NASPI Work Group Meeting

10-18-2022

Nelson Peeler

Duke Energy





Duke Energy – a large-scale, highly regulated energy infrastructure company

HEADQUARTERED IN CHARLOTTE, NC

DUK
LISTED
NYSE

A FORTUNE 150 COMPANY

$72 B
MARKET CAP
(AS OF 9/30/2022)

$172 B
TOTAL ASSETS
(AS OF 6/30/2022)

28 K
EMPLOYEES
(AS OF 12/31/2021)

54 GWs
TOTAL GENERATING CAPACITY
(AS OF 12/31/2021)

ELECTRIC UTILITIES & INFRASTRUCTURE

- Operating in six constructive jurisdictions, with attractive allowed ROEs, serving 8.2 million retail customers
- Customer rates below the national average(1)
- Balanced generation portfolio that has reduced its Scope 1 carbon emissions by 44% since 2005(2)
- Industry-leading safety performance, as recognized by EEI

GAS UTILITIES & INFRASTRUCTURE

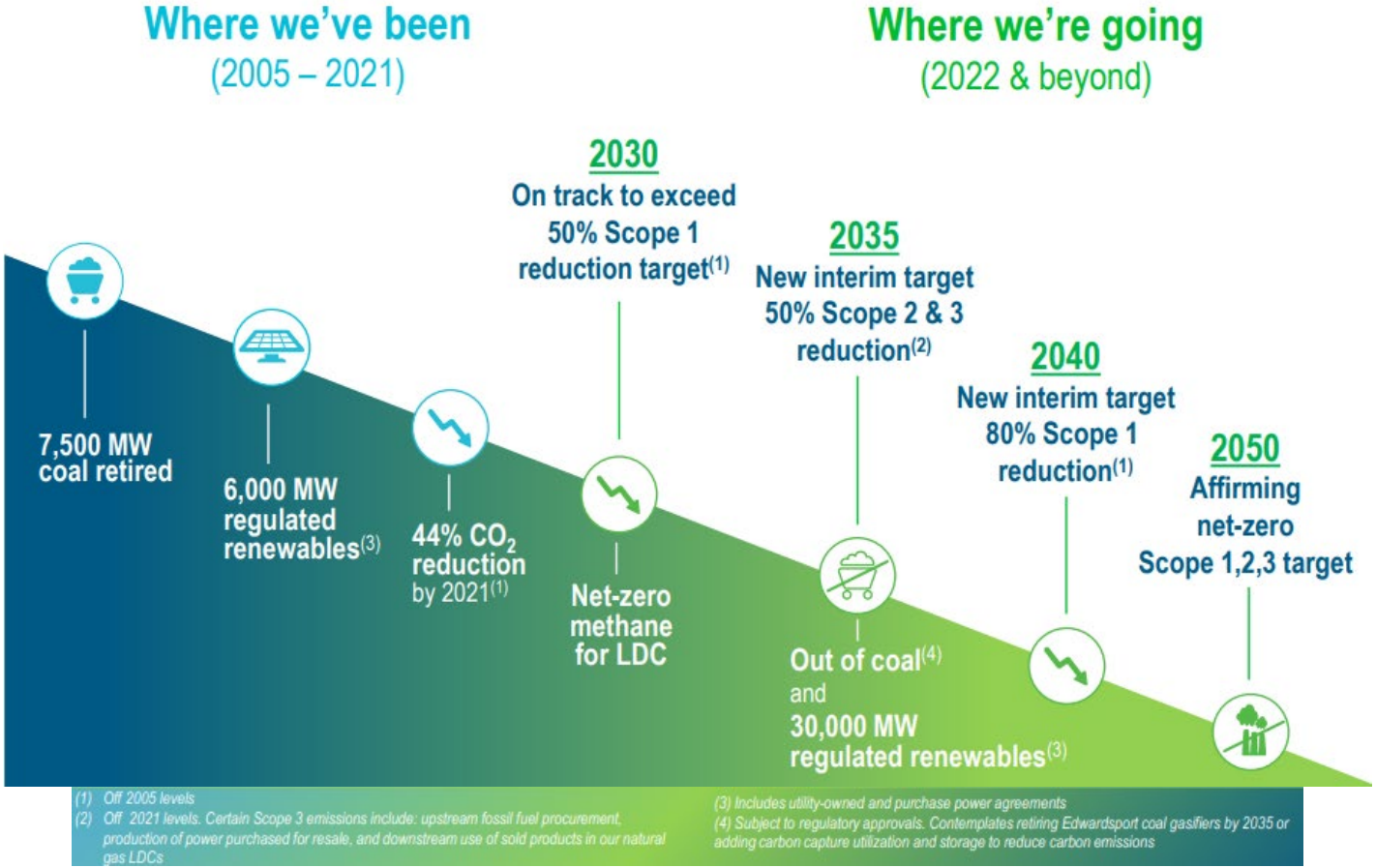
- Five state LDCs serving 1.6 million customers
- Strong earnings trajectory driven by customer growth, system integrity improvements, and continued expansion of natural gas infrastructure
- Efficient recovery mechanisms allow for timely recovery of investments

