Buy: \$100.45

**Target: \$111.12** 

**Upside: 10.6%** 

# Duke Energy Corporation (NYSE: DUK)



**Utilities and Renewables Sector** 

Sector Head: Max Grossberg

Lead Analyst: Stephanie Shen

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Financial Valuation

Risks & Mitigations

Conclusion

# Industry Analysis



#### Overview

- Dominated by large and diversified companies that provide electricity, natural gas, and water services
- Offers stable and consistent dividends as a safe long-term holding that performs well against macroeconomic downturns
- Analysts forecast strong **growth** for the sector, given the movement toward "clean" energy and Biden's commitment to renewable energy resources

### **Industry Trends**



Sustainability → Increase in decarbonization goals by 2050 and more detailed utility ESG reporting



**Resiliency** → Unpredictability in extreme weather conditions will strengthen utility resiliency strategies



**Digital Transformation** → 5G technology and cloud can expedite the clean energy transition

### **Leading Competitors**



**Consolidated Edison, Inc.** → Delivers regulated electric, gas, and steam services to 10 million people in the U.S.



**Public Service Enterprise Group, Inc.** → New Jersey's largest regulated utility that provides gas and electric services

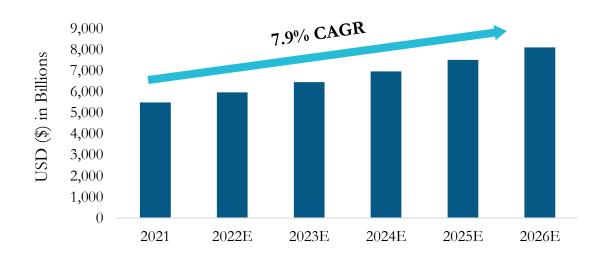


**Exelon Corporation** → Distributes electricity and gas through its subsidiaries and operates power plants



**Dominion Energy, Inc.** → Provides electricity and natural gas to homes, businesses, and wholesale customers

#### Global Utilities Market Performance



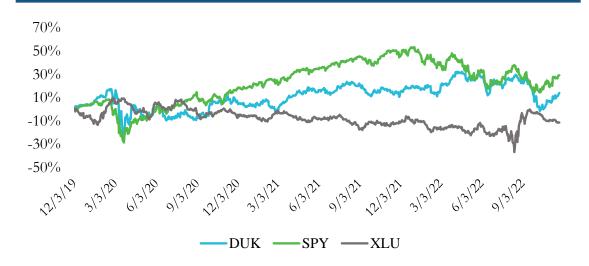
# Company Overview



### **Company Description**

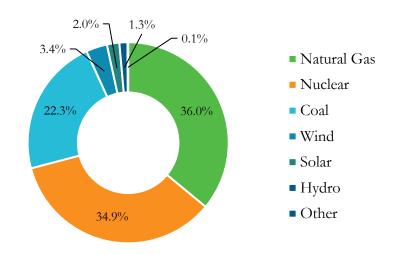
- Regulated public utility company that distributes electric power and natural gas to 7.8 million customers in the Southeast and Midwest parts of the United States
- Operates diverse power generation assets, including a portfolio of renewable energy products
- Intentions to execute **clean energy** transition to achieve net zero carbon emissions by 2050

#### **Historical Stock Performance**



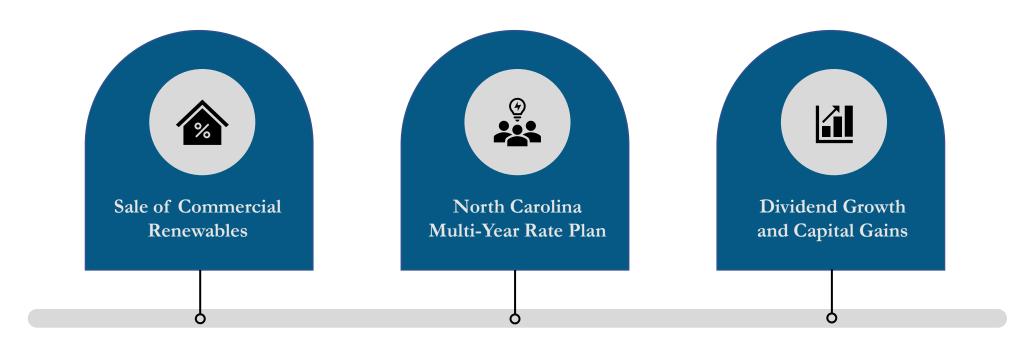
Key Financial Info	rmation
Share Price	\$ 100.45
52 Week High/Low	\$ 116.33 / \$ 83.76
Market Capitalization	\$ 77.71 B
Enterprise Value	\$ 153.96 B
Year Founded	1904
Dividend Yield	4.00%
P/E Ratio	20.9x

### **Total Energy Output**



## Investment Thesis





Selling the commercial renewables segment helps strengthen their balance sheet and address longterm equity needs

The multi-year rate plan will increase capex and improve its resiliency to restore power faster when outages occur

Despite macroeconomic factors, Duke will remain unaffected because its dividend and capital gains will make up for it

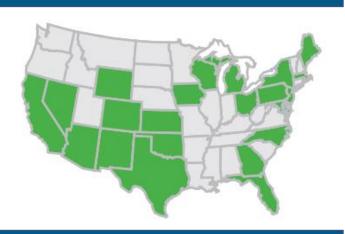
## Sale of Commercial Renewables



### **Segment Overview**

Robust development pipeline of wind and solar projects worth \$4B

Segment represents less than ~5% of consolidated earnings



#### **Finance Distributions**

- 1 Increase Capital Expenditures in Select States
- 2 Fund Debt Repayment and Drive Out Costs
- Reduce New Debt Under Today's Higher Interest Rates
- Pursue Energy Transition Goals Through 2027
- 5 Strengthen the Balance Sheet to Reduce Risks

