

PPL Corporation
2017 EEI ESG/Sustainability Report



Qualitative Section

PPL Corporation (PPL or the Company) is pleased to provide the following in response to the expressed interest of investors and other stakeholders for information on environmental, social and governance (ESG) issues in a format consistent across the utility sector.

SUSTAINABILITY HIGHLIGHTS FOR 2017

PPL operates seven high-performing regulated utilities in constructive regulatory jurisdictions that enable PPL to achieve near-real-time recovery of more than 80 percent of its capital investments.

Managing our resources

- Adopted a goal to cut carbon dioxide emissions (CO₂) by 70 percent from 2010 levels by 2050.
- Reduced by 75% the water used to generate a megawatt-hour in 2017 compared to 2013; generation plants are located in the Ohio River Basin, an area with good water availability.
- Provided \$35.7 million in energy efficiency rebates to more than 1 million participants, saving more than 671 million kilowatt-hours of electricity and reducing peak demand by more than 259 megawatts.

Safely delivering reliable and affordable energy

- Received top marks for reliability with Western Power Distribution (WPD) again ranked as No. 1 in its industry for customer satisfaction in the U.K., and PPL Electric Utilities Corporation (PPL Electric) and Louisville Gas and Electric Company (LG&E) and Kentucky Utilities Company (KU) received top marks for residential satisfaction in their respective regions. PPL's domestic utilities' residential rates are below regional averages based on EEI's Average Rates Report for Winter 2017.
- Improved reliability across the enterprise. PPL Electric's power grid had its most reliable year ever in 2017, and LG&E and KU had their best reliability performance in more than a decade. For WPD, investments in high voltage automation have significantly reduced the number of customers affected by unplanned outages.
- Completed a long-term gas main replacement project in the heart of downtown Louisville. LG&E plans to expand infrastructure upgrades within its natural gas system to enhance reliability and is adding capacity to promote economic growth in its region.
- Achieved one of the safest years ever at PPL through employee actions to support our goal of zero accidents or incidents adversely affecting employees, contractors or the public.

Investing in our employees and communities

- Taking a proactive approach to expanding the talent pool for positions that will be available in the next several years due to retirements. In addition to college co-op programs, our companies actively recruit and train trade craft workers. PPL has a relatively low turnover rate of 6.8 percent.
- Committed to creating a diverse and inclusive culture that makes our company stronger. In 2017, PPL Chairman Bill Spence signed onto the CEO Action for Diversity & Inclusion, the largest CEO-driven business commitment to advance diversity and inclusion in the workplace.
- Supporting diverse businesses - those owned by minorities, women and veterans. In 2017, the company spent \$170 million with nearly 300 diverse businesses.
- Strengthening communities with charitable funding of more than \$10 million in 2017 and partnering with our communities for economic development, disaster readiness and emergency preparedness.

SUSTAINABILITY GOVERNANCE AND STRATEGY

PPL's Board of Directors has designated its Compensation, Governance and Nominating Committee with responsibility for overseeing PPL's practices and positions to further ESG performance and sustainability. The committee receives updates, which include climate-related issues, at regularly scheduled meetings. The full board receives sustainability updates as significant issues arise.

The company has established a Corporate Sustainability Committee, which includes senior leaders throughout the corporation. The committee is responsible for developing a sustainability strategy, providing oversight and establishing priorities and performance metrics. The sustainability strategy, commitments and priorities are reviewed by the corporate leadership council and presented to the board of directors.

PPL's sustainability strategy centers on seven key commitments. The commitments, which include advancing a cleaner energy future and building tomorrow's energy infrastructure, provide a framework for PPL to grow and innovate in a responsible, reliable way.

PPL also maintains a robust enterprise risk management (ERM) process that provides a business portfolio view of material risks that may impact achievement of PPL's business strategy. As part of the ERM process, representatives from PPL's operating companies and service groups identify, assess, monitor and report on ongoing and emerging risks, including climate-related risks. PPL's Risk Management group oversees this process and reports quarterly to the Audit Committee of PPL's Board of Directors.

CLIMATE-RELATED ISSUES

In November 2017, PPL completed a climate-related scenario analysis and assessment of the potential long-term impacts to the company of technological advances and public policies consistent with limiting global warming to no more than 2-degrees Celsius.

