



## Renewable Energy Group (REGI)

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# I. Investment Overview

## Buy REGI to replace XLE @ standard allocation

### 1 Biodiesel Efficiency

- Biodiesel provides 93% more usable energy than the fossil energy needed for its production, reduces GHGs by 41% compared with diesel, reduces several major air pollutants, and has minimal impact on human and environmental health through N, P, and pesticide release.

### 2 Dominance in Market Share

- REGI remains very competitive while almost purely producing biodiesel against the companies that also produce ethanol based bio-fuels
- REGI also is one of the few companies that produces solely biodiesel meaning that it has a larger market-share within the biodiesel market

### 3 Future Growth Plans

- REGI recently announced a plan to expand the production capacity of its Geismar Renewable Diesel Plant from 250 million gallons annually to 340 million gallons per year. The company is moving to ensure that it can deliver sustainable fuel solutions to meet its increasing customer demand.

### 4 Political Space Tailwinds

- Biden presidency already moving towards green policy such as the suspension of the keystone pipeline and future investment into renewables and away from fossil fuels
- Biden has pledged to invest in developing next-generation fuels and in research to develop cellulosic biofuels

### 5 Resiliency Through Pandemic

- REGI and biodiesel in general stayed much more resilient than a lot of the energy sector
- While REGI still dropped slightly they had a very strong recovery breaking all time highs and continuing to optimize the company by improving operations

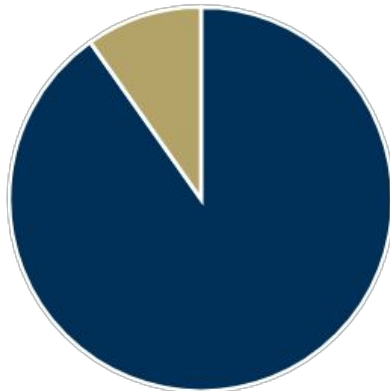
## Business Description

- Renewable Energy Group Inc. produces biofuels and renewable chemicals, with a total of 12 biorefineries, 10 based in the U.S and 2 in Germany.
- The Company develops, distributes, sells, and provides logistics for biodiesel and renewable chemical production
- Renewable Energy Group serves companies throughout the United States and Europe

## Key Statistics

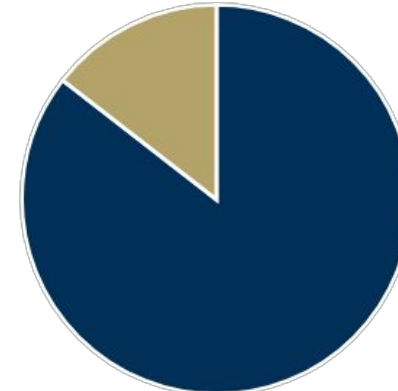
<b>GICS Sub-Industry</b>	Oil, Gas, & Consumable Fuels
<b>Market Cap</b>	\$2,799.4M
<b>Revenue</b>	\$2.1B
<b>Current Price</b>	\$61.81
<b>52-Week Range</b>	\$16.94 / \$117.00
<b>Beta</b>	1.21
<b>Dividend Yield</b>	0%
<b>Credit Rating</b>	BBB+

## Geographic Breakdown



■ U.S   ■ International

## Segment Breakdown



■ Biomass - Diesel   ■ Services



## Cynthia Warner - CEO

- Employed at REG since 2019, served as Executive VP: Operations for Andeavor from 2017-2018
- 35 years of experience the energy sector in operations, business development, strategy, environment, health, and safety.
- Owns more than \$6.78M of REGI stock



## Brad Albin- Senior VP

- VP in REG since 2007, Senior VP since 2020
- Pioneer of the biodiesel industry and built the first true multi-feedstock biodiesel plant in the world in 1998
- Owns \$7.32M of REGI stock

