

BUILDING A **SMARTER** ENERGY FUTURESM

2017 DUKE ENERGY SUSTAINABILITY REPORT



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2017 | 2018 Recognitions

 For the 12th consecutive year, Duke Energy was named to the Dow Jones Sustainability Index for North America. MEMBER OF Dow Jones Sustainability Indices In Collaboration with RobecoSAM (

 Duke Energy was named to Fortune magazine's 2018
 "World's Most Admired Companies" list, ranked 5th among gas and electric utilities, up from 9th in 2017.



- The 2017 Newsweek Green Rankings ranked Duke Energy No. 72 (No. 7 in our industry, top 15 percent overall), up from 107 in 2016, out of the 500 largest U.S. companies.
- Forbes magazine named Duke Energy to its "America's Best Employers for Diversity" in its 2018 list.
- The Southeastern Electric Exchange recognized Duke Energy as the top performing overall company and the top transmission and distribution organization in terms of 2017 safety results.
- Black Enterprise magazine named Duke Energy to its 2017 "50 Best Companies for Diversity."
- Duke Energy earned the Human Rights Campaign's distinction as a "Best Place to Work for LGBTQ Equality" with a perfect score of 100 percent in its Corporate Equality Index.
- The Edison Electric Institute presented Duke Energy with its 2017 overall Excellence Award for supplier diversity efforts.
- Site Selection magazine named Duke Energy to its "Top Utilities in Economic Development" list for the 13th consecutive year.
- Piedmont Natural Gas was designated a 2017 "Most Trusted Brand,"
 "Utility Customer Champion" and "Utility Environmental Champion" by natural gas utility customers through polling conducted by Cogent Reports.



Cari Boyce / Senior Vice President, Stakeholder Strategy and Sustainability / President, Duke Energy Foundation

About This Report

I am pleased to share Duke Energy's 12th Sustainability Report. This year's report reflects a theme we've been observing over the past dozen years: The energy industry is in transition and the successful companies are those that continue to recognize and adapt to the changing expectations of the customers and communities they serve.

For Duke Energy, the facts and figures included in this report are one measure for the progress we are making. Our numbers show a company shifting from coal to natural gas and greater reliance on renewable energy, reducing our environmental footprint and modernizing our energy grid to support new customer-focused technology.

Progress on our company's goals reflects that sustainability is a priority at Duke Energy. We continue to evolve our business approach to actively engage stakeholders, embrace innovation, exceed customer expectations and positively impact the communities we power.

In the report, you will notice the many areas where engagement with our external stakeholders has created positive outcomes on the legislative, regulatory and community fronts. Whether it was a new law, new tool or a new program to better serve customers, maintaining open, two-way communication channels has helped promote a better environment for sustainability to thrive at Duke Energy.

As always, we aim to make sure our information is comprehensive, clear and paints an accurate picture of the company. We are proud of the progress we've made and are focused on our opportunities for improvement.

In addition to this Sustainability Report, you can find a detailed Global Reporting Initiative Index on our <u>website</u>. Duke Energy is also participating in the Edison Electric Institute's sustainability reporting <u>pilot</u>. Lastly, the company issued a <u>Climate Report</u> earlier this year to provide more details on how we are mitigating risk from climate change.

Thank you for interest in our 2017 Sustainability Report and Duke Energy.

Cari Boyce_

Cari Boyce Senior Vice President, Stakeholder Strategy and Sustainability President, Duke Energy Foundation



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Lynn J. Good / Chairman, President and Chief Executive Officer
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A Message From Our CEO

Energy remains the lifeblood of the economy, but our industry is undergoing a major transformation. To continue successfully powering lives and communities, we need to embrace change as never before.

This environment provides an opportunity to innovate – and sustainability remains central to our plan to create a smarter energy future for customers.

2017 proved Duke Energy is doing just that. We unveiled our <u>10-year vision</u> for our company, and we executed it while delivering safe, affordable, cleaner energy and preparing for what's next.

Our Results in 2017

As this report shows, we delivered strong results. Here are a few highlights:

- We have reduced our generation fleet's carbon dioxide emissions by 31 percent from our 2005 levels and recycled 80 percent of our solid waste last year – one year ahead of target.
- Our energy efficiency programs helped customers reduce energy consumption and peak demand by more than 14,400 gigawatt-hours and 5,300 megawatts, respectively.
- As of year-end 2017, Duke Energy owned or had under contract over 6,400 megawatts of wind, solar and biomass energy.
- We maintained our industry-leading safety performance, reduced reportable environmental events for the third straight year and nearly broke the company record for our nuclear fleet's capacity factor.
- We increased our quarterly dividend by 4 percent and now have paid one for 92 consecutive years.



In 2017, we unveiled our 10-year vision for our company and we executed it while delivering safe, affordable, cleaner energy and preparing for what's next.



 Our Foundation, company and employees donated over \$52 million. And our Economic Development team helped attract more than 12,000 jobs and over \$5.9 billion in capital investments.

Planning for the Future

Our company is linked with serving the public. That's predicated on our belief that we can do well for our investors while doing good for the environment and those who have a stake in our company.

For more than a decade, we have provided an update on our environmental stewardship through this report. In March, we also issued a new <u>Climate Report</u>, detailing our ongoing efforts to mitigate risks from climate change, reduce emissions and plan our future investments.

Building A Smarter Energy Future[™]

What we do at Duke Energy matters far beyond providing reliable natural gas and electricity. Our approach to sustainability pushes us to do more – to leave a positive, long-term impact on the environment and communities we serve.

As I look ahead, I remain as confident as ever in our vision for a smarter energy future, our focus on sustainability and the strategy we're executing to get there.

Hood

Lynn J. Good *Chairman, President and Chief Executive Officer*

April 9, 2018



Our approach to sustainability pushes us to do more — to leave a positive, long-term impact on the environment and communities we serve.

Duke Energy At A Glance

Electric Utilities and Infrastructure

Generation Diversity (percent owned capacity)¹



39% Natural Gas/Fuel Oil
36% Coal
18% Nuclear
7% Hydro and Solar

Generated (net output gigawatt-hours (GWh))²



34% Coal
35% Nuclear
30% Natural Gas/Fuel Oil
1% Hydro and Solar

Customer Diversity (in billed GWh sales)²



32% Residential
30% General Services
20% Industrial
18% Wholesale/Other

Electric Utilities and Infrastructure conducts operations primarily through the regulated public utilities of Duke Energy Carolinas, Duke Energy Progress, Duke Energy Florida, Duke Energy Indiana and Duke Energy Ohio.

Electric Operations

- Owns approximately 49,500 megawatts (MW) of generating capacity
- Service area covers about 95,000 square miles with an estimated population of 24 million
- Service to approximately 7.6 million residential, commercial and industrial customers
- 277,100 miles of distribution lines and a 31,900-mile transmission system

Natural Gas Customer Diversity

Gas Utilities and Infrastructure conducts natural gas distribution operations primarily through the regulated public utilities of Piedmont Natural Gas and Duke Energy Ohio.

Natural Gas Operations (throughput)²



- 51% Power Gen18% General Services15% Residential9% Industrial7% Other
- Regulated natural gas transmission and distribution services to approximately 1.5 million customers in the Carolinas, Tennessee, southwestern Ohio and Northern Kentucky
- Maintains more than 33,100 miles of natural gas transmission and distribution pipelines and 27,400 miles of natural gas service pipelines

Duke Energy Renewables

Generation Diversity (percent owned capacity)¹



Duke Energy Renewables primarily acquires, develops, builds and operates wind and solar renewable generation throughout the continental U.S. The portfolio includes nonregulated renewable energy and energy storage assets.

Duke Energy Renewables, part of the Commercial Renewables business segment, includes utility-scale wind and solar generation assets that total 2,907 MW across 14 states from 21 wind and 63 solar projects. The power produced from renewable generation is primarily sold through long-term contracts to utilities, electric cooperatives, municipalities and commercial and industrial customers.

As part of its growth strategy, Duke Energy Renewables has expanded its investment portfolio through the addition of distributed solar companies and projects, energy storage systems and energy management solutions specifically tailored to commercial businesses and other institutions.

 1 As of December 31, 2017. | 2 For the year ended December 31, 2017.

Duke Energy At A Glance continued

Maps of Operations



Service Territories

Counties Served*

- Duke Energy Indiana
- Duke Energy Ohio/Kentucky
- Duke Energy Carolinas/Progress
- Piedmont Natural Gas
- Overlapping territory (Duke Energy/Piedmont Natural Gas)
- Duke Energy Florida

*Portions may be served by other utilities.

Commercial and Regulated Renewable Projects



Our Value Creation Model

Major Resources

Creating value starts with the basics. It takes materials and water from the earth – plus dedicated employees – to create the value chain for Duke Energy.

Evolving Business Model

As technology and customers' expectations evolve, Duke Energy is also evolving. The company's electric, gas and infrastructure business powers the people and communities it serves. It also helps customers cut consumption and use energy more wisely.



Our Value Creation Model continued

Impacts

Generating energy creates environmental and other impacts. Duke Energy works hard to mitigate them. Our track record over the past decade is good, but we are always striving to improve.

Value Created

We power lives, support communities and fuel the economy. Duke Energy also supports communities with the taxes it pays and the jobs we help attract, as well as through philanthropic contributions and employee volunteerism.



development

The information presented here is meant to provide an overview of Duke Energy and is not meant to be precise or inclusive of all the company's inputs and outputs. Please see the

2017 Duke Energy Annual Report on Form 10-K/A for detailed notes and further explanations of financial information and this Sustainability Report for more social and environmental information.

Our Stakeholders

Our stakeholders often have divergent views on how Duke Energy should meet future customer demand for reliable, affordable and increasingly clean energy. Their views surface locally, nationally and globally in response to a number of factors including new projects we develop, our long-range planning, changing legislative and regulatory policy, or in response to our enhanced products and services.

Our stakeholders expect us to engage with them on important issues. As an industry leader, Duke Energy has a rich history of working with a diverse group of stakeholders. Our past experience demonstrates that we get better outcomes through collaboration and engagement.

During 2017, we continued to improve our stakeholder engagement capabilities and governance. We are focusing on common processes and tools, best practice sharing and improved alignment across our jurisdictions. Our External Relations Council, comprised of company leaders, continues to provide oversight and coordination of stakeholder interactions at the national, state and local levels.

We will soon have Advisory Councils active in all of our states. These councils provide an opportunity for Duke Energy state presidents to meet three to four times a year with representatives of diverse stakeholder groups and engage in two-way dialogue. These councils enable stakeholders to learn about our business and, more importantly, to provide their insight and advice to inform company plans.

Successfully working with stakeholders will continue to be key as we implement our vision of providing the energy solutions that customers value.

What Matters Most

Duke Energy's approach to sustainability focuses on the issues that are most important to our stakeholders and to us. We identify issues from a variety of sources such as stakeholder feedback, surveys, thought leader perspectives, social and traditional media coverage, and shareholder proposals in our sector.

Another important input is research conducted by the Electric Power Research Institute (EPRI). EPRI's latest research, entitled <u>"Priority Sustainability Issues</u> for the North American Electric Power Industry," was published in October 2017. It was based on extensive stakeholder interviews and helped validate our list of priority issues.

We have also mapped our priority issues to the <u>United</u> <u>Nations Sustainable Development Goals</u> (SDGs), which aim to "end poverty, protect the planet and ensure prosperity for all." Since their development in 2015, the 17 SDGs have gained traction with stakeholders concerned about sustainability issues. While there was alignment between our priorities and several of the SDGs, goals "Seven: Affordable and Clean Energy," and "Thirteen: Climate Action," are especially applicable to our company.

The graphic depicts the relationship among Duke Energy, its stakeholders (shown in green) and the most important issues (shown in blue) as overlapping circles within circles to show that they are interconnected. The stakeholders and issues are both arranged alphabetically to make it clear that they are all important while safety, as always, is number one.

Our Stakeholders and What Matters Most continued



Our Sustainability Plan and Goals



Improve the lives of our customers and vitality of our communities.

GOALS:

• Affordable energy: Maintain electric rates lower than the national averages.

2017 status: Duke Energy's electric rates in all six states we serve were lower than the national average in all three customer categories (residential, commercial and industrial). (See related graphic on page 21: "Duke Energy's Electric Rates: Below U.S. Average.")

• Energy efficiency – consumption: Achieve a cumulative reduction in customer energy consumption of 15,000 gigawatt-hours, GWh (equivalent to the annual usage of 1.25 million homes) by 2020.

2017 status: As of year-end 2017, energy consumption was reduced by more than 14,400 GWh.

• Energy efficiency – peak demand: Achieve a cumulative reduction in peak demand of 5,250 megawatts, MW (equivalent to nearly nine 600-MW power plants) by 2020.

2017 status: As of year-end 2017, peak demand was reduced by more than 5,300 MW.

New goal: Given Duke Energy's success in meeting its original 2020 goal, we are adopting a stretch goal to achieve an additional 750 MW of peak-demand savings by 2020. The new goal is to achieve a cumulative reduction in peak demand of 6,000 MW (equivalent to ten 600-MW power plants) by 2020.

Potential changes in state energy efficiency rules and requirements, and changes to utility avoided costs may have an impact on our future energy efficiency goals.