### Strategic Rationale



**Underperformance** from an EPS standpoint prompts exit from the capital-intensive business

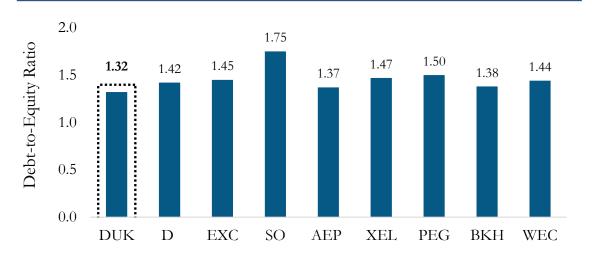


Compelling time to exit with **competitive** buyer field at **attractive** valuation and to address equity needs



Creates pure play utility with \$145B capital plan across higher-growth, regulated electric and gas operations

### **Strengthening Debt Positions**



## North Carolina Multi-Year Rate Plan



#### Historical North Carolina Rate Base



Filed the **first** base rate case for electric grid infrastructure **improvements** 



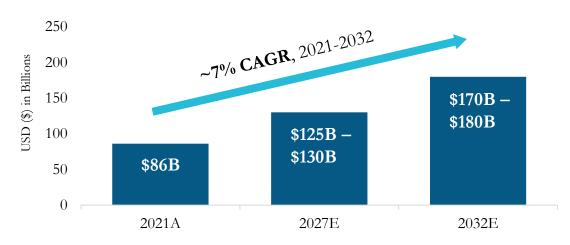
Propose a North Carolina rate base increase of \$1.7 billion to \$12.3 billion



Lowered operational costs by **>\$100 million** to **mitigate** revenue increase

### Capital Expenditure Potential

Renewables Sold → Increases Debt and Equity Position → Increase CapEx



### Regulatory Trend Highlights

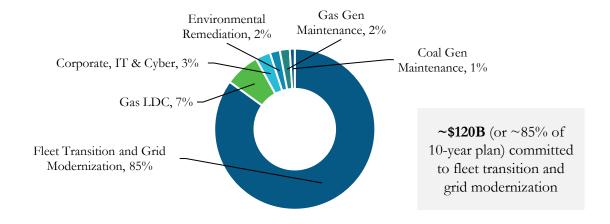
This regulation marks the start of a broader trend.

Duke Energy Florida has already made new investments. Florida will eventually increase their rate base to \$49 million.

Other subsidiaries will **follow** and increase the rate base.

#### Allocation of Capital Expenditures

~\$145B of Regulated Capital Expenditures Over the Next 10 Years



# Dividend Growth and Capital Gains



### **Dividend Yield Comparison**

Highest Dividend Yield Among Non-Risky Regulated Utility Companies



#### U.S. Inflation Reduction Act

#### **Existing Nuclear PTCs**

Carolinas units will qualify for several hundred million dollars per year, beginning in 2024

#### **Storage ITCs**

\$2.5B to \$4.5B of storage investments may qualify for **30%** ITCs over the next 10 years

#### **Solar PTCs**

Potential for 13 to 17 GW of solar over the next 10 years with each GW = \$60M in annual PTCs

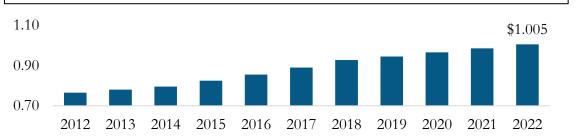
### **Corporate Minimum Tax**

Tax Credits will reduce 75% of cash liability on corporate book minimum tax

### **Quarterly Dividend Growth**

4.00% Dividend Yield 5-7% LT EPS Growth

~10% Shareholder Return > Fed Funds Rate



### Renewable Energy Incentives

Goal: Provide customers with a more affordable energy transition

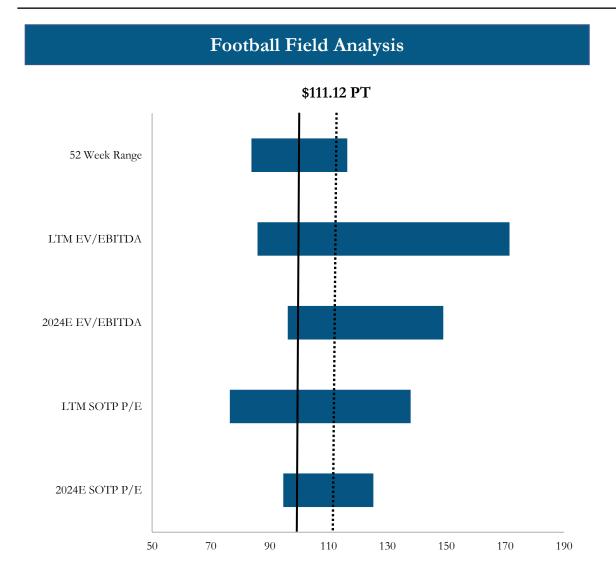
Duke will qualify for a **\$56M** tax credit

Florida gets
1% **cut** in
residential
rates

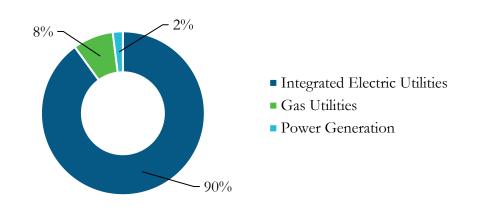
Decrease \$1.90 per 1,000 kWh in January

# Financial Valuation

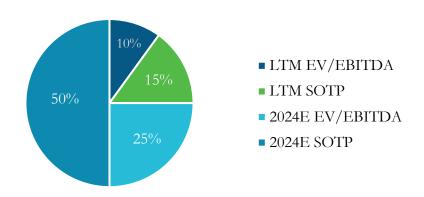




## Comparable Company Weighting



## Valuation Weighting



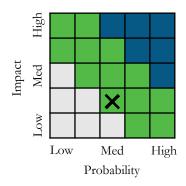
# Risks & Mitigations

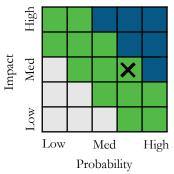


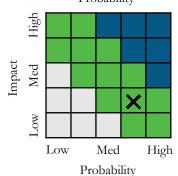
Regulatory changes in operational states affect long-term valuation

Due to changing commodity prices, especially in natural gas, there is an effect on the electricity output prices

Winter months tend to cause major power outages due to legacy utility infrastructure







Duke Energy is among the largest utilities with large amounts of capex for these states. They should not be affected.

