Sustainability and Resiliency in the Energy Space

October 4, 2018

DUKE ENERGY®

Duke Energy at a Glance

- We've been serving customers for over 150 years:
  - Fortune 250 company
  - Headquarters – Charlotte, N.C.
  - About 29,000 employees
  - Traded on NYSE as DUK
  - Stock dividends for 89 consecutive years
- We rely on a mix of fuels to generate power, including natural gas, coal, nuclear and renewable energy.

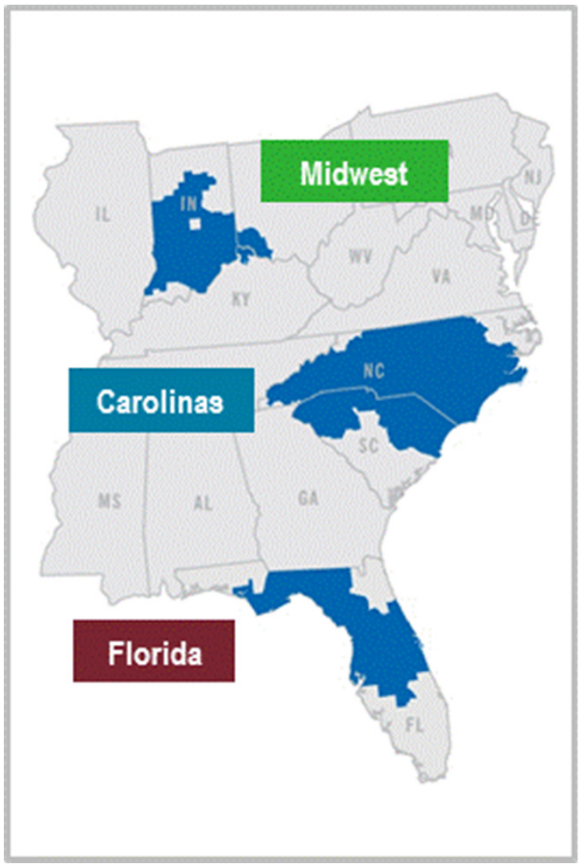
We Power Roughly 23 Million Lives

We're a regulated energy provider in Indiana, Kentucky, Florida, Ohio, North Carolina, South Carolina and Tennessee:

- 7.5 million retail electric customer accounts – impacting about 23 million lives
- 1.6 million retail natural gas accounts

We also:

- Own and operate wind and solar farms across the U.S., where the power generated is sold to regional utilities



Reducing Your Carbon Footprint

- Challenges
  - Determining sources of CO_2
    - Internal
    - Supply chain
  - Including electric supply
    - Which generation to include?
    - Geographic proximity
    - Region or state?
    - Local utility or regional grid?

Strategies to reduce your carbon footprint

- Reduce energy consumption
- Lights, HVAC – low hanging fruit

- Manufacturing processes
  - Variable frequency drives
  - Compressed air

- Engineering assessment
  - Fresh look at your processes
  - Identify new technologies
  - Financial and operational risk

Strategies to reduce your carbon footprint

- Source greener power
- Renewable Energy Credits (RECs)
  - Technology
  - Who certifies?
  - Who tracks and audits?
- Additionality
  - New renewable sources of power
- Supply agreement
  - In de-regulated states
- Rely on greening of the grid

Sustainability: Our Definition

Doing business in a way that is good for people, the planet and profits

WHAT SUSTAINABILITY ISN'T:

- It's not all about getting positive publicity ("greenwashing")
- It's not all about the environment
- It's not a synonym for "going green"
- It's not all about recycling

Sustainability is about adapting to change, finding the right balance and innovating to find smarter ways to do business

Sustainability Matters to Our Stakeholders

- Business customers – often include renewables and energy efficiency in their sustainability goals
- Employees – especially, millennials, want to work for companies that care about environmental and social impacts
- Investors – are increasingly asking about ESG (Environmental, Social, Governance) matters

