



## 2 GROWTH

### Grow and Adapt the Business and Achieve Our Financial Objectives

## 2016 Highlights

- Met our five-year (2013 to 2017) economic development goals a year early by helping attract more than 50,000 jobs and over \$14 billion in capital investments to our service territories since 2013.
- Achieved adjusted diluted earnings per share of \$4.69, near the high end of our earnings guidance to Wall Street.
- Increased the quarterly dividend by 4 percent; 2017 will mark the 91st consecutive year Duke Energy has paid a quarterly dividend.
- As of year-end 2016, owned or had under contract over 5,400 MW of wind, solar and biomass.
- Completed the acquisition of Piedmont Natural Gas, tripling the number of natural gas customers we serve.

## 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 the next 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.



Thomas Fenimore / Technology Development Manager

## Green Microgrids Could be a New Growth Initiative

Microgrids aren't new. But Duke Energy's efforts to power them with renewable energy have caught the attention of the industry.

In simple terms, a microgrid is an energy system consisting of distributed energy sources – like solar and batteries – that can operate in parallel with, or independently from, the main power grid.

It promotes energy security – giving customers a reliable energy supply without the need of the full energy grid, or even fossil fuels.

For the past few years, Duke Energy engineer Tom Fenimore has been perfecting a research project in Charlotte that provides backup power to a city fire station. Using a solar array and a large battery system, the system supports the overall grid most of the time.

But when storms rolled through Charlotte this summer, the system provided power to the fire station twice – without any action by the company. The system was so fast that the fire station didn't notice the microgrid was providing power.

Duke Energy's work is leading to future projects. At Mount Sterling in the Great Smoky Mountains National Park in North Carolina, a proposed microgrid will provide 24-hour-a-day service to a communications tower.

In this case, the microgrid concept will be more reliable and less costly for the company than traditional poles and wires. In addition, about 13 acres of park land currently maintained as a utility corridor could be allowed to return to a natural state.

In Maryland, Duke Energy Renewables and Schneider Electric will partner with Montgomery County to construct two microgrids for public safety facilities. The two systems, which will be owned by Duke Energy, will include solar and combined heat and power, which saves energy by using waste heat from on-site generation to heat and cool buildings.

In Mount Holly, N.C., the company continues to research future microgrid developments – examining how the technology works in a future where distributed energy resources like solar and batteries are on nearby electrical circuits.

It's part of the company's innovation that may change how energy is delivered to customers in the future.



Commander Timothy Craddock / Commanding Officer, Naval Support Activity Crane    Mark Mullinix / Site Superintendent

## Duke Energy Adding More Wind & Solar Resources

Renewable energy technologies are advancing and prices are decreasing. Duke Energy is leveraging those advancements to expand its renewable energy portfolio and deliver cleaner energy to its customers.

In total, the company has more than 20 wind projects and 60 solar facilities in operation in over a dozen states, totaling about 3,000 megawatts (MW) of generating capacity.

For wind energy, the company completed two more projects last year – one in Texas and the other in Oklahoma. Duke Energy now harvests the wind in seven states.

Solar continues to expand, too. In California, Duke Energy Renewables acquired three solar power plants totaling 55 MW in January 2017. In December 2016, Duke Energy Renewables also completed its 20-MW solar project in San Bernardino County, California. In addition, the company acquired its first solar projects in Colorado and Georgia and began operating its first solar facility in New Mexico during 2016.

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In our regulated states, the company continues to make strategic investments to benefit customers. In Indiana, construction is complete on the 17-MW solar facility at the Naval Support Activity Crane. The facility is helping power the military base and the surrounding community – similar to a project at Camp Lejeune in North Carolina, which was completed in 2015.

In North Carolina, Duke Energy invested in 100 MW of solar capacity during the year – including plants in five counties that welcomed the jobs created during construction. Overall, Duke Energy has about 35 solar facilities in North Carolina, which represents the company's top solar state. The company also purchased and connected around 500 MW of solar capacity for customers in 2016 that was built by other developers.

In Florida, the company announced its 8.8-MW Suwannee Solar Facility in early 2017 and expects to break ground in the spring, with full operation by the end of 2017. Duke Energy already owns and operates solar projects in three other Florida counties, with plans for more in the future.

In South Carolina, the company's solar rebate program paid nearly \$12 million to customers last year. The rebates help with the upfront cost of installing solar panels, making the technology more accessible to customers.

