ways for each program including but not limited to tracking of rebates for appliance installations and tracking participation in auditing and behavioral programs.

For customers engaged in formal energy saving programs such as demand response programs, concrete energy savings are a clear measure of success. In 2022, Energy

efficiency programs across PPL's utilities helped customers save more than 439,000 megawatt-hours of electricity and reduced peak demand by more than 67 megawatts across our business.

In addition to helping customers reduce their own energy consumption, engagement helps increase awareness among all stakeholders regarding PPL's sustainability efforts, carbon goals and energy efficiency programs.

Type of engagement & Details of engagement

Collaboration & innovation

Other, please specify

Community renewable energy resources

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

0

Please explain the rationale for selecting this group of customers and scope of engagement

LG&E and KU offer a Green Tariff to support the growth of renewable energy and economic development in Kentucky. New or existing businesses can choose from several options to meet their renewable energy goals, including purchasing renewable energy certificates through the Green Energy Program, building a solar array or purchasing solar, hydro or wind power through the utility's renewable power agreement.

The utility implemented a Renewable Power Agreement for customers interested in purchasing renewable power.

LG&E and KU's Solar Share program gives residential, business and industrial customers the opportunity to share in local solar energy and receive credits on their monthly bills. Five of the eight 500-kilowatt sections of LG&E and KU's Solar Share Program are fully subscribed.

Impact of engagement, including measures of success

LG&E and KU completed a fifth section of their Solar Share facility. The subscription-based Solar Share program is a cost-effective option available to residential, business and industrial customers who want to support solar energy for as little as 20 cents per day. More than 2,800 LG&E and KU customers across Kentucky have enrolled in the program that helps them reach their own renewable energy goals. Upon completion, the Solar Share facility will have eight sections and a total capacity of 4 megawatts.

The Renewable Choice Calculator helps LG&E and KU customers explore their sustainability options. By inserting a few details — including customer type and average monthly bill — the calculator uses the utilities' Solar Share Program and Green Energy Program to provide a solution that enables most customers to support renewables at a

level that is equal to 100% of their power consumption for less than $1 per day or about 5% more on their monthly energy bill.

Type of engagement & Details of engagement

Education/information sharing

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

0

Please explain the rationale for selecting this group of customers and scope of engagement

This program is meant to inform all customers of PPL Electric of the company's advanced DERMS designed to manage solar, wind and other renewable power coming onto the grid. The system helps the company ensure good power quality and reliability and keeps the grid running smoothly. It will also help PPL Electric better integrate more distributed energy resources like private solar, while preserving network reliability and power quality.

Additionally, the program informs customers that the utility has made it easier for customers to apply to connect solar panels and other generation systems to the grid through a user-friendly Renewable Energy Connection website.

Impact of engagement, including measures of success

The Distributed Energy Resource Management System helps PPL Electric better integrate more distributed energy resources like private solar, while preserving network reliability and power quality. To date, PPL Electric has connected more than 257 megawatts of renewable energy to the grid through the program.

The user-friendly Renewable Energy Connection website makes it easier for PPL Electric customers to apply to connect solar panels and other generation systems to the grid. Since deploying the portal in 2018, the company has received 5,000 applications for connection, processing 90% of those within 24 hours.

Type of engagement & Details of engagement

Collaboration & innovation

Other, please specify

Grants for renewable energy projects

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

0

Please explain the rationale for selecting this group of customers and scope of engagement

RIE contributed $2.5 million to support the Rhode Island Commerce Corporation's Renewable Energy Fund (REF), which provides grants for renewable energy projects that have the potential to produce electricity in a cleaner, more sustainable manner. These grants also help stimulate job growth in the green technology and energy sectors.

