The Henry Fund
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Renewable Energy Group (REGI)

November 12, 2021

Energy – Biodiesel

Stock Rating **BUY**

Investment Thesis

Renewable Energy Group is a small capitalization energy stock positioned well in a unique industry that can help diversify the Henry Fund's holdings. Our discounted cash flow and economic profit models produced a target price of $72 per share for a 38.5% upside. Though there are some industry and economic risks, we recommend a buy rating for this unique company.

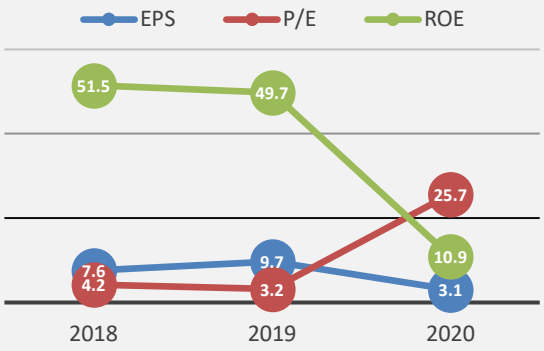
Drivers of Thesis

- Strong revenue performance for 2021 and anticipated elevated energy prices should keep revenue growing for the forecasted period, allowing REGI to serve the growing biodiesel market (2.8% anticipated industry CAGR over the forecast horizon).
- The Biodiesel Tax Credit (BTC) was renewed at the beginning of 2020 for one of its most recent longest renewals. This should buoy industry revenue through next year, but may also spell risk. In the short term though, this is creating stability in the industry.
- The fund would benefit from replacing the energy ETF with a small cap stock with unique growth opportunities.

Risks to Thesis

- The economy may falter from its pandemic recover and prices may remain volatile beyond the near term, which would destabilize the market.
- If the BTC gets bogged down in the political swap of next year's Congressional elections, it's renewal may be in jeopardy and the industry may be destabilized.
- Exponential medium- and heavy-duty electric vehicle adoption would eat REGI's lunch. Diversification away from the on-road sector could help, which REGI is doing, but navigating this transition may be troublesome.

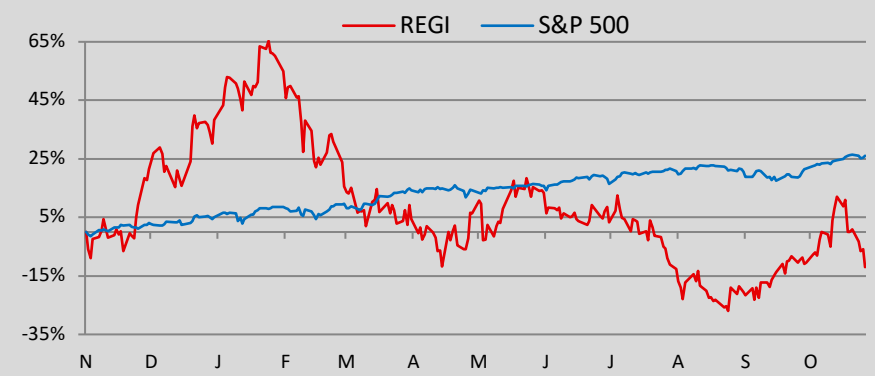
Target Price	$72
Henry Fund DCF-EP	$72
Henry Fund DDM	N/A
Relative Multiple	$76
Price Data	
Current Price	$52.42
52wk Range	$45.06 – 117.00
Consensus 1yr Target	$77.13
Key Statistics	
Market Cap (B)	$2.6
Shares Outstanding (M)	39.3
Institutional Ownership	98.2%
Beta	1.07
Dividend Yield	N/A
Est. 5yr Growth	7.4%
Price/Earnings (TTM)	12.9
Price/Earnings (FY1)	15.1
Price/Sales (TTM)	0.8
Price/Book (mrq)	1.6
Profitability	
Operating Margin	12.6%
Profit Margin	5.8%
Return on Assets (TTM)	8.4%
Return on Equity (TTM)	10.9%



Earnings Estimates

Year	2018	2019	2020	2021E	2022E	2023E
EPS	$7.55	$9.71	$3.07	$4.18	$2.81	$2.71
HF est.				$3.47	$3.39	$3.64
growth		*28.61%*	*-68.38%*	*13.07%*	*-2.42%*	*7.35%*