## Tomorrow: Investing in a Changing Energy Future

The electric and natural gas utility industry is undergoing rapid transformation as it pivots to meet rising customer service expectations, utilize the latest technological developments and produce energy in the most environmentally benign way available.

For Duke Energy, this transformative period presents a great opportunity to move forward in four key areas:

- **Strengthen the company's energy delivery system.**

Duke Energy has developed a 10-year, \$25-billion plan to create a more modern, smarter energy grid. In this era of transformation, the demands on the grid have never been greater.

While the grid is reliable, recent events, such as Hurricane Matthew in North Carolina, have highlighted opportunities to strengthen it. ([See related article on page 18: "A Smarter, Stronger Grid: Benefiting Customers."](#))

- **Generate cleaner energy using natural gas and renewables.** In the next 10 years, Duke Energy will invest \$11 billion in highly efficient natural gas generation and renewable energy sources. By 2030, Duke Energy estimates that 36 percent of its electricity will be generated using natural gas and 9 percent will be generated using renewables – hydro, wind and solar.

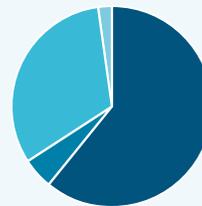
These investments, coupled with the retirement of older coal units, will help reduce the company's carbon dioxide emissions by 40 percent from the 2005 level by 2030. In addition to commercial renewables, Duke Energy also will invest in regulated renewable assets.

- **Expand the company's natural gas infrastructure to meet customer needs.** Natural gas will continue to play a major role in the future generation needs of Duke Energy and the entire electric utility industry.

With its 2016 acquisition of Piedmont Natural Gas, Duke Energy now operates a five-state gas distribution business. The company also is a part owner of the Atlantic Coast, Sabal Trail and Constitution natural gas pipelines. The first two –

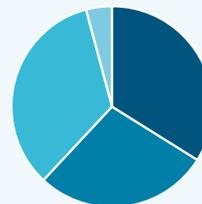
## Moving Toward a Cleaner Generation Fleet and Increased Fuel Diversity (MWh Output)

2005<sup>(1)</sup>



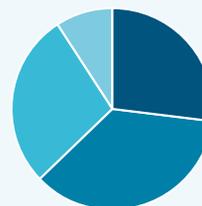
61% Coal/Oil  
5% Natural Gas  
32% Nuclear  
2% Hydro, Wind and Solar

2016<sup>(1)</sup>



34% Coal/Oil  
28% Natural Gas  
34% Nuclear  
4% Hydro, Wind and Solar

2030<sup>(2)</sup>



27% Coal/Oil  
36% Natural Gas  
28% Nuclear  
9% Hydro, Wind and Solar

1. 2005 and 2016 data based on Duke Energy's ownership share of generation assets as of Dec. 31, 2016.

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

both interstate pipelines – will bring much-needed natural gas to the southeast U.S., spurring economic growth that will benefit workers, families and communities.

Duke Energy now ranks second nationally for natural gas consumption across its electric utilities and local natural gas distribution companies.

[\(See related article on page 30: “Natural Gas: Moving to a Cleaner, Low-Carbon Future.”\)](#)

- **Increase customer satisfaction and continue stakeholder engagement.** Over the next 10 years, Duke Energy will pursue a goal of achieving and sustaining top-quartile customer satisfaction by placing the customer at the center of everything the company does.

Duke Energy also will continue to work collaboratively with its various other stakeholders, including community leaders, environmental groups, business organizations, regulators, elected officials and investors. Such collaboration is critical to the company’s success.

*In the next 10 years, Duke Energy will invest \$11 billion to increase highly efficient natural gas generation to 35 percent of the company’s electricity generation portfolio, and increase renewable energy sources – hydro, wind and solar – to 9 percent.*

## Positioned to Deliver Sustainable Financial Results

In 2016, Duke Energy achieved adjusted diluted earnings per share of \$4.69 compared to \$4.54 for 2015. This increase was driven by continued investment in the company’s regulated utilities and infrastructure business, and a strong focus on reducing operations and maintenance costs across the business.

One of Duke Energy’s primary goals as a sustainable company is delivering attractive long-term returns for its shareholders. 2017 will mark the 91st consecutive year we have paid a dividend to our shareholders. That dividend was increased by 4 percent in 2016.