Due to higher capex, Duke will have an increased rate base. The effect of input prices will not matter.

Most of its planned capital expenditures from selling the commercial renewables will fund the utility infrastructure and power lines.

Buy: \$100.45

**Target: \$111.12** 

**Upside: 10.6%** 

# Thank You!



Questions?

# Appendix A: Income Statement



Duke Energy Corporation									
Cosolidated Statements of Income - USD (\$) in Millions	FY 2019	FY 2020	FY 2021	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E
Total Revenues	25,279	24,067	25,302	26,529	28,679	29,043	29,412	29,785	30,163
Expenses									
Cost of Electric Power and Gas Distribution	13,519	12,299	13,002	14,981	13,498	13,064	12,066	11,320	10,411
% of revenue	53%	51%	51%	56%	47%	45%	41%	38%	35%
Depreciation and Amortization	4,548	4,705	4,990	4,814	5,263	5,133	5,298	5,315	5,408
% of revenue	18%	20%	20%	18%	18%	18%	18%	18%	18%
Property and Other Taxes	1,307	1,337	1,389	1,491	1,545	1,547	1,575	1,591	1,613
% of revenue	5%	6%	5%	6%	5%	5%	5%	5%	5%
Impairment of Assets and Other Charges	(8)	984	356	213	315	269	297	288	298
% of revenue	0%	4%	1%	1%	1%	1%	1%	1%	1%
Total Operating Expenses	19,366	19,325	19,737	21,500	20,619	20,013	19,236	18,513	17,730
Gains (Losses) on Sales of Other Assets and Other, net	(4)	10	13	-	-	-	-	-	-
Operating Income	5,909	4,752	5,578	5,029	8,059	9,030	10,175	11,272	12,433
Other Income and Expenses									
Interest Expense	(2,204)	(2,162)	(2,280)	(2,407)	(2,509)	(2,505)	(2,555)	(2,578)	(2,616)
% of revenue	9%	9%	9%	-9%	-9%	-9%	-9%	-9%	-9%
Equity in Earnings (Losses) of Unconsolidated Affiliates	162	(2,005)	28	121	77	101	90	97	96
% of revenue	1%	-8%	0%	0%	0%	0%	0%	0%	0%
Other Income and Expenses, net	430	453	643	447	591	502	544	571	568
% of revenue	2%	2%	3%	2%	2%	2%	2%	2%	2%
Total Other Income and Expenses	(1,612)	(3,714)	(1,609)	(1,839)	(1,842)	(1,902)	(1,921)	(1,910)	(1,952)
Income Before Income Taxes	4,297	1,038	3,969	3,191	6,217	7,128	8,255	9,362	10,481
Income Tax Expense	526	(243)	192	709	2,331	2,360	2,390	2,421	2,451
Tax Rate	12%	-23%	5%	3%	8%	8%	8%	8%	8%
Net Income	3,771	1,281	3,777	2,482	3,887	4,767	5,864	6,942	8,030
Net Loss Attributable to Noncontrolling Interests	177	295	329	162	268	219	248	238	248
% of revenue		1%	1%	1%	1%	1%	1%	1%	1%
Preferred Dividends	41	107	106	118	221	214	222	222	226
% of revenue		1%	1%	1%	1%	1%	1%	1%	1%
Net Income Available to Common Stockholders	3,907	1,469	4,000	2,525	3,934	4,772	5,891	6,958	8,052
Common Stock EPS									
Basic Shares Outstanding	\$5.07	\$1.71	\$4.93						
Diluted Shares Outstanding	\$5.07	\$1.71	\$4.93						
Weighted average shares outstanding									
Basic (in shares)	729	737	769	770	770	770	770	770	770
Diluted (in shares)	729	738	769	770	770	770	770	770	770

# Appendix B: Revenue Build



Duke Energy Corporation									
Revenue Build - USD (\$) in Millions	FY 2019	FY 2020	FY 2021	FY 2022E	FY 2023E	FY 2024E	FY 2025E	FY 2026E	FY 2027E
Electric Utilities and Infrastructure	22,831	21,720	22,603	23,603	25,381	25,703	26,030	26,360	26,695
% Growth		-4.9%	4.1%	4.4%	7.5%	1.3%	1.3%	1.3%	1.3%
% of Rate Base Growth					1.4%	1.4%	1.4%	1.4%	1.4%
% of Revenue	90.3%	90.2%	89.3%	89.0%	88.5%	88.5%	88.5%	88.5%	88.5%
Gas Utilities and Infrastructure	1,866	1,748	2,112	2,312	2,676	2,710	2,744	2,779	2,814
% Growth		-6.3%	20.8%	9.5%	15.7%	1.3%	1.3%	1.3%	1.3%
% of Rate Base Growth					1.4%	1.4%	1.4%	1.4%	1.4%
% of Revenue	7.4%	7.3%	8.3%	8.7%	9.3%	9.3%	9.3%	9.3%	9.3%
Commercial Renewables	487	502	476	495	501	507	514	520	527
% Growth		3.1%	-5.2%	3.9%	1.3%	1.3%	1.3%	1.3%	1.3%
% of Rate Base Growth					1.4%	1.4%	1.4%	1.4%	1.4%
% of Revenue	1.9%	2.1%	1.9%	1.9%	1.7%	1.7%	1.7%	1.7%	1.7%
Other	95	97	111	119	121	122	124	126	127
% Growth		2.1%	14.4%	7.6%	1.3%	1.3%	1.3%	1.3%	1.3%
% of Rate Base Growth					1.4%	1.4%	1.4%	1.4%	1.4%
% of Revenue	0.4%	0.4%	0.4%	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%
TOTAL REVENUES	25,279	24,067	25,302	26,529	28,679	29,043	29,412	29,785	30,163
% Growth		-4.8%	5.1%	4.8%	8.1%	1.3%	1.3%	1.3%	1.3%
% of Revenue	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