• Charitable giving: During 2017, the Duke Energy Foundation will invest over \$30 million in charitable giving.

2017 status: The Duke Energy Foundation contributed \$33.2 million. Total 2017 Charitable Giving was \$52.4 million. (See related graphic on page 18: <u>"2017 Charitable Giving."</u>)

• **Community leader ratings:** During 2017, conduct a community leader study across all of our service territories to maintain insight into our performance with this important customer segment.

2017 status: Community leaders reported overall satisfaction ratings ranging from 75 to 96% across all Duke Energy jurisdictions. Hurricane Irma had a negative impact on Florida's 2017 score (75%). Overall results showed high satisfaction with our reliable service, customer service and community support. Areas for improvement included better communication during outages, rate increases/high bills, outage performance and environmental concerns.



Grow and adapt the business and achieve our financial objectives.

GOALS:

 Economic development: Stimulate growth in our communities and help attract at least 40,000 jobs and \$10 billion in capital investments from 2017 to 2021.

2017 status: In 2017, Duke Energy helped our communities attract more than 12,000 jobs and over \$5.9 billion in capital investments to our service territories. (See related graphic on page 26: <u>"Economic Development."</u>)

Total shareholder return (TSR): Outperform other investor-owned utilities in TSR, annually and over a three-year period, as measured by the Philadelphia Utility Index (UTY).

2017 status: Duke Energy's TSR results were:

- 13.0% in 2017, compared to the UTY return of 12.8%.
- 4.6% over three years on an annualized basis, compared to the annualized UTY return of 7.5%.

• **Renewables:** Own or contract 8,000 MW of wind, solar and biomass by 2020.

2017 status: As of year-end 2017, Duke Energy owned or had under contract over 6,400 MW of wind, solar and biomass.

 Governance: Keep abreast of developments regarding corporate governance principles and recommend internal improvements as appropriate.

2017 status: In 2017, the Board of Directors amended the Corporation's Securities Trading Policy to prohibit all pledging of corporate securities. In early 2018, the Board formally tasked the Corporate Governance Committee with oversight over sustainability issues by adding a designated responsibility in the Corporate Governance Committee's Charter. The Corporation also enhanced its disclosure of performance goals in the 2018 proxy statement, along with continued reporting of actual performance results.

• **Transparency:** Achieve top-quartile performance in disclosure, as measured by Bloomberg Environmental, Social and Governance (ESG) Disclosure Scores for our industry.

2017 status: As of March 29, 2018, Duke Energy had a Bloomberg ESG Disclosure Score of 56.2, the third best score and in the top quartile of our peer U.S. utilities.

Our Sustainability Plan and Goals continued

2041		Achieve
	•	Currently
STATUS	-	Coolnot

OPERATIONS

Excel in safety, operational performance and environmental stewardship.

GOALS:

• Safety – fatalities: Achieve zero workrelated fatalities.

2017 status: Tragically, in 2017 there were two work-related contractor fatalities.

• Safety – incident rate: Maintain top-decile safety performance in employee Total Incident Case Rate (TICR). (Does not include Piedmont Natural Gas, which has a separate TICR goal.)

2017 status: We improved employee TICR to 0.36 in 2017 from 0.40 in 2016. In 2016 when the latest Edison Electric Institute industry data were available, we were the top performing company in our peer group.

Reliable energy – generation: During 2017, maintain the high reliability of our generation fleet with a nuclear capacity factor of at least 94%, fossil commercial availability of at least 87%, and commercial renewables availability of at least 94.5%.

2017 status: The generation fleet met all of its reliability goals.

• **Nuclear:** Capacity factor was 95.6%, down slightly from 95.7% in 2016.

• Fossil: Commercial availability was 88.0%, up from 84.7% in 2016.

• **Commercial renewables:** Renewables availability improved to 94.6%, up from 94.2% in 2016.

Reliable energy – power delivery: During 2017, maintain the high reliability of our distribution system with an average number of outages* of 1.18 or less, and an average time without power* of 135 minutes or less.

2017 status:

- Average number of outages was 1.18.
- Average time without power was 151 minutes.

* Outages longer than 5 minutes, per customer.

• **Carbon** – **emissions:** Reduce the CO_2 emissions from our generation fleet by 40% from the 2005 level by 2030 (equates to a reduction from 153 million tons to 92 million tons).

2017 status: Our generation fleet emitted about 105 million tons of CO_2 , a reduction of 31%.

• **Carbon** – **intensity:** Reduce the carbon intensity (pounds of CO_2 emitted per net kWh of electricity produced) of our generation fleet by 45% from the 2005 level by 2030 (equates to a reduction from 1.29 to 0.71 pounds of CO_2 per net kWh).

2017 status: Generation carbon intensity was 0.96 in 2017, a reduction of over 25%.

• Solid waste: Increase the percentage of solid waste that is recycled from 69% in 2013 to 80% in 2018. (This goal excludes Duke Energy Renewables, which has a relatively small waste stream.)

2017 status: We recycled 80% of the solid waste produced during 2017, achieving our 2018 target one year early.

• Coal ash management (updated goal): Meet all regulatory requirements of N.C. House Bill 630 to obtain a low-risk ranking for the remaining six sites and safely move and store 20 million tons of coal ash from the highpriority sites.

2017 status: In 2017, we safely moved 5.3 million tons of coal ash bringing the total amount removed from high-priority N.C. sites and stored in approved facilities to 14 million tons. Activities are on track to meet N.C. House Bill 630 requirements to obtain a low-risk ranking for the remaining six N.C. sites by October 2018.



Develop and engage employees and strengthen leadership.

GOALS:

Overall goal: Foster a high-impact, engaged, diverse and inclusive culture built on strong leadership

• Employee engagement:

Strive for employee and manager engagement scores of 70 and 75%, respectively, by 2020, measured by favorable responses to employee engagement survey questions.

2017 status: Employee and manager engagement scores were 69 and 77%, respectively, based on responses to the 2017 employee engagement survey, which was sent to all Duke Energy employees.

• Employee enablement and performance: Implement tools that promote employee recognition, performance and accountability.

2017 status: Continued to help employees strengthen their impact. This focus increased favorable ratings on three questions – prioritization, accountability and coaching – in the 2017 employee engagement survey by an average of 4 points over 2015 (the last time the survey was administered).

• Diversity and inclusion (D&I): Strengthen our diversity and inclusion framework as well as support a workforce in transition.

2017 status: Expanded unconscious bias training to Duke Energy's top 550 leaders. Achieved 73% favorable rating on D&I questions in the 2017 employee engagement survey, up 4 points from 2015. Diversity hiring: 32.1% females, 28.6% minorities and 7.7% veterans (as of November 2017).

• Leadership: Advance leadership capabilities and bench strength.

2017 status: Approximately 2,200 leaders completed a core leadership program in 2017. Favorable ratings on the development questions in the 2017 employee engagement survey increased by an average of 5 points over 2015.

Sustainability Governance

Duke Energy has adopted a management approach to sustainability that engages all levels of the company from the Board of Directors to our employees. We also strive to embed sustainable business practices throughout the company.

Board of Directors

In early 2018, the Board of Directors, as an acknowledgement of the growing importance of sustainability issues and of the Corporate Governance Committee's active involvement in sustainability, formally tasked the Corporate Governance Committee with oversight over sustainability issues by adding a designated responsibility in the Corporate Governance Committee's Charter.

Chief Executive Officer

Ultimate responsibility for the company's sustainability performance and long-term success.

Senior Vice President, Stakeholder Strategy and Sustainability | President, Duke Energy Foundation

Responsible for partnering with business units to develop sustainability goals, integrating sustainable business practices across the company and sustainability reporting.

Senior Business Leaders

Accountable for applicable sustainability goals and integrating sustainability into respective areas.

Sustainability Corps Members

Specially trained employees who provide local support and advocacy for sustainable business practices.

Employees

Implement departmental initiatives and identify local sustainability opportunities.

About Our Data

This report contains the best data available at time of publication. Social and environmental data can be challenging to accurately measure. We correct and report errors in prior-year data when found, and we work to continually improve our data measurement, gathering and reporting processes to increase the integrity of information presented.

Global Reporting Initiative

The <u>Global Reporting Initiative</u> (GRI) is a recognized international framework for economic, environmental and social performance disclosure. We provide a detailed response to GRI indicators on our <u>website</u>, including indicators in GRI's Electric Utilities Sector Supplement. Sections of this report with information responsive to the GRI indicators/disclosures include the following:

- General: <u>Introduction Section</u> (See pages 3-11), <u>Our Sustainability Plan and Goals Section</u> (See pages 12-13)
- Economic: <u>Customers Section</u> (See pages 15-22), <u>Growth Section</u> (See pages 23-31)
- Environmental: <u>Operations Section</u> (See pages 32-44), <u>Growth Section</u> (See pages 23-31)
- Social: <u>Employees Section</u> (See pages 45-50), <u>Customers Section</u> (See pages 15-22)



1 CUSTOMERS

Improve the Lives of Our Customers and Vitality of Our Communities

2017 Highlights

- As of year-end 2017, customer energy consumption and peak demand were reduced by more than 14,400 gigawatt-hours and 5,300 megawatts, respectively.
- Customers benefited from electric rates below the national average in all customer classes and all service areas for the fourth consecutive year.
- Deployed 1.2 million smart meters in 2017, bringing the number of customers who have smart meters to 40 percent. Smart meters provide real-time information that enables customers to make better decisions about their energy usage.
- During 2017, the Duke Energy Foundation invested \$33.2 million to support our communities, and our employees and retirees volunteered over 115,000 hours.
- Piedmont Natural Gas was designated a 2017 "Most Trusted Brand," "Utility Customer Champion" and "Utility Environmental Champion" by natural gas utility customers through polling conducted by Cogent Reports.

Challenges and Opportunities

- Enhance the customer experience and relentlessly pursue our goal of achieving and sustaining top quartile customer satisfaction.
- Invest \$25 billion during 2017-2026 to create a smarter, greener energy grid that also will be even more reliable and resilient during severe weather events.
- Continue to work with stakeholders to identify positive outcomes to issues important to our communities.



Duke Energy continues to offer a variety of energy efficiency programs – helping customers take more control of their energy use.

Saving Money with Free Energy Efficiency Advice

Duke Energy continues to expand its portfolio of <u>energy efficiency programs</u> that benefit our customers and the environment.

Duke Energy's Referral Network completed its first full year of operation in 2017, providing customers with energy-related advice and purchasing confidence when selecting home improvement contractors.

The program provides professionals for home improvement services such as attic insulation and HVAC and water heating repair and replacement.

In 2017, the program generated more than 10,000 referrals in the Carolinas and Kentucky. The program will expand to Indiana and Ohio in 2018. Referred contractors can also assist customers in qualifying for up to \$1,600 in rebates via the Smart \$aver® program.

Since 2009, the company has delivered more than 80 million energyefficient lighting products to residential customers at deeply discounted prices. Newly expanded options for lamps and fixtures provide even more energyefficient solutions for every socket of our customers' homes.

LEDs use 90 percent less energy and last 15 times longer than traditional bulbs, leading to savings on customers' bills. Eligible customers can receive lighting options at participating retailers, accessing company-offered programs and by visiting the online store.

Duke Energy's My Home Energy Report is approaching the 2 terawatt-hours of electricity saved. That's enough to power 200,000 homes for a year. The program provides residential customers with a meaningful look at their energy use compared to similar homes based on age, size, location and heating source. It provides targeted insights to help customers take action to reduce their energy consumption.

In the fourth quarter of 2017, the company started sending the reports to customers electronically if they have registered an email address. Through the program, nearly 23 million reports were sent in 2017. These reports are printed on 100 percent recycled paper and a reforestation project has planted nearly 20,000 trees as part of the program.



Duke Energy's My Home Energy Report is approaching the 2 terawatt-hours of electricity saved. That's enough to power 200,000 homes for a year.



Duke Energy restored power in three days to 75 percent of its 1.3 million Florida customers who lost electricity when Hurricane Irma roared through the state.

Duke Energy Restores Power After Massive Hurricane Irma

Hurricane Irma made history in September 2017 as one of the strongest hurricanes on record in the Atlantic Basin, and the most destructive storm to ever hit Duke Energy's Florida service area.

The peak number of power outages occurred Sept. 11 when more than 1.3 million of Duke Energy's 1.8 million Florida customers – almost 75 percent – lost power.

Damage to Duke Energy's electrical distribution system was extensive and widespread. In some areas, the company had to rebuild the entire power distribution system.

The company replaced nearly 2,000 damaged power poles and more than 1,100 transformers – and inspected, repaired or replaced more than 1,000 miles of damaged power lines.

In addition, 124 high-voltage transmission lines and 71 substations needed major repairs.

The storm required a massive response. Duke Energy mobilized a small army of more than 12,000 line workers, tree professionals, damage assessors and

support staff who came to Florida from 25 states and Canada.

The company restored power to more than 75 percent of its customers in three days – and 99 percent in eight days.

Duke Energy also learned valuable lessons to apply to future large storms.

For example, the company is improving its modeling to better integrate damage assessments from field workers in order to give customers more accurate estimated power restoration times.

The company also is strengthening its power outage management system that provides outage information to customers via phone, text and online maps.

Meanwhile, Duke Energy will invest \$3.4 billion over the next 10 years to further strengthen its Florida energy grid. One example: the company will move about 1,250 miles of its most outage-prone overhead power lines underground.