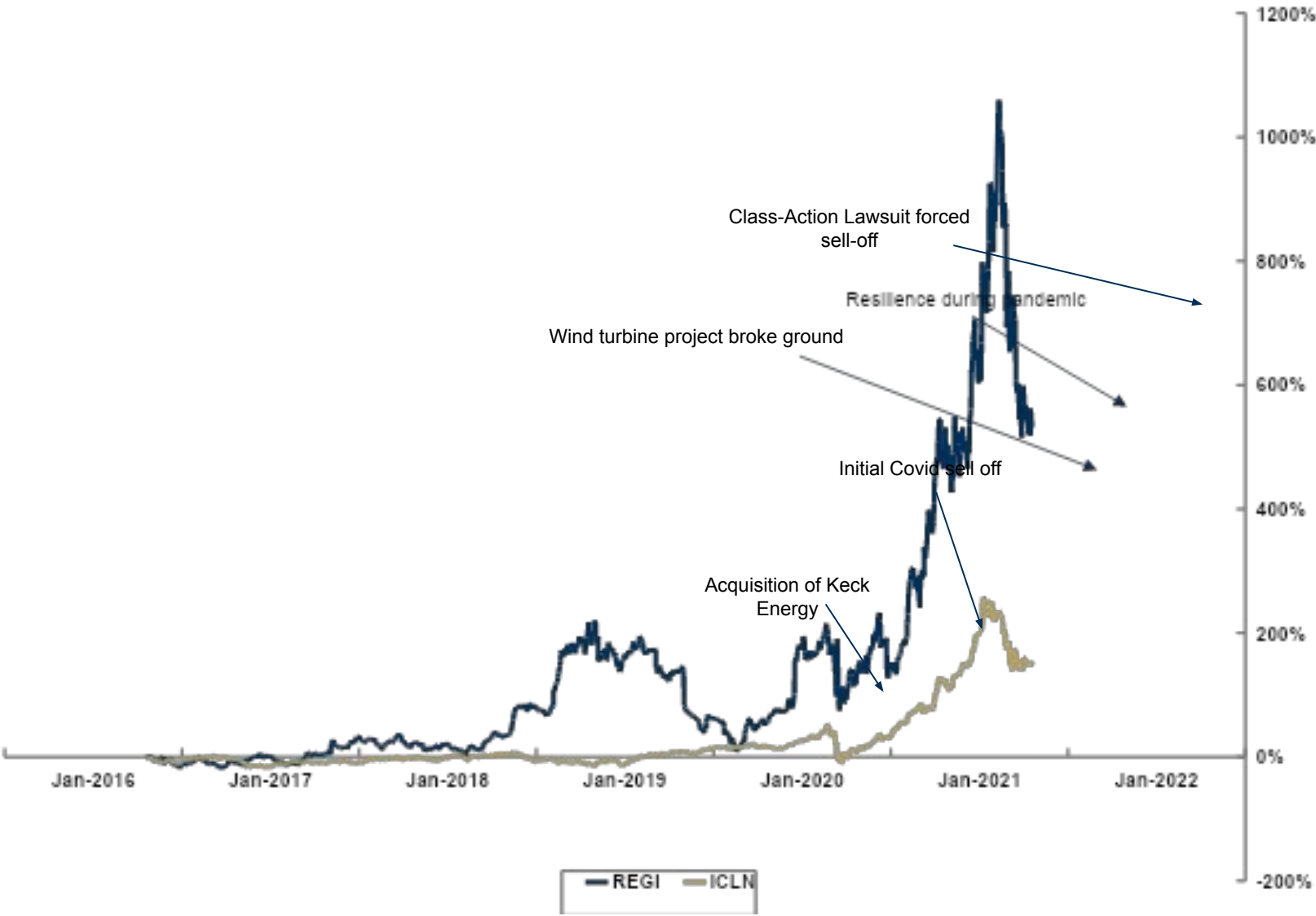


## Eric Bowen – Executive Director

- Prior to joining REG, Mr. Bowen was Founder, President & CEO of Tellurian Biodiesel, Inc. (acquired by REG).
- Bowen has been instrumental in crafting landmark clean fuels policies, including California's low carbon fuel standard.
- Owns \$5.04M of REGI stock

***Experienced staff and officers, having been involved with biofuel in the past and add value to the company as well as being involved in changing policies regarding clean fuel***