During 2016, the company completed its five-year portfolio transition with the sale of its Latin America business and acquisition of Piedmont Natural Gas. The company is now a predominately regulated, energy infrastructure business, well-positioned for growth in 2017 and beyond.

With the portfolio transition complete, the company realigned its business into three new segments: Electric Utilities and Infrastructure, Gas Utilities and Infrastructure, and Commercial Renewables.

These three businesses are well-situated to contribute adjusted diluted earnings per share that drive the company’s 4 to 6 percent overall growth objectives from 2017 to 2021.

Duke Energy’s total shareholder return – the change in stock price plus dividends – for 2016 was 13.5 percent, compared to 17.4 percent for

## Financial Highlights

(In millions, except per-share data) <sup>1</sup>	2016	2015 <sup>2</sup>	2014 <sup>2</sup>
Total operating revenues	\$22,743	\$22,371	\$22,509
Income from continuing operations	\$2,578	\$2,654	\$2,538
Reported diluted earnings per share (GAAP)	\$3.11	\$4.05	\$2.66
Adjusted diluted earnings per share (Non-GAAP)	\$4.69	\$4.54	\$4.55
Dividends declared per share	\$3.36	\$3.24	\$3.15
Total assets	\$132,761	\$121,156	\$120,557
Long-term debt including capital leases, less current maturities	\$45,576	\$36,842	\$36,075

<sup>1</sup> See Duke Energy’s Annual Report on Form 10-K for the year ended Dec. 31, 2016 for detailed notes and further explanations.

<sup>2</sup> Prior year data have been recast to reflect the classification of the International Disposal Group as discontinued operations.

the Philadelphia Utility Index (20 U.S. utilities) and 12.0 percent for the S&P 500. Despite solid returns to investors last year, we trailed the Philadelphia Utility Index due to the uncertainty associated with our portfolio transition. Thanks to a great deal of hard work, we put that uncertainty behind us in 2016 and are now focused on executing our regulated growth strategy for years to come.

## Economic Development: Attracting Jobs, Investment

Duke Energy's economic development team in 2016 helped bring approximately 14,000 new jobs and \$4.1 billion in private-sector investment to the six states served by the company's electric utilities – benefiting workers, families and communities. Site Selection magazine named

Duke Energy to its “Top Utilities in Economic Development” list for the 12th consecutive year.

The team recruits new companies from across the nation and around the world, convincing them to open offices, build manufacturing plants and locate other facilities in North Carolina, South Carolina, Florida, Indiana, Ohio and Kentucky. The team also works with existing companies in those states, helping them expand at home rather than look elsewhere.

### 2016 highlights:

- In **Ohio** and **Kentucky**, Duke Energy distributed \$240,000 in grants to support urban redevelopment projects.
- In **Indiana**, Duke Energy awarded grants ranging from \$2,500 to \$7,500 to 12 economic development groups to attract jobs and businesses.

## 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 approximately 14,000 jobs and \$4.1 billion of investments in 2016.

**\$4.1b**  
Total Capital Investment

**14,000**  
Total Jobs

**Indiana**  
**\$593m**  
1,969 jobs

**Ohio-Kentucky**  
**\$561m**  
560 jobs

**North Carolina**  
**\$2,181m**  
5,564 jobs

**South Carolina**  
**\$512m**  
1,944 jobs

**Florida**  
**\$231m**  
3,972 jobs

- In **North Carolina**, Duke Energy invested \$1.4 million in job training initiatives to prepare workers for the jobs of tomorrow.
- In **South Carolina**, Duke Energy helped create approximately 1,900 new jobs and attract \$512 million in investment.
- In **Florida**, Duke Energy helped generate 3,900 new jobs and \$231 million in investment.

## Natural Gas: Moving to a Cleaner, Low-Carbon Future

Natural gas will play a key role as Duke Energy continues to move toward a cleaner, low-carbon future.

The 2016 acquisition of Piedmont Natural Gas added 1 million natural gas customers in North Carolina, South Carolina and Tennessee to Duke Energy's existing customer base of 525,000 natural gas customers and 7.5 million electric customers. Piedmont's Tennessee service territory, including the fast-growing Nashville region, represents a new geographical area for Duke Energy. Piedmont retained its name and now operates as a business unit of Duke Energy.