Impact of engagement, including measures of success

The Rhode Island Commerce Corporation's Renewable Energy Fund provides grants for renewable energy projects that have the potential to produce electricity in a cleaner, more sustainable manner, while stimulating job growth in the green technology and energy sectors. Using funds from the "system benefit charge" on electric bills and alternative compliance payments received from retail electricity providers, CommerceRI funds renewable energy projects in small scale solar, commercial scale, and community renewables.

Type of engagement & Details of engagement

Education/information sharing

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

100

% of customer - related Scope 3 emissions as reported in C6.5

0

Please explain the rationale for selecting this group of customers and scope of engagement

RIE offers two customer programs to encourage local renewable energy connections.

Impact of engagement, including measures of success

RIE's feed-in-tariff program awarded 15.34 MW of nameplate capacity for renewable energy resources in 2022, while 40.54 MW of renewable energy resources went through its net metering program. Cumulatively, 5.13 MW/10.47 MWh of energy storage was connected by year-end 2022.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

No, and we do not plan to introduce climate-related requirements within the next two years

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

Yes, we fund organizations or individuals whose activities could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

PPL Climate Policy Principles (https://www.pplweb.com/wp-content/uploads/2022/08/PPL_Climate-Policy-Principles.pdf)

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

As indicated in our Climate Policy Principles (https://www.pplweb.com/wp-content/uploads/2022/08/PPL_Climate-Policy-Principles.pdf), PPL is committed to our mission to provide safe, affordable, reliable, and sustainable energy to our customers as we pursue our ambitious goal to achieve net-zero carbon emissions by 2050. The company measures all proposed climate policies against the core principles of sustainability, customer focus, and effectiveness detailed in our Climate Policy Principles.

PPL's public and external affairs leadership meets regularly to discuss legislative and policy issues important to the company, our customers and stakeholders. Executive leadership considers policy positions on key issues during scheduled meetings and is informed of significant policy developments through written reports and verbal communications. PPL's Board of Directors receives an annual report on key issues and advocacy positions as well as periodic updates as appropriate. PPL's public and external affairs professionals present on major political and policy developments during board and executive leadership meetings as needed.

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Inflation Reduction Act

Category of policy, law, or regulation that may impact the climate

Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate

Emissions – CO2

Low-carbon, non-renewable energy generation

Renewable energy generation

Other, please specify

Subsidies for renewable energy projects and subsidies for low-carbon, non-renewable energy projects

Policy, law, or regulation geographic coverage

National

Country/area/region the policy, law, or regulation applies to

United States of America

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

The Inflation Reduction Act extended existing renewable tax credits, made additional technologies eligible for the credits, and provided for the transition to technology-neutral tax credits later this decade. PPL worked directly with lawmakers and through our trade associations to express support for the legislation. Following its enactment, PPL has worked with the U.S. Treasury, directly with and through our trade associations, to help ensure that the new law is implemented in a way that provides the maximum benefit for these credits.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

The Inflation Reduction Act is not central to PPL's achievement of its climate transition plan. It is, however, key to ensuring that the transition is affordable for our customers.

Specify the policy, law, or regulation on which your organization is engaging with policy makers

The Securities and Exchange Commission's efforts to promulgate rules to require certain climate-related disclosures

Category of policy, law, or regulation that may impact the climate

Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate

Climate-related reporting
Emissions – CO2
Emissions – methane
Emissions – other GHGs
Renewable energy generation

Policy, law, or regulation geographic coverage

National

Country/area/region the policy, law, or regulation applies to

United States of America

Your organization's position on the policy, law, or regulation

Undecided

Description of engagement with policy makers

PPL is committed to good governance, transparency, and providing information that is valuable to investors through our publicly available disclosures.

PPL has worked closely with EEI and AGA as they have developed and refined a utility-specific ESG reporting template. PPL executives met with SEC staff to share insights from investors on the value of the industry template and in order to help the commission develop rules that will be of value to investors.