12 Month Performance

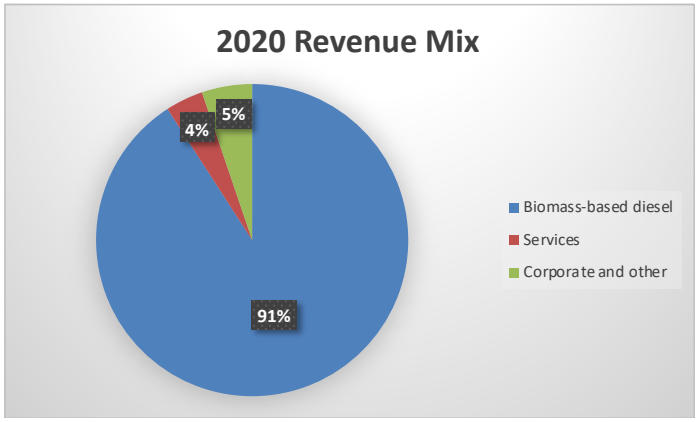


Company Description

Renewable Energy Group (REGI) focuses on providing cleaner, lower carbon transportation fuels, by converting fats, oils and greases into advanced biofuels, and strives to provide value to the entire biofuel supply chain. They are North America's largest producer of such fuels, selling 651 million gallons of fuel in 2020 that generated $2 billion in revenue. REGI was founded in 1996 and is headquartered in Ames, Iowa.

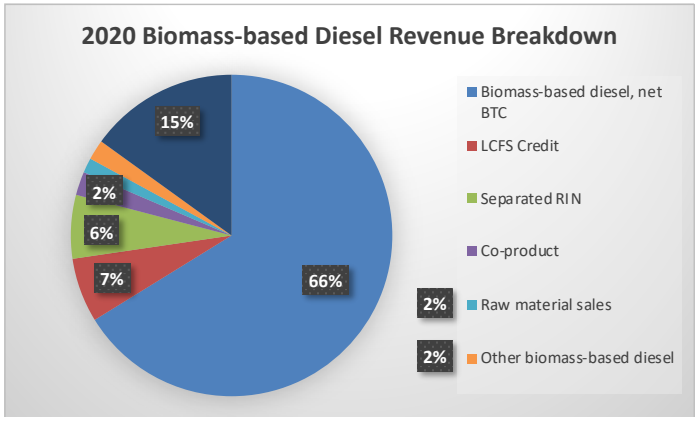
COMPANY DESCRIPTION

Renewable Energy Group (REGI) focuses on providing cleaner, lower carbon transportation fuels, by converting fats, oils and greases into advanced biofuels. They are North America's largest producer of such fuels, selling 651 million gallons of fuel in 2020 that generated $2 billion in revenue. With a fully integrated approach to the biofuels market, they believe they are well positioned to serve the growing market for their products, searching for competitive advantages in feedstock acquisition, biorefinery operations, distribution through their own network of terminals, and biorefinery construction and technology upgrade management. REGI was founded in 1996 and is headquartered in Ames, Iowa.[1, 2]



Source: Bloomberg

Ninety-one percent of REGI's 2020 revenue came from the sale of biomass-based diesel and various tax incentives and renewable production credits. The remaining nine percent is the resale of petroleum-based fuels, industry services, and corporate revenues. Further breaking down the biomass-based diesel revenue, two-thirds came from the direct retail sale of biomass-based diesel, while the remainder came from the various incentives that include

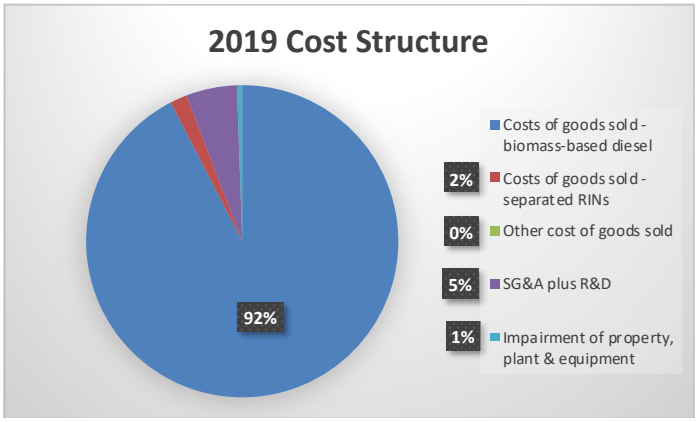


Source: Bloomberg

California low carbon fuel standard (LCFS) credits (7%), trading separated renewable identification numbers (RIN) (6%), and direct government incentives like the Department of Energy's renewable production tax credit (PTC) for the biodiesel they sell to market (15%).[3]

Cost Structure

REGI has a fairly simple GAAP-reported cost structure, which includes cost of goods sold (divided between biomass-based diesel, separated RIN and other), SG&A plus R&D, and impairment of PP&E, which is not equivalent to the depreciation expense listed on the cash flow statement. Implied depreciation for the historic period is 5.99%, which we used in our forecasting calculations to account for depreciation on our balance sheet and forecasted cash flow statement. The chart below shows 2019 figures because the full breakdown was offered for 2020 in the 10-K report. Ninety-four percent of costs go directly to production.[1]