Apple Now Runs on 100% Green Energy, And Here's How It Got There

Fast Company, 4-9-18

4 Ways Companies Can Reach Millennials With A Message of Sustainability

Forbes, 11-17-17

Investors Seek More Disclosure, Less Fossil Fuel Reliance

E&E News, 2-1-18

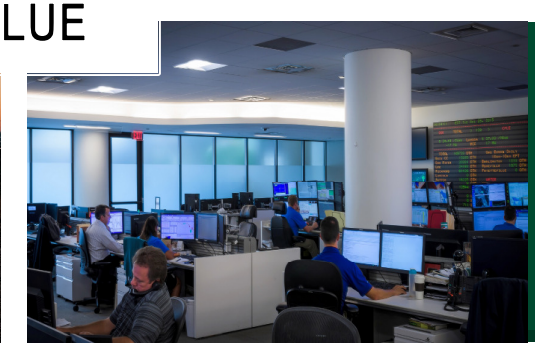
The Business Case for Sustainability

Reduce Costs & Mitigate Risk

Attract, Retain and Engage Top Talent

BUSINESS VALUE

Increase Revenues

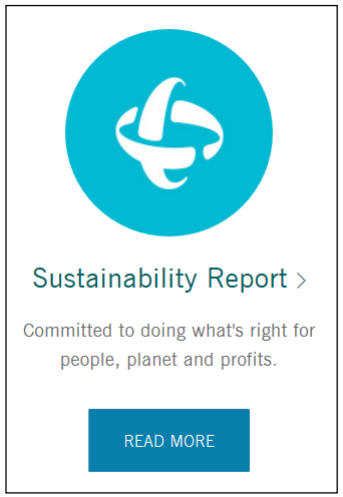


Meet Stakeholder Expectations

Transparency and Third-party Recognition

Annual Sustainability Report

http://sustainabilityreport.duke-energy.com



Climate Report to Shareholders

https://www.duke-energy.com/_/media/pdfs/our-company/shareholder-climate-report.pdf

Accolades

- Dow Jones Sustainability Index for North America (13th consecutive year)
- Newsweek Green Rankings – No. 72 out of 500 largest U.S. companies (No. 7 in our industry)
- Bloomberg Environmental, Social and Governance Disclosure Score – number 3 in our industry

Corporate Sustainability Goals (Year-end 2017 Status)

Status: Achieved or on track
Currently not on track
Goal not achieved

1 Customers

- Affordable Energy
- Energy Efficiency
- Community Leader Ratings
- Charitable Giving

2 Growth

- Economic Development
- Total Shareholder Return
- Scale up Renewables
- Governance
- Transparency

3 Operations

- Safety
- Reliable Energy
- Carbon Emissions and Intensity
- Solid Waste Recycling
- Coal Ash Management

4 Employees

- Employee Engagement
- Employee Enablement & Performance
- Diversity & Inclusion
- Leadership

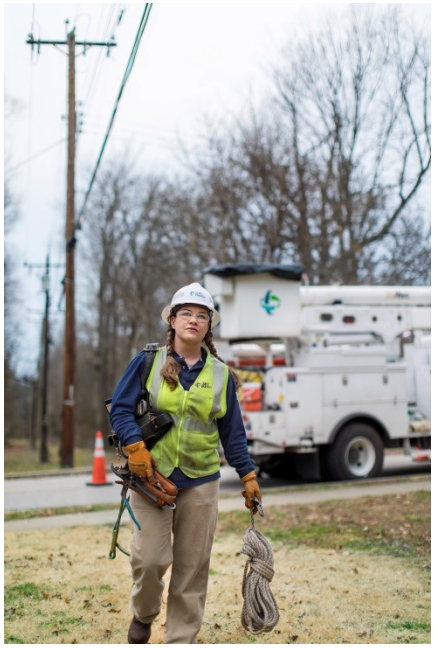
http://sustainabilityreport.duke-energy.com/our-plan-and-goals/our-sustainability-plan-and-goals/

Putting Safety First: Maintain Top-decile TICR Performance

Safety Performance Metrics[1]

	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	0.87[5]	0.80[5]
Contractor Lost Workday Case Rate (LWCR)[4]	0.28	0.21	0.15[5]	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.