PPL supports transparent disclosure that is useful for our investors. We believe it is imperative the SEC implement rules that allow for flexibility by registrants and that the information disclosed be limited to what would truly be valuable to investor decision making. Given the expansiveness of the proposal, we provided numerous comments on the mechanics of the disclosures and await the final rule proposed by the SEC.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

Edison Electric Institute (EII)

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

With respect to climate, EEI's policy priorities in 2022 included:

• Increasing funding, from research through deployment, for a range of clean energy technologies;
• Revamping energy tax credits to advance newer technologies in a technology-neutral manner;
• Enabling the siting, permitting, and construction of new technologies and grid infrastructure; and
• Utilizing electric sector emission reductions to reduce emissions in other sectors.

EEI believes that to be effective and efficient, any climate change legislation must be consistent with current technology, be economy-wide in scope and allow for full flexibility in market-based mechanisms, while maintaining reliability and customer affordability.

The full EEI Board sets the association's federal and state policy through a consensus process, and no position is taken if consensus is not reached. PPL's President and CEO is on the EEI Board (and on the Executive Committee as of June 2023) and is actively engaged in the development and refinement of EEI's position on climate change. CEO Policy Committees and Task Forces, comprised of company CEOs, Presidents and COOs, oversee EEI public policy development and implementation. These policy committees are informed by Executive Advisory Committees (EACs), which provide direction and expertise to their respective CEO Policy Committees. PPL is represented on all key EACs, whose members generally are member company officers.
PPL's VP-Public Affairs and Chief Sustainability Officer co-chairs EEI's sustainability

workgroup. PPL's VP-Federal Government Relations is on the Federal Affairs Executive Advisory Committee.

See EEI's Public Policy website for additional information.

https://www.eei.org/issuesandpolicy/Pages/CleanEnergy.aspx

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

1,542,912

Describe the aim of your organization's funding

EEI provides public policy leadership, strategic business intelligence, and essential conferences and forums for investor-owned utilities in the United States. EEI also coordinates key reliability and resilience efforts, including mutual assistance and spare transformer programs. PPL's funding supports EEI's mission as it furthers the company's mission to provide safe, affordable, reliable and sustainable energy to customers and competitive, long-term returns to shareowners.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

American Gas Association

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

AGA is committed to reducing greenhouse gas emissions through smart innovation, new and modernized infrastructure, and advanced technologies that maintain reliable, resilient and affordable energy service choices for customers, AGA has adopted eight principles for policy action, key among them is that all sectors of the economy should contribute to reductions; the potential benefits of natural gas and natural gas infrastructure to effectively reduce emissions and improve energy efficiency should be recognized; the option of natural gas for consumers, should be preserved; and the government should increase its investments into the RD&D of advanced gas and mitigation technologies (including carbon capture utilization and sequestration). The full list of AGA policy principles, and ten commitments made by AGA and its member

companies can be found at: https://www.aga.org/globalassets/aga_climate-change-document_final.pdf

The AGA Board annually sets the association's advocacy priorities and adjusts them as needed throughout the year. LG&E and KU's Chief Operations Officer is a member of the AGA Board and provides regular input on policy positions. Recommendations for these advocacy priorities come from AGA Board Committees and Task Forces as well as committees of AGA members (e.g., Operations, Legislative Affairs, State Affairs, Legal, etc.), outlined in AGA's Committee Scope book.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

272,438

Describe the aim of your organization's funding

AGA educates the public about the importance of natural gas, support natural gas utilities in our efforts to make operations safer, more efficient and more environmentally friendly, and serve as a resource for local, state and federal policymakers when it comes to regulating the natural gas industry.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

American Clean Power

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

PPL, through Safari Energy, was a member of American Clean Power in the reporting year, and we evaluated the organization's alignment at that time.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Trade association

Other, please specify

Energy Association of Pennsylvania

Is your organization's position on climate change policy consistent with theirs?

Mixed

Has your organization attempted to influence their position in the reporting year?