# Appendix C: Balance Sheet



Duke Energy Corporation					•													
Cosolidated Balance Sheets - USD (\$) in Millions	Q1 2019	Q2 2019	Q3 2019	Q4 2019	FY 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	FY 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	FY 2021	Q1 2022	Q2 2022	Q3 2022
The state of the s	Q1 2019	Q2 2019	Q3 2019	Q4 2019	FY 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	F 1 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	F1 2021	Q1 2022	Q2 2022	Q3 2022
Current Assets	277	226	270	244	244	4.450	244	200	250	250	2770	247	540	242	242	052	420	450
Cash and Cash Equivalents	377	336	379	311	311	1,450 2,637	341 2,802	308 3,039	259 3,153	259 3,153	379 2,784	367 3,088	548 3,429	343 3,610	343 3,610	853 3,738	428 3,928	453 4,212
Accounts Receivables, net	2,756	2,799	3,077			,	,	-		,	3,076	,	2,900	3,199	3,199	,	-	3,487
Inventory	3,102	3,189	3,107	3,232	3,232	3,324	3,289	3,190	3,167	3,167	,	3,015				3,171	3,208	
Regulatory Assets	1,957	1,918	1,723	1,796	1,796	1,770	1,774	1,637	1,641	1,641	1,650	1,793	1,791	2,150	2,150	2,334	2,834	3,576
Other Current Assets	976	1,267	1,333	764	764	1,000	1,031	505	462	462	619	722	768	638	638	946	1,163	1,244
Total Current Assets	9,168	9,509	9,619	9,163	9,163	10,181	9,237	8,679	8,682	8,682	8,508	8,985	9,436	9,940	9,940	11,042	11,561	12,972
Non-Current Assets																		
Property, Plant and Equipment	139,377	141,363	143,794	147,654	147,654	149,676	151,592	153,916	155,580	155,580	157,372	158,272	160,652	161,819	161,819	163,700	166,004	169,053
Less: Accumulated Depreciation and Amortization	(43,992)	(44,482)	(45,149)	(45,773)	(45,773)	(46, 599)	(47,295)	(48, 185)	(48,827)	(48,827)	(49,772)	(49,752)	(50,543)	(50,555)	(50,555)	(51,517)	(52, 252)	(53,241)
Add: Facilities to be Retired, net	336	317	267	246	246	31	28	29	29	29	29	121	127	144	144	133	99	95
Add: Operating Lease Right-of-Use Assets, net	1,698	1,735	1,703	1,658	1,658	1,633	1,580	1,577	1,524	1,524	1,540	1,495	1,287	1,266	1,266	1,255	1,222	1,199
Total property, plant and equipment, net	97,419	98,933	100,615	103,785	103,785	104,741	105,905	107,337	108,306	108,306	109,169	110,136	111,523	112,674	112,674	113,571	115,073	117,106
Goodwill	19,303	19,303	19,303	19,303	19,303	19,303	19,303	19,303	19,303	19,303	19,303	19,303	19,303	19,303	19,303	19,303	19,303	19,303
Regulatory Assets	13,301	13,393	13,916	13,222	13,222	13,413	13,285	13,264	12,421	12,421	12,441	12,485	12,247	12,487	12,487	12,506	12,863	13,835
Investments	8,976	9,336	9,559	10,076	10,076	9,119	8,861	9,287	10,075	10,075	10,329	10,824	10,812	11,371	11,371	10,803	9,557	9,074
Other Current Assets	2,969	2,975	2,905	3,289	3,289	3,315	3,458	3,539	3,601	3,601	3,715	3,652	3,686	3,812	3,812	3,995	4,026	4,050
Total Non-Current Assets	141,968	143,940	146,298	149,675	149,675	149,891	150,812	152,730	153,706	153,706	154,957	156,400	157,571	159,647	159,647	160,178	160,822	163,368
TOTAL ASSETS	151,136	153,449	155,917	158,838	158,838	160,072	160,049	161,409	162,388	162,388	163,465	165,385	167,007	169,587	169,587	171,220	172,383	176,340
Current Liabilities																		
Accounts Payable	2,538	2,512	2,946	3,487	3,487	2,364	2,398	2,486	3,144	3,144	2,497	2,716	2,888	3,629	3,629	3,175	3,971	4,175
Notes Payable and Commercial Paper	2,039	3,793	2,469	3,135	3,135	3,033	4,785	3,425	2,873	2,873	4,064	3,296	2,098	3,304	3,304	3,262	3,875	3,606
Accrued Taxes	470	521	712	392	392	493	657	768	482	482	574	692	908	749	749	642	682	946
Accrued Interest	544	564	559	565	565	571	569	556	537	537	536	537	558	533	533	575	554	596
Current Maturities of Long-Term Debt	2,501	2,698	3,096	3,141	3,141	5,077	3,756	4,669	4,238	4,238	5,586	4,976	4,873	3,387	3,387	3,884	3,171	3,249
Asset Retirement Obligations	779	739	861	881	881	802	729	742	718	718	709	691	673	647	647	648	649	798
Regulatory Liabilities	611	600	673	784	784	826	898	1,218	1,377	1,377	1,509	1,309	1,319	1,211	1,211	1,238	1,383	1,338
Other Current Liabilities	1,810	2,020	2,074	2,367	2,367	2,004	2,898	2,829	2,936	2,936	1,858	1,994	2,239	2,471	2,471	2,001	2,259	2,204
Total Current Liabilities	11,292	13,447	13,390	14,752	14,752	15,170	16,690	16,693	16,305	16,305	17,333	16,211	15,556	15,931	15,931	15,425	16,544	16,912
Non-Current Liabilities																		
Long-Term Debt	53,681	54,342	54,818	54,985	54,985	56,311	56,143	56,049	55,625	55,625	54,768	57,410	57,929	60,448	60,448	62,196	63,147	66,060
Operating Lease Liabilities	1,488	1,502	1,456	1,432	1,432	1,414	1,377	1,379	1,340	1,340	1,352	1,315	1,093	1,074	1,074	1,068	1,039	1,004
Deferred Income Taxes	8,040	8,532	8,776	8,878	8,878	9,321	8,979	9,170	9,244	9,244	9,459	9,644	9,875	9,379	9,379	9,673	9,948	10,244
Asset Retirement Obligations	12,256	11,889	11,740	12,437	12,437	12,497	12,539	12,912	12,286	12,286	12,299	12,272	12,278	12,129	12,129	12,112	12,080	12,152
Regulatory Liabilities	15,212	15,294	15,202	15,264	15,264	14,029	14,553	14,546	15,029	15,029	15,070	15,414	15,530	16,152	16,152	16,037	14,519	14,017
Accrued Pension	974	959	900	934	934	1,414	911	903	969	969	1,010	995	988	855	855	832	799	995
Investment Tax Credits	571	569	579	624	624	919	683	689	687	687	747	770	804	833	833	831	855	851
Other Non-Current Liabilities	1,587	1,583	1,649	1,581	1,581	659	1,563	1,773	1,719	1,719	1,769	1,809	1,714	1,650	1,650	1,794	1,868	1,936
Total Non-Current Liabilities	93,809	94,670	95,120	96,135	96,135	96,564	96,748	97,421	96,899	96,899	96,474	99,629	100,211	102,520	102,520	104,543	104,255	107,259
Equity	35,003	24070	20,120	20,100	20,100	70,504	70,740	,,,, <u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	Jojoss	20,022	20,474	,,,,,,	100,211	102,020	102,020	104,545	101,200	107,235
Preferred Stock	1,964	973	1,963	1,962	1,962	2,217	1,962	1,962	1,962	1,962	1,962	1,962	1,962	1,962	1,962	1,962	1,962	1,962
Common Stock \$0.001 par value; 2B shares authorized; 770M and 769M issued respectively	1,,,,,,	1	1,703	1,702	1,702	1	1,732	1,732	1,702	1,702	1,,,,,,,	1,702	1,702	1,702	1,702	1,732	1,702	1,702
Additional Paid-In Capital	40,823	40,885	40,488	40,881	40,881	40,930	40,997	41,046	43,767	43,767	43,761	43,788	44,348	44,371	44,371	44,364	44,373	44,397
Retained Earnings				4,108	4,108	4,221	2,707	3,260	2,471	2,471	2,680	2,687	3,293	3,265	3,265	3,323	3,457	4,063
**	3,360	3,502	4,139	(130)	(130)	(193)	(183)	(263)	(237)	(237)	(218)	(306)	(297)	(303)	(303)	(204)		(78)
Accumulated Other Comprehensive (Loss) Income	(128)	(148)	(153)	1,129	1,129	1,162	1,127		1,220	1,220	1,472	1,413	1,933	1,840	1,840	1,806	(73) 1,864	1,824
Noncontrolling Interests	15	119	969		,	,		1,289	, .	, .	,	,	,	,	, , , , ,	,	,	
Total Equity	46,035	45,332	47,407	47,951	47,951	48,338	46,611	47,295	49,184	49,184	49,658	49,545	51,240	51,136	51,136	51,252	51,584	52,169
TOTAL LIABILITIES AND EQUITY	151,136	153,449	155,917	158,838	158,838	160,072	160,049	161,409	162,388	162,388	163,465	165,385	167,007	169,587	169,587	171,220	172,383	176,340
TO THE MILE AND EQUIT	101,100	100,717	100,717	100,000	130,030	100,072	100,049	101,707	102,000	102,300	100,700	100,000	107,007	107,307	107,507	1/1,000	174,303	170,340