Duke Energy has reduced its employee TICR 38 percent since 2014 and had the best safety record in our industry peer group in 2017

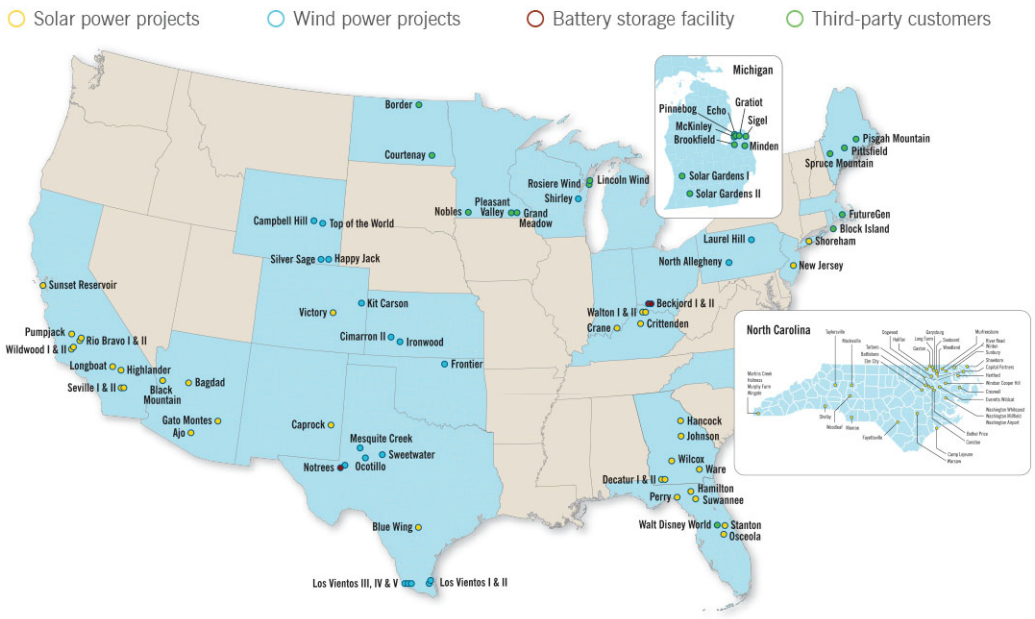
Helping Customers Save Money and the Environment

- Consumption: As of year-end 2017, energy consumption has been reduced by more than 14,400 GWh
  - This is equivalent to the annual usage of 1.2 million homes
- Peak Demand: As of year-end 2017, peak demand has been reduced by more than 5,300 MW
  - This is equivalent to almost nine 600-MW power plants

Goals: Achieve cumulative reductions of 15,000 GWh and 6,000 MW by 2020

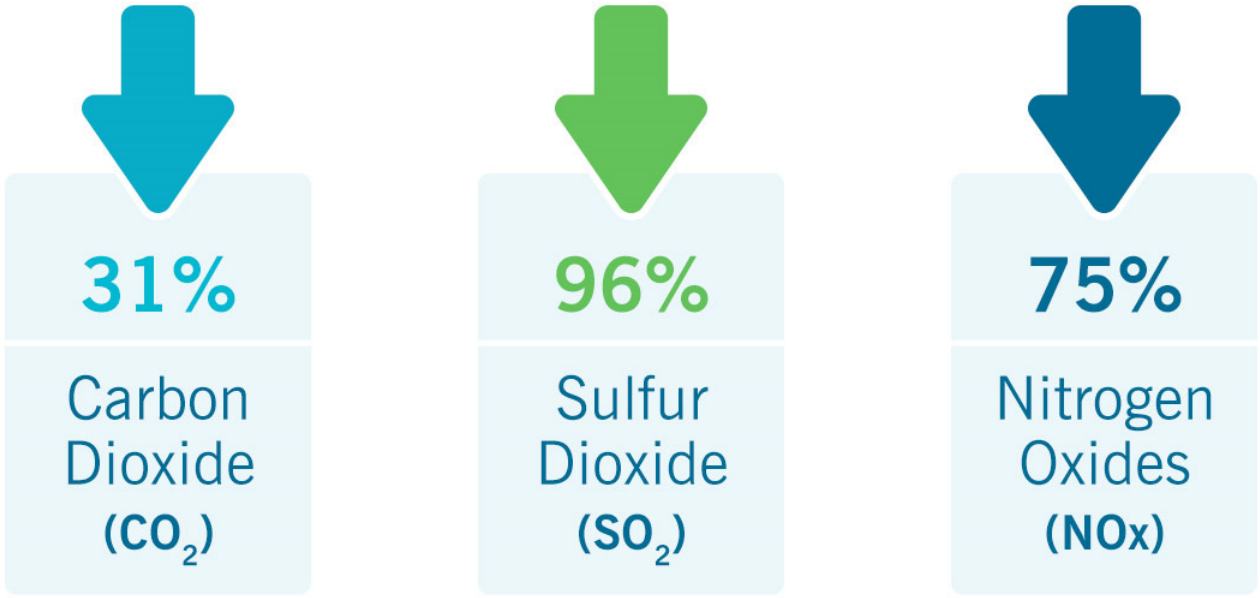
Scaling Up Renewable Energy: 8,000 MW by 2020