The company also is investing in wireless sensing devices and other technologies to create an intelligent electricity delivery system – a "smart grid" that reduces the number and length of power outages.

Damage to Duke Energy's electrical distribution system was extensive and widespread. In some areas, the company had to rebuild the entire power distribution system.



Electric Grid Modernization Continues on Several Fronts

In 2017, Duke Energy continued to move forward with its \$25 billion, 10-year modernization plan to bolster the company's multistate electric grid – the power lines, substations and other equipment that deliver electricity from power plants to customers.

The initiative will increase reliability, reduce power outages, strengthen the grid against physical and cyber threats, give customers more information and more control over their electricity use, and accommodate additional solar energy and energy storage.

In North Carolina and South Carolina, the modernization initiative is called Power/Forward Carolinas – a \$16 billion plan to significantly upgrade the electric grid while also providing a strong economic stimulus that includes creation of 17,000 jobs and more than \$26 billion in economic output over 10 years.

In Florida, Duke Energy completed work on an automated, self-optimizing grid network that enables the grid to selfidentify problems and reroute power to shorten or eliminate power outages. This advanced grid also will support the growth of solar power, energy storage and other emerging technologies.

Duke Energy plans to deploy 100 similar self-healing networks in some of the company's other service areas in 2018, with the goal of having 80 percent of customers serviced by such networks in the next decade.

Additionally, the company plans to use data analytics to identify the most outage-prone power lines and relocate them underground. This initiative will reduce the number of power outages and shorten restoration times after storms.

In 2017, Duke Energy continued to move forward with its \$25 billion, 10-year modernization plan to bolster the company's multistate electric grid. Meanwhile, Duke Energy continues to install digital smart meters that give customers more convenience and more control over their energy usage. The company installed 1.2 million meters in 2017 and will install an additional 1.4 million in 2018.

Today, 40 percent of Duke Energy's customers are equipped with smart meters. The company remains on track to bring the technology to all of its customers by 2021.

The meters help customers save money by giving them online access to information about their electricity consumption, so they can adjust usage as they see fit.

The meters also enable Duke Energy to immediately determine when a customer loses power, so the company can quickly dispatch a repair crew.

Customer Satisfaction Scores Show Steady Improvement

While Duke Energy's customer satisfaction scores improved for both business and residential segments in 2017, the company's rankings still require improvement to be among the nation's leaders.

All Duke Energy utilities are implementing plans to achieve top-quartile performance among large utilities in the J.D. Power Electric Utility Residential Study by the end of 2018.

In 2017, satisfaction scores for business customers increased for all four Duke Energy companies in the J.D. Power Electric Utility Business Study.

 Duke Energy Progress was up 16 points to 780, remaining in the first quartile.

- Duke Energy Midwest was up 26 points to 779, moving up to the first quartile.
- Duke Energy Florida was up 37 points to 771, moving up to the second quartile.
- Duke Energy Carolinas was up 19 points to 769, moving up to the second quartile.

The study rates companies on six factors: power quality and reliability, billing and payment, corporate citizenship, price, communications and customer service.

According to internal data and surveys, 88 percent of large business customers were "highly satisfied" with Duke Energy as their utility – down slightly from 91 percent last year.

Among residential customers, 83 percent were highly satisfied with the service they received from Duke Energy in 2017 – up from 79 percent last year.

In the residential study, J.D. Power reported Duke Energy's satisfaction scores were up for all four operating companies in 2017.

- Duke Energy Progress was up 42 points to 722, remaining in the second quartile nationally among all large utilities.
- Duke Energy Midwest was up 42 points to 721, remaining in the second quartile nationally among all large utilities.
- Duke Energy Carolinas was up 52 points to 721, moving up from the third to second quartile nationally among all large utilities.
- Duke Energy Florida was up 47 points to 701; however, the company remained in the fourth quartile nationally.

Diverse Supplier Spending¹ (in millions)

	2013	2014	2015	2016	2017
Spending with Tier I diverse suppliers ²	\$691	\$578	\$633	\$681	776
Spending with Tier II diverse suppliers ³	\$212	\$412	\$405	\$494	437
Total	\$903	\$990	\$1.038	\$1.175	1.213

1 Piedmont Natural Gas data from the first three quarters are included in 2016. Full-year data are included beginning in 2017.

2 Tier I represents direct purchases from diverse suppliers.

3 Tier II consists of spend by Duke Energy suppliers with diverse suppliers/subcontractors.



Quinn Davis / Director of Lighting Programs / Norv Clontz / Director of Data Science Innovation

Customer's Question Led to an Innovative Solution

Jim Bradley has lived in Charlotte for 30 years, and he never experienced as many power outages as he did in early 2016. Frustrated, he contacted a friend who worked at Duke Energy.

His question made it to Sasha Weintraub, senior vice president of customer solutions, and inspired a new system that would help reduce outages for all customers.

Weintraub routed the question to Norv Clontz, who was then director of grid analytics, and Clontz brought in Quinn Davis, who was then a manager in the power quality and reliability engineering department. With a few months of research and collaboration, the pair found the reason for Bradley's outage – overgrown vegetation – and created the System Health Tool to help others, too.

"It's my job to prevent outages," Davis said. "It's all about asking, 'What's the best use of our next dollar to help the customer?""

The new system identifies small pockets of poor performance and determines where grid investments are most needed. Before the System Health Tool, engineers had to look at performance indicators separately – vegetation management, infrastructure, reliability and customer satisfaction data – which didn't present a clear picture of what areas needed improvements based on customer experience. The tool combines all of this data and shows sections of a map as red, orange and yellow based on priority.

Clontz and Davis won a James B. Duke Award, the company's highest honor, for their innovative solution to a customer's concern. The software has been particularly useful in research for our Power/Forward grid modernization initiative. This will include a \$5 billion investment to reduce outages by burying lines and installing protective equipment in North Carolina's most susceptible areas.

Grid & Clean Energy Investment Spurred By Settlement

In 2017, the Public Service Commission of Florida approved a settlement agreement that extends Duke Energy's current multiyear rate plan to 2021.



Clontz and Davis won a James B. Duke Award, the company's highest honor, for their innovative solution to a customer's concern. The agreement, supported by a number of consumer groups, included \$6 billion in renewable power and energy grid investments. It also would eliminate any further customer charges with the nuclear project in Levy County.

Some highlights:

- Duke Energy announced a four-year plan to add 700 megawatts (MW) of solar energy, greatly accelerating the company's previous 10-year solar installation plan. A future 75-MW plant in Hamilton County in north Florida will be one of the first of the new facilities.
- It expands customer choices with two new optional billing programs. One is a shared solar program to allow customers to participate in solar generation without having the solar facility on their property. The other is a fixed bill program for residential customers – allowing them to pay a fixed amount each month regardless of usage.
- It allows Duke Energy to invest to modernize the energy grid to enhance reliability, reduce outages and shorten restoration times.
- The company can install advanced metering technology (smart meters) to enable more bill-lowering tools, access to more information about energy use, and the ability to receive usage alerts, outage notifications and customized billing options once fully implemented.
- The settlement will allow the company to install more than 500 electric vehicle charging stations and up to 50 MW of battery energy storage.

"We applaud Duke Energy Florida for working proactively with stakeholders to embrace smart technologies that are both good for consumers and the environment," said Dr. Stephen A. Smith, executive director of the Southern Alliance for Clean Energy, in the press release announcing the settlement. "Large scale solar, electric vehicles and battery storage demonstrate that Duke is embracing technologies for the 21st century. We welcome Duke's willingness to work with stakeholders on data collection and any rate design changes impacting customer-owned demand side solar."

Duke Energy's Electric Rates: Below U.S. Average

In effect as of July 1, 2017 (cents per kilowatt-hour (kWh))

Residential

Duke Energy Kentucky	8.89
Duke Energy Carolinas-NC	10.40
Duke Energy Progress-NC	11.11
Duke Energy Carolinas-SC	11.13
Duke Energy Progress-SC	11.78
Duke Energy Ohio	11.81
Duke Energy Florida	11.84
Duke Energy Indiana	12.05
U.S. AVERAGE	13.99

Commercial

Duke Energy Progress-NC	8.01	
Duke Energy Kentucky	8.14	
Duke Energy Carolinas-NC	8.88	
Duke Energy Ohio	8.91	
Duke Energy Progress-SC	9.14	
Duke Energy Carolinas-SC	9.39	
Duke Energy Indiana	9.50	
Duke Energy Florida	9.56	
U.S. AVERAGE		11.8

Industrial

Duke Energy Kentucky 7.36
Duke Energy Progress-NC 7.53
Duke Energy Progress-SC 7.62
Duke Energy Ohio 8.00
Duke Energy Carolinas-NC 8.22
Duke Energy Carolinas-SC 8.43
Duke Energy Indiana 8.62
Duke Energy Florida 8.95
U.S. AVERAGE 9.99

Notes: Residential typical bill based on 1,000 kWh per month usage. Commercial typical bill based on 40 kW demand and 14,000 kWh per month usage. Industrial typical bill based on 1,000 kW demand and 400,000 kWh per month usage.

Source: Edison Electric Institute Typical Bills and Average Rates Reports, Summer 2017 (latest available).



Duke Energy seeks environmentally friendly as well as diverse and local suppliers to support the needs of the communities we serve.

Supply Chain Relationships Support Sustainability

In addition to selling billions of dollars of energy to customers, Duke Energy is also a large purchaser of goods and services. That makes the company's supply chain a critical aspect of our commitment to sustainability.

Overall, Duke Energy buys more than \$10 billion of goods and services each year; of that about \$3.7 billion is spent with local suppliers. And the company's spending with minority-, women-, veteran-, service-disabled veteran-owned and HUBZone businesses directly and through subcontracting continues to exceed \$1 billion annually.

In recognition of our efforts to improve diversity and inclusion by advancing purchasing opportunities for diverse suppliers within the electric power industry, the Edison Electric Institute awarded Duke Energy the 2017 Business Diversity Excellence Award.

One way the company has succeeded in its supply chain efforts is by creating and maintaining relationships with supplier partners. Those partners are supportive of our corporate responsibility sourcing strategy, which focuses on safe work practices, local economic impact, supplier diversity and environmental stewardship. In addition, Duke Energy suppliers are expected to adhere to our <u>Supplier Code of Conduct</u>. The company's membership in the <u>Electric Utility</u> <u>Industry Sustainable Supply Chain Alliance</u> is also a valuable relationship and helpful resource to Duke Energy's efforts.

During 2017, for the second consecutive year, Duke Energy hosted more than 100 individuals representing approximately 40 companies at our Supplier Exchange Forum to communicate the company's operational expectations, including efforts to support Duke Energy's overall sustainability mission.

In addition to supplier representatives, Duke Energy executives and supply chain leaders attended the event, providing a great opportunity to enhance existing relationships, develop new ones, and discuss the company's priorities.

Duke Energy seeks environmentally friendly as well as diverse and local suppliers to support the needs of the communities we serve. These efforts have made lasting positive impacts on economic development and sustainability, locally, regionally and nationally.



2 GROWTH

Grow and Adapt the Business and Achieve Our Financial Objectives

2017 Highlights

- During 2017, helped our communities attract more than 12,000 new jobs and \$5.9 billion in capital investments to our service territories.
- Achieved adjusted diluted earnings per share of \$4.57, near the midpoint of our full-year earnings guidance to Wall Street, despite unfavorable weather.
- Increased the quarterly dividend by 4 percent; 2018 will mark the 92nd consecutive year Duke Energy has paid a quarterly dividend.
- As of year-end 2017, owned or had under contract over 6,400 megawatts (MW) of wind, solar and biomass.
- Proposed or have in service approximately 185 MW of battery storage.
- Reached important milestones in our midstream natural gas business.
 Sabal Trail went into commercial operation during 2017, and in early 2018, the Atlantic Coast Pipeline started initial construction activities.

Challenges and Opportunities

- Continue to help attract jobs and capital investments in our communities through our economic development programs.
- Deliver value to our customers and grow our business by investing \$37 billion in growth capital over five years.
- Continue to take advantage of new technologies to find better ways to meet customer expectations.
- Maintain our position as an industry leader in environmental, social and governance disclosure.



Anthony Alston / Solar Technician / Kathleen Alexandridis / Engineer – Dogwood Solar Site, Scotland Neck, NC

Solar Shines Bright in 2017

For the past few years, wind energy has been Duke Energy's fastest growing renewable energy resource. But in 2017, solar power led the company's transition to more renewable energy.

North Carolina continues to be the company's top solar energy state. The company connected almost 500 megawatts of solar power to its energy grid in 2017 – keeping North Carolina the No. 2 overall state in the nation for installed solar energy capacity.

In addition, the company worked with numerous stakeholders to support the Competitive Energy Solutions for North Carolina law, which will expand solar power even further in the state. The law – called H.B. 589 – helps Duke Energy roll out new programs that will make solar more attractive to all types of customers. In addition, the law will spur future construction of utility-scale solar projects that will serve thousands of customers.

With a number of solar facilities already in place, Duke Energy Florida announced it would add up to 700 megawatts of solar over the next four years. Part of that growth is already underway. The 75-megawatt Hamilton Solar Plant is under construction now, and will produce enough emissions-free energy to power more than 20,000 homes at peak production.

