Our Energy Future
Jason Walls, District Manager – Asheville Area
Customers today expect greater convenience, choice and control

Unprecedented transformation in energy technology and economics

Customers expect affordable electricity 24 hours a day

Our community is growing at a faster rate than other parts of the state
Duke’s Transformation

Investing in our air quality
Duke Energy’s emissions of carbon dioxide, sulfur dioxide and nitrogen oxides in the Carolinas have plummeted since 2005 as a result of our plant modernization efforts. We have invested approximately $3 billion in North Carolina since 2000 to improve air quality from our coal-fired plants.

- **2005**
  - Sulfur Dioxide: 37,200 tons (93% decrease)
  - Nitrogen Oxides: 111,000 tons (67% decrease)

- **2014**
  - Sulfur Dioxide: 3,200 tons
  - Nitrogen Oxides: 36,200 tons

- **2030**
  - Sulfur Dioxide: 200 tons
  - Nitrogen Oxides: 100 tons

Mixing it up
A more diverse fuel mix across our fleet – nuclear, natural gas, coal and renewables – helps us meet our obligation to provide affordable, reliable and increasingly clean electricity.

- Coal
- Nuclear
- Natural gas
- Oil
- Hydro
- Renewables

516,000 tons SO₂
37,200 tons SO₂
111,000 tons NOx
36,200 tons NOx
76,799,000 tons CO₂
57,300,000 tons CO₂
the EVOLUTION of ENERGY

NEXT 25 YEARS

1890 – 1920s
Cities and homes lit by electricity
Electric appliances becoming commonplace
More reliable service

1950s
Nuclear and hydro scale up

1970s – 1980s
More efficient plants built
Scrubber technology to reduce emissions introduced
Natural gas shortage contributed to higher energy prices
Greater awareness of energy conservation measures

2000s – present
Environmental stewardship and energy conservation became mainstream
Reduction in air emissions: sulfur dioxide about 90%; nitrogen oxides about 85%
Installation of scrubbers on some older units
Increase in renewables (wind and solar)
Increase in natural gas combined-cycle generation

First power plants
Digital platform
Power plants
Fast changing
Grid balancing
Battery storage
Harnessing power of electronics
Excess power sales
Plug and Play
Fiber networks
Microgrids
Energy Ecosystem
Internet of Things

Duke Energy
The Role of the Energy Innovation Task Force – Why is Duke Energy Involved?

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