

99<sup>TH</sup>

# IECA

## ANNUAL CONFERENCE

PARK MGM > LAS VEGAS, NV > OCTOBER 17-20, 2023

DON'T ROLL  
THE DICE  
ON RISK

The IECA logo consists of the letters 'IECA' in a bold, white, sans-serif font. A small green leaf-like symbol is positioned to the left of the letter 'I'.

IECA





# WOODFOREST OVERVIEW



## Established in 1980

Headquartered in The Woodlands, TX  
With Over \$9 Billion in Total Assets



## Privately Owned Bank

Employee Stock Ownership Plan is  
the Largest Shareholder



## Commercial Banking

Loan Production Offices Located in  
Texas, North Carolina, and Florida



## Convenient Branches

Over 760 Locations in 17 States  
With Most Located Inside the  
Nation's Largest Retailer



## Employees

Approximately 4,500 Employees  
Serving Our Customers



## Full Service Banking

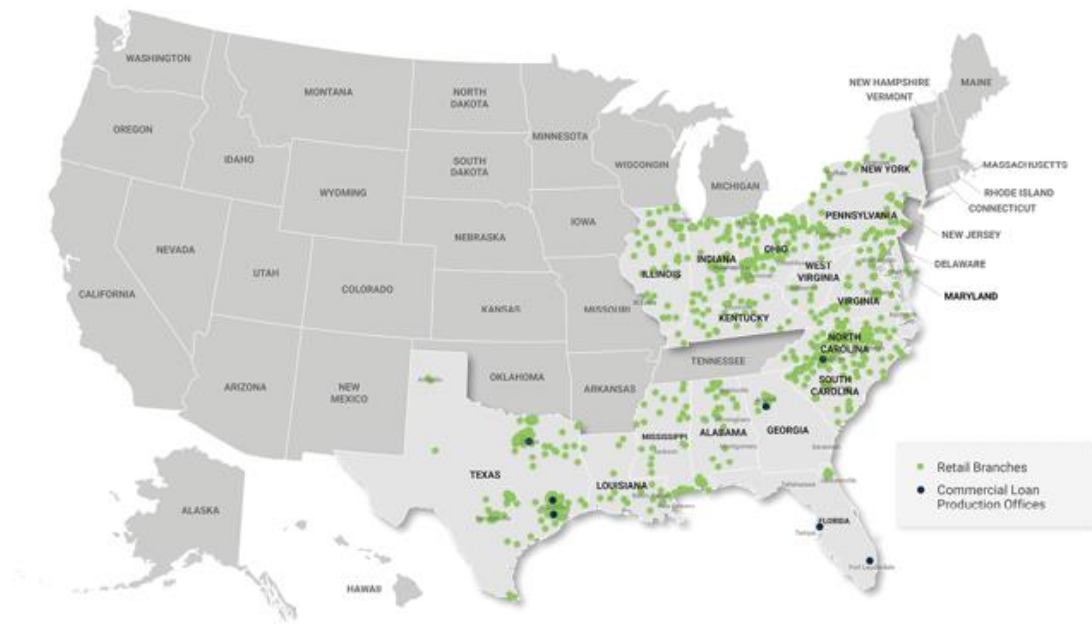
Offering Strategic Solutions to  
Meet the Needs of Your Business

# BRANCH LOCATIONS

UNITED STATES

**OVER 760 RETAIL BRANCHES AND 6 COMMERCIAL LOAN PRODUCTION OFFICES TO SERVE YOU'**

Additional information about branch locations and hours of operation are available online or through the Woodforest Mobile Banking App<sup>2</sup>.





## Who We Are

We provide the most sophisticated analysis on the financial health of public and private companies in the world.

Our analytics software predicts financial outcomes for your most important suppliers. We are transforming the way the world's leading companies manage financial risk.

**We See What Others Don't.®**



**90%**  
**ACCURACY**  
in predictive power

With unmatched predictive power, our models provide early warnings years before a company declares bankruptcy.

**12+**  
**MILLION**

Years of company financials analyzed to fuel our algorithms

**150+**  
**COUNTRIES**

in which we've sourced financials & rated private companies











# Utility Sector – At a Glance

Revenue

**\$1.1tr**

'18-'23 **↑ 0.7 %**

'23-'28 **↑ 0.1 %**

Employees

**963k**

'18-'23 **↑ 1.2 %**

'23-'28 **↑ 0.4 %**

Businesses

**50,813**

'18-'23 **↑ 1.1 %**

'23-'28 **↑ 0.7 %**

Profit

**\$348.3bn**

'18-'23 **↑ 5.4 %**

Profit Margin

**32.8%**

'18-'23 **↑ 6.7 pp**

Wages

**\$112.2bn**

'18-'23 **↑ 1.4 %**

'23-'28 **↑ 0.3 %**



# Utility Sector – Key Takeaways

## Performance

- Electric power transmission represent is the single-largest service within the Utilities sector. It accounts for 46.4% of sector revenue in 2023.
- Natural gas overtook coal as the leading source of electric power in 2016. Natural gas is responsible for generating 44.6% of all electric power in the United States (latest data available).
- Renewables are rapidly growing as a share of electric power. The Inflation Reduction Act allocates more than \$350.0 billion to develop clean energy in the United States.

## External Environment

- Utilities is one of the most heavily regulated sectors of the US economy. Businesses must comply with a myriad of regulations that make it extremely costly to do business.
- Power generation and transmission accounts for 71.2% of total sector revenue in 2023. Changes in electric power consumption and the price of electric power can considerably affect the sector

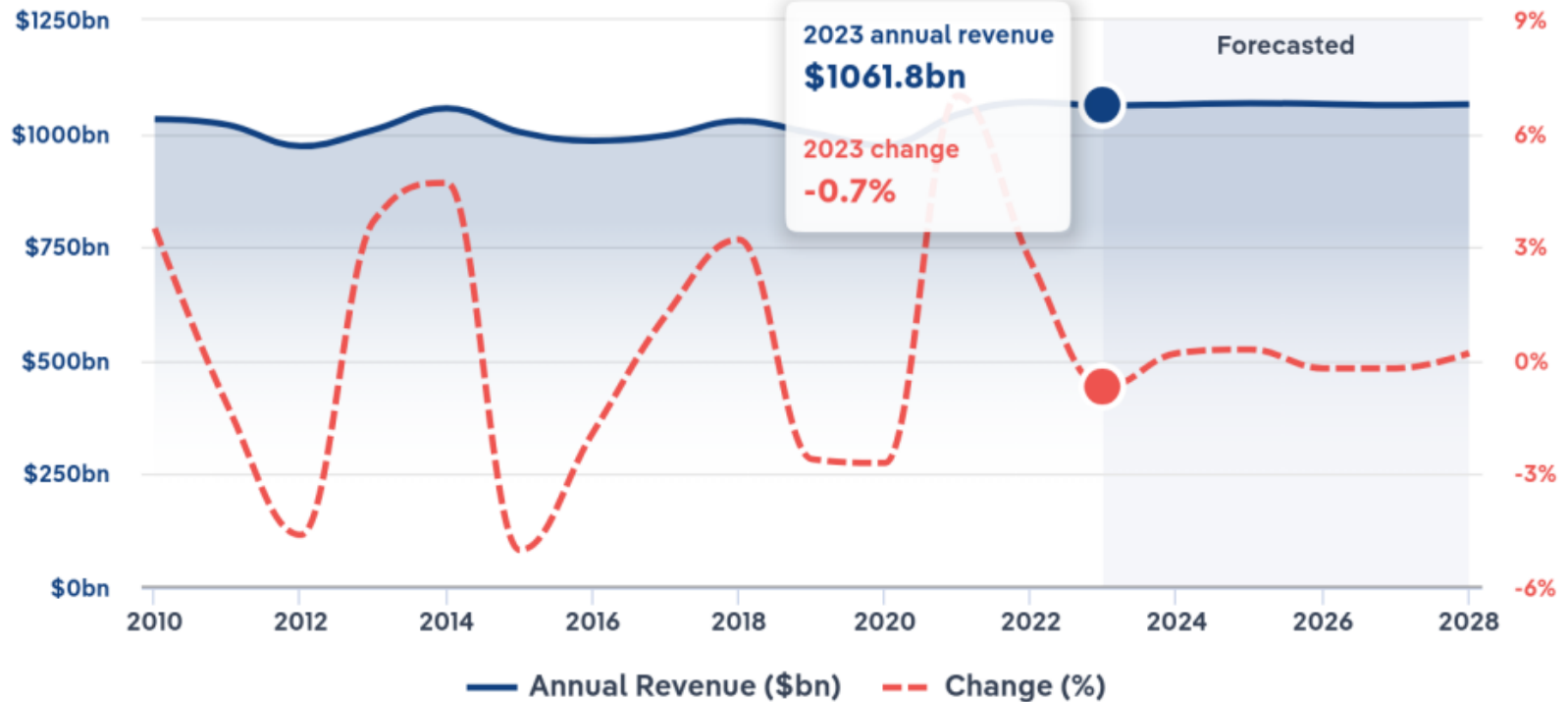
# Key External Drivers

Key External Drivers	Impact
Electric power consumption	Positive
Price of electric power	Positive
Price of natural gas	Positive
Housing starts	Positive
Industrial production index	Positive
Regulation for the Utilities Sector	Negative



## Revenue

Total value (\$) and annual change from 2010– 2028. Includes 5-year outlook.