# Appendix D: Cash Flow Statement



Duke Energy Corporation																		
Cosolidated Statements of Cash Flows - USD (\$) in Millions	Q1 2019	Q2 2019	Q3 2019	Q4 2019	FY 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	FY 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	FY 2021	Q1 2022	Q2 2022	Q3 2022
Operating Cash Flow																		
Net Income	942	799	1,372	658	3,771	930	(841)	1,283	(91)	1,281	992	647	1,328	707	3,777	873	827	1,447
Adjustments to Reconcile Net Income to Net Cash																	_	1,413
Depreciation, Amortization and Accretion	1,238	1,245	1,348	1,345	5,176	1,301	1,350	1,430	1,405	5,486	1,385	1,368	1,436	1,474	5,663	1,480	1,443	1,491
Equity in (Earnings) Losses of Unconsolidated Affiliates	(43)	(44)	(50)	(25)	(162)	(44)	1,968	80	1	2,005	17	(9)	(22)	(14)	(28)	(25)	(36)	(26)
Equity Component of AFUDC	(31)	(36)	(32)	(40)	(139)	(40)	(36)	(36)	(42)	(154)	(42)	(41)	(43)	(45)	(171)	(46)	(53)	(52)
Asset Repairment Charges	3	5	(24)	8	(8)		8	18	958	984		131	211	14	356	215	(9)	(4)
Deferred Income Taxes	97	430	209	70	806	422	(317)	105	(156)	54	86	33	87	(15)	191	(11)	78	142
Asset Retirement Obligations	(152)	(184)	(246)	(164)	(746)	(132)	(155)	(176)	(147)	(610)	(114)	(149)	(126)	(151)	(540)	(119)	(136)	(163)
Rate Refund Provisions	35	22	4	(1)	60		(12)	(3)	Ø	(22)		(13)	(28)	(29)	(70)	(31)	(34)	(32)
Refund for AMT Credit Carryforwards				573	573	_	`	572	(-)	572	_	(,	` _	`-'	-	-	(,	` _
Contributions to Quaified Pension Plans			(77)	77			-	_					-	-				_
Changes in Select Components of Working Capital			(7.7)					-	63	63			-	-				
Net Realized and Unrealized Mark-to-Market and Hedging Transactions	10	(21)	7	(44)	(48)		(24)	111	(143)	(56)	_	15	101	(66)	50	215	136	(318)
Accounts Receivables	388	(84)	(242)	16	78	466	(185)	(223)	(143)	66	377	(292)	(252)	(130)	(297)	5	(185)	(176)
Inventory	(31)	(79)	107	(119)	(122)	(92)	36	99	162	205	91	62	115	(302)	(34)	28	(40)	(278)
Other Current Assets	98	(363)	131	144	10	(131)	7	323	(220)	(21)	(47)	(250)	(346)	(493)	(1,136)	(327)	(817)	(1,259)
Accounts Payable	(636)	(64)	172	364	(164)	(657)	19	75	(220)	117	(467)	(250)	151	395	249	(160)	568	96
Accounts Payable Account Taxes	(107)	51	181	(349)	(224)	113	160	113	(451)	(65)	104	115	212	(147)	284	(90)	41	255
Other Current Liabilities	(407)	29	180	370	172	(455)	111	60	(124)	(408)	(263)	(63)	336	(23)	(13)	(269)	368	164
Other Assets	(162)	161	(278)	(276)	(555)	(37)	(164)	(137)	(124)	(442)	51	26	122	(87)	112	(26)	308 81	(139)
Other Liabilities	(102)	101	(2/8)	(2/6)	(69)	(50)	(71)	(246)	367	(442)	(31)	(16)	124	18	95	136	(45)	97
Net Cash Provided From Operating Activities	1,288	5	2,636	2,613	8,409	1,594	1,854	3,448	2,159	9,055	2,139	1,734	3,406	1,106	8,488	1,848	2,187	2,658
Net Cash Provided From Operating Activities	1,288	1,872	4,636	2,613	0,409	1,374	1,054	3,440	2,139	9,033	2,139	1,754	3,400	1,100	0,400	1,040	2,107	2,030
Investing Cash Flow																		
Capital Expenditures	(2,536)	(2,929)	(2,619)	(3,038)	(11,122)	(2,832)	(2,271)	(2,305)	(2,499)	(9,907)	(2,215)	(2,421)	(2,453)	(2,626)	(9,715)	(2,551)	(2,566)	(3,031)
Contributions to Equity Method Investments	(94)	(68)	(102)	(60)	(324)	(77)	(87)	(112)	(94)	(370)	(2,213)	(21)	(9)	(51)	(81)	(17)	(15)	(5)
Return of Investment Capital	(54)	(00)	(102)	11	(324)	(7)	(67)	(112)	133	133		(21)	(9)	44	44	(17)	(15)	(3)
Purchases of Debt and Equity Securities		4 450	(789)	(243)	(3,348)	(1,392)	(2,426)	(2,342)	(1,851)	(8,011)	(1,584)	(1,598)	(1,110)	(1,806)	(6,098)	(1,516)	(668)	(1,435)