Source: 2020 REGI 10-K Report

ESG Analysis

Sustainalytics does not have a company profile on REGI, so we are unable to evaluate them according to the most standard Henry Fund ESG ranking system, but FactSet does have a set of scores. REGI comes in "Above Average" in FactSet's overall ESG rank, which compares a company's long-term performance to the rest of the industry with one of five outputs: lag, below, average, above, and lead. Furthermore, FactSet provides a "Momentum" score, which measures the trajectory of the company's trailing twelve month ESG performance. REGI fell in the positive range (as opposed to the neutral or negative) with a score of 68 out of 100. Finally, there are five more scores FactSet offers that come from the Sustainability Accounting Standards Board (SASB), whose stated mission is "to

establish industry-specific disclosure standards across ESG topics that facilitate communication between companies and investors about financially material, decision-useful information."[4] The following table outlines REGI's performance on these remaining metrics:

SASB Dimensions	Insight Score	Spotlight Events
Environment	79 / 100	5
Social Capital	43 / 100	1
Leadership and Governance	45 / 100	1
Human Capital	60 / 100	2
Business Model and Innovation	65 / 100	3

Source: FactSet

RECENT DEVELOPMENTS

Earnings Announcement – November 3, 2021

REGI recorded a banner quarter in the three months ending September 30, 2021. Highlights include $1 billion in revenues (up 75.8% YoY), record sales of their proprietary fuel mix REGI Ultra Clean, and over a one million metric ton reduction in carbon emissions from REG-produced fuels in the quarter. This is all despite operating disruptions from Hurricane Ida and volatile energy and feedstock markets, of which hedging strategies have lessened the blow. Construction began at their Geismer, Louisiana, facility to expand capacity to 340 million gallons per year by early 2024, and sales were initiated for the first time outside the on-road sector to marine and rail customers, which should enable further substantial growth. Adjusted EPS came in at $0.83 for the quarter and $3.41 for the nine months ending with the quarter.[5] Given that this only leaves $0.07 room for Q4 EPS before REGI outpaces our yearly estimate, we believe our model makes up for the difference in consensus and our estimate with higher 2022 and 2023 EPS estimates.

Year	2018	2019	2020	2021E	2022E	2023E
EPS	$7.55	$9.71	$3.07	$4.18	$2.81	$2.71
HF est.				$3.47	$3.39	$3.64
growth		*28.61%*	*-68.38%*	*13.07%*	*-2.42%*	*7.35%*

Source: FactSet, HF Model

COVID-19 Impact

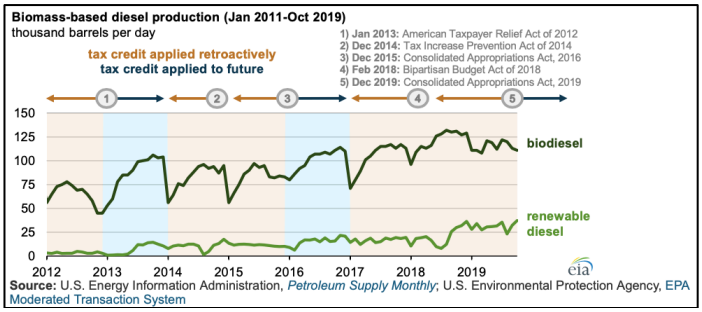
Though the initial pandemic response effected REGI like any other business, with requirements to social distance and mitigate virus transmission, the company maintained a fairly consistent operational capacity. Office and administrative staff worked remotely and production arrangements were made that facilitated a safe work environment. Additional paid time off was granted to employees for health and family-related reasons, and discretionary business travel was stopped. The volatility of the energy market due to the pandemic has had the biggest impact on REGI operations, with continuing influence. Reduced demand and the subsequent lower average sale price of its product led to an estimated $210.1 million decrease in revenue for 2020, when applied to the number of gallons sold in 2019.[1]

Industry Trends

Renewal of Biodiesel Tax Credit

The federal biodiesel mixture excise tax credit, or BTC, grants a $1.00 refundable tax credit per gallon to the first blender of biomass-based diesel with petroleum-based diesel fuel. The BTC can be credited against federal excise tax liabilities or the first blender can receive a cash refund from the US Treasury for the amount of the credit. It was first implemented in 2005 and has been reimplemented several times since, although most often retroactively over months or even years with a measure of uncertainty of whether it will be renewed. The BTC should be understood as a shared incentive across the entire advanced biofuel value chain through routine, daily trading and negotiation. It was most recently renewed January 2020 and will be effective through December 2022.[1]

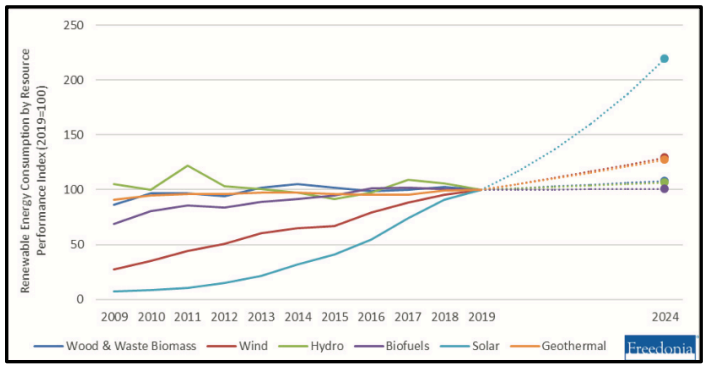
This was stabilizing for the industry as a whole and should be a boon for REGI, given that 15% of its biomass-based diesel revenue is generated from this one tax credit. Though the following chart is a bit tough to read, it demonstrates the importance of this tax credit to stabilize production in the market. The dips in barrels produced per day are most pronounced in times of transition between passage of new legislation renewing the credit, where the most sustained production output are during times when the duration of the credit is best defined. Right now, we are in the middle of one of the longest renewed periods in the recent history of the credit.[6]