# 5-Year Stock Performance



## Summary

- They had to return incorrectly claimed BTC credits totaling \$40.5 million for the period from 2017 to third quarter of 2020
- Biodiesel Mixture Excise Tax Credits (BTC) credits are realized when pure biodiesel B100, is blended with petroleum diesel to at least a 0.1% level, creating a product known as B99.9
- Their Seneca biorefinery was periodically not including the 0.1% petroleum diesel in certain gallons sold as B99.9.
- As a result, some of the gallons we sold as B99.9 were B100 gallons

## Proposed resolution strategies

- For the Seneca facility, loading will be done in limited capacity until the system is redesigned to work in all operating modes
- Performing additional local reconciliations weekly to validate that the amount of petroleum diesel used matches the amount of diesel required to be blended
- Are now reviewing monthly inventory reconciliations prior to filing for BTC to reconfirm that the required volume of petroleum diesel has been blended
- They have implemented a control system calculation that enables the loading operator to validate that the proper number of diesel gallons were added to each load

## II. Business Segments



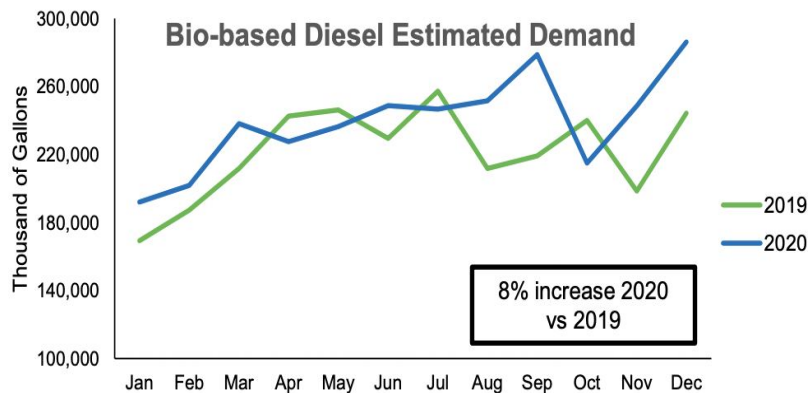
## Segment Overview

- Resilient performance with only 7% drop in gallons sold and 19% drop in revenues YOY during a pandemic year
- Very innovative company with their proprietary UltraClean fuel increased sales of blends of biodiesel into renewable diesel by 57%
- Very responsive to shifting market conditions
  - Shifted sales to Europe from North America to capture increased demand and higher prices

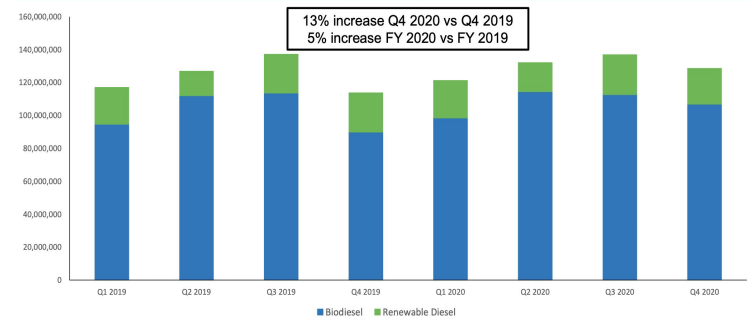
## Production

- Managed to achieve record production of 519 million gallons, 17 million gallons more than their previous high in 2018
- Production largely unaffected by COVID with 5% YOY increase in self produced gallons
- Decided to move towards blending of high value biodiesel and petroleum diesel away from petroleum to take advantage of higher margins
- Plan on continue expanding their Geismar biorefinery which will help them maintain leadership in the growing bio-based diesel market