In Northern Kentucky, Duke Energy completed three solar facilities in Kenton and Grant counties – the first company-owned and operated plants in the state.

In Indiana, Duke Energy, the Department of the Navy and Naval Support Activity (NSA) Crane celebrated the operation of a 17-megawatt solar power plant at NSA Crane – also the company's first company-owned solar facility in the state.

In South Carolina, the company's successful solar rebate program continued, with about 2,600 customers signing up to take advantage of the company's program.

The company's commercial unit, Duke Energy Renewables, helped the company expand to a new state in 2017. The company acquired the 25-megawatt Shoreham Solar Commons project in New York.

Still, there was progress made on wind energy in 2017. In Kay County, Okla., the company's 200-megawatt Frontier Windpower Project began producing power. It's Duke Energy's first renewable energy project in Oklahoma. The company sells the output to City Utilities of Springfield, Mo.

The company continues to be on track for its sustainability goal of owning or purchasing 8,000 megawatts of wind, solar and biomass capacity by 2020. At the end of 2017, the company's overall total was 6,400 megawatts.



Heather Granados / Battery Storage Facility at Notrees Wind Power Plant – Goldsmith, TX

Battery Energy Storage Advances

A few years ago, battery energy storage was more demonstration than application.

But much of that changed in 2017 as Duke Energy began moving forward with energy storage projects that will help selected parts of the company's territory. With renewable energy growing across the company, improved battery storage is needed to work in conjunction with wind, solar and the energy grid to provide reliable service to customers.

In Indiana, Duke Energy is planning to install a 5-megawatt battery storage system and 3 megawatts of solar that will provide grid services, along with operating as a microgrid, at the Indiana National Guard's Camp Atterbury training operation. The microgrid – connected energy sources that can serve a customer on its own – will help with reliability and grid security at the camp.

Duke Energy has also included 75 megawatts of energy storage in its 2017 Integrated Resource Plan in the Carolinas. In Asheville, N.C., a 9-megawatt lithium-ion battery system will be placed at a Duke Energy substation in a local community. The battery will primarily be used to help the electric system operate more efficiently. It will provide energy support to the electric system, including frequency regulation and other grid support services.

In Hot Springs, N.C., a 4-megawatt lithium-ion battery system will help improve electric reliability for the town, along with providing services to the overall electric system.

Duke Energy has a smaller battery installation in Haywood County, N.C. The company has a 95-kilowatthour zinc-air battery and 10-kilowatt solar installation serving a remote communications tower on Mount Sterling in the Smoky Mountains National Park. During the aftermath of Hurricane Irma, the installation's microgrid operated without an outage to the facility.

As for the future, a settlement in Florida will allow the company to invest in up to 50 megawatts of battery energy storage in the state over the next five years. Duke Energy is currently evaluating sites for these deployments.



In 2017, Duke Energy moved forward with a number of battery storage projects that will be a part of the company's regulated operations.

Economic Development

Duke Energy works in partnership with state and local authorities to attract business investment and jobs, and promote economic growth in our communities. Duke Energy helped attract 12,000 jobs and \$5.9 billion of investments in 2017.



Ohio-Kentucky

Economic Development: Over 12,000 Jobs, \$5.9B in Investment

Duke Energy's economic development team – through 100 successful projects in 2017 – helped bring over 12,000 new jobs and \$5.9 billion in private-sector investment to the six states served by the company's electric utilities.

Site Selection magazine named Duke Energy to its "Top Utilities in Economic Development" list for the 13th consecutive year, citing the company's numerous successful collaborations with state and local economic development agencies and business organizations.

The magazine also recognized Duke Energy's efforts to build smarter energy infrastructure that bolsters recruitment of new businesses and reinforces retention of existing ones. Duke Energy's economic development specialists work year-round to help new companies worldwide open offices, manufacturing plants and other facilities in North Carolina, South Carolina, Florida, Indiana, Ohio and Kentucky.

The team also works hard to encourage existing companies in those states to expand at home, rather than look elsewhere.

In addition, the team in 2017 helped prepare 25 large-scale properties across four states for potential business and industrial development through Duke Energy's Site Readiness Program.

Under the program, Duke Energy helps identify highquality business and industrial sites, then partners with local government agencies and economic development professionals to build strategies to bring essential utilities – water, sewer, natural gas and electricity – to the properties.

Governance Ratings

To help keep our corporate governance practices strong, we benchmark against peer utilities and other best-in-class companies. The risk ratings provided for Duke Energy by ISS, a leading corporate governance advisory service to the financial community, are provided below. As of March 1, 2018, Duke Energy's overall ISS Governance QualityScore was 3.

	QuickScore 2016 ¹	QualityScore 2017 ¹	QualityScore 2018 ¹	Rating Scale
Board structure	2	3	5	1 = Lowest risk (best rating)
Compensation	2	1	3	10 = Highest risk
Shareholder rights	4	3	3	
Audit	1	1	2	
Overall score	2	1	3	
1 As of March 1.				Published with permission of ISS.

"The program helps communities – especially in rural areas – attract jobs and build thriving economies," says John Geib, Duke Energy's North Carolina Economic Development Director.

Separately, Duke Energy in 2017 provided more than \$1 million in financial support to local economic development agencies and initiatives to fund a variety of job creation and business development projects.

Additionally, the company continued its long-term financial investments in workforce development programs at community colleges, where classes and apprenticeships equip students with skills and training for tomorrow's jobs.

Encouraging Civic Participation

Educating lawmakers, policy advocacy and participation in America's democratic process are activities Duke Energy encourages.

Civic engagement is essential to ensuring that our elected officials hear and understand many voices and perspectives as they consider important issues and make decisions that can have significant impacts on our lives. Policy positions and priorities important to Duke Energy include infrastructure, tax and regulatory reform, renewables, environmental issues and cybersecurity.

Duke Energy's <u>Political Expenditures Policy</u> requires compliance with laws and regulations governing political contributions, government interaction and lobbying activities. The company is legally prohibited from making direct contributions to candidates for U.S. federal offices and certain state offices.

Duke Energy's Voices in Politics network educates and activates employees on political and policy issues that could affect our operations, employees or stakeholders. These efforts are for the purpose of making sure lawmakers fully understand the direct impacts of their decisions on Duke Energy and the customers and communities we serve.

In 2017, our reportable federal lobbying expenses (including office space, salaries, consulting and event fees, etc.) included \$2,296,595¹ in dues to support policy research and advocacy by trade associations such as the Edison Electric Institute and the Nuclear Energy Institute. Duke Energy also contributed approximately \$918,200² to Section 527 organizations created to support the nomination, election, appointment or defeat of a candidate.

DukePAC is a voluntary, nonpartisan political action committee that leverages the collective financial contributions of eligible employees to support political organizations and candidates seeking elected office at the federal and state levels. These candidates represent the communities we serve, are leading members of their elected legislative body or serve on relevant committees that impact the company's business, employees, customers and communities. In 2017, DukePAC contributions totaled approximately \$708,780.

1 Represents trade association dues of more than 50,000 during 2017. 2 For contributions in excess of 1,000.



In Florida, the Sabal Trail natural gas pipeline and Citrus County natural gas-fired power plant.

Lower-Carbon Energy: Natural Gas Pipelines, Power Plants

Natural gas continues to play an expanding role in Duke Energy's ongoing transformation into a cleaner, lower-carbon energy provider as the company increasingly moves away from coal-fired electricity generation.

Two new underground **interstate natural gas pipelines**, partly owned by Duke Energy, took major steps forward in 2017:

The Atlantic Coast Pipeline received several state and federal government approvals, allowing partial construction to begin in early 2018. The approximately 600-mile pipeline – which will start in West Virginia and traverse Virginia before ending in North Carolina – is scheduled to open in late 2019.

The pipeline will fuel advanced natural gas power plants that are replacing aging, higher-carbon, coal-fired plants. The pipeline also will fuel new industrial development in several economically challenged counties in eastern North Carolina – bringing thousands of new, higherwage jobs for the region's workers and critically needed new tax revenue for cash-strapped local governments.

Meanwhile, a second new pipeline – Sabal Trail – opened after 18 months of construction, bringing a significant new supply of natural gas to Florida to fuel power plants and industry in that heavily gas-dependent state. The 515-mile pipeline begins in Alabama and traverses southern Georgia before terminating in central Florida.

Simultaneously, construction of new **natural gas-fired power plants** continued in Anderson County, S.C. (opening in 2018); Citrus County, Fla. (opening in 2018); and Buncombe County, N.C. (opening in 2019). The three plants will replace older coal-fired generating units at each location. The new plants also will complement the company's growing use of solar and wind facilities, whose power output is intermittent.



Natural gas continues to play an expanding role in Duke Energy's ongoing transformation into a cleaner, lower-carbon energy provider.

Investing in a Smarter Energy Future in Multiple Ways

Duke Energy in 2017 continued to invest in a smarter energy future in multiple ways:

- Modernizing the energy grid. The company is investing \$25 billion between 2017 and 2026 to create a smarter energy grid that will accommodate additional renewable energy and improve system performance in many aspects – customer control and convenience, security, and service reliability. (See related article on page 18: <u>"Electric Grid Modernization Continues on Several Fronts."</u>)
- Generating cleaner energy. The company continues to make significant progress in reducing its environmental footprint – reducing carbon dioxide emissions by closing coal-fired power plants and investing \$11 billion between 2017 and 2026 in cleaner natural gas-fired power plants, solar energy and other renewable generation sources.
- Expanding natural gas infrastructure. Natural gas will play a major role in Duke Energy's cleaner energy future. The company is investing heavily in natural gas-fired power plants and interstate natural gas pipelines, and retrofitting three large coal-fired power plants to also burn natural gas. (See related articles on pages 28 and 36: <u>"Lower-Carbon Energy: Natural Gas Pipelines, Power Plants"</u> and <u>"Gas Co-Firing Offers Many Positive Benefits."</u>)
- Transforming the customer experience. Duke Energy exists to serve its customers, and the company is working hard to further improve the overall customer experience. New technology is shortening and even eliminating power outages. Smart meters are giving customers new ways to manage and reduce their electricity usage, and save money. New electric vehicle charging stations are giving customers new transportation fuel options.
- Engaging stakeholders. Fortune magazine named Duke Energy to its 2018 "World's Most Admired Companies" list – an indication that Duke Energy's many diverse stakeholders recognize and value the company's continued progress on its futurefocused journey. The company continues to work collaboratively with regulators, legislators, environmentalists, consumer advocates and many others on its multipronged modernization initiatives.

Moving Toward a Cleaner Generation Fleet and Increased Fuel Diversity

(megawatt-hour output)

2005(1)









1. 2005 and 2017 data based on Duke Energy's ownership share of generation assets as of Dec. 31, 2017.

2. 2030 estimate will be influenced by customer demand for electricity, weather, fuel availability and prices.

Trucks Plug In, Save Fuel and Help the Environment

Long-haul trucks idling their engines aren't unusual. Many times it's for the comfort of the driver or the need to keep cargo refrigerated.

It also uses about 1 billion gallons of fuel a year, according to Argonne National Laboratory. That costs roughly \$3 billion and 11 million tons of carbon dioxide released into the environment, not to mention wear and tear of engines.

Is there a better way? Duke Energy thinks so.

Projects funded by Duke Energy in North Carolina are getting drivers and companies to use electricity instead of running their engines.

At the Big Boy Truck Stop in Johnston County, Duke Energy worked with IdleAir to install 24 electrification units. Truckers pay an hourly fee to plug in. In addition to avoiding emissions, truckers will save around \$1 an hour compared to fuel costs.

In Hickory, 36 electric outlets help trucks at the Merchants Distributors (MDI) distribution center keep cargo cold for their fleet of trucks. Shorepower Technologies installed the power outlets. The outlook for future projects looks good as companies like MDI see electrification as a way to reduce environmental emissions and save money. The two projects, which are part of a 2015 settlement with the U.S. Environmental Protection Agency and environmental groups, are expected to save more than 50,000 gallons of diesel fuel a year.

While that's a small part of the 38 billion gallons of diesel fuel used each year by trucks on the highway, it's just one part of what Duke Energy is doing to promote electricity as a cleaner transformation fuel for the country.

The company has been active in building hundreds of public charging stations at parking decks, libraries and shopping areas. That infrastructure is needed as electric vehicles become a growing part of the nation's auto fleet, and the effort will continue in 2018 with Duke Energy Florida installing more than 500 charging stations.

In North Carolina, Duke Energy is continuing a project that will ultimately fund more than 200 public EV charging stations under a \$1.5 million grant program.

Financial Highlights

(In millions, except per share data) 1	2017	2016	2015
Total operating revenues	\$23,565	\$22,743	\$22,371
Income from continuing operations	\$3,070	\$2,578	\$2,654
Reported diluted earnings per share (GAAP)	\$4.36	\$3.11	\$4.05
Adjusted diluted earnings per share (Non-GAAP)	\$4.57	\$4.69	\$4.54
Dividends declared per share	\$3.49	\$3.36	\$3.24
Total assets	\$137,914	\$132,761	\$121,156
Long-term debt including capital leases, less current maturities	\$49,035	\$45,576	\$36,842

1 See Duke Energy's Annual Report on Form 10-K/A for the year ended Dec. 31, 2017 for detailed notes and further explanations.