Yes, and they have changed their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The Energy Association of Pennsylvania (EAP) is a trade association that represents and promotes the interests of regulated electric and natural gas distribution companies operating in Pennsylvania. To date, the association has not adopted a position directly related to climate change policy. EAP communicates industry positions and input on matters such as renewable portfolio standards and energy efficiency with a focus on reliability, affordability and safety.

Before taking a position on a state policy, regulation or proposed legislation, the EAP works through either its Regulatory Committee or its Legislative Committee to develop a consensus. General policy issues are discussed with the Board; however, as a general rule, EAP only agrees to develop a position on a policy, regulation or proposed legislation if there is a consensus among its members. PPL Electric's President serves on the EAP Board.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

203,906

Describe the aim of your organization's funding

EAP seeks to promote policy conducive to a strong business environment and safe, reliable and affordable energy with a focus on regulated gas and electric distribution utilities and their customers. While the industry has not adopted a position directly related to climate policy, we have successfully influenced the organization to have open policy discussions at the state level on related matters such as alternative energy portfolio standards. We evaluate consistency with the company's positions.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

No, we have not evaluated

Trade association

Other, please specify

Kentucky Coal Association

Is your organization's position on climate change policy consistent with theirs?

Mixed

Has your organization attempted to influence their position in the reporting year?

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

LG&E and KU are members of the KCA, though no employees are on its board or Executive Committee. When KCA's policy positions related to clean energy transition do not align with LG&E and KU's, LG&E and KU notifies KCA and freely advocates against the position at issue.

To the extent it may adopt climate policies that are not consistent with PPL's policies, PPL seeks to influence its position to be more aligned with PPL's. We evaluate such policies on a case-by-case basis.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

Trade association

Other, please specify

WIRES

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

WIRES is a non-profit trade association with an international membership, that promotes investment in the North American electric transmission system, robust and effective transmission solutions to economic, environmental, and reliability challenges, and the reduction or elimination of uneconomic barriers to transmission development. This mission is accomplished through the development and dissemination of information, strategic advocacy, and innovation in regulatory, policy making, industry, and educational forums.

WIRES policy goals are set by the Board annually and adjusted as needed to align with federal regulatory activity impacting the industry and member priorities. PPL is an active member of WIRES and currently serves as WIRES Treasurer.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

70,000

Describe the aim of your organization's funding

PPL's membership in WIRES is to promote those policies that will enable the build out of transmission to support the company's reliability, resilience, and clean energy transition goals.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Northeast Energy and Commerce Association

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Northeast Energy and Commerce Association (NECA) advocates for environmentally sound, reliable and cost-effective wholesale and retail markets for the production and delivery of electric power supply, as well as competing energy services and resources alternatives, including conservation, innovative demand side and power delivery technologies, renewable energy and distributed generation.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

Describe the aim of your organization's funding

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

No, we have not evaluated

C12.3c

(C12.3c) Provide details of the funding you provided to other organizations or individuals in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

Type of organization or individual

Research organization

State the organization or individual to which you provided funding

Electric Power Research Institute

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

EPRI provides thought leadership, industry expertise and collaborative value to help the electricity sector identify issues, technology gaps and broader needs that can be addressed through effective research and development programs. PPL support is in furtherance of the organization's efforts.

EPRI focuses on electricity generation, delivery and use in collaboration with the electricity sector and its stakeholders. Of particular focus is EPRI's Low-Carbon Resource Initiative (LCRI), which focuses on the need to accelerate development and demonstration of low- and zero-carbon energy technologies.