### Industry Demand



### REG Self-Produced Gallons



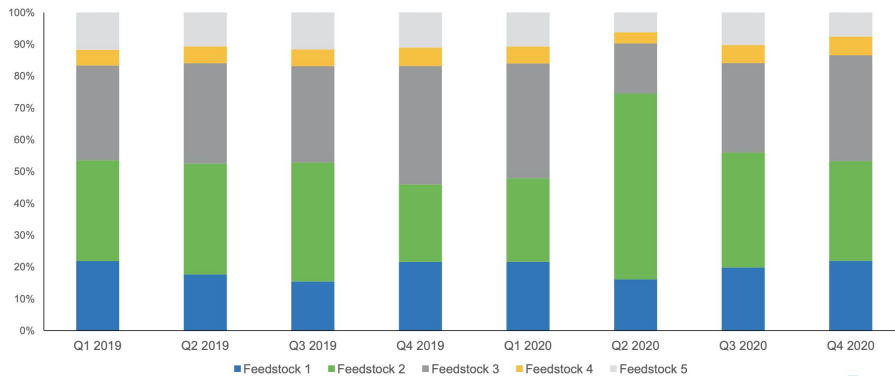
## Feedstock

- Ability to dramatically modify their feedstock awards them the ability to run planned rates and with attractive margins even during difficult market conditions
- Strategic placement of many biodiesel allow access to some of the more localized feeds that really don't have a good outlet to some of the big international markets
- REGI expanding portfolio of feedstock to integrate more varieties in refining process such as soy oil
- New downstream strategy further allows REGI to diversify their feedstock capabilities by optimizing higher value mixes
- 10/12 of REGI's current refineries are "multi-feedstock capable"

## RIN

- REGI generates 1.5-1.7 RINs per gallon of biomass the company produces with industry standards being anywhere between 0-2.5 RIN.
- REGI's current RIN allocation is 3.96M D4 and 0.82M Advanced Biofuel RIN, which currently amounts to \$6.76M in assets.
- Managed to take advantage of increasing RIN prices and monetized more RINs year-over-year, resulting in an increase in sales of separated RINs of \$30 million
- Current political tailwinds for renewable energy continues to drive increasing RIN prices to record highs of \$1.42.

## REG Feedstock Mix

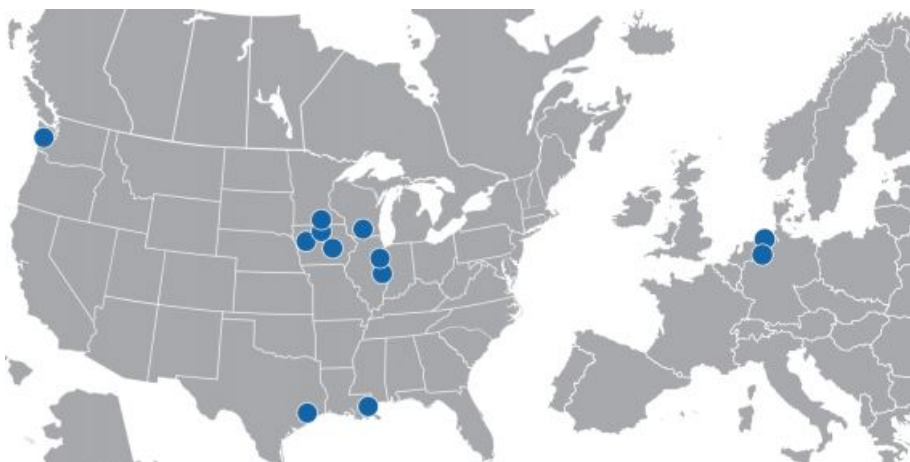


Daily spot prices of ethanol (D6) and biomass-based diesel (D4) renewable identification numbers (RINs) (Jan 2013–Feb 2021) nominal dollars per gallon



## International Mix

- Political tailwinds within the European sphere like those within the US with former RED and RED II Programs which set 14% renewable energy target on transportation, prominently comprised of biofuels.
- Additionally, 32% reduction of greenhouse gases by 2030 as well as European Green New Deal initiatives continuing towards 2050.
- REGI's two most recent operations both centered in Emden and Oeding, Germany started in 2016 and have a combined effective capacity of 56M gal/year, with 50.1M gal sold in 2020.
- REGI was able to take advantage of RED Programs which focused on biofuels to aid in moving towards green transportation.