The company is already seeing the benefits of our multiyear portfolio transition and our regulated and highly contracted energy infrastructure businesses are generating strong results.

Delivering Results for Shareholders and Customers

Our stakeholders depend on us to deliver on our commitments and we did just that in 2017. From financial results to the dividend, the company created sustainable value for our shareholders, and this focus will continue into 2018 and beyond.

In 2017, Duke Energy achieved adjusted diluted earnings per share of \$4.57. The company is already seeing the benefits of our multiyear portfolio transition and our regulated and highly contracted energy infrastructure businesses are generating strong results.

Through investments in the energy grid, cleaner generation sources and natural gas infrastructure, as well as a keen focus on cost management, the company delivered on its financial commitments to shareholders.

The company experienced solid growth in its electric and natural gas utilities. The company has reaffirmed its adjusted diluted earnings per share growth objective of 4 to 6 percent from 2018 to 2022, based off of the midpoint of the original 2017 guidance range of \$4.50 to \$4.70 per share. The company has also factored in the impacts of the new federal tax law – and is working constructively with our state regulatory commissions to identify ways to pass along savings to customers, while also upholding the sustainable financial health of the company.

Duke Energy remains committed to offering an attractive long-term investment to its shareholders. 2018 will mark the 92nd consecutive year we have paid a dividend to our shareholders. Duke Energy grew that dividend by about 4 percent in 2017.

Duke Energy's total shareholder return – measured as the change in stock price plus the reinvestment of dividends – for 2017 was 13.0 percent, compared to 12.8 percent for the Philadelphia Utility Index (20 U.S. utilities) and 21.8 percent for the S&P 500 during the same period. Despite solid returns to investors in 2017, the utility sector trailed the overall market based on larger trends like federal tax reform outcomes and rising interest rates.



3 OPERATIONS

Excel in Safety, Operational Performance and Environmental Stewardship

2017 Highlights

- Maintained industry leading safety performance with a Total Incident Case Rate (TICR) of 0.36, the best ever for Duke Energy.
- Reduced the annual number of reportable environmental events for the third year in a row.
- For the second straight year, achieved a nuclear capacity factor above 95 percent – nearly setting a company record.
- Since 2005, decreased carbon dioxide emissions by 31 percent, sulfur dioxide emissions by 96 percent and nitrogen oxides emissions by 75 percent.
- Announced dual-fuel projects at three existing coal-fired power plants, which will allow them to use either coal and/or natural gas to produce electricity.
- Received approval from the Federal Energy Regulatory Commission to amend the license for the Catawba-Wateree Hydroelectric Project to raise summer target lake levels. This will extend the water yield of the lake system one decade beyond current conditions.
- Recycled 80 percent of our solid waste, achieving our 2018 goal a year early. This enabled the company to divert 87,200 tons of solid waste from landfills.

Challenges and Opportunities

- Maintain top-decile safety performance in TICR and continue to focus on the prevention of serious injuries to our employees and contractors.
- Continue to demonstrate our commitment to operational excellence, which is a foundation to any success we achieve.
- Significantly decrease outage frequency and duration for our customers through our grid modernization programs.
- Invest \$11 billion in cleaner generation during 2017-2026.
- Continue to move to a lower-carbon future by reducing our carbon dioxide emissions by 40 percent from the 2005 level by 2030.



Environmental protection is "part of our internal cultural and corporate DNA," says Duke Energy's Pat McCabe, Environmental Projects and Programs Director.

Environmental Protection: A Top Priority Every Day

Duke Energy makes environmental protection a top priority every day.

That strong commitment, coupled with Duke Energy's comprehensive <u>environmental management system</u>, continues to drive down the annual number of reportable environmental events at the company's numerous power plants and other facilities in multiple states for the third consecutive year.

Reportable environmental events are defined as events – resulting from Duke Energy operations – that require notification to, or enforcement action by, a county, state or federal environmental regulatory agency.

"We build a margin of safety into our work plans to ensure projects are conducted in an event-free way. This helps us reduce risk and prevent accidents," says Jeff Hatch, a Duke Energy Project Manager.

Hatch oversaw a successful and environmentally sensitive job that required replacement of oil-filled transformers within 120 feet of the Catawba River at one of the company's power plants in Belmont, N.C., in 2017.

"We hold both our employee and contractor teammates to a high standard – and we aren't afraid to stop work if we see something that isn't right," Hatch says.

Duke Energy's environmental management system outlines the role that each employee and contractor plays in continuously improving and strengthening environmental protection.

Elements include comprehensive planning, hazard and risk assessment, thorough checklists, continuous monitoring, regular inspections and in-depth audits.

Duke Energy empowers and encourages every employee and contractor to proactively identify and immediately address any potential environmental risk or hazard – no matter how small.

"Environmental protection and stewardship together represent critically important cornerstones of our daily operations at Duke Energy," says Pat McCabe, Environmental Projects and Programs Director. "They're part of our internal cultural and corporate DNA."



Environmental protection and stewardship together represent critically important cornerstones of our daily operations at Duke Energy.



Duke Energy is the first U.S. windpower operator to commercially deploy a new technology designed to prevent eagle collisions with rotating wind turbine blades.

Protecting Eagles While Generating Carbon-Free Energy

Duke Energy is installing new eagle protection technology at its Top of the World Windpower Project in Wyoming to detect in-flight eagles and prevent their collision with rotating wind turbine blades.

Duke Energy is the first windpower operator in the U.S. to commercially deploy the new system, called IdentiFlight, which uses artificial intelligence and high-precision optical technology to ensure the successful coexistence of wind energy and eagles.

The system, designed by IdentiFlight International, LLC, will quickly detect an eagle flying within a onekilometer hemisphere of any one of 24 IdentiFlight monitoring units being installed at the site.

If an eagle's speed and flight path indicate a potential risk of collision with a wind turbine, the monitoring unit will send an automatic alert to the facility's operators. The operators then can immediately shut down the specific wind turbine in the eagle's flight path, reducing the risk of collision.

"Duke Energy understands the importance of balancing the need to generate clean, carbon-free, renewable energy with the equally important need to protect wildlife, including the iconic bald and golden eagles," says Tim Hayes, Duke Energy Renewables environmental director.

Adds IdentiFlight president Tom Hiester: "Duke Energy has been an amazing partner throughout the testing and development of the IdentiFlight technology, and has proven to be at the forefront of the industry in addressing this critical issue."

More information and photos – https://illumination.duke-energy.com/ articles/wind-farm-tests-technology-toprotect-eagles.



Duke Energy understands the importance of balancing the need to generate clean, carbonfree, renewable energy with the equally important need to protect wildlife.

Safety Performance Metrics¹

	2014	2015	2016	2017
Employee and contractor work-related fatalities	4	5	0	2
Employee Total Incident Case Rate (TICR) ^{2,3}	0.58	0.41	0.40	0.36
Employee Lost Workday Case Rate (LWCR) ^{2,4}	0.17	0.18	0.15	0.15
Contractor Total Incident Case Rate (TICR) ³	1.05	1.18	0.875	0.80 ⁵
Contractor Lost Workday Case Rate (LWCR) ⁴	0.28	0.21	0.155	0.10 ⁵

1 Does not include Piedmont Natural Gas results, which are tracked separately.

2 Includes both employees and workforce augmentation contractors.

3 Number of recordable incidents per 100 workers (based on OSHA criteria). Top decile in 2016 for employee TICR was 0.47 (based on latest data available from the Edison Electric Institute for companies with more than 7,000 employees).

4 Number of lost workdays per 100 workers.

5 We have a systematic process in place for collecting productive work hours for the majority of the contractor fleet.

Leading the Way on Safety

Ensuring the health and safety of Duke Energy employees, contractors and communities is an integral part of what we do. The company is always striving for an injury and illness-free workplace.

In 2017, Duke Energy's safety performance was strong, with an employee Total Incident Case Rate (TICR) of 0.36 – the best ever for Duke Energy and one of the best in the industry.

Piedmont Natural Gas employees also made significant progress in safety performance. Under the leadership of a safety improvement team that worked to adopt Duke Energy's safety programs and processes, Piedmont finished the year with a TICR of 1.65 – not as positive as the Duke Energy mark, but much better than the previous year. In this metric, the lower the score, the better.

Duke Energy successfully implemented a summer safety campaign, which educated workers about heatrelated illnesses and other warm-weather hazards, and a program to effectively address minor injuries through a team of on-site nurses. The company will build on those successes in 2018 with initiatives focusing on hazards, ergonomics and safe driving.

Although pleased with the company's overall performance, two work-related fatalities and three life-altering injuries mean there is still work to do. Reducing the number of serious injuries will be a focus for Duke Energy in 2018 as the company strives to have the safest workplace in the industry.

On the Path to a Lower-Carbon Future

Duke Energy is excited about the transformation underway in the industry and is committed to meeting the expectations of our customers – now and into the future.

For more than 10 years, Duke Energy has been planning for a lower-carbon future, investing in innovative technologies to modernize and diversify our system, and executing on our strategy to deliver greater value and cleaner energy for customers.

Back in 2005, coal accounted for 58 percent of the power the company produced. Fast forward to 2017, coal was only 33 percent of the total generation and over 38 percent of the power produced was from zero carbon sources.

Carbon dioxide (CO_2) emissions are down 31 percent since 2005, and the company has set our sights on even greater progress. By 2030, only one-fifth of the power Duke Energy produces will be from coal, and 80 percent of the energy produced will be from zeroand lower-CO₂ emissions sources.

Duke Energy has set an ambitious goal to reduce total CO_2 emissions 40 percent by 2030, compared to 2005 levels, which is consistent with a pathway to achieve a science-based climate target.

Reducing reliance on coal, leveraging cleaner natural gas energy and expanding renewables on our system is part of our long-term investment strategy to continue to drive carbon out of our system. As we have done for over a decade, we'll consider CO_2 emissions in our investment planning and focus on finding ways to quickly deploy emerging technologies into our portfolio.

You can read more in the company's <u>Climate Report</u>.

Gas Co-Firing Offers Many Positive Benefits

In the energy industry, the more options the better.

That's part of Duke Energy's effort to allow dual-fuel optionality at some of its coal-fired power plants in North Carolina.

What is dual-fuel optionality? It allows certain generating units to produce electricity using either coal and/or natural gas – sometimes referred to as gas co-firing.

Co-firing provides a number of benefits to the company, customers and the environment. By using natural gas instead of coal, the company can lower its overall carbon dioxide emissions.

It also allows the company to take advantage of the price difference between coal and natural gas. Customers save when the company can lower its overall fuel costs.

At the Rogers Energy Complex, the company is pursuing co-firing up to 40 percent natural gas at unit 5; and 100 percent at unit 6.

At the Belews Creek Station, the company is looking at co-firing up to 50 percent natural gas at both of the coal units. The company will also invest

Coal Plant Retirements

Retired Coal Units¹

	Location	Units	Total capacity (megawatts)	Actual retirement date
Cliffside Steam Station	N.C.	1, 2, 3, 4	198	2011
Buck Steam Station	N.C.	3, 4	113	2011
Edwardsport Generating Station	Ind.	6, 7, 8	160	2011
W.H. Weatherspoon Plant	N.C.	1, 2, 3	177	2011
Gallagher Generating Station	Ind.	1, 3²	280	2012
Cape Fear Plant	N.C.	5, 6	316	2012
Beckjord Station	Ohio	1	94	2012
Dan River Steam Station	N.C.	1, 2, 3	276	2012
H.F. Lee Plant	N.C.	1, 2, 3	382	2012
Robinson Plant	S.C.	1	177	2012
Buck Steam Station	N.C.	5, 6	256	2013
Riverbend Steam Station	N.C.	4, 5, 6, 7	454	2013
Sutton Plant	N.C.	1, 2, 3	575	2013
Beckjord Station	Ohio	2, 3	222	2013
Beckjord Station	Ohio	4, 5, 6	543	2014
W.S. Lee Steam Station	S.C.	1, 2	200	2014
W.S. Lee Steam Station	S.C.	3	170	2015 Converted to natural gas
Miami Fort Station	Ohio	6	163	2015
Wabash River Generating Station	Ind.	2, 3, 4, 5, 6	668	2016
Total			5,424	

Planned Coal Unit Retirements

	Location	Units	Total capacity (megawatts)	Planned retirement date
Crystal River Energy Center	Fla.	1, 2	766	2018
Asheville Station	N.C.	1, 2	378	2019
Gallagher	Ind.	2, 4	280	Retire or cease burning coal by 2022
Allen Steam Station	N.C.	1, 2, 3	582	2024
Total			2,006	

TOTAL ACTUAL/PLANNED RETIREMENTS 7,430

1 In addition to coal unit retirements, a number of older oil/natural gas generation units have been or will be retired.

2 Per a 2009 settlement agreement with the U.S. Environmental Protection Agency.

more than \$200 million to begin co-firing at all four coal units at the Marshall Steam Station.

Co-firing also enables Duke Energy to make the best use of its existing power plants and still take advantage of attractive natural gas pricing.

The flexibility and cost savings gained by operating existing coal units on gas are achieved at a much lower capital investment than building a new combined cycle power plant. Gas retrofits cost about 10 percent of the cost of a new combined-cycle unit.