Commercial and Regulated Renewable Projects



Duke Energy is one of the nation's top renewable energy investors with 6,400 MW of wind, solar and biomass energy owned or under contract

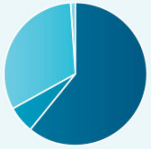
Reducing Emissions from Power Generation – 2017 versus 2005



2030 GOAL: Reduce CO_2 emissions 40%

Moving Toward a Cleaner Generation Fleet (MWh Output)

2005[1]



61% Coal/oil
6% Natural gas
32% Nuclear
1% Hydro, wind and solar

2017[1]

33% Coal/oil
28% Natural gas
34% Nuclear
5% Hydro, wind and solar

2030E[2]

16% Coal/oil
42% Natural gas
32% Nuclear
10% Hydro, wind and solar

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.

Building resilient energy delivery systems

- Goals
  - Harden system against growing threats
    - Weather
    - Storms
    - Cyber attacks
  - Build resilient systems able to rapidly rebound from events
    - Quicker outage response/restoration times

Building resilient energy delivery systems

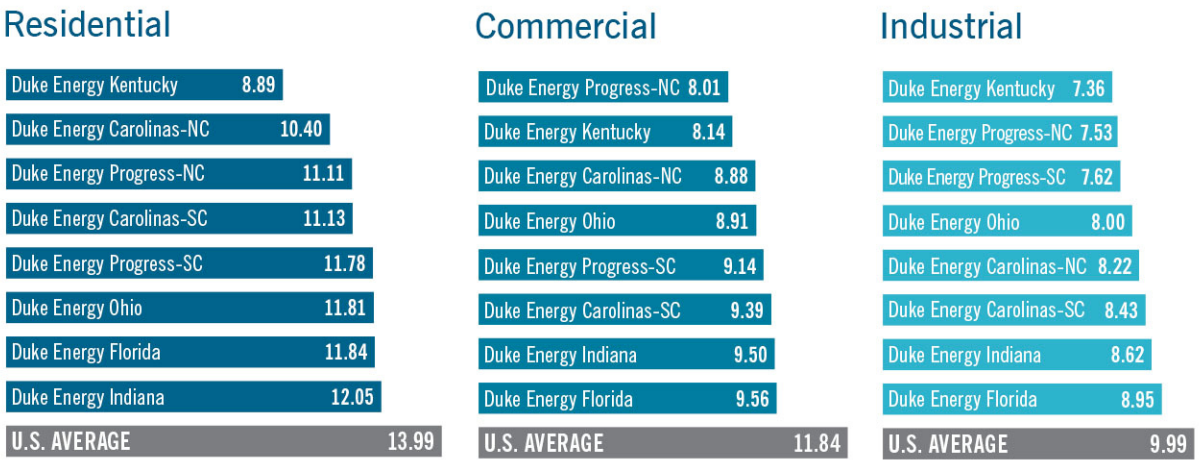
- Electric
  - Replace wooden poles with steel
  - Data-based targeted undergrounding
  - Continue to invest in operational systems
    - Distribution automation
    - Self-optimizing grid
  - Smart meters
    - Enhanced outage detection
  - Expert-driven vegetation management
  - Deploying energy storage solutions

Building resilient energy delivery systems

- Natural Gas
  - Investing in new natural gas transmission lines
    - Atlantic Coast Pipeline
    - Sabal Trail Pipeline
  - Expand access to additional interstate pipelines
  - Replace cast iron and bare steel with latest technology
    - Epoxy-resin coated with cathodic protection
  - Retire aging infrastructure
    - Propane peaking stations

Keeping Rates Competitive

Goal: Keep rates below the national average



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).