## Domestic Ethanol/Biodiesel

- According to EMTS data. 2.43B gal of biomass-based biodiesel was produced/imported into the U.S compared to the 13.8B gal of ethanol in 2020.
- In 2020, REGI produced and sold 451.6M gallons of renewable and biodiesel, additionally selling 60.7M third party produced fuel. Accounting for more than 21% of the total renewable and biodiesel domestically.
- Even amongst ethanol producing competitors, REGI shows strong market prominence, specifically in the biodiesel space that many competitors have not entered yet.

	Gallons sold (millions)	
	Year ended December 31, 2020	Year ended December 31, 2019
<b>REG-produced biomass-based diesel:</b>		
Biodiesel - United States	375.2	365.3
Biodiesel - International	50.1	45.5
Renewable diesel	76.4	77.5
	501.7	488.3
<b>Third party biomass-based diesel:</b>		
Biodiesel	20.9	36.0
Renewable diesel	39.8	39.2
	60.7	75.2
<b>Petroleum-based diesel</b>	88.1	136.9
<b>Total</b>	<b>650.5</b>	<b>700.3</b>

## Project Pipeline/Debt Financing

- Future projects focused on the expansion of established biorefineries to increase effective capacity, with Geismar being the largest current plan.
- Expected to increase capacity by 277% with increase production capability of 250M gal/yr and an estimated construction 2021-2023.
- Expect to fund the \$825M investment with a combination of cash on hand, securities, borrowing from their credit facilities, and other sources.
- Additionally, to further finance this debt, REGI is considering selling equity or securities that may be provide rights, preferences, etc. different than those of holders of common stock

**277%**

CAPACITY INCREASE

**340** MILLION GALLONS PER YEAR

UP FROM 90 MMGY

**2.4** MILLION METRIC TONS CO<sub>2</sub>e

CARBON REDUCTION UP FROM 600,000

**500+** CONSTRUCTION  
**90** WHEN DONE

JOB CREATION

**2021-2023**

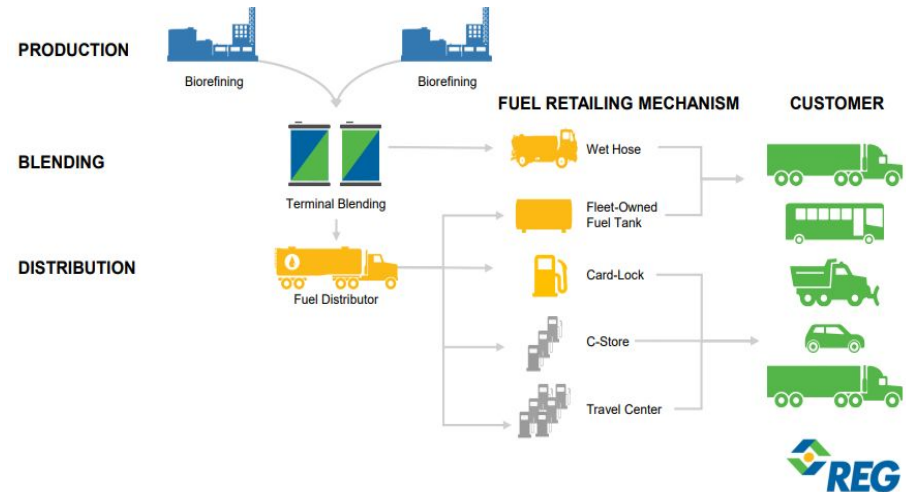
CONSTRUCTION TIMELINE

**\$825M**

CAPITAL INVESTMENT

## Downstream

- Geismar represents one of the big initiatives undertaken in order to further REGI's plan to focus more on a downstream future strategy
- Downstream strategy currently driving customer enthusiasm since it allows for higher value fuels to be output and for customer's to be able to decarbonize with less infrastructure required
- REGI's proprietary blend "REG ultra clean" similarly follows this line of enthusiasm and market acceptance with dealings in California, ramping up demand
- Core competency will remain in the production and blending of fuels but looking to expand into distribution of retailing of biodiesel fuels