Collaboration Helps Preserve Shared Water Supply

Stakeholder engagement and collaboration are key to Duke Energy's success as a strong community partner and environmental steward.

The Catawba-Wateree River Basin, with 11 interconnected reservoirs and 13 hydropower stations managed by Duke Energy, provides water for nearly 2 million people and enough electricity to power about 3.7 million homes.

The most densely populated river basin in North Carolina is facing long-term challenges, with the overall water demand expected to more than double by 2065.

In response, the Catawba-Wateree Water Management Group developed a water supply master plan in 2014 to protect and extend the available water supply of the Catawba-Wateree River and its reservoirs by 50 additional years, to support economic growth into the next century.

Created in 2007 during the stakeholder process to relicense the Catawba-Wateree Hydroelectric Project, the nonprofit corporation includes Duke Energy and 18 public water utilities in North Carolina and South Carolina. In May 2017, Duke Energy asked the Federal Energy Regulatory Commission (FERC) to amend the license for the Catawba-Wateree Hydroelectric Project to include several key provisions of the new water supply master plan. These include raising summer normal target elevations by 6 inches on three of the largest storage reservoirs – Lake James, Lake Norman and Lake Wylie – and revising the basin's drought response protocol to allow Duke Energy's hydro system to respond more quickly to changing drought conditions. The FERC approved the license amendment on January 22, 2018.

Raising the summer target lake levels, to be implemented following enhancements to Wateree Dam, will increase overall available storage by about 8 billion gallons, extending the water yield of the Catawba-Wateree lake system by one decade beyond current conditions.

Water is a limited and shared resource. This collaboration between Duke Energy and its regional stakeholders places the river basin's shared water supply on a stronger foundation for decades to come.

Keeping Our Infrastructure and Information Secure

The headlines on cyberattacks can be alarming, but protecting the nation's energy grid to ensure a reliable supply is of paramount importance to the electric industry.

Duke Energy builds layers of security to provide rapid detection and response to possible cyberattacks. The company also focuses on properly isolating any impacted devices or systems. For example, in 2017 the company received 2.2 billion emails to our system. More than 94 percent of those did not meet our security criteria and were blocked by our controls.

Raising the summer target lake levels will increase overall available storage by about 8 billion gallons, extending the water yield of the Catawba-Wateree lake system by one decade. The company maintains an aroundthe-clock incident response team of highly skilled cybersecurity professionals devoted to this topic. Duke Energy also coordinates with national labs, government agencies and law enforcement officials to best protect our energy grid and technology systems, share information and develop protective standards. Working with industry partners and vendors, the company ensures it's taking steps to protect systems and data.

Duke Energy has detailed cybersecurity reporting requirements and strong partnerships to prevent and respond to threats. The company's businesses have mandatory and enforceable cybersecurity standards to protect critical infrastructure. These extensive measures help keep networks safe and prevent those wanting to do harm.

Duke Energy is also a member of the Electricity Subsector Coordination Council. Similar to other industry organizations, this group provides a forum to collaborate and coordinate with energy companies, government agencies and security organizations.

This association focuses on reducing threats through preparation, prevention, response and recovery, and supports initiatives and policies that improve the security of the industry and nation.

With ever-increasing threats, Duke Energy is committed to the safety and security of our energy grid, and businessrelated networks and information. Cybersecurity is a critical element of that effort.

Reliable Power

Reliable power is one of Duke Energy's core commitments to the more than 24 million people we serve. Each year the company sets power delivery reliability targets for the number and duration of power outages, and generation fleet performance targets.

Power Delivery

Weather was 40 percent worse (more storms) during the first half of 2017 compared to the previous year, resulting in an increase to Duke Energy's average time without power of 10 minutes. During the second half of 2017, weather returned to a normal pattern (except for Hurricane Irma), improving average time without power by 3 minutes. The average number of outages remained relatively stable.

Outage Statistics

					2017
	2014	2015	2016	2017	Target
Average number of outages ^{1, 2} (occurrences)	1.13	1.16	1.17	1.18	1.18
Average time without power ^{1, 2} (minutes)	122	131	144	151	135

 Outages with a duration greater than 5 minutes; statistics are reported per customer, excluding major storms

2 Lower numbers indicate better performance.

Generation

Duke Energy's diverse generation fleet includes carbon-free nuclear, hydro, wind and solar; lower-carbon natural gas; and higher-carbon coal. This fleet reliably met customer demand and recorded another year of great performance during 2017.

Nuclear fleet capacity factor, which is a measure of generation reliability, exceeded 90 percent for the 19th consecutive year, decreasing slightly from 95.7 percent in 2016 to 95.6 percent in 2017. The fossil fleet's commercial availability increased from 84.7 percent in 2016 to 88 percent in 2017. The commercial renewables fleet's renewables availability increased from 94.2 percent in 2016 to 94.6 percent in 2017.

Generation Reliability

					2017
	2014	2015	2016	2017	Target
Nuclear capacity factor	93.2%	94.2%	95.7%	95.6%	94%
Fossil commercial availability ³	85.9%	87.4%	84.7%	88.0%	87%
Renewables commercial availability ³	96%	93.3%	94.2%	94.6%	94.5%

3 Based on units operated by Duke Energy and ownership share.



Debbie Hauliska / José Estela / Investigators for the Piedmont Natural Gas Anti-Theft Team

Gas Anti-Theft Team Makes a Difference

Curbing natural gas theft is a full-time job for Debbie Hauliska and José Estela – both of whom are investigators for the Piedmont Natural Gas anti-theft team.

Their targets are people who steal or tamper with natural gas meters, and their efforts have cut thefts by 75 percent in five years, with the number of cases dropping from 2,214 in 2012, to just 557 at the end of 2017.

Using cutting-edge technology and relationships they've formed with local law enforcement, Hauliska and Estela canvass areas of Charlotte, N.C. looking for signs of natural gas theft. Signs include covered or altered natural gas meters, missing meters, and meters with hoses or other tubing used to bypass or otherwise alter the flow of natural gas.

Tampering with natural gas meters can be extremely dangerous, so theft detection serves to remove safety hazards. This is also an important task since the cost of stolen natural gas is shared among all customers. But Hauliska and Estela's work is having a quieter, more far-reaching positive effect – it's identifying people who need help. When the team locates a site where natural gas is being stolen or used illegally, they are obligated to remove the meter and cut off the flow of natural gas. But this team recognizes that some people steal natural gas because they simply can't afford to pay for it.

"I carry a card with the number for Crisis Assistance on it," Estela said. "I don't know what's on the other side of that door. I'll work with you. It's rough out there."

Crisis Assistance Ministry is an agency in Mecklenburg County, N.C., providing the working poor with emergency rent and utility assistance, clothing, household goods and furniture. Piedmont Natural Gas supports Crisis Assistance Ministry through its Share the Warmth program – an optional program that rounds up a Piedmont customer's bill to the nearest dollar and then donates all the proceeds to help people in need pay their utility bills, regardless of which utility they use.

Hauliska estimates that since 2012, she and Estela have referred at least 250 families to Crisis Assistance for help.



Hauliska and Estela's work is also having a quieter, more far-reaching positive effect — it's identifying people who need help.

Predicting Breakdowns Before They Happen

Breakdowns happen to mechanical and electrical equipment – including Duke Energy power plants. Imagine the benefits if the equipment could tell us when a breakdown is about to occur.

Duke Energy has an effort underway to increase the use of predictive maintenance using various sensor devices, which is moving the company in the right direction.

Right now, more than 30,000 sensors are in place on critical company machinery at several coal and gas-fired power plants. Among other things, a breakdown at these plants could mean less efficient plants would be brought online to take their place. A negative both financially and environmentally.

Predictive maintenance examines data gathered from sensors on large pieces of equipment – like transformers at a power plant. Company experts can sort through the data to find irregularities that suggest a breakdown is likely.

From there, company technicians can apply analytical tools or physically examine the equipment to gather additional data to see if any action is needed.

An example at the Sutton Power Plant in North Carolina illustrates how the process works:

Data gathered by the sensors indicated a breakdown might occur at a main transformer at the plant. An in-person inspection confirmed the finding.

But there was one problem: The weather was extremely cold during that time, and the plant was needed to meet the critically high demand for electricity.

In the end, the transformer was closely monitored for a short time

until the extreme cold subsided and the transformer was fixed before any breakdown occurred.

Duke Energy's team has dozens of such examples where data gathered from sensors helped solve a potential problem.

In the future, Duke Energy will continue to use new technologies to maintain reliability at its power plants – making sure the cleanest and most costeffective plants are running to meet the needs of its customers.

Coal Ash Basin Work Progressing Well

Work at coal ash basins across the states Duke Energy serves was bustling in 2017 as the company continued excavating at some sites and preparing other basins for safe closure.

The company has proposed a combination of excavating some basins and capping others in place with a synthetic barrier based on site-specific engineering and scientific studies.

All closure plans will be designed to protect the environment and communities we serve. In addition to meeting state and federal requirements, these closure plans help manage costs for customers, minimize community disruption and mirror how most utilities across the nation will close basins.

To date, the company has safely excavated and relocated nearly 17 million tons of ash systemwide, with 7.2 million tons removed in 2017.

At operating coal plants, the company is investing in the technology needed to take ash basins out of service. This includes constructing new, lined retention basins for wastewater management, installing state-of-theart treatment systems and adding new equipment to manage bottom ash in a



An effort underway to increase the use of predictive maintenance using various sensor devices is moving the company in the right direction.



Duke Energy continues to look for innovative ways to recycle and reuse coal ash. Overall, Duke Energy successfully recycled about 70 percent of the coal ash produced at its operating power plants in 2017.

dry form. These plants have been managing fly ash in lined landfills for a number of years.

Duke Energy continues to look for innovative ways to recycle and reuse coal ash. Overall, Duke Energy successfully recycled about 70 percent of the coal ash produced at its operating power plants in 2017.

A valuable construction material, ash makes concrete products stronger and more durable. The company has announced ash reprocessing units at three sites in North Carolina that will make nearly 1 million additional tons of ash suitable for the concrete industry. This will enhance the company's ability to recycle basin ash that typically can't be used for concrete without additional processing.

Carbon-Free Nuclear Yields Another Stellar Year

As Duke Energy's largest carbon-free energy resource, operating an efficient nuclear fleet is critical to customers and the environment.

Duke Energy's 11 nuclear generating units posted a strong operating performance in 2017, providing North Carolina and South Carolina with nearly 90 billion kilowatt-hours of clean electricity – more than 50 percent of the electricity generation in those two states and about one-third of the company's entire generation output.

Nuclear generation avoided the release of 82 million metric tons of carbon dioxide in 2017 – as much as is released from more than 17 million passenger vehicles during a year.

A few highlights:

- The company's fleet achieved a combined capacity factor of more than 95 percent, which is above the national average. It was the 19th consecutive year the fleet capacity factor exceeded 90 percent.
- Both Catawba Nuclear Station and Harris Nuclear Plant set records for the amount of energy produced in a 12-month period.
- Both units at McGuire Nuclear Station posted their shortest ever refueling outages, thus maximizing their availability for generation.
- A unit at Brunswick Nuclear Plant achieved a record operating run of almost 712 consecutive days.
- A unit at Oconee Nuclear Station accomplished a record operating run of more than 715 consecutive days, which is also a new company record.
- The Robinson Nuclear Plant team completed the station's 30th refueling outage, which included a main generator stator replacement, well ahead of schedule.

The company is currently evaluating the possibility of seeking additional license extensions from the Nuclear Regulatory Commission for its currently operating nuclear plants. This would allow the generating units to operate up to 80 years if it makes economic sense and provides benefits to customers.

As for building new nuclear plants, Duke Energy notified the Nuclear Regulatory Commission that it does not intend to build previously planned units in Levy County, Florida. Duke Energy maintains its licenses for two new nuclear units near Gaffney, S.C., as an option for future generation.

Environmental Performance Metrics

2017 Electricity Generated and Generation Capacity¹

	Electricity Generated (net megawatt hours)		Generation (megav	Capacity vatts)
	MWh (thousands)	Percent	MW	Percent
Total carbon-free	84,772	38.6%	13,445	25.6%
Nuclear	73,892	33.7%	8,854	16.8%
Wind	6,908	3.2%	2,311	4.4%
Conventional hydro	2,203	1.0%	1,417	2.7%
Solar	1,769	0.8%	863	1.6%
Total lower-carbon	62,372	28.4%	18,813	35.8%
Natural gas	62,372	28.4%	4,561	8.7%
Natural gas/oil ²			14,252	27.1%
Total higher-carbon	73,146	33.3%	18,159	34.6%
Coal	73,049	33.3%	17,788	33.9%
Oil	97	0.0%	371	0.7%
Pumped-storage hydro ³	(868)	-0.4%	2,140	4.1%
Total	219,422	100.0%	52,557	100.0%

2017 electricity generated and generation capacity

Duke Energy has a diverse, increasingly clean generation portfolio. Over 38 percent of the electricity we generated in 2017 was from carbon-free (nearly zero carbon emissions) sources, including nuclear, wind, hydro and solar. Over 28 percent was from lower-carbon natural gas, which emits about half as much carbon dioxide as coal when used for electric generation. One-third was from highercarbon coal and oil. Taken together, owned and purchased renewables are equivalent to almost 9 percent of our generation. Duke Energy Renewables sells the electricity and/ or Renewable Energy Certificates (RECs) it generates to its customers.