Source: US Energy Information Administration

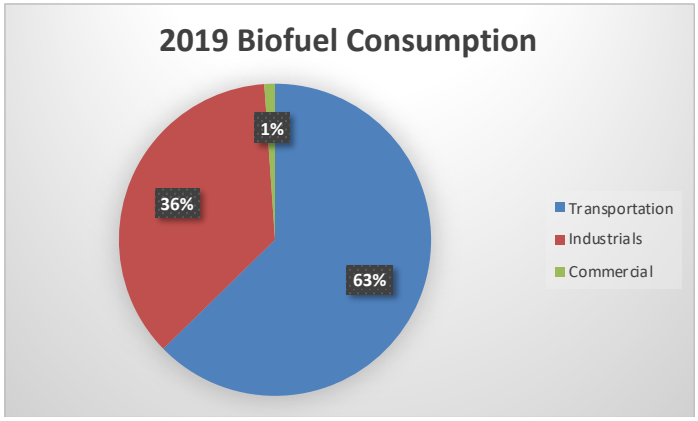
Renewables

Renewable energy consumption grew to a record high of 11.6 quadrillion Btu in 2020, representing 12% of US energy usage with its fifth straight year of growth. From 2009 to 2019, the industry saw an average annual growth of 3.9%. Production usually outpaces consumption to fulfill market demand. For 2019, production reached 11.8 quadrillion Btu and had a 4.1% average annual growth rate from 2009 to 2019. Total consumption and production of renewables is expected to reach 14 and 14.2 quadrillion Btu by 2024, respectively, for a 4.0% and 3.8% CAGR for each. The largest gains are expected in wind and solar, with 5.3% and 17% estimated CAGR.



Source: Freedonia Group – Renewable Energy: US

Biofuels are typically divided into two categories: bioethanol and an aggregate category including biodiesel, biobutanol, pure vegetable oil, and biocrude. Consumption of biofuels is expected to reach 2.3 quadrillion Btu by 2024, which represents a meager 0.1% CAGR over the five years leading up to 2024. Production capacity is expected to increase over the period by 1.2% CAGR, which should facilitate any unexpected growth in the industry. The transportation sector of the economy consumes most biofuels at 62.7% of the market, followed by industrials at 36.2% and commercial uses at just 1.1%.



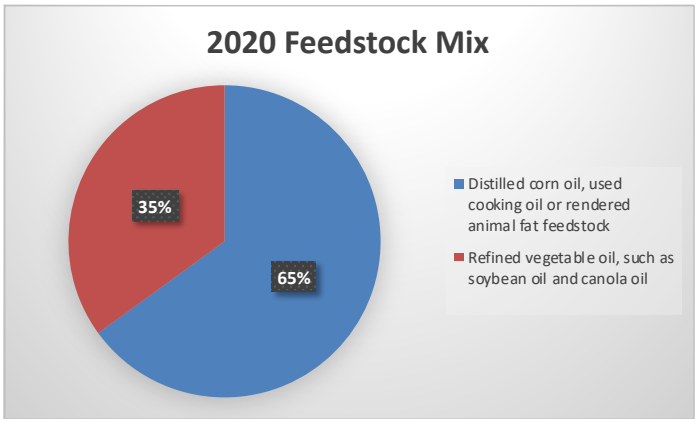
Source: Freedonia Group – Renewable Energy: US

Biodiesel is most often incorporated into petroleum diesel fuel blends, which powers most of US commercial transportation. From 2008 to 2018, biodiesel averaged an impressive 22% growth rate per year, as a result of low capital costs, relatively simple production technology, and tax credit incentives.[7] Separated from the other biofuels as a whole, biodiesel is expected to perform better over the forecast horizon, with an estimated demand of 2.1 billion gallons for a CAGR of 2.8% and an estimated production capacity of 2.1 billion gallons for a CAGR of 2.7% by 2025.[8]