## III. Valuation

Company	Market Cap	DEBT/EBITDA	EV/EBITDA	P/E	Operating Margin	FCF Margin	5Y Rev CAGR
Renewable Energy Group	\$2.81B	0.45x	12.59x	21.19	5.6%	22.4%	7.16%
Verbio	\$2.60B	0.45x	15.06x	25.4	8.9%	4.4%	4.47%
REX American Resources	\$491.3M	0.56x	16.98x	142.81	10.8%	7.2%	3.28%
Green Plains	\$1.08B	8.78x	22.97x	--	-7.3%	-0.6%	-8.34%
CropEnergies	\$1.10B	0.08x	6.27x	10.81	12.7%	18.6%	6.16%
Median	\$1.97B	0.5x	15.06x	23.295	9%	7%	4.5%

## Positives

- **EV/EBITDA:** REGI's EV/EBITDA ratio sits slightly lower than the median amongst its competitors
- **5Y Rev CAGR:** REGI has seen consistent revenue growth, stronger than many of their peers even with COVID drop off and market prominence
- **Debt/EBITDA:** REGI has consistently seen its debt scaled down in recent years, now middle of the pack of its peers

## Negatives

- **Operating Margin:** Although REGI sees some of the highest margins in FCF, after accounting for the depreciation of its assets, we see it fall below its peers

## Sensitivity Analysis(59% upside)

		Exit Multiple				
		12.4x	12.9x	13.4x	13.9x	14.4x
WACC	10.09%	\$ 91.92	\$ 94.60	\$ 97.28	\$ 99.97	\$102.65
	10.59%	\$ 90.16	\$ 92.79	\$ 95.41	\$ 98.03	\$100.66
	11.09%	\$ 88.46	\$ 91.02	\$ 93.59	\$ 96.15	\$ 98.72
	11.59%	\$ 86.79	\$ 89.30	\$ 91.81	\$ 94.32	\$ 96.83
	12.09%	\$ 85.17	\$ 87.62	\$ 90.08	\$ 92.53	\$ 94.98

### Model Assumptions

- Expecting to see revenue rebound as the world recovers from COVID and as demand for biodiesel continues to grow
- Bullish on continued increase in production as REGIs growth projects(like Geismar) begin to yield effect

### WACC Assumptions

Assumptions		
Tax Rate		10%
Exit Multiple (EBITDA)		13.4x
WACC Calculation		
Risk Free Rate		1.62%
Beta		1.207
Market Risk Premium		8.05%
Cost of Equity		11.3%
Pre-Tax Cost of Debt		4.42%
Market Cap	\$	2,799
BV of Debt	\$	95
Equity-to-Value		96.7%
Debt-to-Value		3.3%
WACC		11.09%

## IV. Conclusion



		Risk	Mitigation
1	<b>Feedstock Market Volatility</b>	<ul style="list-style-type: none"> <li>Supply shocks due to COVID continue to recover slower than many industries with supply of cooking oil, distiller corn oil, etc. remaining low</li> <li>Decrease in supply has seen continuous increase in feedstock price</li> </ul>	<ul style="list-style-type: none"> <li>REGI expanding portfolio of feedstock to integrate more varieties in refining process such as soy oil</li> <li>Increasingly optimizing their refining process with their supply of feedstock, allowing them to remain resistant to market volatility</li> </ul>
2	<b>Uncertainty in Supreme Court</b>	<ul style="list-style-type: none"> <li>Supreme Court decision concerning small refineries' ability to qualify and earn RIN uncertain.</li> <li>Small-scale refineries' inclusion in RIN tax credits could potentially influence RIN price market considerably</li> </ul>	<ul style="list-style-type: none"> <li>The influence of the decision mainly focuses on the RIN price in the market, not directly affecting REGI's ability to qualify for these credits.</li> <li>REGI's administration confident their model will remain unaffected by the decision</li> </ul>
3	<b>Short-Term Legal Issues</b>	<ul style="list-style-type: none"> <li>Class action lawsuit filed on behalf of shareholders due to misleading financial claims in recent earnings report</li> <li>Financial claims due to the refining issue in Seneca plant.</li> </ul>	<ul style="list-style-type: none"> <li>The lawsuit itself is likely to only remain a short-term issue to the company and have little long-affects. After IRS investigation, REGI is ahead of the issue.</li> </ul>
4	<b>Refining Quality Issues</b>	<ul style="list-style-type: none"> <li>Seneca bio refinery's diesel additive system periodically not introducing 0.1% petroleum to the biodiesel, instead producing B100.</li> <li>BTC credits from producing B99.9 returned totaling \$40.5M</li> </ul>	<ul style="list-style-type: none"> <li>REGI undergoing internal investigation into the Seneca production quality issue, adding new policies to ensure quality control of products</li> <li>Additional optimization and control systems are being implemented among other refineries</li> </ul>