PPL is a anchor sponsor of the LCRI, and our CEO is First Vice Chair of the Electric Power Research Institute Board. Company executives and managers participate in several of EPRI's research and ESG initiatives.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In voluntary sustainability report

Status

Complete

Attach the document

PPL Corporatation 2022 Sustainability Report (https://www.pplweb.com/wp-content/uploads/2023/04/PPL-Corporation_2022-Sustainability-Report_FINAL.pdf)

Page/Section reference

p. 8, p. 16-17, p. 10-11, p. 14-25, p. 55, appendix

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics
Other, please specify

Operational, community, employee, environmental

Comment

PPL's response to climate change and GHG emissions performance are included throughout PPL's 2022 Sustainability Report but are primarily addressed in the following sections: Key Metrics (p. 8): Emissions Data, p. 16-17; Public Policy Engagement (p. 55); Advance a Cleaner Energy Future (10-11, 14-25); PPL's Contribution to U.N. Sustainable Development Goals; and Appendix which contains data aligned with GRI indicators.

Publication
In voluntary communications

Status
Complete

Attach the document

Page/Section reference
PPL Climate Action webpage:
https://www.pplweb.com/sustainability/environment/climate-action/

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics
Other, please specify
Operational, community, innovation

Comment
In addition to PPL's 2022 Sustainability Report, PPL has a dedicated web page on the company's website to climate action initiatives. The climate action web page addresses the following: PPL's Clean Energy Strategy; Enterprise-wide Climate Goals; Non-Generation Operations Goals; and Commitment to R&D.

https://www.pplweb.com/sustainability/climate-action/

Publication
In voluntary sustainability report

Status
Complete

Attach the document

PPL Corporation 2022 EEI-AGA ESG/Sustainability Report (https://www.pplweb.com/wp-content/uploads/2023/08/PPL_Corp-EEI-AGA-ESG-2022-Sustainability-Report-FINAL-1.pdf)

Page/Section reference
Clean energy and climate goals; Pages: 2-20

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics
Other, please specify
Operational, community, innovation

Comment

The EEI-AGA ESG report enables consistent reporting of key metrics for investor-owned utilities. Metrics include climate-related emissions reporting and methane management, as well as a qualitative section that provides an overview of key sustainability-related initiatives and a climate response following the TCFD categories of reporting.

Publication

In voluntary communications

Status

Complete

Attach the document

PPL's 2021 Climate Assessment Report (https://www.pplweb.com/wp-content/uploads/2022/01/PPL_Corp-2021-Climate-Assessment_2022-01-04.pdf)

Page/Section reference

Pages: 9-28

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics
Other, please specify
Operational, employee, environmental

Comment

PPL consistently assesses our climate risk and communicates with our stakeholders for transparency. We continually work toward alignment with the Task Force on Climate Related Financial Disclosures (TCFD) framework and recommendations to ensure that we are taking a holistic view of our climate approach to inform our sustainability strategy and identify areas for action. Our 2021 climate assessment report highlights risks and opportunities associated with climate change, evaluates potential future emissions

under multiple scenarios and outlines the company's strategy and goals to enable a responsible and just transition to a cleaner energy future.

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Climate Action 100+ Global Reporting Initiative (GRI) Community Member Task Force on Climate-related Financial Disclosures (TCFD) Other, please specify EEI-AGA sector report	PPL uses these groups as a resource for ESG disclosures. The frameworks and initiatives provide structure to environmental reporting, while also acting as a source of feedback.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, both board-level oversight and executive management-level responsibility	As part of PPL's Sustainability Governance, the Governance, Nominating and Sustainability Committee (GNSC) of the 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.

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed	Biodiversity-related public commitments	Initiatives endorsed

	any initiatives related to biodiversity		
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Commitment to avoidance of negative impacts on threatened and protected species Other, please specify PPL's stewardship commitment to protect biodiversity and conservation of natural resources in our corporate environmental policy and sustainability commitments, including partnerships and creating awareness throughout our operations.	SDG

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment

Yes

Value chain stage(s) covered

Downstream

Tools and methods to assess impacts and/or dependencies on biodiversity

Other, please specify

Methodology used in evaluation of impacts used is dictated by regulation at the state, federal, and local level.