1 All data, except for purchased renewables, based on Duke Energy's ownership share of generating plants as of Dec. 31, 2017. Totals may not add up exactly because of rounding.

7.855

Equivalent to

3.6%

2 Uses nearly all natural gas. Oil can be used as a backup fuel.

3 Pumped-storage hydro helps meet peak demand and, like other storage technologies, consumes more energy than it produces.

2017 Electricity Generated*



Purchased renewables

2017 Generation Capacity^{*}

3.354

Equivalent to

6.4%



* Excludes pumped-storage hydro.

Fuels Consumed For Electric Generation⁴

	2008	2015	2016	2017
Coal (million tons)	63.1	32.6	31.7	31.1
Oil (million gallons)	230.6	44.1	29.5	30.1
Natural gas (billion cubic feet)	163.4	501.1	545.2	496.6

4 All data based on Duke Energy's ownership share of generating assets as of the end of each calendar year.

Fuels consumed for electric generation

Since 2008, the use of coal and oil as generation fuels has significantly decreased. These fuels have been replaced primarily by natural gas, mostly because it has become a relatively less expensive fuel and we have added natural gas generation capacity.

Water withdrawn and consumed for electric generation

Water withdrawn is the total volume removed from a water source, such as a lake or a river. Because of the once-through cooling systems on many of our coal-fired and nuclear plants, almost 99 percent of this water is returned to the source and available for other uses. Water consumed is the amount of water removed for use and not returned to the source.

Emissions from electric generation

Many factors influence emissions levels and intensities, including generation diversity and efficiency, demand for electricity, weather, fuel availability and prices, and emissions controls deployed. Since 2005, our carbon dioxide (CO₂) emissions decreased by 31 percent, sulfur dioxide (SO₂) emissions decreased by 96 percent and nitrogen oxides (NO₂) emissions decreased by 75 percent. These decreases are primarily due to addition of pollution control equipment, decreased coal generation, increased natural gas generation, and replacement of higher-emitting plants.

Water Withdrawn and Consumed for

Electric Generation (billion gallons)

	2011	2015	2016	2017
Withdrawn	5,900	5,723	5,341	5,293
Consumed	105	79	74	71
Consumption intensity (gallons per MWh generated)	456	361	337	324

Emissions From Electric Generation⁵

	2005	2015	2016	2017
CO ₂ emissions (thousand tons)	153,000	109,000	108,000	105,000
CO ₂ emissions intensity (pounds per net kWh)	1.29	1.00	0.97	0.96
SO ₂ emissions (tons)	1,107,000	106,000	61,000	46,000
SO ₂ emissions intensity (pounds per net MWh)	9.3	1.0	0.6	0.4
NO _x emissions (tons)	244,000	78,000	73,000	62,000
NO _x emissions intensity (pounds per net MWh)	2.1	0.7	0.7	0.6
CH ₄ emissions (CO ₂ equivalent) (thousand tons)	420	244	236	230
N ₋ O emissions (CO ₂ equivalent) (thousand tons)	731	416	402	391

5 All data based on Duke Energy's ownership share of generating assets as of Dec. 31, 2017. Totals may not add up exactly due to rounding.

Sulfur Dioxide and Nitrogen Oxides Emissions (tons)⁶ and Electricity Generation (thousand net megawatt-hours)



6 SO₂ and NO_x reported from Duke Energy's electric generation based on ownership share of generating assets.

Methane emissions from pipeline operations

Methane (CH₄) is the primary component of natural gas, and is a greenhouse gas. We work to minimize methane emissions, but some is released during pipeline operations and maintenance. Duke Energy is a founding partner of the U.S. EPA's Natural Gas Star Methane Challenge program, which is aimed at cost-effective technologies and practices that improve operational efficiency and reduce methane emissions.

Methane Emissions from Pipeline Operations

(thousand tons) 7

	2015	2016	2017
CH ₄ emissions (CO ₂ equivalent)	184	184	248
7 Piedmont Natural Gas is included beginning in 2017			

Sulfur Hexafluoride Emissions from Electric Transmission and Distribution Operations (thousand tons)⁸

	2015	2016	2017
SF ₆ emissions (CO ₂ equivalent)	291	570	552
0. SE emissions fluctuations are due to maintenance, replacement and storm repair pands			

8 SF₆ emissions fluctuations are due to maintenance, replacement and storm repair needs

Toxic Release Inventory (thousand pounds)⁹

	2007	2014	2015	2016
Releases to air	97,969	18,297	10,396	6,074
Releases to water	257	152	145	212
Releases to land	22,052	12,948	9,666	9,738
Off-site transfers	155	3,579	1,363	2,628
Total	120,434	34,976	21,570	18,652

9 Data pertain to electric generation facilities Duke Energy owns or operates and where Duke Energy is the responsible reporting party. Totals may not add up exactly due to rounding.

Waste

	2014	2015	2016	2017
Solid waste Total generated (thousand tons) 10 Percent recycled	85 71%	88 72%	102 76%	109 80%
Hazardous waste generated (tons) ¹¹	48	317	1,195	126
Low-level radioactive waste (Class A, B and C) generated (cubic feet) ¹²	104,636	200,667	193,996	_

10 Weights are estimated based on volumes where necessary. Excludes Duke Energy Renewables which has smaller volumes, and large nonreplicable projects such as plant demolitions. Piedmont Natural Gas is included beginning in 2017.

11 Excludes Duke Energy Renewables. Hazardous waste generation fluctuates mainly due to maintenance projects

12 Total of Class A, B and C waste disposal as reported to the Nuclear Regulatory Commission. Crystal River Unit 3 is not included in these statistics, because it is not part of the operating fleet, and is retired. Data for 2017 will be available later in 2018.

Reportable Oil Spills¹³

	2014	2015	2016	2017
Spills	26	23	23	18
Gallons	12,006	3,425	3,970	728

13 Excludes Piedmont Natural Gas.

Environmental Regulatory Citations¹⁴

	2014	2015	2016	2017
Citations	33	9	9	10
Fines/penalties (dollars)	\$236,058	\$114,585,735	\$7,114,090	\$19,797

14 Includes international and U.S. federal, state and local citations and fines/penalties.

Sulfur hexafluoride emissions from electric transmission and distribution operations

Sulfur hexafluoride (SF₆) is an insulating gas used in high-voltage electric transmission and distribution switchgear equipment, and is a greenhouse gas. We work to minimize SF₆ emissions, but some is released during transmission and distribution operations and maintenance.

Toxic Release Inventory (TRI)

Duke Energy's TRI releases for 2016 were down 84 percent from 2007, primarily due to the significant investments we've made in environmental controls for our power plants, and decreased coal generation. (Data for 2017 will be available in August 2018.)

Waste

We met our goal of increasing the percentage of solid waste that is recycled from 69 percent in 2013 to 80 percent in 2018 one year early. (This goal excludes Duke Energy Renewables, which has a relatively small waste stream.)

Reportable oil spills

Oil spills include releases of lubricating oil from generating stations, leaks from transformers, or damage caused by weather or by third parties (typically because of auto accidents).

Environmental regulatory citations

Fines/penalties were relatively large in 2015 because of the May 2015 coal ash enforcement agreement; and in 2016 because of a 2014 oil spill at the Beckjord Station in Ohio, and a 2014 coal ash spill. See the "Legal Cases Resolved" article in the 2015 Sustainability Report.



4 EMPLOYEES

Develop and Engage Employees and Strengthen Leadership

2017 Highlights

- Black Enterprise Magazine named Duke Energy to its "50 Best Companies for Diversity."
- Duke Energy earned the Human Rights Campaign's distinction as a "Best Place to Work for LGBTQ Equality" with a perfect score of 100 percent in its Corporate Equality Index.
- Achieved employee and manager engagement scores of 69 and 77 percent, respectively, based on employee engagement survey results.
- Began offering employees, both mothers and fathers, six weeks of fully paid parental leave. This is in addition to at least six weeks' paid time off that birth mothers receive.
- To cultivate an inclusive environment, expanded unconscious bias training to include an additional 477 leaders in 2017, bringing the total number of participants to over 550.

Challenges and Opportunities

- Foster a high-performance and inclusive culture built on strong leadership and highly engaged and diverse employees.
- Continue to invest in education and workforce development to help build a pipeline of skilled workers.
- Ensure knowledge transfer as our baby boomers retire.



Duke Energy's Lindsay Ankobiah with her daughter, Isla; and Lee Freedman with his son, Henry.

Fully Paid Parental Leave for Duke Energy's Moms, Dads

Duke Energy in 2017 began offering its employees fully paid parental leave – totaling six weeks – to bolster workfamily balance and help attract and retain highly skilled workers.

The new benefit catapulted Duke Energy to near the front of the pack among the nation's largest electric utilities, many of which do not offer dedicated paid parental leave.

Under Duke Energy's new benefit – available to both mothers and fathers – an employee can start the six-week paid leave any time within the first 16 weeks after the birth, adoption or foster care placement of a child.

A birth mother can take a total of at least 12 weeks' paid time off: at least six weeks through the company's existing, pregnancy-related shortterm disability benefit, followed by six additional weeks under the new parental leave benefit. "Paid parental leave gives Duke Energy employees important quality time to bond with their new children without the financial pressure of having to immediately return to work. That's good for our employees and their children," says Melissa Anderson, Duke Energy executive vice president and chief human resources officer.

Duke Energy's other family-focused employee benefits include a \$5,000 reimbursement for costs associated with adopting a child; paid time off to care for a sick or injured child, parent or other family member; and 10 hours of paid time off each year to volunteer in an employee's child's school, or any other school.

Duke Energy employs about 29,000 workers – most of them in North Carolina, South Carolina, Florida, Indiana, Ohio and Kentucky.

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"Paid parental leave gives Duke Energy employees important quality time to bond with their new children without the financial pressure of having to immediately return to work."



Ashley Coleman Charlotte, NC



Suzy Macke Cincinnati, OH



Swati Daji Charlotte, NC



Erin Schneider Plainfield, IN

Promoting #WomenInPower

Duke Energy powers people's lives. But it also powers women to pursue technical fields – those normally associated with men.

The company continues to support organizations advancing science, technology, engineering and math (STEM) careers – with a special emphasis on females. The results are paying off. These 10 women are now role models for the company's next wave of employees.

Click the name to learn more about each employee.

<u>Dr. Shabari Basu</u>, director of wind assessment in Charlotte, oversees a team of engineers that supervise the remote access and control of Duke Energy's solar, wind farms and battery sites.

<u>Yolanda Carter</u>, operations supervisor for Piedmont Natural Gas in Nashville, Tenn., makes sure the company's new projects are being installed safely according to code and engineering specifications.

<u>Ashley Coleman</u> is a civil engineer in Charlotte, making sure the company's power plants operate as efficiently as possible.

<u>Swati Daji</u>, a senior vice president and the chief procurement officer, is responsible for the sourcing and supply chain functions for both the company's regulated and commercial operations. Daji was formerly the senior vice president of fuels & systems. <u>Tanya Hamilton</u>, site vice president of the Harris Nuclear Plant in New Hill N.C., continues Duke Energy's long history of operating carbon-free nuclear power plants.

Jessica Hamm, technology development manager in Charlotte, looks at how the company can benefit from technology trends that are anywhere from five to 15 years down the road.

<u>Maritza Iacono</u>, utility strategy director in St. Petersburg, Fla., helps shape the overall operational plan for Duke Energy's Florida operations.

<u>Suzy Macke</u>, a lineman based in Ohio, showed her determination to crack into the male-dominated world of linework.

Joie McCutchen, a vegetation management specialist in Florence, S.C., makes sure the company's operations and its vegetation management decisions work in harmony.

Erin Schneider, director of economic development in Indiana, works closely with a network of partners to attract new businesses and encourage existing businesses to grow in the Duke Energy service territory.

Powering Economies Through Workforce Development

A growing issue for Duke Energy and many businesses is the gap between demand for skilled STEM workers and available talent to fill open positions. One of the ways the company is closing the gap is through our investments in education and workforce development.

During 2017, our Duke Energy Foundation invested more than \$33 million in charitable support for local organizations, many of which are implementing innovative programs to attract and train STEM professionals. Workforce development starts as early as possible – a reason why investments in quality education span kindergarten through career.

In central Florida, Duke Energy is working to bolster the area's existing skilled workforce by investing in Lake-Sumter State College's (LSSC) energy technology programs.

Graduates of these programs enter the workforce in high-paying and in-demand jobs. These career specialties are critical to the energy industry as utilities work to maintain and upgrade the electric grid in Florida and throughout the country. In 2017, the company announced a \$110,000 gift to support LSSC, and already Duke Energy has hired graduates of these programs to fill critical roles at the company.

In North Carolina, Duke Energy is successfully partnering with the Urban League of Central Carolinas to provide a test prep class for students interested in becoming entry-level electrical lineworkers. This eight-week Duke Energy Construction Skills and Trade (CAST) test prep course is an opportunity for job seekers to gain entrance into well-paying line technician, solar, construction and other utility positions.

These are just a few of the many workforce development programs the company is investing in across its service footprint – building a talent pipeline that will power regional economies for years to come.