## Biofuel and REGI Resilience

- Both REGI and the biofuel industry as a whole saw strong resilience during the pandemic, with REGI undertaking optimization initiatives in response to the feed stock shortages, allowing them to remain competitive.
- REGI taking future initiatives to further move towards low volume, high quality and high profit mixes of biodiesel

## Political and Market Tailwinds

- Current Joe Biden administration moving towards "the next generation of biofuels" as well as European policy change supporting biodiesel in transportation sector
- RIN and BTC market continues to aid REGI's biodiesel production, with potential for limiting of competitor's qualification for credits

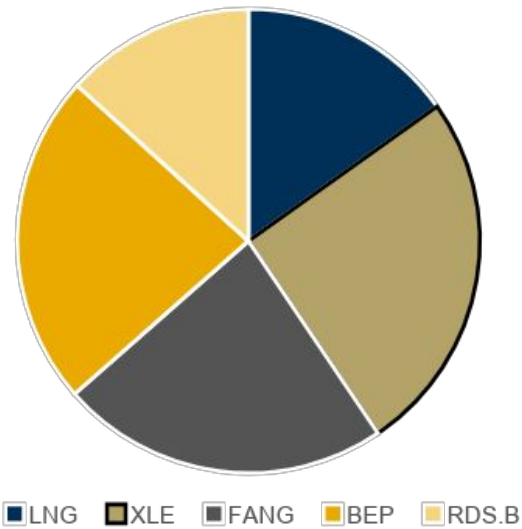
## Biodiesel Market Prominence

- Within the biofuel market, REGI remains one of the largest competitors even amongst many ethanol producers. This allows REGI's biodiesel-oriented model to take further advantage of its market influence.

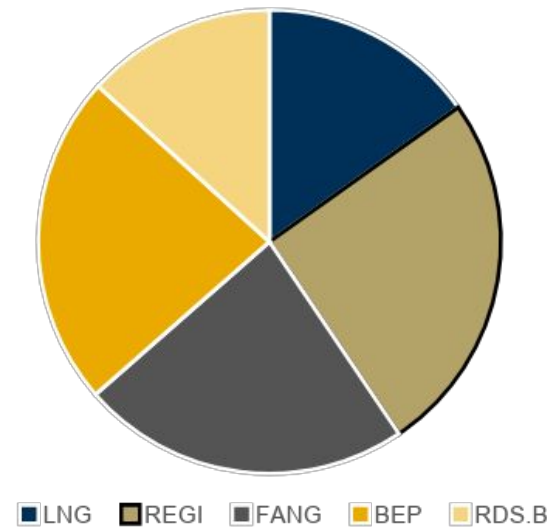
## Rationale: Replace Energy ETF (XLE) with REGI

- Currently no exposure to the biodiesel and biofuel sector outside BEP biomass
- Large market player in the biofuel industry with strong financial metrics compared to peers
- Allows further diversification into renewables outside of solar and wind energy

### Current Portfolio



### Prospective Portfolio



<u>Name</u>	<u>Position</u>	<u>Phone Number</u>	<u>Email</u>
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Ronit Ganguly	Analyst	770-714-1024	<a href="mailto:ganguly.ronit@gmail.com">ganguly.ronit@gmail.com</a>
Manoj Niverthi	Sector Head	770-314-0545	<a href="mailto:mniverthi3@gatech.edu">mniverthi3@gatech.edu</a>