COMMERCIAL RENEWABLES

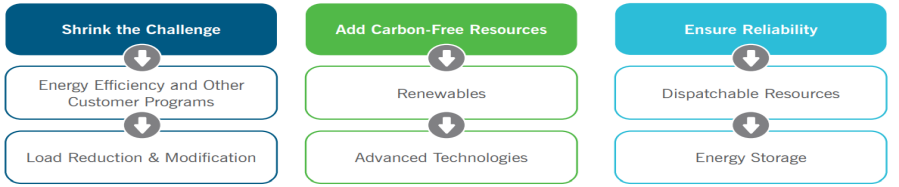
- Currently under strategic review
- Approximately 5 GWs of wind and solar in operation
- Long-term Power Purchase Agreements with creditworthy counterparties

(1) With the exception of KY Industrial customer rates. Typical bill rates (¢/kWh) in effect as of January 1, 2022. Source: EEI Typical Bills and Avg. Rates Report, Winter 2022
(2) Year to year reductions will be influenced by customer demand for electricity, weather, fuel, purchased power costs and other factors

Road to Net Zero



Carolinas Carbon Plan

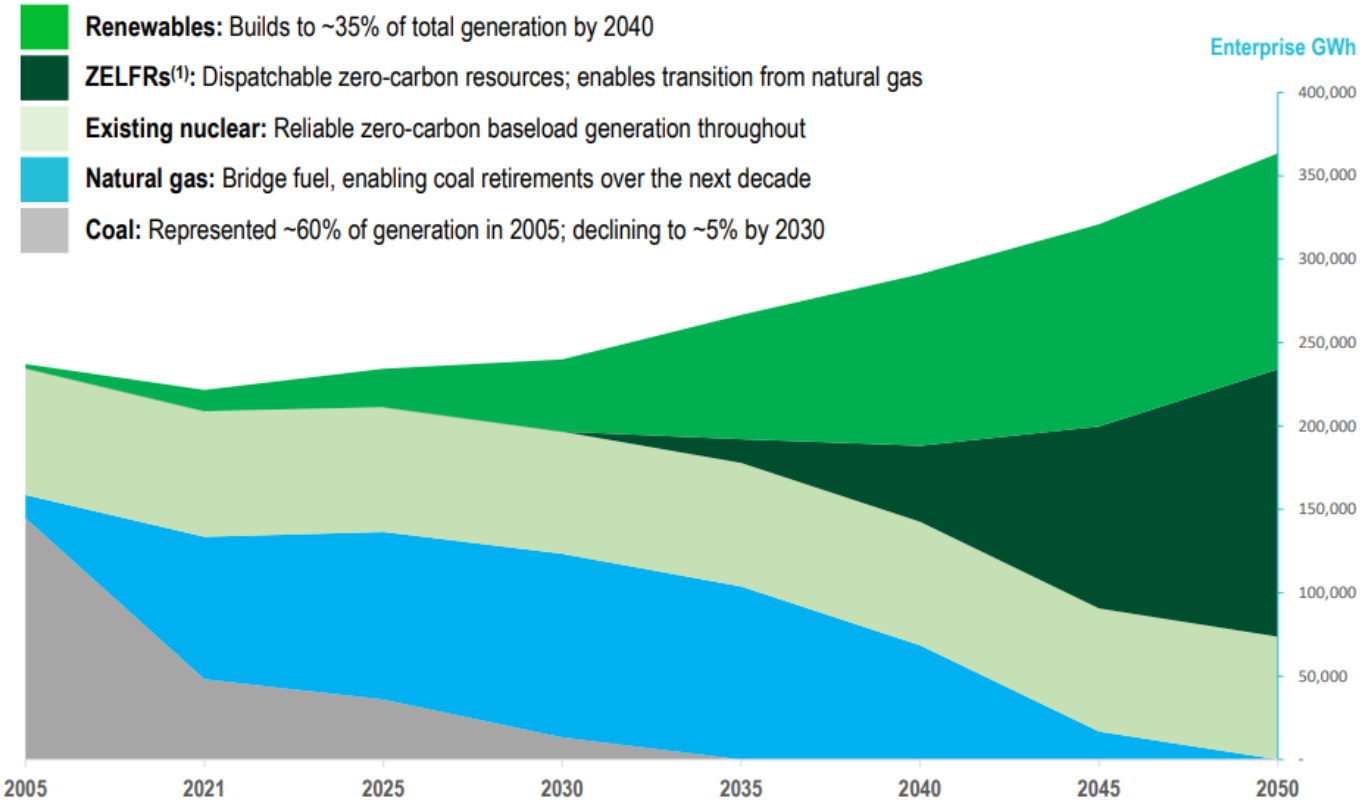


PORTFOLIOS		Grid Edge	Coal Retirements	New Solar	Battery	Onshore Wind	Offshore Wind	New Nuclear	New Pumped Storage	New CC	New CT	Average Annual Retail Bill Impact Through 2035
Resources by 2035	P1	70% by 2030	EE 1% of eligible retail sales IVVC growing to 96% (DEC) and 97% (DEP) circuits Winter DR & CPP	(-6.2 GW)	11.9 GW	4.2 GW	1.2 GW	0.8 GW	0.6 GW	1.7 GW	2.4 GW	1.1 GW	2.5%
	P2	70% 2032 OSW			8.6 GW	2.3 GW		1.6 GW					2.4%
	P3	70% 2034 SMR				2.4 GW							1.9%
	P4	70% 2034 OSW + SMR			7.6 GW	2.0 GW		0.8 GW				0.8 GW	2.0%

Note 1: Gray blocks denote coal retirements, which are dependent on addition of resources shown.
Note 2: Remaining coal planned to be retired by year end 2035.
Note 3: New Solar includes solar + storage, excludes projects related to pre-existing programs such as HB 589 and Green Source Advantage.
Note 4: Capacities as of beginning of 2035.
Note 5: IVVC = Integrated Volt/Var Control.
Note 6: CPP = Critical Peak Pricing.
Note 7: Battery includes batteries paired with solar.
Note 8: Average bill impact with Appalachian fuel availability; estimated bill impact with alternative fuel supply is 2.1% to 2.7% annually.

Source: Carbon Plan Overview Summary

Diverse generation mix key to reliability and rate stability for customers



(1) Zero-emission load following resources (ZELFRs) include small modular reactors and turbines run off hydrogen or biofuels

Duke Energy PMU overview

- Approximately 400 PMUs installed and sending data to Pi
- PMUs are used for Post Event Analysis regularly by both Operations Engineering and Asset Management.
  - Solar performance during system disturbances
  - Time correlation and evidence of disturbances for fault analysis
  - After-the-fact analysis for longer duration faults
  - Occasionally request to see if PMUs detected an event
- PMUs use in real time applications is limited
  - Used in the EMS State Estimator to supplement SCADA data.
  - A PMU summary display of data in the EMS
  - Evaluating the results of Electric Power Group (EPG) analysis of PMU data for events to determine if Duke should consider real time notifications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