	(860)	(1,456)	790	251	3,343	1,347	2,408	2,332	1,862	7,949	1,601	1,616	1,118	1,768	6,103	1,530	695	1,466
Proceeds from Sales and Maturities of Debt and Equity Securities Disbursements to Canceled Equity Method Investments	851	1,451	/90	(517)	(517)	1,547	2,400	2,332	(398)	(398)	(855)	1,010	1,110	1,700	(855)	1,330	0,5	1,400
Other Investing Activities	(74)	(73)	419	(272)	(317)	(68)	(73)	(66)	207	(376)	(84)	(53)	(132)	(64)	(333)	(145)	(239)	(133)
Net Cash Provided From Investing Activities	(2,713)	(3,075)	(2,301)	(3,868)	(11,957)	(3,022)	(2,449)	(2,493)	(2,640)	(10,604)	(3,137)	(2,477)	(2,586)	(2,735)	(10,935)	(2,699)	(2,793)	(3,138)
Net Cash Frovided From Investing Activities	(2,713)	(3,075)	(2,301)	(3,000)	(11,957)	(3,022)	(4,449)	(2,493)	(2,040)	(10,004)	(5,157)	(2,4//)	(2,500)	(2,733)	(10,935)	(2,099)	(4,793)	(5,136)
Financing Cash Flow																		
Issuance of Long-Term Debt	2,737	1,885	1,509	960	7,091	1,954	1,834	2,374	168	6,330	608	4,019	1,752	2,673	9,052	3,506	2,208	3,752
Issuance of Preferred Stock and Preference Stock, net	974	(1)	990	(1)	1,962	-,,,,,,	-,00	2,57	-	0,000	-	.,	1,702	2,075	-,002	-	2,200	5,752
Issuance of Common Stock	13	14	14	343	384	40	17	18	2,670	2,745	5				5			
Redemption of Long-Term Debt	(1,201)	(954)	(582)	(739)	(3,476)	(292)	(1,659)	(1,517)	(1,038)	(4,506)	(76)	(1,946)	(1,674)	(1,598)	(5,294)	(1,215)	(1,932)	(656)
Proceeds from Issuance of Short-Term Debt	135	105	99	58	397	1,784	82	506	637	3,009	50	25	34	223	332	(1,213)	30	50
Payments for Redemption of Short-Term Debt	(239)	(60)	(180)	36	(479)	(17)	(96)	(1,030)	(1,004)	(2,147)	(909)	(50)	(38)	220	(997)	(257)	50	(30)
Notes Pavable and Commercial Paper	(304)	687	(1,262)	581	(298)	(198)	69	(840)	(212)	(1,181)	2,046	(747)	(1,134)	979	1,144	213	572	(309)
	(304)	187		228	843	103	60	239	24	426	303	15	1,238	19	1,144	213	103	(309)
Contributions from Noncontrolling Interests	0		422 (678)	(678)	(2,668)	(707)	(684)	(722)	(699)	(2,812)	(783)	(758)	(799)	(774)	(3,114)	(799)	(775)	(815)
Dividends Paid	(649)	(663)	(6/8)	(0/8)	(26)	(74)	(34)	15	(40)	(133)	(59)	(13)	51	(73)	(94)	(67)	(34)	(23)
Other Financing Activities  Net Cash Provided From Financing Activities	1,433	(11) 1,189	365	743	3,730	2,593	(411)	(957)	506	1,731	1,185	545	(570)	1,449	2,609	1.404	172	1,975
Net Cash Provided From Financing Activities	1,433	1,189	365	743	3,730	2,593	(411)	(957)	506	1,731	1,185	545	(570)	1,449	2,609	1,404	172	1,9/5
Cash and Cash Equivalents																		
Cash, Cash Equivalents and Restricted Cash at Beginning of Period	591				591	573			_	573	556				556	520		
	550	(69)	101	-	573	1,698	(1,057)	(41)	(44)	556	692	(127)	178	(223)	520	1,020	(381)	(10)
Cash, Cash Equivalents and Restricted Cash at End of Period  Net Decrease in Cash, Cash Equivalents, and Restricted Cash	550 (41)	(69) ( <b>69)</b>	101 101	(9)	(18)	1,125		(41)	(44)		136		178	(223)	36)	1,020 <b>500</b>	(381)	
iver Decrease in Cash, Cash Equivalents, and Restricted Cash	(41)	(69)	101	(9)	(18)	1,125	(1,057)	(41)	(44)	(17)	136	(127)	178	(223)	(36)	500	(381)	(10)
Supplemental Cash Flow Disclosures																		
Interest, net of amounts capitalized				2,195	2,195				2,186	2,186				2,248	2,248			
Income Taxes		-	-	(651)	(651)		-	_	(585)	(585)		_	-	(3)	/3)	-		
Accured Capital Expenditures	811	106	156	292	1,365	934	11	47	124	1,116	921	69	8	327	1,325	1,028	236	123
	27	27	27	292	1,303	27	27	28	28	1,110	,21	39		32/	1,323	1,020	2.30	123
Non-Cash Dividends	2/	2/	2/	2/	106	21	21	20	20	110	-			-	-			