# V. Appendix

# Discounted Cash Flow



	Historical			Expected	Projected				
	2017	2018	2019	2020	2021	2022	2023	2024	2025
Revenue	\$ 2,155	\$ 2,383	\$ 2,625	\$ 2,137	\$ 2,310	\$ 2,195	\$ 2,151	\$ 2,194	\$ 2,276
% YoY Growth	N/A	10.60%	10.16%	-18.59%	-12.00%	-5.00%	-2.00%	2.00%	3.75%
Cost of Goods Sold	\$ 2,071	\$ 1,963	\$ 2,111	\$ 1,869	\$ 1,987	\$ 1,865	\$ 1,807	\$ 1,821	\$ 1,866
Gross Profit	\$ 84	\$ 420	\$ 514	\$ 268	\$ 323	\$ 329	\$ 344	\$ 373	\$ 410
% Margin	3.88%	17.62%	19.58%	12.55%	14.00%	15.00%	16.00%	17.00%	18.00%
EBITDA	31	362	454	217	254	263	280	307	341
% Margin	1.45%	15.19%	17.31%	10.14%	11.00%	12.00%	13.00%	14.00%	15.00%
Less: Depreciation	36	36	36	37	34	35	36	39	43
EBIT	(5)	326	418	179	220	229	243	268	299
Less: Taxes	(0)	31	40	17	21	22	23	25	28
EBIT*(1-T)	(4)	295	378	162	199	207	220	243	270
Add: Depreciation	36	36	36	37	34	35	36	39	43
Less: Inc. in NWC	-	6	473	(400)	(414)	(138)	(25)	(23)	(23)
Less: CapEx	68	47	43	64	66	90	115	145	179
FCF to Firm	(36)	278	(101)	536	581	290	166	159	157
PV Factor					0.90	0.81	0.73	0.66	0.59
PV of FCF					523	235	121	105	93
PV of Terminal Value									2699.7
Firm Value		3,776.3							
Less: Debt	\$	95							
Equity Value		3,681.3							
Shares Outstanding		39							
Share Price	\$	93.59							

	Historical			Expected	Projected				
	2017	2018	2019	2020	2021	2022	2023	2024	2025
Drivers:									
Revenue Growth	N/A	10.60%	10.16%	-18.59%	-12.00%	-5.00%	-2.00%	2.00%	3.75%
Margin Expansion:									
Gross Margin	3.88%	17.62%	19.58%	12.55%	14.00%	15.00%	16.00%	17.00%	18.00%
EBITDA Margin	1.45%	15.19%	17.31%	10.14%	11.00%	12.00%	13.00%	14.00%	15.00%
Depreciation (% of Sales)	1.7%	1.5%	1.4%	1.7%	1.48%	1.58%	1.68%	1.78%	1.88%
Net Working Capital:									
A/R	\$ 90.6	\$ 74.6	\$ 858.9	\$ 143.5	\$ 150.0	\$ 126.3	\$ 112.0	\$ 102.2	\$ 93.5
DSO	15.35	11.43	119.42	24.51	23.00	21.00	19.00	17.00	15.00
Inventory	\$ 135.5	\$ 168.9	\$ 161.4	\$ 209.4	\$ 196.0	\$ 181.4	\$ 173.2	\$ 172.1	\$ 173.9
DIO	23.9	31.4	27.9	40.9	36.0	35.5	35.0	34.5	34.0
A/P	\$ 84.6	\$ 95.9	\$ 399.9	\$ 132.9	\$ 140.0	\$ 240.2	\$ 242.5	\$ 254.4	\$ 271.0
DPO	14.9	17.8	69.1	26.0	45.0	47.0	49.0	51.0	53.0
NWC	\$ 141.5	\$ 147.6	\$ 620.4	\$ 220.0	\$ 206.0	\$ 67.5	\$ 42.7	\$ 19.9	\$ (3.6)
Change in NWC		\$ 6.1	\$ 472.8	\$ (400.4)	\$ (414.4)	\$ (138.5)	\$ (24.8)	\$ (22.8)	\$ (23.5)
CapEx (% of Sales)	3.14%	1.95%	1.62%	2.98%	2.87%	4.12%	5.37%	6.62%	7.87%