In considering our overall approach to climate change, PPL consulted the recommendations of the Task Force on Climate-Related Disclosures and included in our corporate sustainability report and recent CDP response a discussion of our governance of climate-related risks and opportunities; impacts on our business strategy and financial planning; how we identify, assess and manage climate-related risks; and our climate-related metrics and goals.

Risks and Opportunities

The broader energy sector has changed significantly in recent years and will continue to change. New technology, shifts in how energy is used and delivered, public policy, regulation and climate change concerns may pose risks and opportunities.

Climate-related risks for PPL include the potential for:

- Stronger and more frequent severe weather that disrupts operations.
- Carbon regulation that increases costs to customers.
- Rapid increases in distributed energy resources that impact customer demand and pose network reliability challenges.
- Reduced ability to participate in the transition to a cleaner energy future in jurisdictions restricting generation ownership.

Climate-related opportunities include the potential for:

- New transmission to connect renewable and low-carbon generation sources.
- Additional investment in smart grid technology to reliably integrate more distributed energy resources on local networks.
- An expanded regulated utility role in actively managing distribution networks.
- Opportunities to invest in more renewables and natural gas where PPL owns regulated generation in Kentucky.

Neither Pennsylvania nor Kentucky has enacted CO₂ emissions regulations. The U.K. has aggressive CO₂ targets that WPD is supporting through a variety of actions.

Managing Risks and Opportunities

We regularly assess emerging and ongoing risks and opportunities as part of our overall strategic business planning and ERM process. In addition to reducing emissions from our operations, PPL is taking a number of actions to mitigate climate-related risks and address opportunities, including:

- Engaging with public policymakers and stakeholders on energy policy to achieve the best outcomes for customers and shareowners. A recent example is Pennsylvania's Act 58 of 2018, which PPL Electric actively supported. It allows utilities to propose new ratemaking approaches like decoupling.
- Investing in smarter, more reliable networks to make them more resilient to storms and to better integrate more distributed energy resources
- Advancing more than two dozen research and development projects to explore clean energy technologies, including energy storage and electric vehicles.
- Reducing PPL's carbon footprint and offering our customers cleaner energy options like solar and electric vehicles. WPD is participating in the U.K.'s Electric Nation project to lead the world in zero emission vehicle technology.
- Participating in the distributed energy resource space to further support the growth of DERs and gain additional experience with these technologies. This includes PPL's acquisition in May 2018 of solar solutions provider Safari Energy, LLC and PPL Electric's DOE Grant, the Keystone Solar Future Project.
- Engaging with shareowners throughout the year to solicit input and feedback that helps PPL strengthen its ESG and sustainability programs moving forward.

LOOKING AHEAD

- PPL's long-range planning and the actions highlighted in this report will enable us to continue to anticipate and respond effectively to changes in policy, regulation, technology and more going forward.
- PPL is building tomorrow's infrastructure with planned investments of \$16 billion from 2017 through 2022.
- We continue to effectively manage climate-change risks and opportunities. Under each policy scenario considered as part of PPL's climate assessment analysis, CO₂ emissions from PPL's Kentucky generation assets are expected to decline by 45-90 percent from 2005 levels by 2050, with incremental reductions in each decade.
- While we continue to pursue opportunities to add cleaner alternatives to our generation portfolio located in Kentucky, we anticipate that the financial risk of continuing to operate our existing coal units will be minimal so long as they are operated consistent with approved regulatory frameworks and are economically justifiable to Kentucky regulators.

ADDITIONAL RESOURCES

Significant highlights during the 2017 reporting period into 2018 can be reviewed starting on page 20 of the [PPL Corporation Annual Report 2017](#). See [PPL's 2017 Sustainability Report](#), [Climate Assessment report](#) and 10-K for more on specific plans, progress and initiatives.