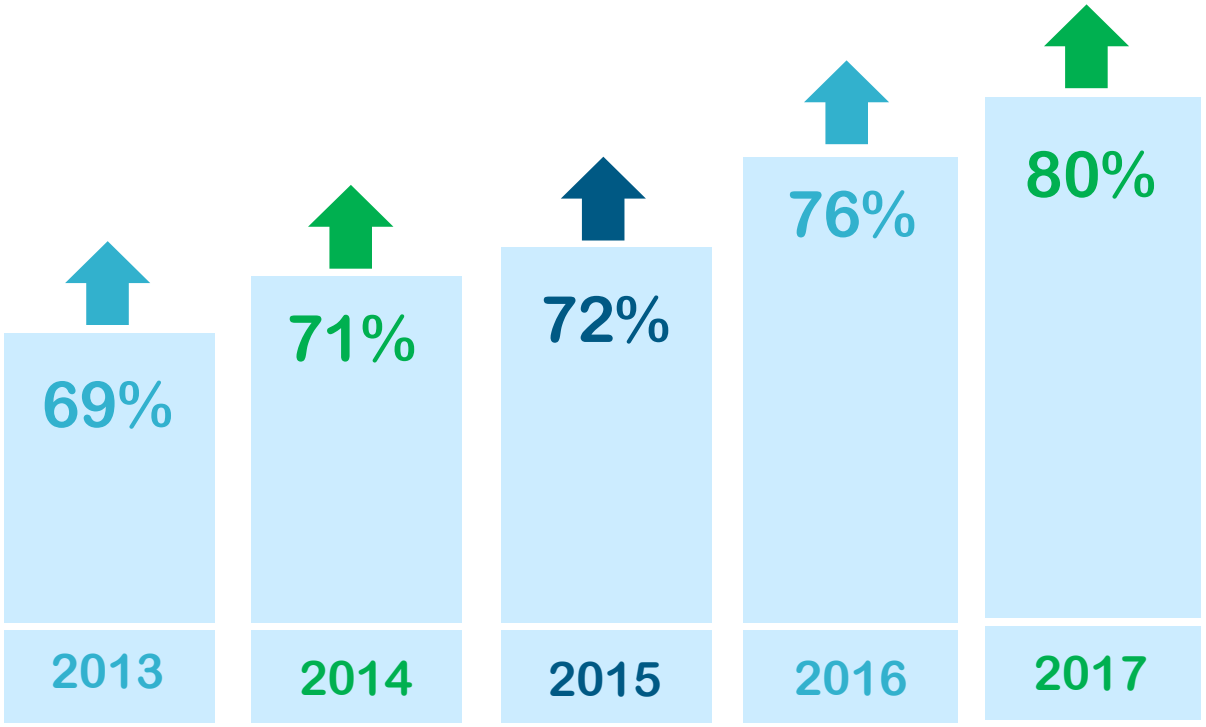
Using Water More Efficiently

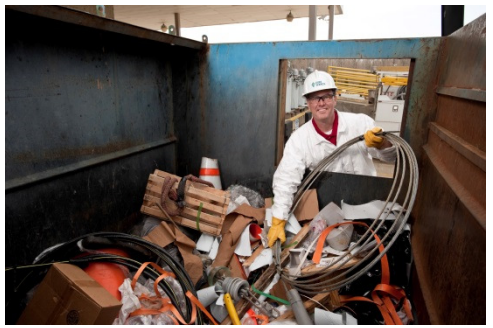
Water Withdrawn and Consumed for Electric Generation (billion gallons)