ECONOMIC OUTLOOK

Input Prices – Crops

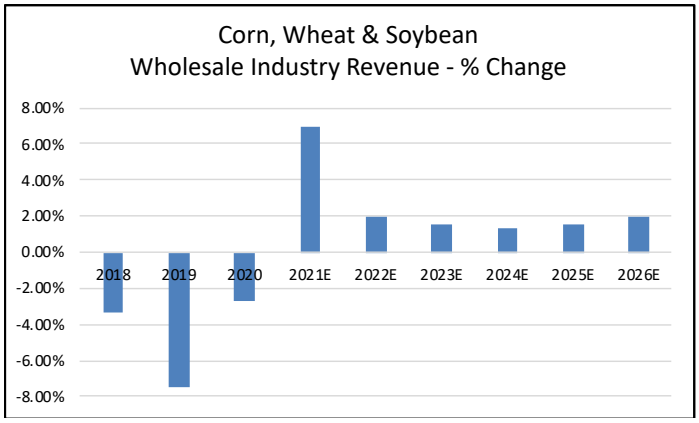
REGI feedstock consists of approximately 65% distilled corn oil, used cooking oil or rendered animal fat feedstock and 35% refined vegetable oil, such as soybean oil and canola oil. As such, the price of corn, soybean, and other oilseed crops are an important input expense to track and one in which REGI engages in significant hedging activities. In fact, *Risk management gain (loss)* was negative $11.6 million for the third quarter, but most of this was from oil and gas price fluctuations and will be mostly offset by scheduled fourth quarter forward contract deliveries. Notwithstanding, the US corn, wheat and soybean wholesaling market is anticipated to growth at 1.7% CAGR to $200.3 billion by 2026, after market declines in the years leading up to the pandemic with a five-year CAGR of negative 2.4%.[9]



Source: 2020 REGI 10-K Report

Biofuel manufacturers like REGI really began affecting the wholesale crop market after the passage of the Energy Policy Act in 2005 and the Energy Independence and Security Act of 2007, which instated Renewable Fuel Standards (RFS) and incentivized the replacement of

conventional fuels with renewable fuels. At the onset of these programs, biofuel manufacturing raised the price of commodities, but wholesalers were successful at passing costs on to the biofuel manufacturers. More recently in the five years leading up to 2021, increases in biofuel production has not pushed commodity prices higher due to other factors (international output, excess surplus, etc.) that suppressed commodity prices, but those tides are turning and demand pressures may build up industrywide.[9] Biofuel manufacturers are largely able to further pass costs to their customers, but higher fuel prices lead to less demand and less industry revenue, so commodity price volatility can be a production destabilizing factor.

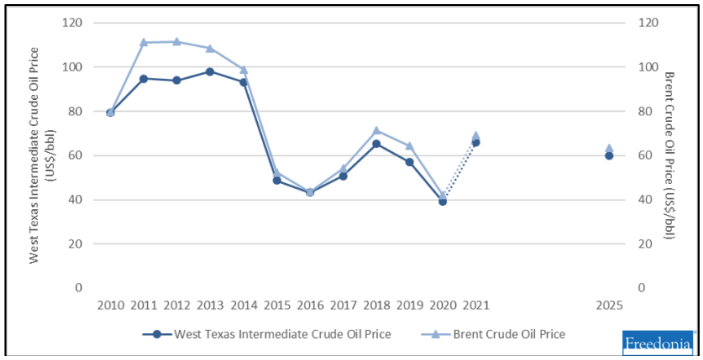


Source: IBIS*World* – Corn, Wheat & Soybean Wholesaling in the US

Oil & Gas Prices

Biofuels and traditional petroleum-based fuels are both substitutionary and complimentary products, because biofuels can often replace gas and diesel fuel but they are also used as blends and mixtures that use petroleum-based fuels as a starter product. The rise of oil and gas prices, therefore, can have both positive and negative effects on biofuel production. On the one hand, when traditional fuel prices rise, consumer may search for competitive alternatives. On the other hand, increasing prices raise input costs, which also make biofuel pricing less competitive. Hedging strategies are often employed to mitigate this input cost's volatility (see discussion above).

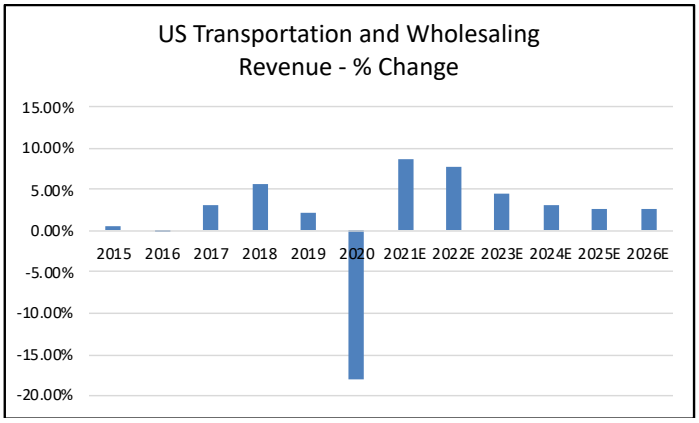
In the outlook period, biofuels are anticipated to grow as a share of all fuel types—due in large part to regulatory support from RFS's and other credits and incentives—but the output is expected to remain fairly negligible to the global oil and gas market. If this plays out, rising oil and gas prices will tend to have a negative effect on the biofuels industry, so hedging strategies and passing costs through to end consumers will remain important operational strategies for producers. Though oil and gas prices have climbed in the early pandemic recovery period, prices are expected to stabilize over the forecast period and remain flat over the four years to 2025.[10, 11] The following chart shows historic prices over the past decade for West Texas Intermediate Crude and Brent Crude, as well as the forecast for 2025:



Source: Freedonia Group – Crude Petroleum: United States

Transportation

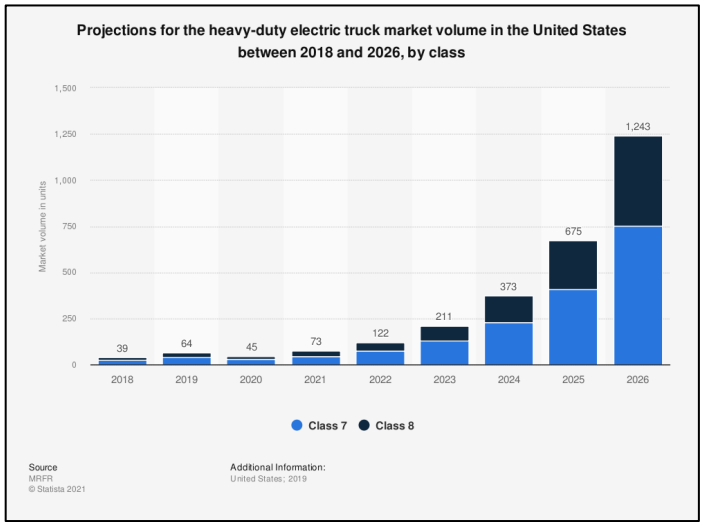
The transportation sector is the largest consumer of biofuels, accounting for 63% of the market in 2019. REGI's focus is selling biodiesel to the transportation industry, so monitoring transportation sector performance is key to REGI's success. In fact, REGI has material risk exposure because one customer, Pilot Travel Centers LLC, alone represents 19% of its biodiesel gallons sold for 2020. The sector as a whole took a massive hit in 2020, losing 18.1% in industry revenue as a result of the pandemic. In the five years prior, performance was mixed with annualized growth between 0.2% and 5.6%, but 2021 will see substantial growth at 8.8% and CAGR over our forecast period is expected to be a healthy 4.2% to 2026.[12]



Source: IBIS*World* – Transportation and Warehousing in the US

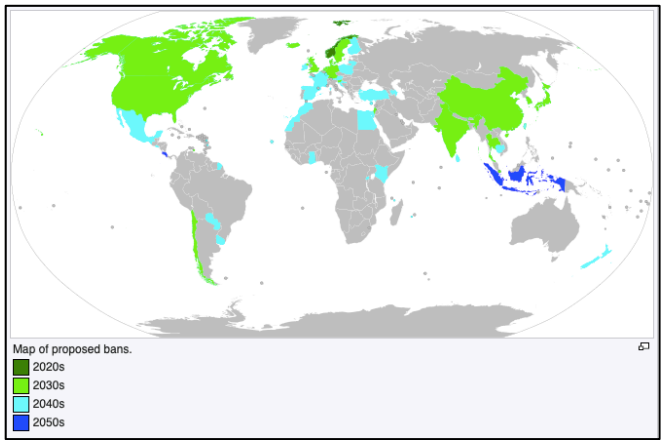
Medium- & Heavy-Duty Electric Vehicles Coupled with State & Municipal Diesel Bans

Class 7 medium duty (city transit buses, medium semi-trucks, refuse & tow trucks) and class 8 heavy duty (cement trucks, dump trucks, heavy semi-trucks, and tour buses) electric vehicles are anticipated to see substantial growth over the forecast horizon, with the former expected to see a 73.4% CAGR and the latter a 75.3% CAGR from 2020 to 2026.[13] These are the two largest class of trucks in the US and are the primary consumers of REGI's products. Given that the market as a whole for these vehicles is expected to decrease over a similar time horizon, the medium and heavy duty electric vehicles will only gain market share over traditional ICE vehicles.[14]



Source: Statista, Market Research Future

Coinciding with this trend, many state and municipal governments are targeting traditional fuel bans, anywhere from already enacted (mostly in Germany, the largest being Berlin) to 2050 commencement dates. Wikipedia lists nearly 60 such jurisdictions with proposed bans, as well as outlines future regulations on the country level with just as long a list.[15] The silver lining for REGI is that their largest market, the US, has some of the longest time horizons for regulatory action. The downside is that the market may hasten the transition and make the government mandates redundant.