Quantitative Section

Parent Company:	PPL Corporation
Operating Company(s):	PPL Electric Utilities (PPL EU), Louisville Gas & Electric and Kentucky Utilities (LKE) and Western Power Distribution (WPD)
Business Type(s):	Fully regulated utilities; Distribution (U.K.); T&D (Pennsylvania) and T&D plus regulated generation (Kentucky)
State(s) of Operation:	Pennsylvania, Kentucky, Virginia and Tennessee; United Kingdom
State(s) with RPS Programs:	Pennsylvania (Mandatory)
Regulatory Environment:	Regulated
Report Date:	August 2018

PORTFOLIO

Ref. No.	Refer to the Definitions tab for more information on each metric	Last Year - 2016	Current Year - 2017
1	Owned Nameplate Generation Capacity at end of year (MW)	9,157	9,183
1.1	Coal	5,750	5,754
1.2	Natural Gas	3,284	3,285
1.3	Nuclear	-	-
1.4	Petroleum	-	-
1.5	Total Renewable Energy Resources	123	144
1.5.1	Biomass/Biogas	-	-
1.5.2	Geothermal	-	-
1.5.3	Hydroelectric	113	134
1.5.4	Solar	10	10
1.5.5	Wind	-	-
1.6	Other	-	-
2	Net Generation for the data year (MWh)	34,588,048	33,235,708
	<i>Breakout by fuel source not readily available.</i>		
2.i	Owned Net Generation for the data year (MWh)	33,968,857	32,704,879
2.1.i	Coal	27,146,505	27,724,637
2.2.i	Natural Gas	6,387,388	4,625,242
2.3.i	Nuclear	0	0
2.4.i	Petroleum	28,153	0
2.5.i	Total Renewable Energy Resources	406,811	355,000
2.5.1.i	Biomass/Biogas	-	-
2.5.2.i	Geothermal	-	-
2.5.3.i	Hydroelectric	395,079	337,000
2.5.4.i	Solar	11,732	18,000
2.5.5.i	Wind	-	-
2.6.i	Other	-	-
2.ii	Purchased Net Generation for the data year (MWh)	619,191	530,829
	<i>Breakout by fuel source not readily available.</i>		
3	Investing in the Future: Capital Expenditures, Energy Efficiency (EE), and Smart Meters		
3.1	Total Annual Capital Expenditures (nominal dollars)	\$1,134,000,000 (PPL EU) \$791,000,000 (LKE) \$1,031,000,000 (WPD)	\$1,254,000,000 (PPL EU) \$892,000,000 (LKE) \$1,015,000,000 (WPD)
3.2	Incremental Annual Electricity Savings from EE Measures (MWh)	599,082 MWh	671,055 MWh
3.3	Incremental Annual Investment in Electric EE Programs (nominal dollars)	\$96,203,499	\$96,775,010
3.4	Percent of Total Electric Customers with Smart Meters (at end of year)	100% - PPL EU (advanced meters)	100% - PPL EU (advanced meters)
	<i>All PPL EU customers have advanced meters and the utility has launched a meter replacement program. LKE is exploring plans to deploy advanced meters, subject to approval by the Kentucky Public Service Commission. In the U.K., the smart meter rollout is being managed by electricity suppliers. WPD is a distribution network operator.</i>		
4	Retail Electric Customer Count (at end of year)	10,536,607	10,597,979
	<i>Customer count is presented as a total combined customer count for all PPL operating companies. Due to a different operating model, WPD counts end-users and does not differentiate from residential, commercial and industrial customers.</i>		