Free Legal Assistance: Helping Those in Need

Duke Energy's 70 attorneys, along with 70 paralegals and other legal support staff, provide a wide range of free legal assistance to those in need.

It's part of the company's strong commitment to serving individuals, families and communities beyond just providing electricity and natural gas.

- Neighborhood Legal Clinic In Indianapolis, company attorneys and legal support staff partner with a nonprofit group to provide free legal assistance to low-income households, including immigrant families.
- Alexander Youth Network In Charlotte, attorneys and support staff in recent years have provided free legal services to Alexander Youth Network, a nonprofit organization that treats children who have serious emotional and behavioral challenges.
- Legal Aid Organizations In St. Petersburg and Tallahassee, Fla., attorneys and support staff partner with nonprofit legal aid organizations to provide free legal assistance to low-income clients on matters ranging from family law to domestic violence to bankruptcy and foreclosure.
- Wills for Seniors In Raleigh, N.C., attorneys and support staff partner with a church and a law firm to prepare wills and other documents, including health care powers of attorney and durable powers of attorney, for senior citizens.
- Small Business Assistance In Cincinnati, attorneys and support staff partner with the University of Cincinnati's law school to provide free legal services to small businesses.
- Criminal Record Expunction In Charlotte, N.C., attorneys and support staff partner with the Charlotte Center for Legal Advocacy and a law firm to provide free criminal record expunction petitions for eligible individuals who face difficulty getting jobs or housing due to an arrest on their record from years ago.



With internal programs and a growing list of external recognitions, workplace diversity and inclusion remains a strong asset for Duke Energy.

Cultivating a Diverse and Inclusive Environment

Diversity and inclusion (D&I) is critical as we transform to better serve our customers and local communities. That's why Duke Energy joined a national coalition of business leaders pledging to advance D&I in the workplace.

Launched in June 2017, CEO Action for Diversity & Inclusion[™] brings together business leaders committing themselves – and the organizations they lead – to take concrete actions to foster a diverse and inclusive environment.

The CEO Action for Diversity & Inclusion represents nearly 70 industries, all 50 states and millions of employees globally. Organizations joining the pledge commit to taking three initial actions:

- Cultivate workplaces that support open dialogue on complex, and sometimes difficult, conversations about diversity and inclusion;
- 2. Implement and expand unconscious bias education; and
- 3. Share best practices with member companies.

Duke Energy is firmly committed to supporting diversity and inclusion in our workplace and the communities we serve. Recent recognition underscores the progress we're making, including recognition from Human Rights Campaign as a "Best Place to Work for LGBT Equality" and Forbes as one of the "Best Employers for Diversity." Among the D&I programs that Duke Energy offers are:

- A 20-year-old network of Employee Resource Groups representing African-Americans, Hispanics, women, people with disabilities, new employees, veterans and the LGBT community that work to address the needs of employees, communities and customers.
- Diversity Councils that sponsor local D&I education and awareness activities, and support our diverse customers through volunteerism and community outreach.
- An unconscious bias training program that was piloted with 75 leaders in 2016 and expanded to include an additional 477 leaders in 2017.



CEO Action for Diversity & Inclusion [™] brings together business leaders committing themselves – and the organizations they lead – to take concrete actions to foster a diverse and inclusive environment.

Workforce Performance Metrics

Workforce Statistics

	12/31/15	12/31/16	12/31/17
Full- and part-time employees	28,905	28,790	29,143
Collective bargaining unit members as percent of workforce	18.3%	19.1%	18.8%

Workforce Demographics

	12/31/15	12/31/16	12/31/17
Ethnic diversity as percent of workforce			
White	84.3%	83.3%	82.2%
Black/African-American	11.1%	11.8%	12.0%
Hispanic/Latino	2.5%	2.7%	1.7%
Asian	1.4%	1.5%	1.5%
American Indian/Alaska Native	0.6%	0.6%	0.6%
Native Hawaiian/Other Pacific Islander	0.1%	0.1%	0.1%
Not specified	0.1%	0.0%	0.0%
Two or more races (not Hispanic or Latino)			1.9%
Females/minorities as percent of workforce/management			
Females as percent of workforce	22.6%	22.8%	23.1%
Females as percent of management	17.2%	17.6%	18.0%
Minorities as percent of workforce	15.6%	16.7%	17.7%
Minorities as percent of management	10.4%	11.1%	11.5%
		·····	

Employee Turnover Summary

	2015	2016	2017
Turnover as percent of workforce	7.5%	9.6%	8.1%
Percentage of employees eligible to retire in 5 years ¹	46%	45%	45%
Percentage of employees eligible to retire in 10 years ¹	59%	57%	57%
	•••••	•••••	

1 "Eligible to retire" is defined as 55 years of age or older, with at least five years of service.

A Multigenerational Workforce

The two youngest generations – Millennials and Generation X – make up nearly two-thirds of Duke Energy's workforce. We value the diverse experience and unique contributions of each generation's employees – all of whom are skilled professionals focused on meeting our customers' evolving energy needs.

Four Generations of Duke Energy Employees



0.1% Traditionalists (born before 1946)
36.5% Baby boomers (born 1946-1964)
36.5% Generation X (born 1965-1981)
26.8% Millennials (born after 1981)

* The total does not add up exactly because of rounding.

Forward-Looking Information

Cautionary statements regarding forward-looking information

This document includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are based on management's beliefs and assumptions and can often be identified by terms and phrases that include "anticipate," "believe," "intend," "estimate," "expect," "continue," "should," "could," "may," "plan," "project," "predict," "will," "potential," "forecast," "target," "guidance," "outlook" or other similar terminology. Various factors may cause actual results to be materially different than the suggested outcomes within forward-looking statements; accordingly, there is no assurance that such results will be realized. These factors include, but are not limited to:

- State, federal and foreign legislative and regulatory initiatives, including costs
 of compliance with existing and future environmental requirements, including
 those related to climate change, as well as rulings that affect cost and
 investment recovery or have an impact on rate structures or market prices;
- The extent and timing of costs and liabilities to comply with federal and state laws, regulations and legal requirements related to coal ash remediation, including amounts for required closure of certain ash impoundments, are uncertain and difficult to estimate;
- The ability to recover eligible costs, including amounts associated with coal ash impoundment retirement obligations and costs related to significant weather events, and to earn an adequate return on investment through rate case proceedings and the regulatory process;
- The costs of decommissioning Crystal River Unit 3 and other nuclear facilities could prove to be more extensive than amounts estimated and all costs may not be fully recoverable through the regulatory process;
- Costs and effects of legal and administrative proceedings, settlements, investigations and claims;
- Industrial, commercial and residential growth or decline in service territories
 or customer bases resulting from sustained downturns of the economy and
 the economic health of our service territories or variations in customer usage
 patterns, including energy efficiency efforts and use of alternative energy
 sources, such as self-generation and distributed generation technologies;
- Federal and state regulations, laws and other efforts designed to promote and expand the use of energy efficiency measures and distributed generation technologies, such as private solar and battery storage, in Duke Energy service territories could result in customers leaving the electric distribution system, excess generation resources as well as stranded costs;
- Advancements in technology;
- Additional competition in electric and natural gas markets and continued industry consolidation;
- The influence of weather and other natural phenomena on operations, including the economic, operational and other effects of severe storms, hurricanes, droughts, earthquakes and tornadoes, including extreme weather associated with climate change;
- The ability to successfully operate electric generating facilities and deliver electricity to customers including direct or indirect effects to the company resulting from an incident that affects the U.S. electric grid or generating resources;
- The ability to complete necessary or desirable pipeline expansion or infrastructure projects in our natural gas business;
- Operational interruptions to our natural gas distribution and transmission activities;
- The availability of adequate interstate pipeline transportation capacity and natural gas supply;

- The impact on facilities and business from a terrorist attack, cybersecurity threats, data security breaches and other catastrophic events, such as fires, explosions, pandemic health events or other similar occurrences;
- The inherent risks associated with the operation of nuclear facilities, including environmental, health, safety, regulatory and financial risks, including the financial stability of third-party service providers;
- The timing and extent of changes in commodity prices and interest rates and the ability to recover such costs through the regulatory process, where appropriate, and their impact on liquidity positions and the value of underlying assets;
- The results of financing efforts, including the ability to obtain financing on favorable terms, which can be affected by various factors, including credit ratings, interest rate fluctuations, compliance with debt covenants and conditions and general market and economic conditions;
- Credit ratings of the Duke Energy Registrants may be different from what is expected;
- Declines in the market prices of equity and fixed-income securities and resultant cash funding requirements for defined benefit pension plans, other post-retirement benefit plans and nuclear decommissioning trust funds;
- Construction and development risks associated with the completion of the Duke Energy Registrants' capital investment projects, including risks related to financing, obtaining and complying with terms of permits, meeting construction budgets and schedules and satisfying operating and environmental performance standards, as well as the ability to recover costs from customers in a timely manner, or at all;
- Changes in rules for regional transmission organizations, including changes in rate designs and new and evolving capacity markets, and risks related to obligations created by the default of other participants;
- · The ability to control operation and maintenance costs;
- · The level of creditworthiness of counterparties to transactions;
- Employee workforce factors, including the potential inability to attract and retain key personnel;
- The ability of subsidiaries to pay dividends or distributions to Duke Energy Corporation holding company (the Parent);
- The performance of projects undertaken by our nonregulated businesses and the success of efforts to invest in and develop new opportunities;
- The effect of accounting pronouncements issued periodically by accounting standard-setting bodies;
- The impact of new U.S. tax legislation to our financial condition, results of operations or cash flows and our credit ratings;
- The impacts from potential impairments of goodwill or equity method investment carrying values;
- The ability to successfully complete future merger, acquisition or divestiture plans; and
- · The ability to implement our business strategy.

Additional risks and uncertainties are identified and discussed in the Duke Energy Registrants' reports filed with the SEC and available at the SEC's website at sec.gov. In light of these risks, uncertainties and assumptions, the events described in the forward-looking statements might not occur or might occur to a different extent or at a different time than described. Forward-looking statements speak only as of the date they are made and the Duke Energy Registrants expressly disclaim an obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Non-GAAP Financial Information

Non-GAAP Measures

Management evaluates financial performance in part based on non-GAAP financial measures, including adjusted earnings and adjusted diluted EPS. These items represent income from continuing operations attributable to Duke Energy, adjusted for the dollar and per share impact of special items. As discussed below, special items include certain charges and credits, which management believes are not indicative of Duke Energy's ongoing performance. Management believes the presentation of adjusted earnings and adjusted diluted EPS provides useful information to investors, as it provides them with an additional relevant comparison of Duke Energy's performance across periods.

Management uses these non-GAAP financial measures for planning and forecasting, and for reporting financial results to the Duke Energy Board of Directors (Board of Directors), employees, stockholders, analysts and investors. Adjusted diluted EPS is also used as a basis for employee incentive bonuses. The most directly comparable GAAP measures for adjusted earnings and adjusted diluted EPS are Net Income Attributable to Duke Energy Corporation (GAAP Reported Earnings) and Diluted EPS Attributable to Duke Energy Corporation common stockholders (GAAP Reported EPS), respectively.

Special items included in the periods presented include the following, which management believes do not reflect ongoing costs:

- Costs to Achieve Mergers represents charges that result from strategic acquisitions.
- Cost Savings Initiatives represent severance charges related to companywide initiatives, excluding merger integration, to standardize processes and systems, leverage technology and workforce optimization.
- Regulatory Settlements in 2017 represent charges related to the Levy nuclear project in Florida and the Mayo Zero Liquid Discharge and Sutton combustion turbine projects in North Carolina. The 2015 amount represents charges related to the IGCC Settlement.
- Commercial Renewables Impairments represent other-than-temporary, asset and goodwill impairments.
- Impacts of the Tax Act represent estimated amounts recognized related to the Tax Cuts and Jobs Act.
- Ash Basin Settlement and Penalties represent charges related to Plea Agreements and settlement agreements with regulators and other governmental entities.

Adjusted earnings also include the operating results of the nonregulated Midwest generation business and Duke Energy Retail Sales (collectively, the Midwest Generation Disposal Group) and the International Disposal Group, which have been classified as discontinued operations. Management believes inclusion of the operating results of the Disposal Groups within adjusted earnings and adjusted diluted EPS results in a better reflection of Duke Energy's financial performance during the period.

Duke Energy's adjusted earnings and adjusted diluted EPS may not be comparable to similarly titled measures of another company because other companies may not calculate the measures in the same manner.

The following table presents a reconciliation of adjusted earnings and adjusted diluted EPS to the most directly comparable GAAP measures.

	Years Ended December 31,		
	2017	2016	2015
(per share amounts)	EPS	EPS	EPS
GAAP Reported EPS	\$4.36	\$3.11	\$4.05
Adjustments to Reported:			
Costs to Achieve Mergers	0.09	0.48	0.09
Regulatory Settlements	0.14	-	0.08
Commercial Renewables Impairments	0.11	0.07	-
Impacts of the Tax Act	(0.14)	-	-
Cost Savings Initiatives	_	0.08	0.13
Ash Basin Settlement and Penalties	_	-	0.02
Discontinued Operations	0.01	0.95	0.17
Adjusted Diluted EPS	\$4.57	\$4.69	\$4.54



BUILDING A SMARTER ENERGY FUTURE™