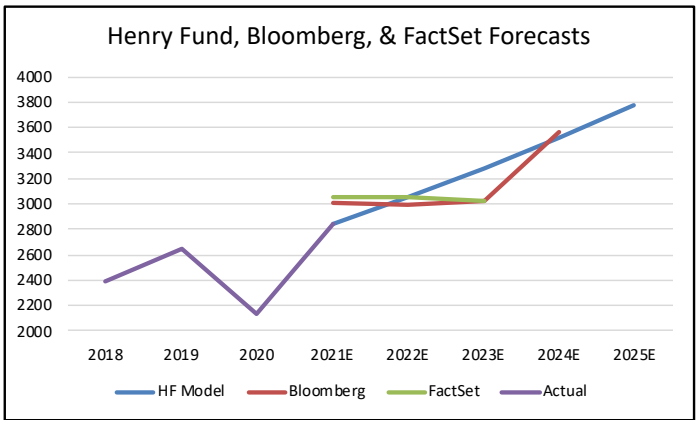


Source: Wikipedia – Phase-out of fossil fuel vehicles

VALUATION

Revenue Assumptions

For our forecast horizon (2021 through 2025), we grew total revenue by a combination of averages: pre-pandemic historic average (9%), Bloomberg forecast average (8.13%), and FactSet forecast average (5.04%). This gave us a forecast average growth of 7.39%, which we used to grow total revenue. This is admittedly a bit crude and does not quite capture the high growth for 2021, but our higher growth in subsequent forecasted years than consensus smooths our total revenue expectations for the period and puts us on similar footing to other analysts.



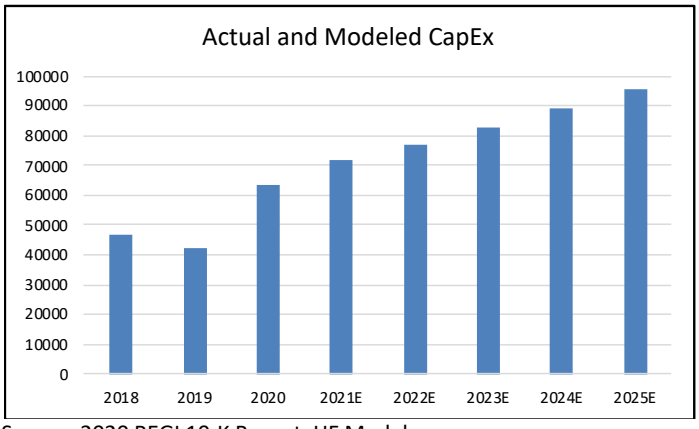
Source: 2020 REGI 10-K Report, HF Model, Bloomberg, FactSet

Operating Cost and CapEx Assumptions

Our cost of goods sold and operating profit track closely to historic averages. REGI's COGS over the historic period fell from as high of 96.1% in 2017 to 87.4% in 2020. We followed the historic average for COGS, which fell right at 2020 numbers at 87.5%, as well as for SG&A, which averaged 4.95% of total revenue. *Impairment of property, plant & equipment* was calculated as a historical average of that expense to net PP&E, which when added together rendered a forecasted average operating income of 6.8% of total revenue.

No guidance was provided by management for capital expenditures, so we decided to take the historic average of expenditures to total revenue and multiply that by

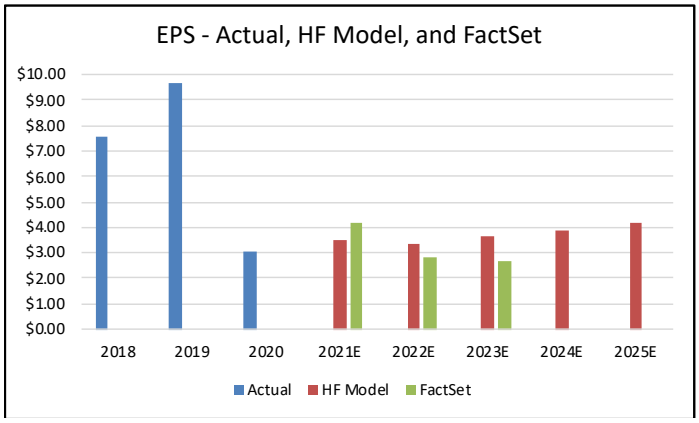
forecasted revenue for each given forecasted year. We felt comfortable with this approach because it outputted similar figures from 2020 to 2021, the former having spent $63.6 million and the latter forecasted to spend $71.7 million. We see this to be in the range of reasonability.



Source: 2020 REGI 10-K Report, HF Model

Profit Margin & Earnings Per Share

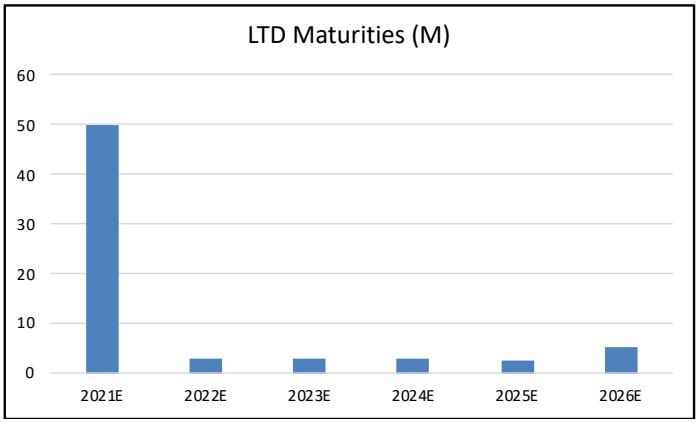
Our forecasted profit margins are slightly worse, on average, than the historic profit margins, with 4.5% forecasted average versus 6.2% historic average. The forecasted margin is much less volatile, however, compared to the historic that gets as high as 14.4% and as low as -3.7%. Again, management provides no guidance, at least in the earnings reports, but compared to consensus (FactSet) our EPS comes in low for 2021 but high in subsequent years. We believe this smoothing affect is not detrimental to our modeling in the end.