EMISSIONS

Ref. No.	Refer to the Definitions tab for more information on each metric	Last Year - 2016	Current Year - 2017
5	GHG Emissions: Carbon Dioxide (CO₂) and Carbon Dioxide Equivalent (CO₂e)		
<i>Note: The alternatives available below are intended to provide flexibility in reporting GHG emissions, and should be used to the extent appropriate for each company.</i>			
5.1	Owned Generation		
5.1.1	Carbon Dioxide (CO ₂)		
5.1.1.1	Total Owned Generation CO ₂ Emissions (MT)		
5.1.1.2	Total Owned Generation CO ₂ Emissions Intensity (MT/Net MWh)		
5.1.2	Carbon Dioxide Equivalent (CO ₂ e)		
5.1.2.1	Total Owned Generation CO ₂ e Emissions (MT)	28,769,673	28,416,661
5.1.2.2	Total Owned Generation CO ₂ e Emissions Intensity (MT/Net MWh)	0.85	0.87
5.2	Purchased Power		
5.2.1	Carbon Dioxide (CO ₂)		
5.2.1.1	Total Purchased Generation CO ₂ Emissions (MT)		
5.2.1.2	Total Purchased Generation CO ₂ Emissions Intensity (MT/Net MWh)		
5.2.2	Carbon Dioxide Equivalent (CO ₂ e)		
5.2.2.1	Total Purchased Generation CO ₂ e Emissions (MT)	4,730,524	4,580,361
5.2.2.2	Total Purchased Generation CO ₂ e Emissions Intensity (MT/Net MWh)	0.48	0.47
5.3	Owned Generation + Purchased Power		
5.3.1	Carbon Dioxide (CO ₂)		
5.3.1.1	Total Owned + Purchased Generation CO ₂ Emissions (MT)		
5.3.1.2	Total Owned + Purchased Generation CO ₂ Emissions Intensity (MT/Net MWh)		
5.3.2	Carbon Dioxide Equivalent (CO ₂ e)		
5.3.2.1	Total Owned + Purchased Generation CO ₂ e Emissions (MT)	33,500,197	32,997,022
5.3.2.2	Total Owned + Purchased Generation CO ₂ e Emissions Intensity (MT/Net MWh)	0.75	0.77
5.4	Non-Generation CO₂e Emissions		
5.4.1	Fugitive CO ₂ e emissions of sulfur hexafluoride (MT)	85,195	90,107
5.4.2	Fugitive CO ₂ e emissions from natural gas distribution (MT)	35,376	28,132
6	Nitrogen Oxide (NO_x), Sulfur Dioxide (SO₂), Mercury (Hg)		
6.1	Generation basis for calculation		
6.2	Nitrogen Oxide (NO_x)		
6.2.1	Total NO _x Emissions (MT)	18,380	15,710
6.2.2	Total NO _x Emissions Intensity (MT/Net MWh)	0.00053	0.00047
6.3	Sulfur Dioxide (SO₂)		
6.3.1	Total SO ₂ Emissions (MT)	16,398	13,499
6.3.2	Total SO ₂ Emissions Intensity (MT/Net MWh)	0.00047	0.00041
6.4	Mercury (Hg)		
6.4.1	Total Hg Emissions (kg)	70	77
6.4.2	Total Hg Emissions Intensity (kg/Net MWh)	2.02E-06	2.32E-06

RESOURCES

Ref. No.	Refer to the Definitions tab for more information on each metric	Last Year - 2016	Current Year - 2017
7	Human Resources		
7.1	Total Number of Employees	12,689	12,512
7.2	Total Number on Board of Directors/Trustees	9	9
7.3	Total Women on Board of Directors/Trustees*	1	1
7.4	Total Minorities on Board of Directors/Trustees	4	4
7.5	Employee Safety Metrics		
7.5.1	Recordable Incident Rate	1.29	1.08
7.5.2	Lost-time Case Rate	0.19	0.15
7.5.3	Days Away, Restricted, and Transfer (DART) Rate	1.25	0.26
7.5.4	Work-related Fatalities	0	1
*PPL elected Phoebe A. Wood to the Board on Jan. 18, 2018, increasing the number of women serving on the board of directors.			
8	Fresh Water Resources		
8.1	Water Withdrawals - Consumptive (Billions of Liters/Net MWh)	0.00000172	0.00000092
8.2	Water Withdrawals - Non-Consumptive (Billions of Liters/Net MWh)	0.00001414	0.00001431
9	Waste Products		
9.1	Amount of Hazardous Waste Manifested for Disposal	743.97	829.03
9.2	Percent of Coal Combustion Products Beneficially Used	34.2%	34.1%

Cautionary statement regarding forward looking information: Any statements made in this document about future operating results or other future events are forward-looking statements under the Safe Harbor Provisions of the Private Securities Litigation Reform Act of 1995. Although based on current beliefs and expectations, forward-looking statements involve various risks and uncertainties, including those that PPL Corporation describes in its Form 10-K and other filings with the Securities and Exchange Commission. Actual results may differ materially from the forward-looking statements.