## Profit Margin

Total profit margin (%) and annual change from 2010– 2023



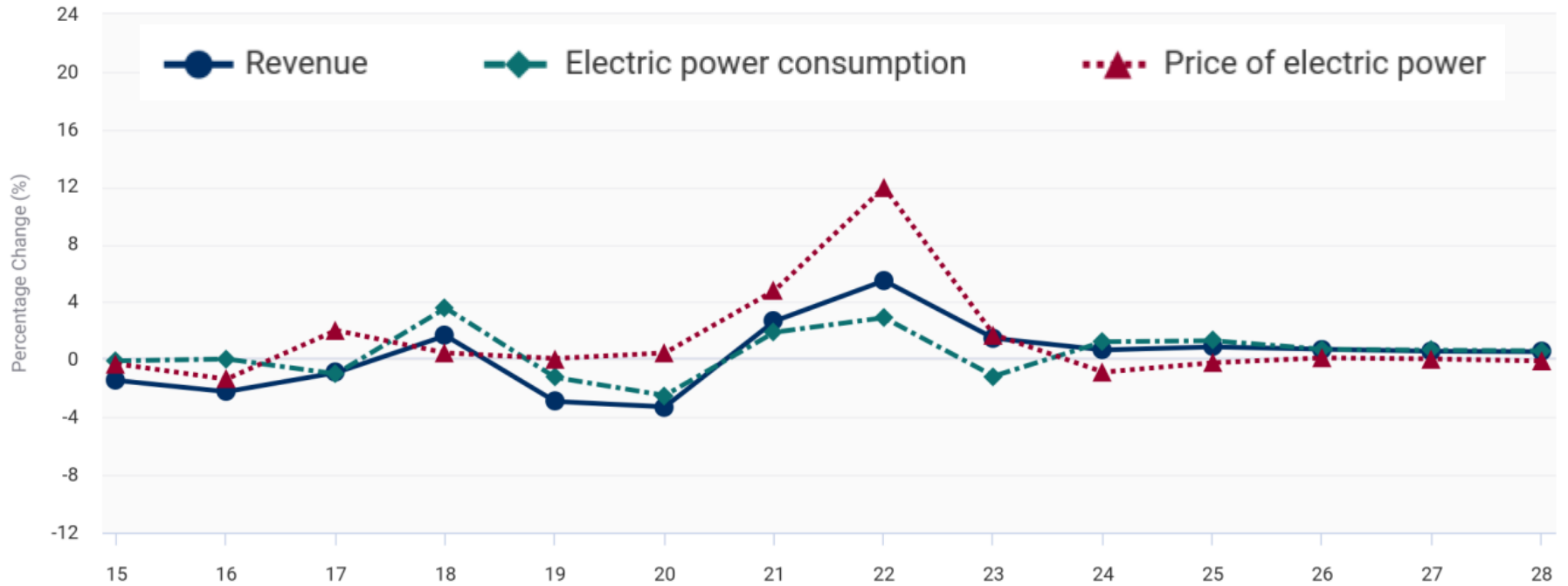






# DON'T ROLL THE DICE ON RISK

Key External Drivers 2015-2028



# Natural Gas Distribution



● Electric power transmission and distribution (\$492.7bn) 46.4%

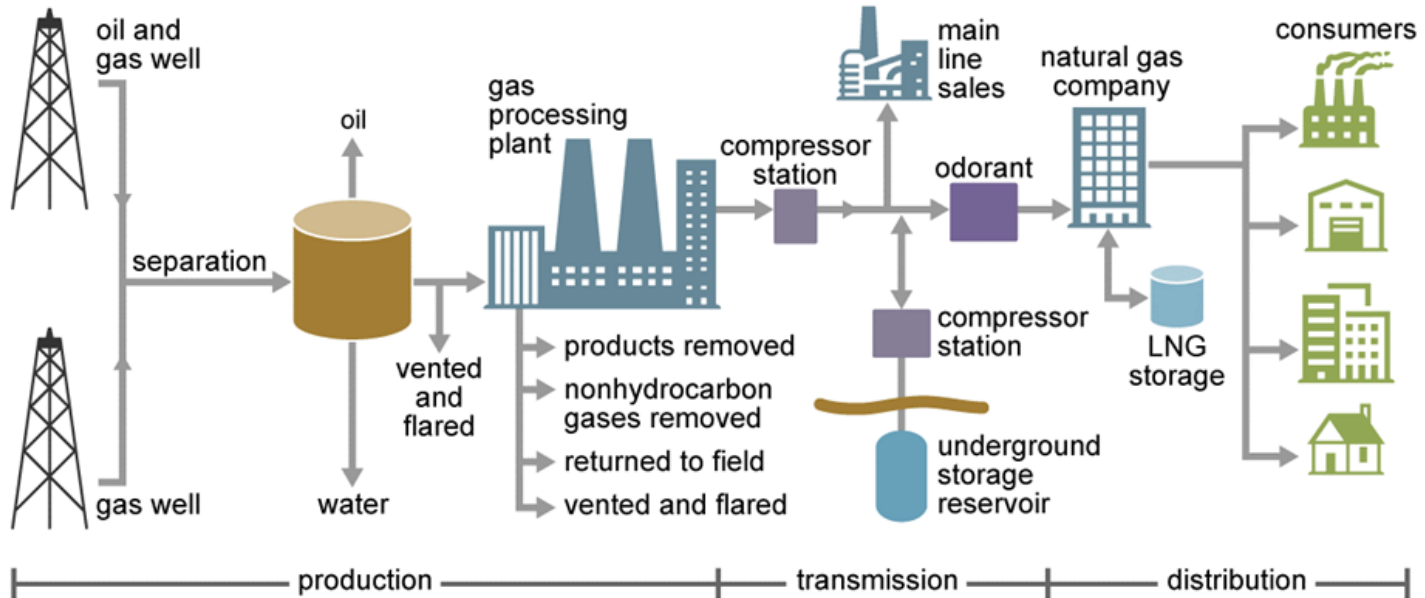
● Electric power generation (\$263.3bn) 24.8%

● Natural gas distribution (\$187.9bn) 17.7%

● Water, sewage and other (\$117.9bn) 11.1%



## Natural gas production and delivery

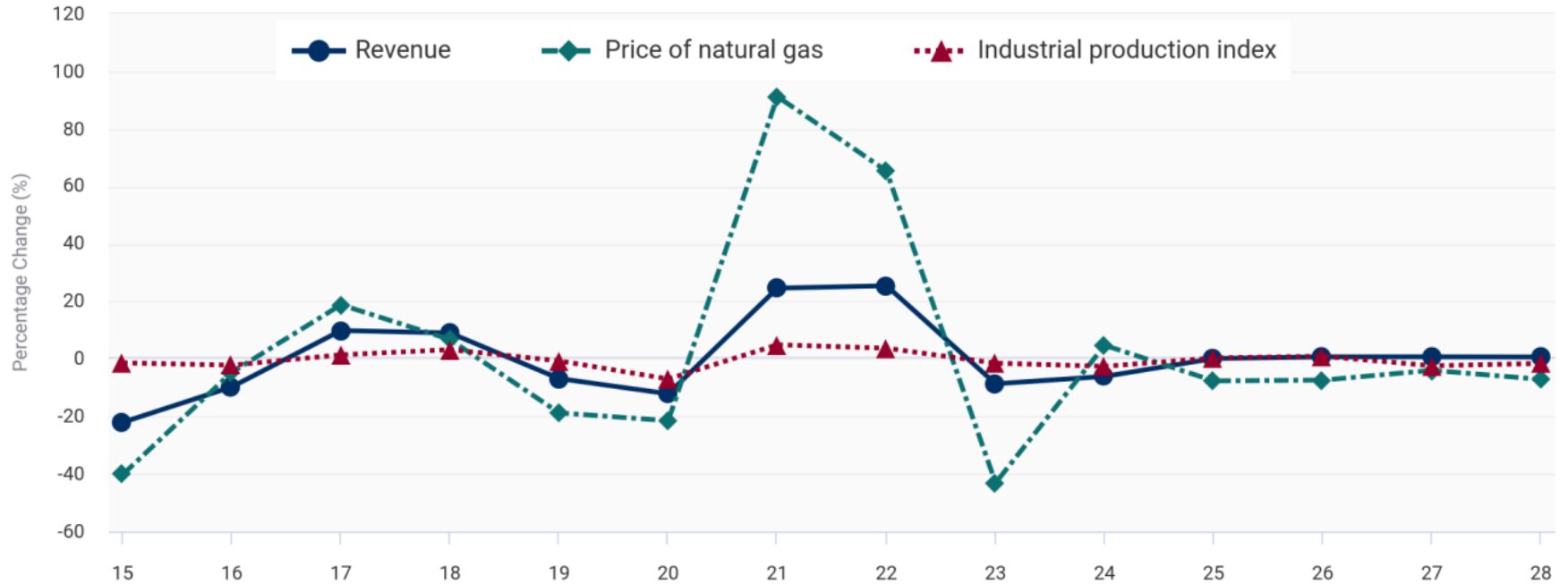


Source: U.S. Energy Information Administration



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Key External Drivers 2015-2028