# Appendix E: CapEx + D&A



Duke Energy Corporation									
CapEx + D&A	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Revenue	25,279	24,067	25,302	26,529	28,679	29,043	29,412	29,785	30,163
Capital Expenditures	(11,122)	(9,907)	(9,715)	(10,841)	(10,981)	(11,120)	(11,262)	(11,404)	(11,549)
% of revenue	-44%	-41%	-38%	-41%	-38%	-38%	-38%	-38%	-38%
Depreciation & Amortization	5,176	5,486	5,663	7,992	6,211	6,186	6,318	6,371	6,465
% of capex	47%	55%	58%	74%	57%	56%	56%	56%	56%

# Appendix F: Net Working Capital



Duke Energy Corporation									
Net Working Capital	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
Current Assets									
A/R Days	44	48	52	50	44	43	43	42	42
Accounts Receivable	3,060	3,153	3,610	3,382	3,496	3,439	3,467	3,453	3,460
Revenue	25,279	24,067	25,302	26,529	28,679	29,043	29,412	29,785	30,163
Inv Days	87	94	90	-	-	-	-	-	-
Inventory	3,232	3,167	3,199	-	-	-	-	-	-
COGS	13,519	12,299	13,002	14,981	13,498	13,064	12,066	11,320	10,411
Total Current Assets	131	142	142	50	44	43	43	42	42
Current Liabilities									
A/P Days	94	93	102	83	95	96	105	112	122
Accounts Payable	3,487	3,144	3,629	3,387	3,508	3,447	3,477	3,462	3,470
COGS	13,519	12,299	13,002	14,981	13,498	13,064	12,066	11,320	10,411
Accrued Taxes	(224)	(65)	284	-	-	-	-	-	-
Revenue	25,279	24,067	25,302	26,529	28,679	29,043	29,412	29,785	30,163
% of Revenue	-0.89%	-0.27%	1.12%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Current Liabilities	(130)	28	386	83	95	96	105	112	122
			-						
NWC	261	114	(244)	(33)	(50)	(53)	(62)	(69)	(80)
ΔNWC	(126)	(387)	(432)	12	2	7	5	7	7

# Appendix G: WACC



DUK Weighted Average Cost of Capital	
Pre-Tax Cost of Debt	5.83%
Tax Rate	8.13%
Cost of Debt	5.35%
Risk-free Rate	3.68%
Market Return	8.53%
Equity Risk Premium	4.85%
Beta	0.48
Cost of Equity	6.03%
Market Capitalization	76,707,400,000
Debt Outstanding	60,448,000,000
Total Capitalization	137,155,400,000
Weight of Debt	44.07%
Weight of Equity	55.93%
Weighted Average Cost of Capital	5.73%