Source: 2020 REGI 10-K Report, HF Model

Capital Structure and WACC

REGI has a very small debt to equity ratio that only diminishes over the forecast period. The have seemed to pay off much of their debt in the past five years, going from a D/E ratio of 0.44 and 0.51 in 2016 and 2017 to a D/E ratio of 0.06 in 2020. Our D/E ratio reduces all the way to 0.02 in our terminal year. Their cost of debt and cost of equity are somewhat high, as the company has a pre-tax cost of debt of 4.5% and a beta of 1.07, yielding an after-tax cost of debt of 3.45% and a cost of equity of 7.2%. With a market value weight of equity at 95.7% and market value weight of debt at 4.3%, our weighted-average cost of capital calculated to be 7.07%. REGI's one set of corporate bonds that we used for our analysis have an S&P bond rating of BB, non-investment grade. We do not see this as a major concern, however, as REGI has aggressively paid off debt in recent years and does not have high maturities due in the coming years.



Source: 2020 REGI 10-K Report

Discounted Cash Flow and Economic Profit

Since REGI does not pay a dividend and we did not feel comfortable with the peer group in our relative valuation model, we only use DCF and EP models. These are fundamental ways to model a company's value, however, so we are satisfied with our results and recommend a buy for REGI. These models produced a target price of $72 a share, which represents a 38.5% upside. Additionally, we like REGI because it provides the Henry Fund with a unique low market capitalization energy stock that is positioned to excel in a market that still has a long runway. This does not mean there are not risks to REGI though, as the volatility of input costs and the changing dynamics of the transportation landscape can attest.

KEYS TO MONITOR

The following are key indicators to follow to gauge REGI's performance over the next six to twelve months:

- **Input Costs**: Crop and energy prices can bring uncertainty to REGI's operations, even though

REGI can hedge against volatility with various forward and future contracts and much of these costs can be passed on to their customers. Prices are expected to stabilize over the horizon period after the shockwaves of the pandemic calm down. The fund should still pay close attention to these input costs, however, because if price uncertainty persists REGI may lose some of its upside potential.

- **Biodiesel Tax Credit**: The retroactive application and long renewal period moving forward of the Biodiesel Tax Credit has brought stability and a positive outlook to the biofuels market, but the credit is set to lapse at the end of next year unless renewed by Congress. The legislature has had a history of letting the credit end and waiting to have to retroactively apply the credit. 2022 is an election year, so renewal may be tough to accomplish while Congress is distracted by politics. The fund would do well to keep an eye out for any movement on the renewal front.
- **Electric Vehicle Adoption and Fuel Bans**: It can be hard to imagine a world without fossil fuels powering our cars and trucks, but the growth of electric vehicles could be exponential. This would certainly spell doom for REGI, at least if they do not diversify beyond the on-road sector. They are beginning to do so, and there still may be a world in the future with some uses for biodiesel. There is currently enough runway before the banning mandates take effect, however, and the oil and gas lobby may have something to say about it too. The invisible hand of the market, in the end though, may do the most to stir the pot.

REFERENCES

1. 2020 REGI 10-K Report
2. Yahoo Finance
3. Bloomberg
4. Wikipedia – "Sustainability Accounting Standards Board"
5. 2021 Q3 REGI Earnings New Release
6. "U.S. biomass-based diesel tax credit renewed through 2022 in government spending bill," *Today in Energy*. U.S. Energy Information Administration. January 28, 2020.
7. *Renewable Energy: United States*, The Freedonia Group. December 2019.
8. *Motor Vehicle Biofuels: United States*, The Freedonia Group. September 2021.
9. Grace Wood. *Corn, Wheat & Soybean Wholesaling in the US*, IBIS*World* Industry Report. August 2021.
10. Samuel Kanda. *Global Oil & Gas Exploration & Production*, IBIS*World* Industry Report. February 2021.
11. *Crude Petroleum: United States*, The Freedonia Group. October 2021.
12. Dan Cook. *Transportation and Warehousing in the US*, IBIS*World* Industry Report. July 2021.
13. *Electric Truck Market Research Report*, Market Research Future. January 2021.
14. *Medium- & Heavy-Duty Trucks & Buses: United States*, The Freedonia Group. July 2019.
15. *Phase-out of fossil fuel vehicles*, Wikipedia.

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