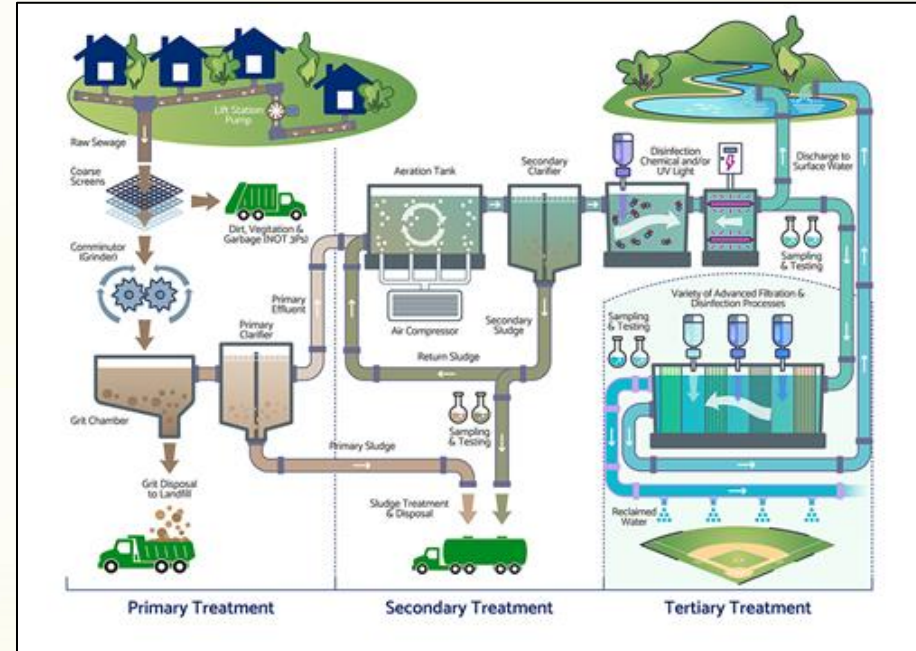
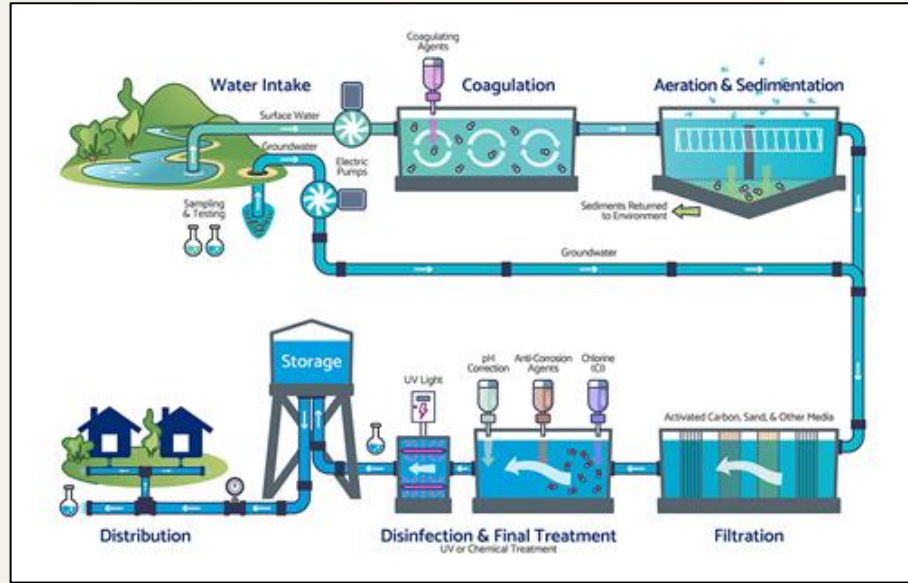


Natural Gas Distribution  
Source: IBISWorld

January 2023



# DON'T ROLL THE DICE ON RISK



# Early Warning Scores (US)

NAICS Code	NAICS Description	Risk Category	Structure Score (2024)	Growth Score (2024)	Sensitivity Score (2024)	Total Risk Score (2024)	Total Risk Score (2023)	Direction Of Risk	Risk Volatility
221111	Hydroelectric Power	Medium	3.99	5.65	4.95	4.89	4.75	Steady	10.5%
221112	Coal & Natural Gas Power	Medium	4.12	6.48	5.46	5.38	4.72	Increasing	44.1%
221113	Nuclear Power	Medium	3.86	5.82	5.50	5.17	4.18	Increasing	43.9%
221114	Solar Power	Very Low	3.32	1.00	4.84	3.50	2.93	Increasing	15.8%
221115	Wind Power	Very Low	3.32	1.00	4.46	3.31	2.96	Steady	5.5%
221121	Electric Power Transmission	Medium	3.06	5.39	5.94	5.08	4.39	Increasing	16.5%
221210	Natural Gas Distribution	High	4.65	7.51	5.57	5.83	5.27	Increasing	82.8%

1 = Lowest Risk; 9 = Highest Risk

Structure – Barriers to entry, competition, industry exports, industry imports, level of assistance, life cycle stage, and industry volatility.

Growth – Historical growth and forecasted growth.

Sensitivity - Advertising expenditure, corporate profit, consumer spending, and investor uncertainty.