EBIT	2,081
Interest Expense	(621)
Interest Coverage Ratio	3.35

Damodaran Spread	2.15%
Risk-Free Rate	3.68%
Cost of Debt	5.83%

# Appendix H: Comps SOTP



DUK Comps SOTP																		
Company	Ticker	Share Price	Shares Outstanding	Net Debt	Enterprise Value	Market Cap	LTM Rev	2024E Rev	LTM EBITDA	2024E EBITDA	LTM EPS	2024E EPS	LTM EV/Rev	2024E EV/Rev I	TM EV/EBITDA	2024E EV/EBITDA	LTM P/E	2024E P/E
Duke Energy Corporation	DUK	9	98.83 770,000,00	0 72,462,000,000	153,959,400,000	76,707,400,000	28,239,000,000	28,960,825,268	11,885,000,000	15,215,345,845	5.21	6.20	5.45	x 2.65x	12.95	x 10.12	x 18.9	95x 15
Integrated Electric Utilities																		
Xcel Energy Inc.	XEL	69	9.63 547,250,00	0 25,326,000,000	62,963,700,000	37,749,200,000	14,612,000,000	14,855,600,000	5,131,000,000	5,564,700,000	3.00	3.60	4.31	x 4.24x	12.2	x 11.31	x 22.7	75x 19
Public Service Enterprise GP	PEG	5	9.22 498,950,00	0 19,533,000,000	49,075,200,000	29,368,200,000	9,717,000,000	9,686,300,000	2,974,000,000	4,165,100,000	4.04	3.88	5.05	s 5.07x	16.50	x 11.78	x 14.0	66x 15
Southern Company	SO	6	7.83 1,088,670,00	0 52,057,000,000	132,431,200,000	73,311,200,000	27,999,000,000	26,122,900,000	9,953,000,000	10,792,000,000	3.67	4.09	4.73	s 5.07x	13.31	x 12.27	x 18.4	48x 16
Gas Utilities																		
Nisource Inc.	NI	2	7.29 406,130,00	0 10,788,200,000	23,668,800,000	11,065,100,000	5,554,600,000	5,610,900,000	1,914,400,000	2,466,400,000	1.43	3 1.71	4.26	x 4.22x	12.30	x 9.60	x 19.0	08x 15
Atmos Energy Corp	ATO	119	9.16 140,900,00	0 8,043,667,000	25,007,900,000	16,637,500,000	4,201,700,000	4,751,500,000	1,456,600,000	2,280,000,000	5.60	5.90	5.95	s 5.26x	17.17	x 10.97	x 21.0	05x 20
Centerpoint Energy Inc	CNP	3	0.67 629,430,00	0 15,474,000,000	35,638,700,000	19,304,700,000	8,924,000,000	8,967,800,000	2,808,800,000	3,407,100,000	1.16	5 1.62	3.99	x 3.97x	12.69	x 10.46	x 26.4	44x 18
Power Generation																		
American Electric Power	AEP	9	5.47 513,860,00	0 37,230,200,000	86,496,500,000	48,657,800,000	18,819,800,000	18,916,700,000	7,444,400,000	7,892,300,000	4.94	5.64	4.605	x 4.57x	11.62	x 10.96	x 19.3	33x 16
Black Hills Corp	BKH	70	0.73 65,080,00	0 4,620,690,000	9,313,500,000	4,601,000,000	2,322,900,000	2,291,000,000	688,800,000	807,000,000	3.99	4.47	4.01	x 4.07x	13.52	x 11.54	x 17.7	73x 15
WEC Energy Group Inc.	WEC	9	6.06 315,430,00	0 16,308,900,000	46,850,100,000	30,300,600,000	9,240,900,000	9,345,600,000	2,983,700,000	3,590,100,000	4.46	5 4.93	5.07	x 5.01x	15.70	x 13.05	x 21.5	54x 19
Weighted Average													4,692	x 4.76x	14.00	x 11.66	x 18.9	91x 17
																	2024E EPS	\$ 6
																		\$ 100

LTM	EV/EBITDA	EV	Debt	Cash	Equity	Shares	Per Share
Min	11.62	138,091,841,182.63	72,462,000,000.0	0 453,000,000.00	66,082,841,182.63	770,000,000.00	85.82
Q1	12.36	146,940,915,169.24	72,462,000,000.0	0 453,000,000.00	74,931,915,169.24	770,000,000.00	97.31
Med	13.31	158,137,728,524.06	72,462,000,000.0	0 453,000,000.00	86,128,728,524.06	770,000,000.00	111.86
Q3	15.70	186,618,439,688.98	72,462,000,000.0	0 453,000,000.00	114,609,439,688.98	770,000,000.00	148.84
Max	17.17	204,049,767,609.50	72,462,000,000.0	0 453,000,000.00	132,040,767,609.50	770,000,000.00	171.48

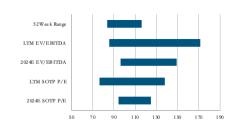
2024E	EV/EBITDA	EV	Debt	Cash	Equity	Shares	Per Share
Min	9.60	146,014,019,513.73	72,462,000,000.00	453,000,000.00	74,005,019,513.73	770,000,000.00	96.11
Q1	10.83	164,854,262,893.75	72,462,000,000.00	453,000,000.00	92,845,262,893.74	770,000,000.00	120.58
Med	11.14	169,523,441,530.70	72,462,000,000.00	453,000,000.00	97,514,441,530.70	770,000,000.00	126.64
Q3	11.60	176,517,619,783.09	72,462,000,000.00	453,000,000.00	104,508,619,783.09	770,000,000.00	135.73
Max	12.27	186,711,129,413.14	72,462,000,000.00	453,000,000.00	114,702,129,413.14	770,000,000.00	148.96

LTM	P/E EP	S P	er Share
Min	14.66	5.21	76.44
Q1	18.48	5.21	96.38
Med	19.33	5.21	100.78
Q3	21.54	5.21	112.31
Max	26.44	5.21	137.87

2024E	P/E EPS	Per Shar	re
Min	15.26	6.20	94.60
Q1	15.96	6.20	98.91
Med	16.93	6.20	104.91
Q3	19.07	6.20	118.20
Max	20.20	6.20	125.18

Price Target Calculations		
Method	Price	Weight
LTM EV/EBITDA	\$111.86	10%
LTM SOTP	\$100.78	15%
2024E EV/EBITDA	\$126.64	25%
2024E SOTP	\$106.31	50%
Final Price Target	\$111.12	

Metric	1	Min	Spread
52 Week Range	\$	84	33
LTM EV/EBITDA	\$	86	86
2024E EV/EBITDA	\$	96	53
LTM SOTP P/E	\$	76	61
2024E SOTP P/E	\$	95	31



Min	15.26x	\$	94.60
Q1 Med	15.95906433	\$	98.91
Med	16.93x	\$	104.91
Q3	19.34166667	\$	119.88
Max	20,20x	S	125,18