Two major underground interstate natural gas pipelines, partly owned by Duke Energy, also continue to move forward:

- Construction of the Sabal Trail Pipeline – traversing Alabama, Georgia and Florida – began in 2016

following Federal Energy Regulatory Commission (FERC) approval. The 515-mile project is scheduled to open in 2017.

- FERC staff in 2016 issued a positive draft environmental impact statement for the proposed Atlantic Coast Pipeline, finding that the project can be built in an environmentally responsible way. The approximately 600-mile pipeline – from West Virginia through Virginia to North Carolina – is scheduled to open in 2019, pending final regulatory approval.

In addition, four natural gas-fired power plants are joining Duke Energy's electricity generation fleet. The company acquired an existing plant in Polk County, Fla., in January 2017, and is building new plants in Anderson County, S.C. (opening in 2017); Citrus County, Fla. (opening in 2018); and Buncombe County, N.C. (opening in 2019). The three new plants are replacing older coal-fired plants.

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## Governance Ratings

Each year, Duke Energy benchmarks its corporate governance practices against best-in-class and peer companies. Below are the risk ratings for Duke Energy provided by ISS, a leading corporate governance advisory service to the financial community. Duke Energy's overall ISS Governance QualityScore, as of March 1, 2017, was 1, which is the best relative risk rating.

	QuickScore 2015 <sup>1</sup>	QuickScore 2016 <sup>1</sup>	QualityScore 2017 <sup>1</sup>	Rating Scale
Board structure	1	2	3	1 = Lowest risk (best rating) 10 = Highest risk
Compensation	1	2	1	
Shareholder rights	4	4	3	
Audit	2	1	1	
<b>Overall score</b>	<b>1</b>	<b>2</b>	<b>1</b>	

<sup>1</sup> As of March 1<sup>st</sup>

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## Latin America Exit: Focusing on Core U.S. Operations

Duke Energy going forward is focused almost exclusively on its core U.S. operations.

The company in 2016 sold its international assets in Central America and South America in two separate transactions. Selling these assets was an important transition in our goal to deliver more predictable growth.

The company's highly stable U.S. regulated utilities in seven states – combined with its similarly stable renewable energy, electric transmission and natural gas businesses across the U.S. – now comprise almost all of the company's operations.

Duke Energy sold its assets in Brazil to China Three Gorges Corp. Those assets consisted of 10 hydroelectric generation plants – eight plants totaling 2,057 megawatts (MW) on the border between Sao Paulo and Parana states; and two plants totaling 33 MW on the Sapucaí Mirim River in Sao Paulo state.

Duke Energy sold its assets in Peru, Chile, Ecuador, Guatemala, El Salvador and Argentina to I Squared Capital. Those assets consisted of hydroelectric and thermal power plants, totaling 2,300 MW, plus transmission infrastructure and natural gas processing facilities.

Duke Energy continues to hold a 25 percent equity investment in National Methanol Company, a Saudi Arabian producer of a gasoline additive.

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## Participating in Our Democracy

Duke Energy encourages full participation in our democracy in a variety of ways, including education and engagement efforts, policy advocacy and political activity.

Our [Political Activity Policy](#) requires compliance with laws and regulations governing political contributions, government interaction and lobbying activities. It also includes guidelines and a tiered approval process that governs all political expenditures. Additionally, 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. We also engage elected officials and policymakers to make sure they understand the direct impacts of their decisions on Duke Energy and our employees, customers and communities.

In 2016, our reportable federal lobbying expenses (office space, salaries, consulting and event fees, etc.) included \$1,265,149<sup>1</sup> in dues to support policy research and advocacy by trade associations such as the Edison Electric Institute and the Nuclear Energy Institute.

DukePAC is a voluntary, nonpartisan political action committee that pools eligible employees' financial contributions to support political organizations and candidates seeking elected office at the federal and state levels. The candidates supported represent the communities we serve, are leading members of their elected legislative body or serve on relevant committees that impact our business, employees, customers and communities. Policy positions and priorities important to Duke Energy include infrastructure, tax and regulatory reform, renewables, environmental issues and cybersecurity. In 2016, DukePAC contributions totaled approximately \$1,367,400.

Duke Energy also contributed approximately \$1,806,900<sup>2</sup> to 527 organizations created to support the selection, nomination, election, appointment or defeat of a candidate.

1 Represents trade association dues of more than \$50,000 during 2016.

2 For contributions in excess of \$1,000.