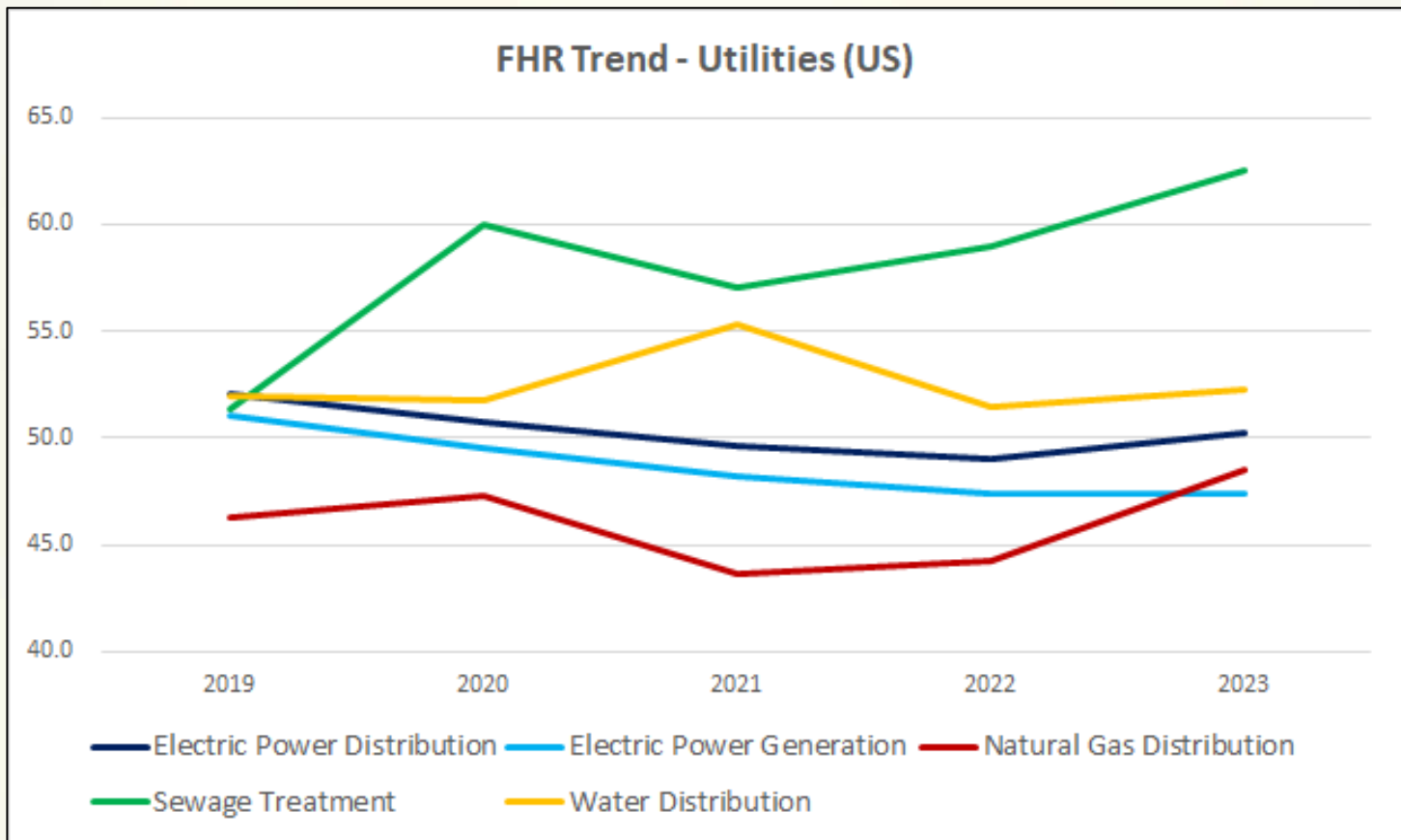




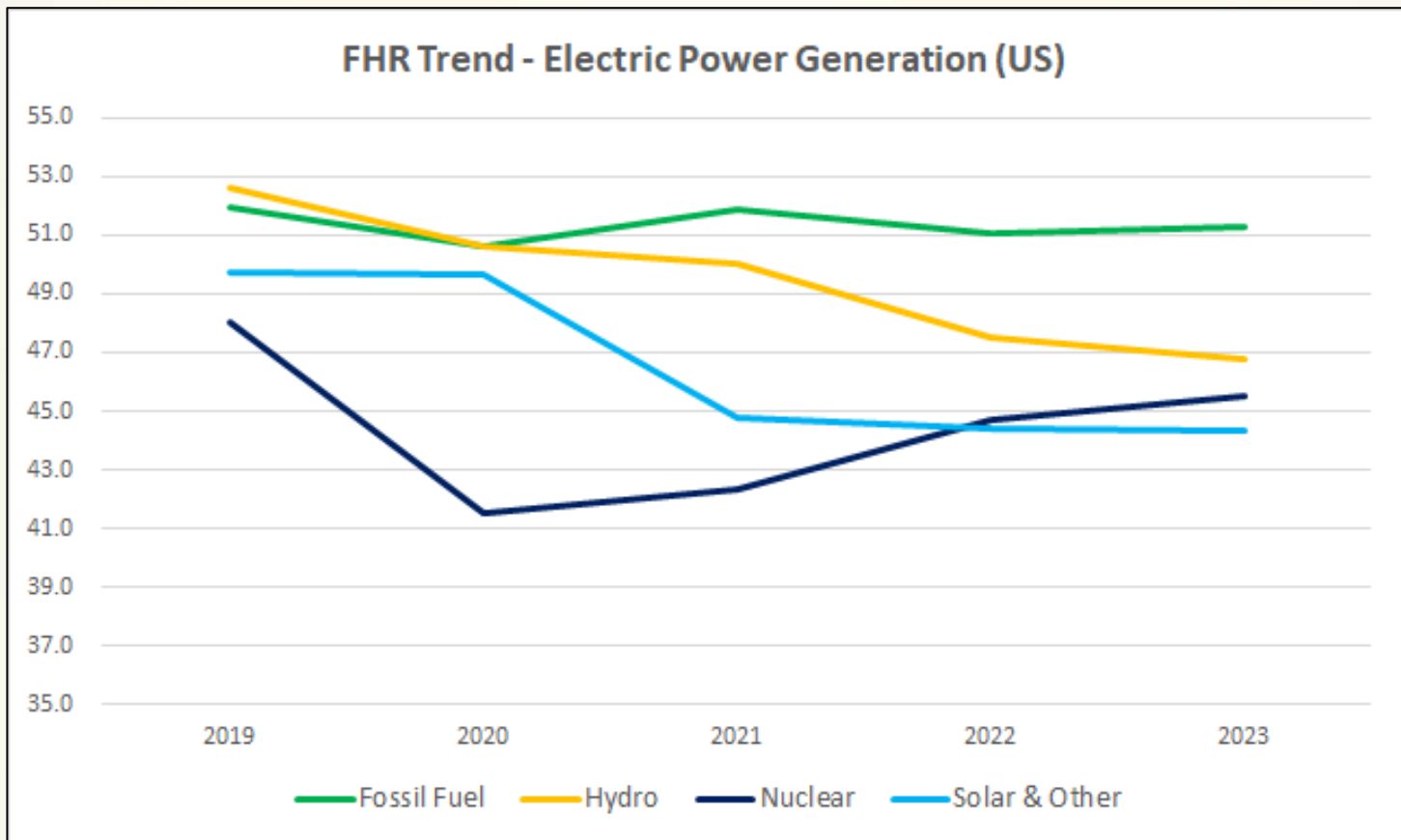




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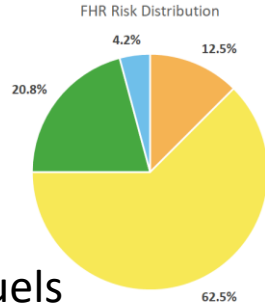


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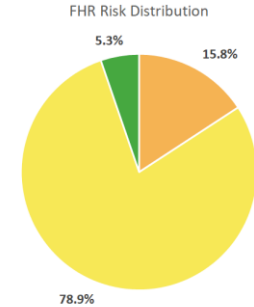
# DON'T ROLL THE DICE ON RISK

Latest Stmt as of October 11, 2023	Short Term Default Risk - Financial Health Rating					Total Companies
	Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)	
Fossil Fuels		3	15	5	1	24
		12.5%	62.5%	20.8%	4.2%	100.0%



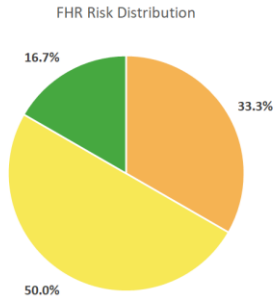
Fossil Fuels

Latest Stmt as of October 11, 2023	Short Term Default Risk - Financial Health Rating					Total Companies
	Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)	
Hydro		3	15	1		19
		15.8%	78.9%	5.3%		100.0%



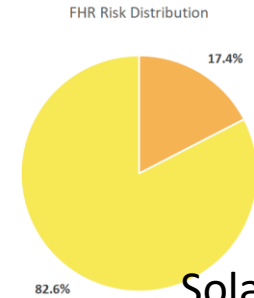
Hydro

Latest Stmt as of October 11, 2023	Short Term Default Risk - Financial Health Rating					Total Companies
	Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)	
Nuclear		2	3	1		6
		33.3%	50.0%	16.7%		100.0%



Nuclear

Latest Stmt as of October 11, 2023	Short Term Default Risk - Financial Health Rating					Total Companies
	Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)	
Solar and Other		4	19			23
		17.4%	82.6%			100.0%



Solar & Other

## Electric Power Generation

Latest Stmt as of October 11, 2023		Short Term D				Health Rating	
		Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)	
Medium Term Viability - Core Health Score	Very Strong Health (80-100)	Box 19	Box 16	Box 7	Box 4	Box 1	
	Strong Health (60-79)	Box 20	Box 17	Box 8	Box 5	Box 2	
	Medium Health (40-59)	Box 21	Box 18	Box 9	Box 6	Box 3	
	Poor Health (20-39)	Box 24	Box 22	Box 14	Box 12	Box 10	
	Very Poor Health (0-19)	Box 25	Box 23	Box 15	Box 13	Box 11	

Not all Medium Risk FHR companies are created equal.

Electric Generation		%
Quadrant A	9	13%
Quadrant A-9	45	63%
Quadrant B	6	8%
Quadrant C	10	14%
Quadrant D	2	3%
Total	72	100%

Company	Generation Category	Current CHS	Current FHR	Current Quad Box
Otter Tail Corp	Fossil Fuel	67	80	2
Vistra Corp	Fossil Fuel	73	76	5
Florida Power & Light Co	Fossil Fuel	60	61	5
Montauk Renewables Inc	Fossil Fuel	51	74	6
MS Energy	Fossil Fuel	54	62	6
NextEra Energy	Nuclear	61	52	8
Constellation Energy Corp	Fossil Fuel	54	51	9
Edison International	Fossil Fuel	45	49	9
Avista Corp	Hydro	54	48	9
Black Hills Corp	Hydro	49	48	9
Wisconsin Electric Power Co	Fossil Fuel	52	47	9
Progress Energy Inc	Fossil Fuel	53	45	9
Dominion Energy Inc	Fossil Fuel	47	41	9
Altus Power Inc	Solar & Other	27	54	14
Polaris Renewable Energy Inc	Solar & Other	38	51	14
Nextera Energy Partners LP	Solar & Other	27	45	14
Heliogen Inc	Solar & Other	10	43	15
Avista Corp	Hydro	41	36	18
Edison International	Hydro	41	35	18
Avangrid Inc	Fossil Fuel	35	36	22
Constellation Energy Corp	Solar & Other	31	34	22
Pacific Gas and Electric Co	Nuclear	35	33	22
NRG Energy Inc	Fossil Fuel	22	24	22
Pineapple Energy Inc	Solar & Other	21	24	22
Nuscale Power Corp	Nuclear	9	39	23



# DON'T ROLL THE DICE ON RISK

Annual Transition Matrix (Electric Power Generation)

51 companies (71%) stayed within the same Quadrant Zone.

13 companies (18%) migrated to more risky Quadrant Zones.

	Quadrant A	Quadrant A-9	Quadrant B	Quadrant D	Quadrant E	
Quadrant A	5	3	2		1	11
Quadrant A-9	1	39	1	1	3	45
Quadrant B	1	1	3		2	7
Quadrant D		2				2
Quadrant E	2			1	4	7
Total	9	45	6	2	10	72

8 companies (11%) migrated to less risky Quadrant Zones.

# DON'T ROLL THE DICE ON RISK

## Electric Power Generation

Company	Generation Category	Current	Current	Current	Prior Year	Prior Year	Prior Year	Chg In	Chg In
		CHS	FHR	Quadrant	CHS	FHR	Quadrant	CHS	FHR
NRG Energy Inc	Fossil Fuel	22	24	Quadrant C	80	80	Quadrant A	(58)	(56)
Avangrid Inc	Fossil Fuel	35	36	Quadrant C	40	51	Quadrant A-9	(5)	(15)
Constellation Energy Corp	Solar & Other	31	34	Quadrant C	44	45	Quadrant A-9	(13)	(11)
Clearway Energy Inc	Fossil Fuel	26	45	Quadrant B	69	72	Quadrant A	(43)	(27)
Altus Power Inc	Solar & Other	27	54	Quadrant B	45	66	Quadrant A	(18)	(12)
Avista Corp	Hydro	41	36	Quadrant D	44	41	Quadrant A-9	(3)	(5)
Nuscale Power Corp	Nuclear	9	39	Quadrant C	9	43	Quadrant B	0	(4)
Old Dominion Electric Cooperative	Solar & Other	31	29	Quadrant C	29	42	Quadrant B	2	(13)
IDACORP Inc	Hydro	47	53	Quadrant A-9	46	61	Quadrant A	1	(8)
Pineapple Energy Inc	Solar & Other	21	24	Quadrant C	16	33	Quadrant C	5	(9)
VivoPower International PLC	Solar & Other	23	20	Quadrant C	17	22	Quadrant C	6	(2)
Pacific Gas and Electric Co	Nuclear	35	33	Quadrant C	35	31	Quadrant C	0	2
Heliogen Inc	Solar & Other	10	43	Quadrant B	9	42	Quadrant B	1	1
Polaris Renewable Energy Inc	Solar & Other	38	51	Quadrant B	29	51	Quadrant B	9	0
Montauk Renewables Inc	Fossil Fuel	51	74	Quadrant A	66	84	Quadrant A	(15)	(10)
Otter Tail Corp	Fossil Fuel	67	80	Quadrant A	71	79	Quadrant A	(4)	1
Florida Power & Light Co	Fossil Fuel	60	61	Quadrant A	58	60	Quadrant A	2	1
Edison International	Hydro	41	35	Quadrant D	31	33	Quadrant C	10	2
Pepco Holdings LLC	Solar & Other	43	42	Quadrant A-9	38	52	Quadrant B	5	(10)
DTE Energy Co	Solar & Other	55	49	Quadrant A-9	42	34	Quadrant D	13	15
Brookfield Renewable Corp	Solar & Other	51	43	Quadrant A-9	51	39	Quadrant D	0	4
Entergy Texas Inc	Nuclear	54	60	Quadrant A	52	58	Quadrant A-9	2	2
NextEra Energy Inc	Nuclear	61	52	Quadrant A	35	36	Quadrant C	26	16
Vistra Corp	Fossil Fuel	73	76	Quadrant A	13	30	Quadrant C	60	46

Increasing Risk

No Chg in Zone

Decreasing Risk



## NRG Energy Inc

### High default risk, with poor Core Health.

**Our View:** NRG Energy Inc's Financial Health Rating (FHR) was a very unimpressive 24 (0=worst, 100=best) for the four quarters ending June 30, 2023, and represents a 56 point downgrade as compared to a year earlier. This rating lowers the company to the bottom half of our High Risk group, with an estimated probability of default of 6.4% over the next 12 months. This FHR and the default risk level are the result of Poor Core Health and current weakness in liquidity and earnings performance.

Figure 1: FHR Trend, Q1 2015 to Q2 2023



## The FHR® Report

### Corporate Risk Analysis

**Financial Period:** Jun 30, 2023, (fiscal Q2 2023)

**FHR Release Date:** August 10, 2023

**Ticker:** NRG

**Sector:** Energy Miscellaneous

**Address:** 211 Carnegie Center, Princeton, NJ 08540-6213, United States.

**FHR:** 24

**Risk Level:** High Risk

**Estimated Probability of Default:** 6.4%

**Annual Delta:** -56 rating points

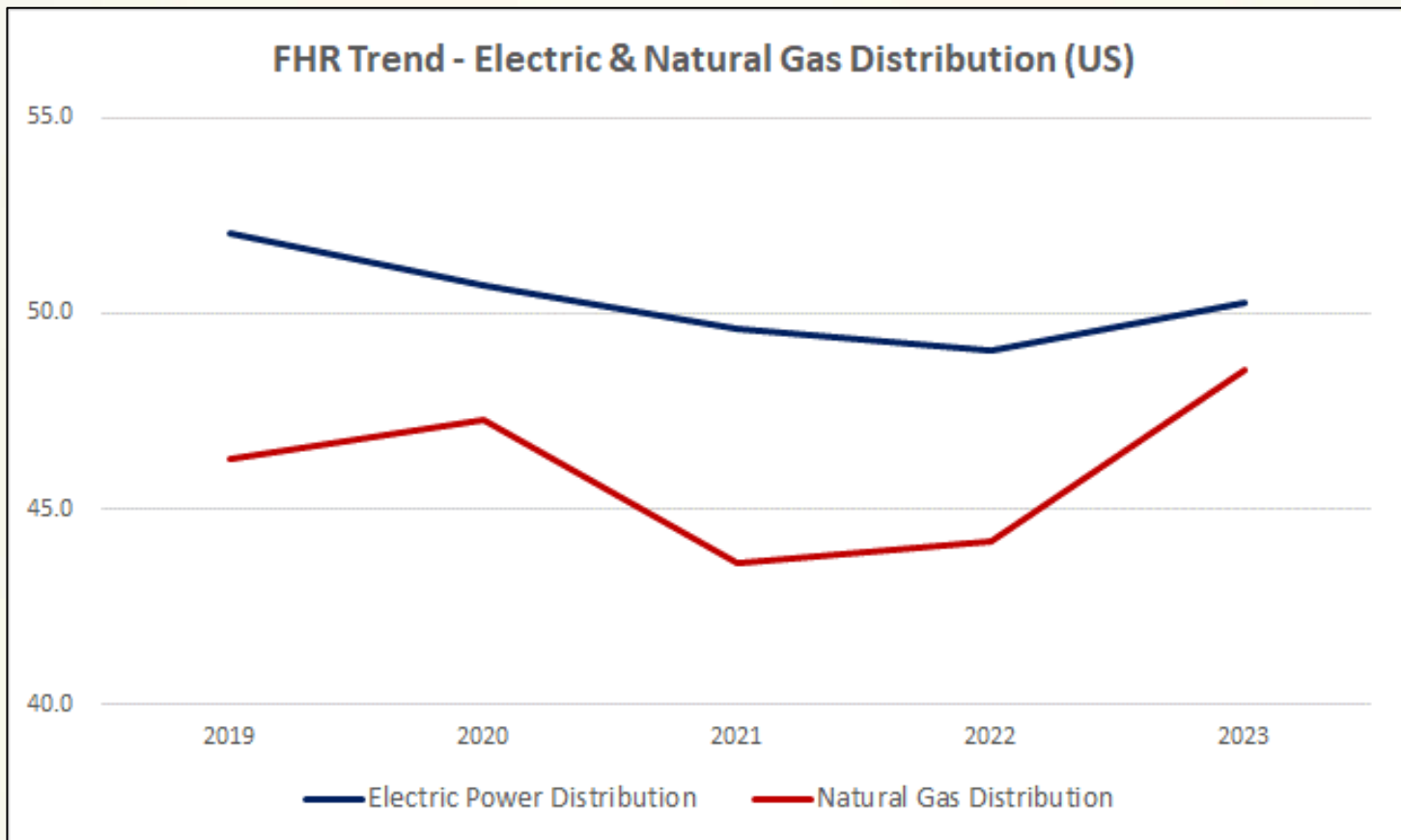
**Core Health:** 22 (Poor Health)

Table 1: Key Data and Ratio (USD B)

Rating Data	2021	2022	Q2 2023
Financial Health Rating	70	54	24
Core Health Score	80	68	22
Simulated FHR	72	58	24
Key Data and Ratios	2021	2022	Q2 2023
Total Assets (B)	23.18	29.15	28.99
Total Liabilities (B)	19.58	25.32	25.66
Total Revenues (B)	26.99	31.54	30.43
EBITDA (B)	4.29	2.93	-1.09
Total Rev / Total Asset	1.16	1.08	1.05
Op Profit / Total Rev (%)	12.09	6.40	-7.15
Op Profit / Interest Exp	6.73	4.84	-4.28
FCF / Total Debt	0.03	0.00	-0.36
ROCE (%)	28.03	16.82	-14.02

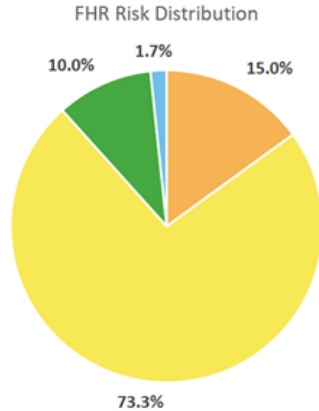
■ Very Low Risk (80 - 100)  
 ■ Low Risk (60 - 79)  
 ■ Medium Risk (40 - 59)  
 ■ High Risk (20 - 39)  
 ■ Very High Risk (0 - 19)

# DON'T ROLL THE DICE ON RISK



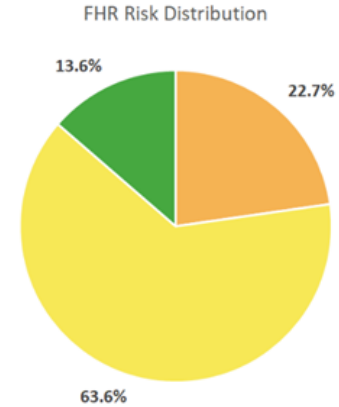
# DON'T ROLL THE DICE ON RISK

Latest Stmt as of October 11, 2023	Short Term Default Risk - Financial Health Rating					Total Companies
	Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)	
Electric Power Distribution		9 15.0%	44 73.3%	6 10.0%	1 1.7%	60 100.0%



Electric  
Distribution

Latest Stmt as of October 11, 2023	Short Term Default Risk - Financial Health Rating					Total Companies
	Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)	
Natural Gas Distribution		5 22.7%	14 63.6%	3 13.6%	0 0.0%	22 100.0%



Natural Gas  
Distribution

## Electric Power Distribution

Latest Stmt as of October 11, 2023		Short Term Distribution					Health Rating				
		Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)	Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)
Medium Term Viability - Core Health Score	Very Strong Health (80-100)	Box 19	Box 16	Box 7	Box 4	Box 1					
	Strong Health (60-79)	Box 20	Box 17	Box 8	Box 5	Box 2					
	Medium Health (40-59)	Box 21	Box 18	Box 9	Box 6	Box 3	1	1	1	1	1
	Poor Health (20-39)	Box 24	Box 22	Box 14	Box 12	Box 10	3	4	3	3	3
	Very Poor Health (0-19)	Box 25	Box 23	Box 15	Box 13	Box 11	2	2	2	2	2

## Natural Gas Distribution

Latest Stmt as of October 11, 2023		Short Term Distribution					Health Rating				
		Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)	Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)
Medium Term Viability - Core Health Score	Very Strong Health (80-100)	Box 19	Box 16	Box 7	Box 4	Box 1					
	Strong Health (60-79)	Box 20	Box 17	Box 8	Box 5	Box 2					
	Medium Health (40-59)	Box 21	Box 18	Box 9	Box 6	Box 3	1	1	1	1	1
	Poor Health (20-39)	Box 24	Box 22	Box 14	Box 12	Box 10	1	1	1	1	1
	Very Poor Health (0-19)	Box 25	Box 23	Box 15	Box 13	Box 11	3	3	3	3	3

Not all Medium Risk FHR companies are created equal.

Electric Distribution		%
Quadrant A	8	13%
Quadrant A-9	40	67%
Quadrant B	3	5%
Quadrant C	6	10%
Quadrant D	3	5%
Total	60	100%

Natural Gas Distribution		%
Quadrant A	4	18%
Quadrant A-9	12	55%
Quadrant B	1	5%
Quadrant C	4	18%
Quadrant D	1	5%
Total	22	100%

# DON'T ROLL THE DICE ON RISK

Annual Transition Matrix (Electric Power and Natural Gas Distribution)

59 companies (72%) stayed within the same Quadrant Zone.

11 companies (13%) migrated to more risky Quadrant Zones.

	Quadrant A	Quadrant A-9	Quadrant B	Quadrant D	Quadrant E	
Quadrant A	6	2	1		2	11
Quadrant A-9	5	45	1	3	1	55
Quadrant B		3	2		1	6
Quadrant D		2				2
Quadrant E	1			1	6	8
Total	12	52	4	4	10	82

12 companies (15%) migrated to less risky Quadrant Zones.



# DON'T ROLL THE DICE ON RISK

## Electric Power and Natural Gas Distribution

Increasing Risk

No Chg in Zone

Decreasing Risk

Company	Distribution Category	Current CHS	Current FHR	Current Quadrant	Prior Year CHS	Prior Year FHR	Prior Year Quadrant	Chg In CHS	Chg In FHR
UGI Corp	Natural Gas	18	28	Quadrant C	57	67	Quadrant A	(39)	(39)
Martin Midstream Partners LP	Natural Gas	39	35	Quadrant C	65	53	Quadrant A	(26)	(18)
VIA RENEWABLES INC	Electric	26	48	Quadrant B	78	78	Quadrant A	(52)	(30)
Great River Energy	Electric	37	38	Quadrant C	45	40	Quadrant A-9	(8)	(2)
FirstEnergy Corp	Electric	47	38	Quadrant D	55	54	Quadrant A-9	(8)	(16)
Puget Energy Inc	Electric	33	47	Quadrant B	41	46	Quadrant A-9	(8)	1
Macquarie Infrastructure Holdings	Natural Gas	18	26	Quadrant C	19	50	Quadrant B	(1)	(24)
RGC Resources Inc	Natural Gas	16	37	Quadrant C	10	47	Quadrant B	6	(10)
Tri-State Generation & Transmsn	Electric	24	28	Quadrant C	36	30	Quadrant C	(12)	(2)
Southwest Gas Holdings Inc	Natural Gas	17	34	Quadrant C	25	31	Quadrant C	(8)	3
Blink Charging Co	Electric	10	35	Quadrant C	10	38	Quadrant C	0	(3)
Oglethorpe Power Corporation	Electric	31	34	Quadrant C	31	36	Quadrant C	0	(2)
ChargePoint Holdings Inc	Electric	14	33	Quadrant C	11	34	Quadrant C	3	(1)
AES Corp	Electric	27	32	Quadrant C	13	30	Quadrant C	14	2
Northwest Natural Holding Co	Natural Gas	33	48	Quadrant B	31	41	Quadrant B	2	7
ALLETE Inc	Electric	36	55	Quadrant B	37	43	Quadrant B	(1)	12
Public Service Company of OK	Electric	40	52	Quadrant A-9	41	35	Quadrant D	(1)	17
Duke Energy Ohio Inc	Electric	50	47	Quadrant A-9	38	44	Quadrant B	12	3
Sempra	Electric	52	46	Quadrant A-9	32	48	Quadrant B	20	(2)
Southern California Gas Co	Natural Gas	53	42	Quadrant A-9	16	43	Quadrant B	37	(1)
New Fortress Energy Inc	Natural Gas	73	61	Quadrant A	52	49	Quadrant A-9	21	12
Atmos Energy Corporation	Natural Gas	51	63	Quadrant A	48	48	Quadrant A-9	3	15
Southern California Edison Co	Electric	41	37	Quadrant D	32	36	Quadrant C	9	1
Public Service Enterprise Group	Electric	67	63	Quadrant A	14	33	Quadrant C	53	30





## UGI Corp

Financial Health Rating (FHR):	28, High Risk	Estimated Probability of Default (EPD):	3.74%
Core Health Score (CHS):	18, Very Poor Health		

### High default risk, with very poor Core Health.

Quadrant C: These companies demonstrate poor to very poor Core Health (suggesting the need for efficiency improvements) combined with a high to very high risk of default over the next year.

#### Dialogue Context:

Companies which fall into Quadrant C should be able to discuss their plans to deliver significant improvement/relief in some or all of the areas discussed in this report within a reasonable time frame.

## Section 1: Priority Items for Financial Review

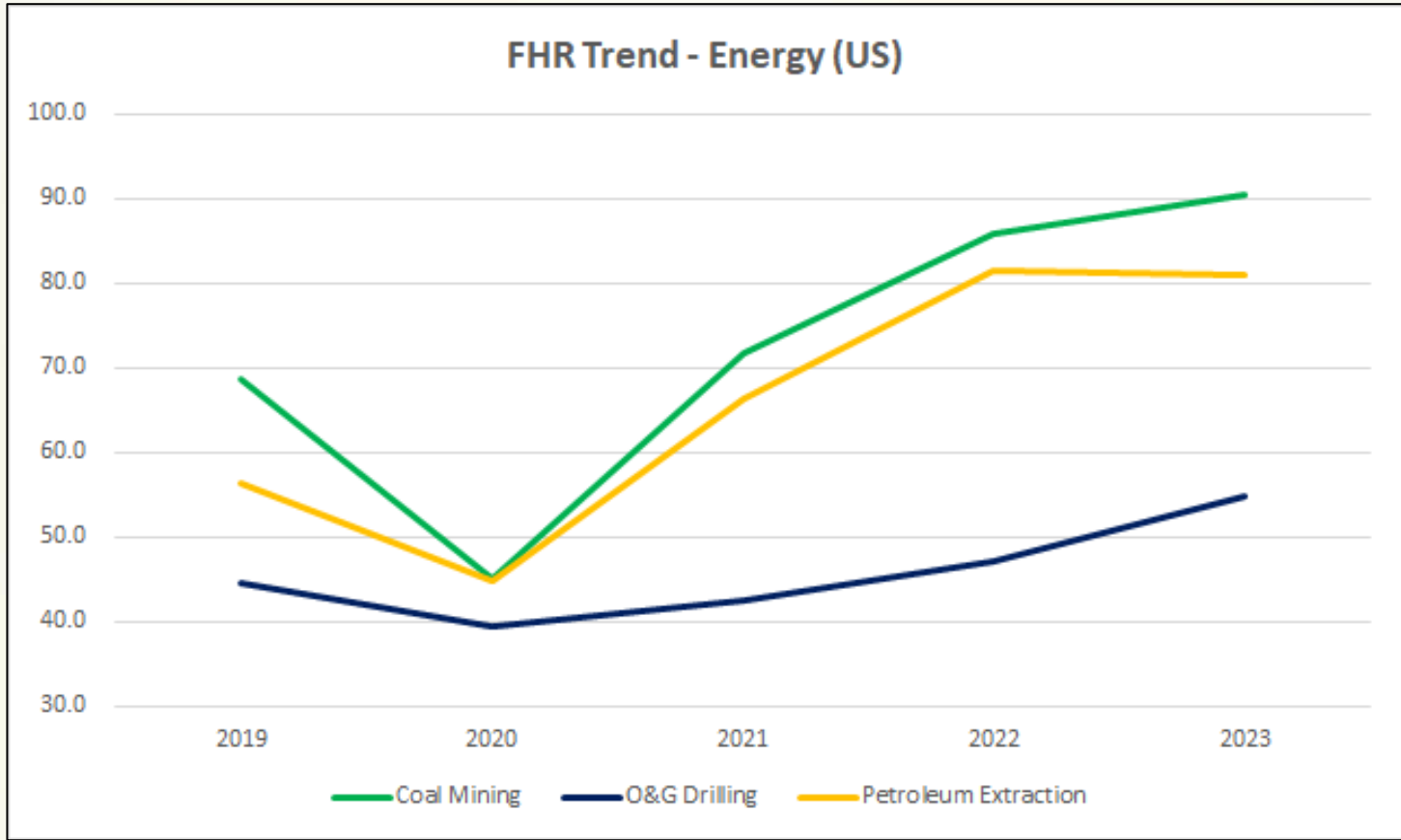
Table below presents the prioritized review items and recommended questions based on our analysis of the financial statements ending 06/30/2023.

Table 1: Prioritized Items of Concern for Discussion

#### Items of Concern (5)

- |  |          |
|--|----------|
| 1. Interest Coverage: The company was unable to cover any of its interest (\$365 M) with operating profit as it is currently running with an operating loss (-\$1,387 M). Do you expect your interest obligation to change materially over the next year, and do you expect to cover this through operating profit or cash balances? | See Page |
| 2. Leverage: The company has a significant level of debt at \$7,116 M, which is 47% of total assets. Do you expect to maintain this level of leverage for the next 12 months?  | See Page |
| 3. Change in Sales: Sales for the trailing 12 months have decreased 6.4% since the prior year end. What has caused the decline in sales?   | See Page |
| 4. Profit Margins: Profitability performance was poor. Both the company's operating profit margin (-14.7%) and net profit margin (-14.7%) show a loss. What caused the losses and do you expect to generate a positive return next year?   | See Page |
| 5. Abnormal Item: The financials include an abnormal item of -\$903 M. The simulated rating with this item excluded is 32, so the item is not having a meaningful impact on the company's current level of health. Can you provide details of the significant item, and do you expect subsequent items in the future?                | See Page |

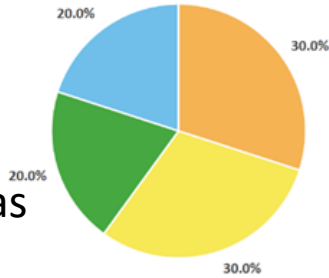
# DON'T ROLL THE DICE ON RISK



# DON'T ROLL THE DICE ON RISK

Latest Stmt as of October 11, 2023	Short Term Default Risk - Financial Health Rating					Total Companies
	Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)	
Oil & Gas Drilling		3 30.0%	3 30.0%	2 20.0%	2 20.0%	10 100.0%

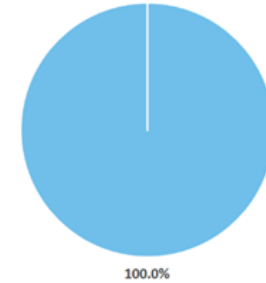
FHR Risk Distribution



Oil & Gas  
Drilling

Latest Stmt as of October 11, 2023	Short Term Default Risk - Financial Health Rating					Total Companies
	Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)	
Coal Mining					10 100.0%	10 100.0%

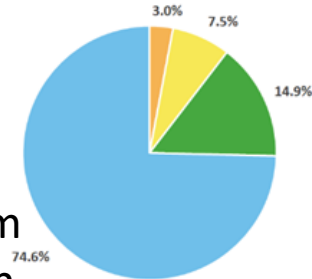
FHR Risk Distribution



Coal  
Mining

Latest Stmt as of October 11, 2023	Short Term Default Risk - Financial Health Rating					Total Companies
	Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)	
Petroleum Extraction		2 3.0%	5 7.5%	10 14.9%	50 74.6%	67 100.0%

FHR Risk Distribution



Petroleum  
Extraction

# DON'T ROLL THE DICE ON RISK

## Energy

Latest Stmt as of October 11, 2023		Short Term D					Health Rating				
		Very High Risk (0-19)	High Risk (20-39)	Medium Risk (40-59)	Low Risk (60-79)	Very Low Risk (80-100)					
Medium Term Viability - Core Health Score	Very Strong Health (80-100)	Box 19	Box 16	Box 7	Box 4	Box 1					
	Strong Health (60-79)	Box 20	Box 17	Box 8	Box 5	Box 2					
	Medium Health (40-59)	Box 21	Box 18	Box 9							
	Poor Health (20-39)	Box 24	Box 22	Box 14	Box 12	Box 10					
	Very Poor Health (0-19)	Box 25	Box 23	Box 15	Box 13	Box 11					

Not all Medium Risk FHR companies are created equal.

Energy		%
Quadrant A	73	84%
Quadrant A-9	1	1%
Quadrant B	8	9%
Quadrant C	5	6%
Quadrant D	0	0%
Total	87	100%

Company	Energy Category	Current CHS	Current FHR	Current Quad Box
Alpha Metallurgical Resources	Coal Mining	80	97	1
Range Resources Corp	Petroleum Extraction	81	91	1
Battalion Oil Corp	Petroleum Extraction	81	81	1
Hallador Energy Co	Coal Mining	81	81	1
Arch Resources Inc	Coal Mining	76	95	2
	Mining	63	88	2
	Petroleum Extraction	79	86	2
	Petroleum Extraction	70	82	2
	O&G Drilling	67	85	2
	O&G Drilling	70	81	2
	Petroleum Extraction	70	78	5
Talos Energy Inc	Petroleum Extraction	64	66	5
Highpeak Energy Inc	O&G Drilling	79	74	5
Noble Corporation PLC	O&G Drilling	53	69	6
Nabors Industries Ltd.	O&G Drilling	46	56	9
Spindletop Oil and Gas Co	Petroleum Extraction	13	63	13
Independence Contract Drilling	O&G Drilling	29	44	14
Barnwell Industries Inc	Petroleum Extraction	16	53	15
Houston American Energy Corp	Petroleum Extraction	9	53	15
U.S. Energy Corp.	Petroleum Extraction	18	41	15
Zion Oil and Gas Inc	Petroleum Extraction	13	46	15
Tellurian Inc	Petroleum Extraction	12	52	15
Vantage Drilling International	O&G Drilling	14	40	15
Empire Petroleum Corp	Petroleum Extraction	21	31	22
Diamond Offshore Drilling Inc	O&G Drilling	35	34	22
Transocean LTD	O&G Drilling	14	37	23
Camber Energy Inc	Petroleum Extraction	19	20	23
Prairie Operating Co	O&G Drilling	16	27	23

# DON'T ROLL THE DICE ON RISK

Annual Transition Matrix (Energy)

70 companies (81%) stayed within the same Quadrant Zone.

3 companies (3%) migrated to more risky Quadrant Zones.

14 companies (16%) migrated to less risky Quadrant Zones.

	Quadrant A	Quadrant A-9	Quadrant B	Quadrant D	Quadrant E	
Quadrant A	61	2	1			64
Quadrant A-9	4					4
Quadrant B	5	1	5			11
Quadrant D						0
Quadrant E	3		1		4	8
Total	73	1	8	0	5	87

# DON'T ROLL THE DICE ON RISK

## Energy

Increasing Risk

Company	Energy Category	Current	Current	Current	Prior Year	Prior Year	Prior Year	Chg In	Chg In
		CHS	FHR	Quadrant	CHS	FHR	Quadrant	CHS	FHR
Empire Petroleum Corp	Petroleum Extraction	21	31	Quadrant C	53	69	Quadrant A	(32)	(38)
Barnwell Industries Inc	Petroleum Extraction	16	53	Quadrant B	50	81	Quadrant A	(34)	(28)
Spindletop Oil and Gas Co	Petroleum Extraction	13	63	Quadrant B	61	85	Quadrant A	(48)	(22)
VAALCO Energy, Inc.	Petroleum Extraction	63	77	Quadrant A	83	94	Quadrant A	(20)	(17)
Unit Corp	Petroleum Extraction	74	96	Quadrant A	60	77	Quadrant A	14	19
U.S. Energy Corp.	Petroleum Extraction	18	41	Quadrant B	34	52	Quadrant B	(16)	(11)
Tellurian Inc	Petroleum Extraction	12	52	Quadrant B	9	43	Quadrant B	3	9
Camber Energy Inc	Petroleum Extraction	19	20	Quadrant C	20	27	Quadrant C	(1)	(7)
Transocean LTD	O&G Drilling	14	37	Quadrant C	17	34	Quadrant C	(3)	3
Diamond Offshore Drilling Inc	O&G Drilling	35	34	Quadrant C	12	33	Quadrant C	23	1
Sitio Royalties Corp	Petroleum Extraction	41	60	Quadrant A	50	54	Quadrant A-9	(9)	6
Battalion Oil Corp	Petroleum Extraction	81	81	Quadrant A	50	51	Quadrant A-9	31	30
Crescent Energy Co	Petroleum Extraction	76	81	Quadrant A	42	50	Quadrant A-9	34	31
CNX Resources Corp	Petroleum Extraction	78	86	Quadrant A	55	50	Quadrant A-9	23	36
EQT Corp	Petroleum Extraction	77	89	Quadrant A	17	37	Quadrant C	60	52
Nabors Industries Ltd.	O&G Drilling	46	56	Quadrant A-9	15	43	Quadrant B	31	13
Helmerich and Payne Inc	O&G Drilling	67	85	Quadrant A	12	57	Quadrant B	55	28
Liberty Energy Inc	Petroleum Extraction	82	82	Quadrant A	35	52	Quadrant B	47	30
Berry Corporation (Bry)	Petroleum Extraction	77	83	Quadrant A	31	50	Quadrant B	46	33
Amplify Energy Corp	Petroleum Extraction	79	90	Quadrant A	37	44	Quadrant B	42	46
Gulfport Energy Corp	Petroleum Extraction	78	93	Quadrant A	25	40	Quadrant B	53	53
Independence Contract Drilling	O&G Drilling	29	44	Quadrant B	17	26	Quadrant C	12	18
Hallador Energy Co	Coal Mining	81	81	Quadrant A	18	36	Quadrant C	63	45
Patterson-UTI Energy, Inc.	O&G Drilling	70	81	Quadrant A	13	32	Quadrant C	57	49

No Chg in Zone

Decreasing Risk

### Petroleum Extraction Comparison Report

Names in this report have been abbreviated as follows - Amplify Energy Corp: AMPF. Empire Petroleum: EMPR. Kosmos Energy Ltd: KOSMO. Tellurian Inc: TELL. U.S. Energy Corp.: USENG.

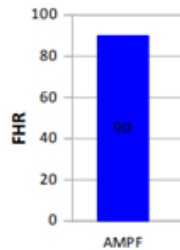
This report presents all financials in USD.

Table 1: FHR Scores

Company Name	Short Name	Dec-2020	
Amplify Energy Corp	AMPF	35	Medium Risk (4)
Empire Petroleum	EMPR	19	Low Risk (6)
Kosmos Energy Ltd	KOSMO	35	Medium Risk (4)
Tellurian Inc	TELL	29	Low Risk (6)
U.S. Energy Corp.	USENG	35	Medium Risk (4)

■ Very Low Risk (80 – 100) ■ Low Risk (60 – 79) ■ Medium Risk (40 – 59)

Figure 1: Financial Health Ratings (FHRs), Petroleum Extraction



	AMPF	EMPR	KOSMO	TELL	USENG	Average
<b>Profitability Ratios</b>						
Gross Profit Margin (%)	64.64	30.58	79.45	74.98	18.59	53.65
Sales to Assets Ratio	0.53	0.68	0.34	0.21	0.34	0.42
Return on Assets (%)	61.48	-11.12	4.46	-5.58	-1.30	9.59
<b>Liquidity Ratios</b>						
Current Ratio	0.87	0.95	0.80	1.05	0.52	0.84
Quick Ratio	0.64	0.72	0.37	1.03	0.42	0.64
Cash Ratio	0.02	0.10	0.16	0.80	0.12	0.24
<b>Leverage Ratios</b>						
Debt to Equity Ratio	0.34	0.35	2.63	0.84	0.16	0.86
Operating Profit to Interest Expense (x)	11.32	-7.47	3.00	-4.99	-4.60	-0.55
Total Debt to Total Assets (%)	16.77	10.12	49.37	40.18	10.64	25.42
<b>Turnover Ratios</b>						
Inventory Days	n/a	18.79	208.13	n/a	n/a	113.46
Payable Days	64.01	50.78	286.79	273.38	29.59	140.91
Receivable Days	61.00	65.21	18.24	21.54	25.76	38.35

n/a: This data point is either Not Available or Not Applicable



99<sup>TH</sup>

# IECA

## ANNUAL CONFERENCE

PARK MGM > LAS VEGAS, NV > OCTOBER 17-20, 2023

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THE DICE  
ON RISK











## Sales & Marketing

### **How is your company impacted by imported energy from Canada?**

- In general, this sector experiences only minimal import penetration from Canada.
- States that do border Canada, such as New York, do face a higher level of import competition.

### **Does your company have a diversified client base, or are sales heavily dependent on one market (commercial, residential, industrial, transportation?)**

- Having a diversified client base, such as customers from different markets, including the residential, commercial and industrial sectors, will likely keep companies in this sector from performing poorly if a specific market they provide electricity to experiences a downturn.

## Strategy & Operations

### **What steps do you take to retain talented employees with specialized knowledge?**

- Retaining talent is of paramount importance to companies in this sector as a large portion of jobs within the sector require skilled laborers.
- Companies in this industry offer high salaries and competitive benefits package to retain talent.

### **Have volatile input prices affected your company over the past few years? How have you adapted?**

- Operators make both profit and revenue based upon the price of natural gas.
- By increasing customers, revenue can protected from volatile prices oil and gas.

## Technology

### **How has your company been affected by the growth of electricity generated by renewable resources?**

- Renewable portfolio standards (RPS) in various states will have some effect on what type of resource a company procures it's electricity from.
- Growing renewable electricity generation has the ability to drive prices down should all other generating capacity be held constant.
- For example, New York State's RPS sets a goal for 50.0% of all energy in the state being procured from renewable resources by 2030.

### **Have you been able to use automation to reduce wage costs over the past five years?**

- Operators in this sector have continually reduced wage costs through automation over the five years to 2021.
- Technology such as smart meters help companies to provide better more efficient means of tracking energy usage and could lead to long-term cost savings.
- Drones have been approved for commercial use by the Federal Aviation Administration and this opens up a wide number of applications including using them to monitor transmission lines instead of using costly linesmen.

## Compliance

### **How does your company stay ahead of regulations?**

- State energy standards company's in this industry by setting mandates on the amount of energy procured from certain resources.
- The most significant example is New York State's Clean Energy Standard, which mandates a target of 50.0% energy procured from renewable resources by 2030.

### **How does your company ensure all health and safety requirements are met?**

- Keeping a minimum level of health and safety is of paramount importance to operators in this industry.
- If health and safety standards are not met, a company could potentially face fines.

## Finance

### **How has input price volatility affected profit over the past year?**

- Falling natural gas prices have benefited companies that purchase electricity generated from this resource.
- Companies that have purchasing contracts with clients that produce electricity from various sources will be most successful in managing price volatility.

### **How does your company's profit compare with your main competitors'?**

- Profit has increased during the period.
- Companies that are able to diversify their client base and procure electricity from inexpensive resources will likely be most able to maintain profit in the long run.





## Regulation for the Utilities Sector

**How does changing regulation affect your business? How do you anticipate and solve compliance issues?**

- Regulatory agencies oversee the pricing, reliability and safety of sector services.
- Rising regulations give less leeway for companies to sell and produce energy as they would like to. This results in an increase in production cost which decreases profit margin.
- At the same time, when production cost increases, consumers bear the cost by paying more for consumption of electricity.
- To solve the compliance issues, the company has to hire compliance experts to oversee day to day operations of the business to check every compliance code is met.

## Housing starts

**How do changes in the number of housing starts affect businesses in this sector? Do you have contacts in residential construction?**

- An increase in housing starts heightens demand for sector services because all industry services are staples in homes.
- As number of houses increases, total consumption of electricity will also increase which will benefit industry operators from selling more electricity, improving company revenue and profit margin.

## Electric power consumption

**How do changing levels of power consumption affect your business? How can you offset losses resulting from energy-efficient appliances?**

- All electricity must be transmitted through this sector's transmission and distribution networks to end-customers. Therefore, electric power consumption typically moves in line with sector demand and revenue.
- Usually losses are offset against energy-efficient appliances when consumption of electronics such as microwave, television and computers increase.
- In 2020 and 2021, we see an increase in consumption of these electronics at home as people are working from home during the COVID-19 (coronavirus) pandemic.

## Ability to pass on cost increases

**How easily is your business able to pass on cost increases? If you are unable to raise prices, how will you shore up revenue?**

- In about half of US states, policies set by the Federal Energy Regulatory Commission have led to a competitive market for power generation. Market forces set wholesale electricity prices. However, retail price caps limit the extent to which cost increases can be recovered.
- To shore up revenue, many companies now are opting to enter the clean energy market. This will help them produce energy at a lower cost than they already are and help increase revenue and profit margin.

## Ensure pricing policy is appropriate

### **How do you make sure your prices are attractive? Who is your biggest competition based on pricing?**

- In general, state governments set maximum retail electricity prices. Operators must adhere to these prices or encounter fines and legal problems.
- To make prices more attractive, companies will give free electricity for a month depending on the area and season.
- At the same time, recent trend is to select what type of electricity they want. The consumer can choose electricity produced by clean energy which has a lower price per unit.

## Ability to negotiate successfully with regulator

**Have you been able to negotiate with the specific regulator that oversees your business? How have changing regulations affected your operating costs?**

- Sector companies are regulated by several government organizations, and operators' performance is contingent upon their ability to receive favorable rulings from regulators.
- Increase or change in regulations affects the cost of running the business as adhering with compliance codes requires capital investment.



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