	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**

Duke Energy has reduced water consumption intensity 29 percent since 2011

Increasing Solid Waste Recycling





2018 Goal: Increase the percentage of solid waste that is recycled to 80%

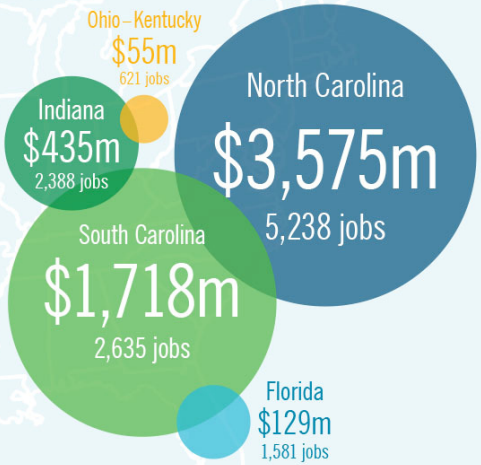
Bringing Jobs and Prosperity

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.

$5.9b
Total Capital Investment

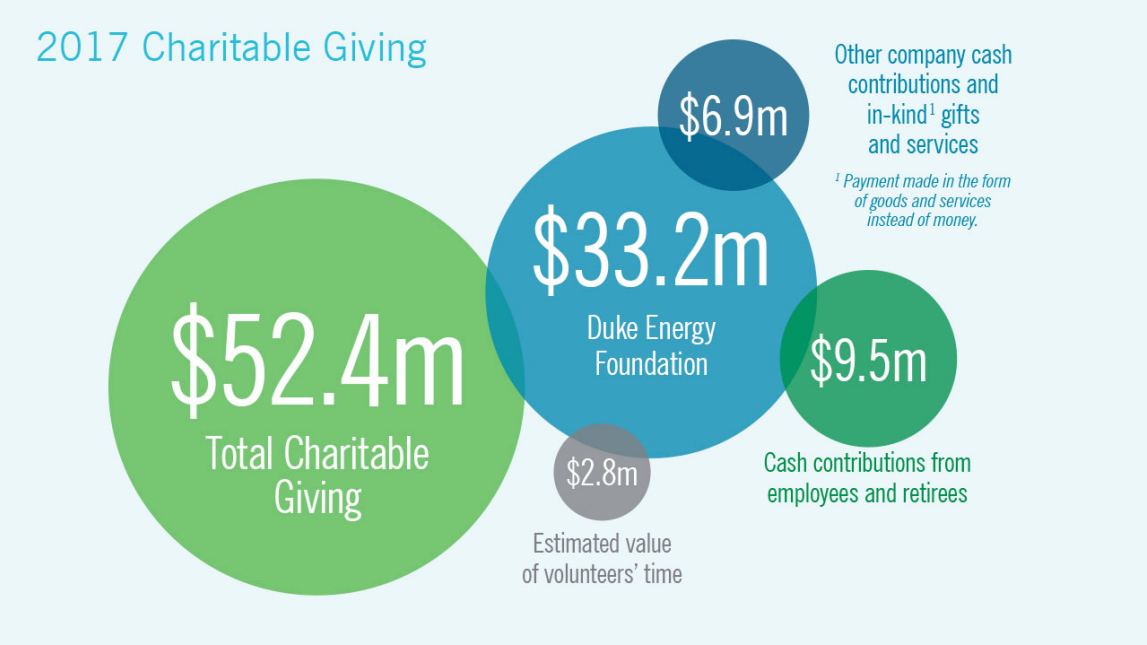
12,000
Total Jobs

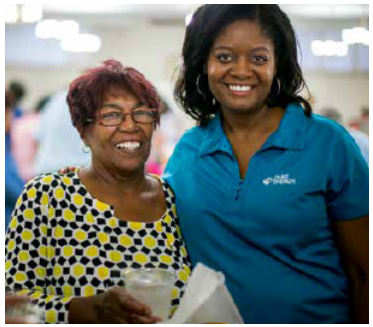


2017 – 2021 Goal: Help attract 40,000 jobs and $10 billion in capital investment

Investing in our Communities

Goal: Invest over $30 million in charitable giving annually





Thank you





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