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

Impacts on biodiversity are relevant in siting of our facilities. PPL's utilities have implemented habitat mitigation practices to prevent or reduce detrimental effects on biodiversity from company actions and ongoing operations, wherever possible. We use pollinator-supportive and native plants as part of construction, maintenance and restoration activities where practical. We have adopted a comprehensive Avian Protection Plan to protect birds from coming in contact with electrical equipment and power lines.

As a requirement of the permitting process, PPL Electric uses the Pennsylvania Natural Diversity Inventory system, a tool that aids in identification and protection of species of concern in proposed work areas before work is executed and permits are requested. Additionally, PPL Electric screens for High Quality and Exceptional Value watersheds and streams, which are water body classifications that protect habitats that may support high levels of biodiversity.

PPL Electric conducts rigorous invasive monitoring, treatment and eradication on our Rights-of-Way that cross state-owned and federally-owned lands. By controlling

invasive plants, this promotes the presence, abundance, and/or biodiversity of native plants on these sites.

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment

No and we don't plan to within the next two years

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity-sensitive areas in the reporting year?

Not assessed

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity-related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Species management Education & awareness Law & policy Livelihood, economic & other incentives Other, please specify PPL's operating companies, in conjunction with various partners, work extensively to protect natural habitats and native species while work is being done on our system, especially in sensitive resource areas.

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	State and benefit indicators Pressure indicators Response indicators

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Impacts on biodiversity Details on biodiversity indicators Risks and opportunities	2022 CSR: Pages 26 to 29 address resource management, biodiversity of natural habitats and species, and vegetation management. Pages 15 to 16 provide an overview of the company's goals to achieve net-zero carbon emissions with interim reductions. PPL Corporation 2022 Sustainability Report (https://www.pplweb.com/wp-content/uploads/2023/04/PPL-Corporation_2022-Sustainability-Report_FINAL.pdf)

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

This CDP Climate Change Response ("Response") contains forward-looking statements regarding, among other things, the clean energy transition, our clean energy targets and achievement of climate commitments by certain dates, strategies or goals related to environmental, social, safety and governance performance, future energy demand, the availability and cost of natural gas, carbon reduction, third-party decarbonization, the growth of solar and other renewable forms of electricity generation and storage, potential rates of reduction in coal-fired electricity generation in Kentucky, low carbon technologies, enhancement of the grid, the expected operating life of existing coal-fired electricity generation plants and PPL Corporation's corporate strategy. 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. Any number of factors could cause actual results to be materially different from those discussed in the statements, including: market demand for energy in our service territories; weather or other conditions affecting customer

energy usage and operating costs; the effect of any business or industry restructuring; the profitability and liquidity of PPL Corporation and its subsidiaries; operating performance of its facilities; environmental, legal and regulatory requirements and the related costs of compliance; development of new projects, markets and technologies for the generation and delivery of electricity; performance of new ventures; asset or business acquisitions and dispositions; receipt of necessary government permits, approvals, rate relief and regulatory cost recovery; capital market conditions and decisions regarding capital structure; the outcome of litigation against PPL Corporation and its subsidiaries; the securities and credit ratings of PPL Corporation and its subsidiaries; political, regulatory or economic conditions in states, regions or countries where PPL Corporation or its subsidiaries conduct business; new state, federal or foreign legislation; commitments and liabilities of PPL Corporation and its subsidiaries; and catastrophic events such as fires, earthquakes, explosions, floods, hurricanes and other storms, droughts or other similar occurrences as well as cyber intrusion or other terrorist incidents and their direct or indirect effect on PPL Corporation's businesses and the U.S. electricity grids. All forward-looking statements in this Report should be considered in light of these important factors. Further information on these and other risks and uncertainties is available in PPL Corporation's Form 10-K and other reports on file with the Securities and Exchange Commission.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	VP of Public Affairs and Sustainability	Other, please specify VP of Public Affairs and Sustainability

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms