March 23, 2022

Dear Partners and Friends,

The past two years have been very unusual in the financial markets, but we feel confident we are well-positioned in 2022. In November, I sent you a capital call asking for more investment. Thank you to those who answered the call. That capital has been invested during the current market sell off. Today, I am reminding those of you who might still be on the fence, this is one of the best times since March of 2020 to dig deep and invest in our highest conviction ideas!

In this letter, I will update you on our investment performance, strategy, and outlook for 2022. I will give an overview of two new investments we made last year in the energy space, Africa Oil and Hyzon Motors. At the time of writing this letter, Russia had not yet invaded Ukraine and oil was still below $80. With oil today over $100, our long-term thesis described below still remains the same, however we are watching the war very closely and might make tactical changes to the portfolio as the situation is very fluid.

EXECUTIVE SUMMARY

2021 performance highlights:

- Our portfolio was down 9.6% last year but was up 70% since inception (August 2020).
- Our allocation in December was split between three themes: Old Industry New Technology (61%), Growth in Asia (45%), and Small Cap Technology (18%).
- The main cause of underperformance was a major drawdown in Growth in Asia and other early-stage platform businesses: SE, ROKU, FTCH, JD, and HYZN.
- This was mainly due to the Fed decision to slow down purchases of treasuries and raise interest rates, which caused tech stocks to sell off in general. Despite this correction, our view has not changed and the fundamentals of these businesses (SE, ROKU, FTCH, JD) are strong.
- On the positive side, our largest holding, WMS, was up 63% last year. This was due to both volume and price increases for drainpipes, especially the residential market at 65%.
- Our new investment in Africa Oil (AOI) was up 56%.
- Our small cap technology theme was up 40% last year, mainly from SYNA, MXL, and CAMT. This theme gives us exposure to technology trends like Internet of Things (IOT), Wifi 6, A.I. and Machine Learning (ML).

- If you took out the top 5 stocks from the Nasdaq, the index would be down 15% for the year –more than our portfolio.

2022 expectations:

- We will focus on Energy and Industrials, and Growth in Asia
- When the opportunity arises, we will take advantage of the tech sell off and add more capital to our highest conviction businesses at attractive prices.
- We made three additions to our investment values: humility, honesty, and patience.
- We had a total of five interns that all moved on to prestigious investment firms.
- We registered as an Investment Advisor in October 2021 and are open to investors.

Energy outlook:

- Oil price to $100 by spring and to $150 by 2024, due to fundamental lack of supply
- Near term volatility caused by sanctions on Russia further hurting global supply.
- Our investments in AOI, EOG, and MLPs will benefit.
- Long-term hydrogen to replace some oil supply for industrial vehicles

2021 INVESTMENT PERFORMANCE

As of December 31, 2021, the Ellisville Harbour Partners portfolio was down 9.6% for the year. Since inception of managing separate accounts in August 2020, we were still up 70% by year-end. Here's a summary of our returns put together by a third-party administrator since 2017:

Ellisville Harbour Partners Historical Returns			S&P 500 Historical Returns				NASDAQ Composite Historical Returns				
Period Ending	Return	SI	Period Ending	Return	SI	Relative Results S&P 500	Period Ending	Return	SI	Relative Results NASDAQ Composite	Value of $1,000,000
2017	14.1%	14.1%	2017	21.8%	21.8%	-7.68%	2017	28.2%	28.2%	-14.09%	$1,141,456
2018	9.1%	24.5%	2018	-4.4%	16.5%	13.47%	2018	-3.9%	23.3%	12.97%	$1,245,167
2019	36.1%	69.5%	2019	31.5%	53.1%	4.67%	2019	35.2%	66.7%	0.92%	$1,695,159
2020	133.7%	296.2%	2020	18.4%	81.3%	115.33%	2020	43.6%	139.4%	90.10%	$3,962,196
Jan-21	*19.5%*	*373.6%*	*Jan-21*	*-1.0%*	*79.5%*	*20.54%*	*Jan-21*	*-6.4%*	*124.1%*	*25.91%*	*$4,736,067*
Feb-21	*12.7%*	*433.6%*	*Feb-21*	*2.8%*	*84.4%*	*9.91%*	*Feb-21*	*-10.1%*	*101.5%*	*22.79%*	*$5,335,928*
Mar-21	*-19.0%*	*332.3%*	*Mar-21*	*4.4%*	*92.5%*	*-23.36%*	*Mar-21*	*15.4%*	*132.6%*	*-34.42%*	*$4,323,303*
Apr-21	*1.8%*	*340.2%*	*Apr-21*	*5.3%*	*102.8%*	*-3.53%*	*Apr-21*	*6.8%*	*148.3%*	*-4.94%*	*$4,401,519*
May-21	*-1.6%*	*333.1%*	*May-21*	*0.7%*	*104.2%*	*-2.30%*	*May-21*	*6.0%*	*163.2%*	*-7.59%*	*$4,331,249*
Jun-21	*25.0%*	*441.4%*	*Jun-21*	*2.3%*	*109.0%*	*22.66%*	*Jun-21*	*6.8%*	*181.1%*	*18.17%*	*$5,413,709*
Jul-21	*-11.6%*	*378.8%*	*Jul-21*	*2.4%*	*114.0%*	*-13.93%*	*Jul-21*	*9.6%*	*208.1%*	*-21.14%*	*$4,788,185*
Aug-21	*-5.0%*	*355.0%*	*Aug-21*	*3.0%*	*120.5%*	*-8.02%*	*Aug-21*	*-5.2%*	*192.2%*	*0.18%*	*$4,549,524*
Sep-21	*-13.9%*	*291.6%*	*Sep-21*	*-4.7%*	*110.2%*	*-9.28%*	*Sep-21*	*-2.3%*	*185.5%*	*-11.64%*	*$3,915,927*
Oct-21	*5.8%*	*314.3%*	*Oct-21*	*7.0%*	*124.9%*	*-1.21%*	*Oct-21*	*11.8%*	*219.2%*	*-5.99%*	*$4,143,246*
Nov-21	*-7.6%*	*282.7%*	*Nov-21*	*-0.7%*	*123.4%*	*-6.93%*	*Nov-21*	*5.7%*	*237.2%*	*-13.28%*	*$3,827,331*
Dec-21	*-7.4%*	*254.4%*	*Dec-21*	*4.5%*	*133.4%*	*-11.88%*	*Dec-21*	*1.4%*	*242.0%*	*-8.82%*	*$3,544,095*
2021	-9.6%		2021	28.7%			2021	21.4%			

Prior to August 2020 results are from Manager's personal funds. Outside clients were accepted beginning August 2020.

Ellisville Harbour Partners LLC is a registered investment advisor. Please visit our website at https://www.ellisvilleharbourpartners.com/ for important disclosures.

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As of December 31, 2021, these were the holdings in our portfolio*:

Symbol	**Description**	**Net Weight (%)**	**Theme**
WMS	Advanced Drainage Systems	20.72	Old Industry New Tech
16 small cap stocks	*“Small Cap Technology"*	17.69	Small Cap Tech
JD	JD.com	13.74	Asia Growth
SE	Sea Limited	10.95	Asia Growth
ROKU	Roku	9.21	Old Industry New Tech
FTCH	Farfetch	8.54	Asia Growth
AOI	Africa Oil	8.44	Old Industry New Tech
CEQP/DCP	MLP pipelines	8.12	Old Industry New Tech
HYZN	Hyzon Motors	7.36	Old Industry New Tech
APD	Air Products and Chem	5.18	Old Industry New Tech
TSM	Taiwan Semiconductor	5.01	Asia Growth
PRX/TCEHY/NPSNY	Tencent/ Prosus	4.31	Asia Growth
MNSO	Miniso Group	2.63	Asia Growth
EOG	EOG Resources	2.37	Old Industry New Tech
CASH	*margin*	-24.26	

**This table reflects the weighted average of all SMAs. Separate account weights may differ.*

Each one of these portfolio companies is special, and we’ve invested in them to support good and innovative ideas that will transform their respective industries in the coming years. At the end of 2021, we had a 61% allocation in our Old Industry New Technology theme, 45% in Growth in Asia, and 18% in our Small Cap Technology theme.

Our holdings in energy and industrial companies did well in 2021, while exposure to technology and Chinese companies was the main reason we ended up down for the year. We still have high conviction in the business models and financials of these three platforms (ROKU, FTCH, SE), so we’re excited that we will have the opportunity to buy more at a discount.

Without its five biggest stocks – Apple, Microsoft, Amazon, Facebook, and Tesla – the Nasdaq index would have been down by about 15% in 2021:

These technology stocks started to sell off in anticipation of higher interest rates. Federal Reserve Chairman Jerome Powell indicated that in March 2022, they will taper their buying of treasuries and raise interest rates to stave off inflation. When rates go up, technology and growth stocks sell off, because the value of their future cash flows decreases.

For a great overview of how the money supply and demand has caused higher inflation, check out Scott Grannis's blog "M2 and Nominal GDP Update: still growing rapidly." In short, the supply and demand imbalance of money, labor, and energy is shaping up to cause higher inflation in 2022 and beyond. We have positioned our portfolio accordingly.

Two of our biggest positions, Advanced Drainage Systems (WMS), and Africa Oil (AOI.TO) continued to benefit from increasing demand for their products (pipes and oil), higher prices, and strategic M&A. WMS was up 63% for the year, driven by strong growth across all their segments (especially their residential segment) as well as by increasing margins. Africa Oil also went up 56%, benefitted by the continued improvements in their producing assets in Nigeria and the higher oil price environment.

We benefitted from strong performance in the small cap tech portfolio, which is a great screen of technology companies shared by the technologist and futurist George Gilder, making semiconductors and infrastructure for 5G, Internet of Things (IOT), WiFi 6 etc. We cherry pick the best ideas and conduct full due diligence. This theme was up over 40% in 2021 with top performers Synaptics (SYNA), MaxLinear (MXL), and Camtek (CAMT) all in the semiconductor industry.

Our strategy remains to invest in high-quality businesses that are diversified across industries and geographies. Half our portfolio is invested in companies that will benefit from inflation and higher prices like WMS, AOI, EOG, APD, and TSM, which are also transforming from new technology that is lowering costs and expanding addressable markets. The other half are earlier stage platform companies that we believe are significantly mispriced like ROKU, SE, FTCH, due to their leading positions (or “moat”) in their respective markets, and their continued very fast growth.

LOOKING AHEAD: EXPECTATIONS FOR 2022

We will continue with our same themes: (1) Growth in Asia, (2) Old industry New Technology, and (3) Small Cap fast growing technology. With rising interest rates, and higher expected inflation, we think we are well positioned with our companies in the second theme, with a focus on Oil and Gas and Industrials companies, two areas where we believe that we have an edge compared to the average investor.

This year, our focus will be on refining our investment research process and portfolio management discipline learning from successes and mistakes over the past two years. This means forming rules around our core investment values and sticking to them.

INVESTMENT VALUES UPDATE

- **Humility.** We are always learning. We are clear on what we don’t know so we do not invest in industries that we do not understand. Examples of this are Healthcare and Biotech.

- **Honesty**. We strive to invest in companies with management teams that have demonstrated a track record of honest actions and statements. Partners who invest with us have full transparency in their investments through separately managed accounts.

- **Truth Seeking.** A good investor is always trying to find the truth about a company’s fair value, and where that value is with respect to the current stock price. If we have a clear picture of what the company is truly worth (call it $100 per share), short-term volatility when the company's stock goes down (to $50 per share) provides that good entry point, also called "margin of safety."

- **Ownership:** We see ourselves as owners of the underlying businesses and we like to grow with these businesses over a 10-, 20- or even 30-year time horizon. I put my money where my mouth is, so that most of my liquid assets are invested in this strategy alongside our partners.

- **Compounding**. Time in the market is more important than timing the market. We aim to put all our capital into our best investment ideas, and to let these ideas compound exponentially over time. Investing for the long term, and letting them grow untouched, provides the best outcome.

- **Patience.** Be willing to wait before investing in a company with a big enough margin of safety.

BUSINESS UPDATE

Staff Highlights

At the beginning of 2021 we hired a full-time analyst and a rotation of 5 interns throughout the year, all sourced from the Babson College Fund (BCF). It was fun having a team, and challenging learning how to manage people with diverse interests, backgrounds, schedules, and time zones.

Paurav Barot (MSF 2020) joined as a full-time analyst from the Babson Energy and Materials Team in January 2021. He pitched investing in Renewable Energy Group (REGI), which we did, making fivefold in profit when we exited in April. He will start a new job at the Mass General Brigham investment office in March 2022. Shasha Xia (BS 2020), Ben Stegman (BS 2021), Nick Martinez (BS 2021), Thawin (Marc) Chongkavinit (BS 2022), all rotated as interns throughout the year. Shasha moved on to Wellington, Ben to Trillium Trading, and Nick to RBC Capital Markets. We wish them luck! We will take on another round of interns this summer.

Investment Advisor registration achieved!

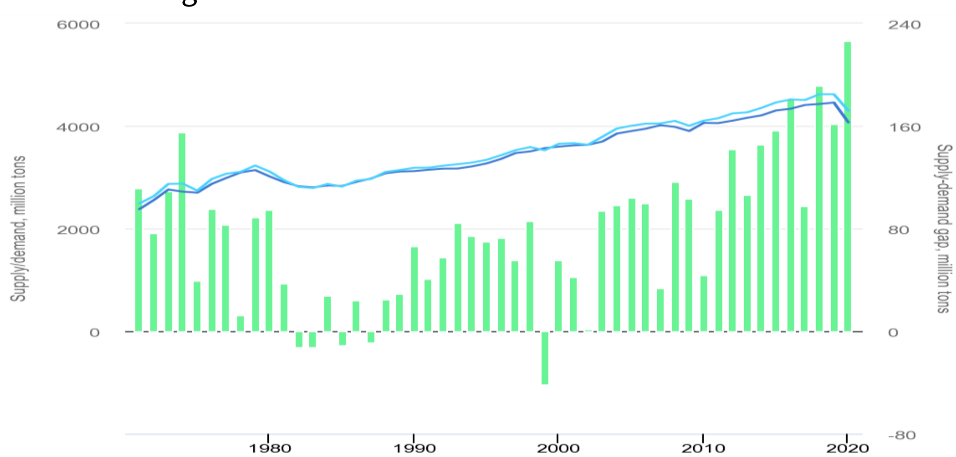
We registered Ellisville Harbour Partners as an Investment Advisor in October 2021. Starting in 2022 we will begin charging nominal fees on existing and new investors. All the fees will be spent on research expenses, intern stipends, and ongoing compliance.

2022 energy outlook and our case for investing in Africa Oil (AOI.TO)

Early last year before the unexpected war with Russia, we thought that oil would be at $150 by 2024, which offers opportunities to invest in both traditional oil exploration and production (E&P) and hydrogen fuel cell technology. Essentially, there is not enough oil production today to meet growing energy demand.[1] All the investment in renewables will not meet the gap. Therefore, the price of oil will rise. As the oil price rises, the use of hydrogen fuel cells will become more competitive.

The world will not be able to afford basic energy in five to 10 years without more significant investment and adoption of all sources of energy, including traditional oil and gas, nuclear, renewables, and especially hydrogen fuel cell technology. This is already playing out in Europe, and parts of New England.[2]

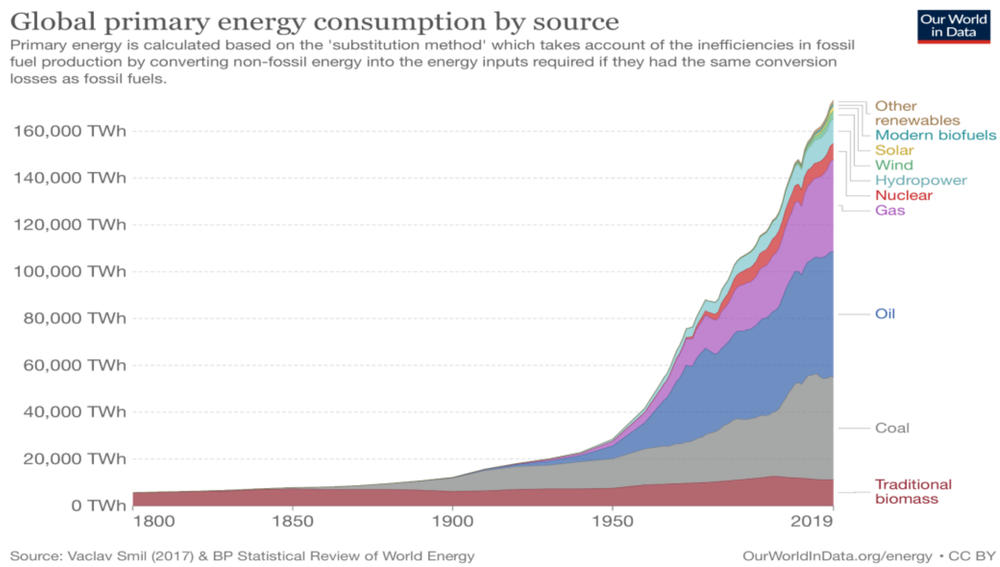
To see this illustrated, the chart below shows how the energy supply demand gap was already at an all-time high in 2020:



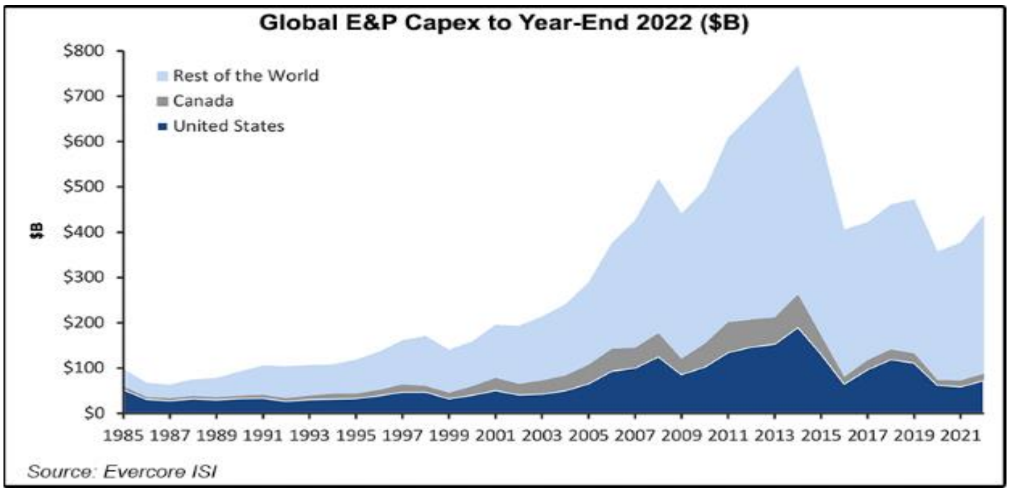
The chart below shows renewables only account for a fraction of energy consumption today:

[1] See this fun article https://doomberg.substack.com/p/theres-not-enough-oil for a great summary

[2] https://doomberg.substack.com/p/new-england-is-an-energy-crisis-waiting



Global E&P capital expenditures (Capex) peaked in 2013 and has decreased significantly since then. Less oil will be produced in the coming years.



Compare that to over $4 trillion that has been invested in renewable energy and infrastructure so far according to Blackrock.[3]

Meanwhile, OPEC continues to struggle to meet their production quotas as shown below:

[3] https://www.cnbc.com/2022/01/18/larry-fink-next-1000-billion-dollar-start-ups-will-be-in-climate-tech.html?utm_content=Tech&utm_medium=Social&utm_source=Facebook&fbclid=IwAR31u4h3pwUXN7maU8EFIIUwi0HOWf7UpNUTr9NTU-LqLHbShv5ver8zp7A#Echobox=1642522365

November 2021 Production, Quotas & Compliance (in MM bbl/d)						
Member Country	**Type**	**MoM Change**	**November Production**	**November Quota**	**Target**	**Compliance**
Algeria	OPEC 10	0.01	0.96	0.95	Hit	-1%
Angola	OPEC 10	(0.02)	1.09	1.38	Miss	26%
Republic of Congo	OPEC 10	(0.01)	0.27	0.29	Miss	9%
Equatorial Guinea	OPEC 10	-	0.09	0.12	Miss	28%
Gabon	OPEC 10	0.01	0.19	0.17	Hit	-12%
Iraq	OPEC 10	0.08	4.25	4.19	Hit	-1%
Kuwait	OPEC 10	0.02	2.53	2.53	Miss	0%
Nigeria	OPEC 10	0.07	1.44	1.65	Miss	15%
Saudi Arabia	OPEC 10	0.10	9.89	9.91	Miss	0%
UAE	OPEC 10	0.02	2.85	2.86	Miss	0%
Iran	OPEC Exempt	(0.02)	2.50	N/A	N/A	N/A
Libya	OPEC Exempt	(0.01)	1.13	N/A	N/A	N/A
Venezuela	OPEC Exempt	0.05	0.66	N/A	N/A	N/A
Azerbaijan	OPEC +	-	0.59	0.65	Miss	10%
Bahrain	OPEC +	0.01	0.19	0.19	Hit	-3%
Brunei	OPEC +	-	0.09	0.09	Miss	2%
Kazakhstan	OPEC +	0.11	1.61	1.54	Hit	-4%
Malaysia	OPEC +	-	0.40	0.54	Miss	34%
Oman	OPEC +	0.01	0.78	0.80	Miss	2%
Russia	OPEC +	0.04	10.00	9.91	Hit	-1%
Sudan	OPEC +	0.01	0.06	0.10	Miss	63%
South Sudan	OPEC +	0.02	0.14	0.12	Hit	-16%
Total OPEC 10		**0.28**	**23.56**	**24.05**	**Miss**	**2%**
Total OPEC Exempt		**0.02**	**4.29**	**N/A**	**N/A**	**N/A**
Total OPEC+		**0.20**	**13.86**	**13.93**	**Miss**	**0%**
Total OPEC 10 & OPEC+		**0.48**	**37.42**	**37.97**	**Miss**	**1%**

Sources: Bison Interests analysis, Argus Media & SP Platts

“World liquids fuels consumption is expected to increase 4.4 million barrels per day (mb/d) by end of 2022: This large increase in demand is expected to be met by 1.4 mb/d production increase from the U.S. (unlikely because capital and financing have been pulled away) and 3.9 mb/d from other non-OPEC (also very unlikely because capital and financing have been pulled away). Sufficient capital and financing probably will not move back into the sector until oil is about $100-$130. OPEC does not have enough surplus capacity to make up the difference.”

– *John Hook, Jan 2022, an analyst we follow*

[March 14 update] An additional 2 mb/day will most likely be taken offline from Russia.

To capture this investment opportunity, we looked through several of the global E&P companies and came across a little company listed in Toronto called Africa Oil.

New investment in Africa Oil Corporation

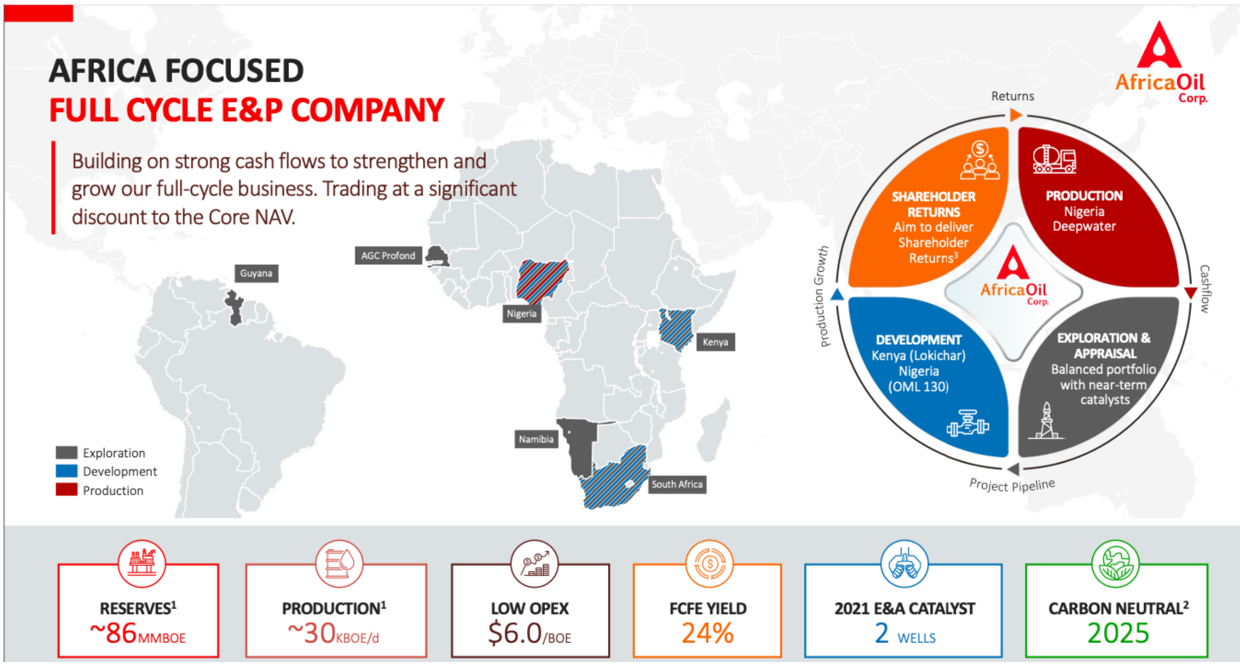
As is often the case with the investments in our portfolio, the idea came through a relationship. My former colleague at AAG Energy introduced me to Keith Hill, the CEO of Africa Oil (AOI.TO/ AOIFF) last January. They both began their career at Shell and my former colleague spoke very highly of Keith. This was more than enough to pique my interest. Keith is a 30-year veteran in oil and gas and a serial entrepreneur, with a few successful companies within the Lundin Group of companies. After a brief introduction to the company, and some initial research we met with Keith several times at the beginning of last year and started to build a position in the stock at around $CAD 1.10 or $0.85.

Africa Oil 5-year share price:

Africa Oil is a diversified E&P company with producing, development and exploration assets in the African continent. It fits our strategy of global frontier markets. We like it because it has great owner operators with Keith Hill and the Lundin Group and is small enough so we can spend significant time with the management team. It also covers a large geography with assets in Nigeria, Kenya, Namibia, South Africa, and Guyana.

Investment Thesis 1: Margin of safety at $70 oil with producing asset in Nigeria alone.
Thesis 2: Direct exposure to oil price, which we believe is going stay above $100 due to the global supply shortage. Africa Oil is unhedged after the first half of 2022 and has paid down all their debt.
Thesis 3: Free optionality and potential upside in Kenyan development (by March 2022) and two huge exploration wells.

The map below shows an overview of Africa Oil's assets, reserves, production, costs, etc.



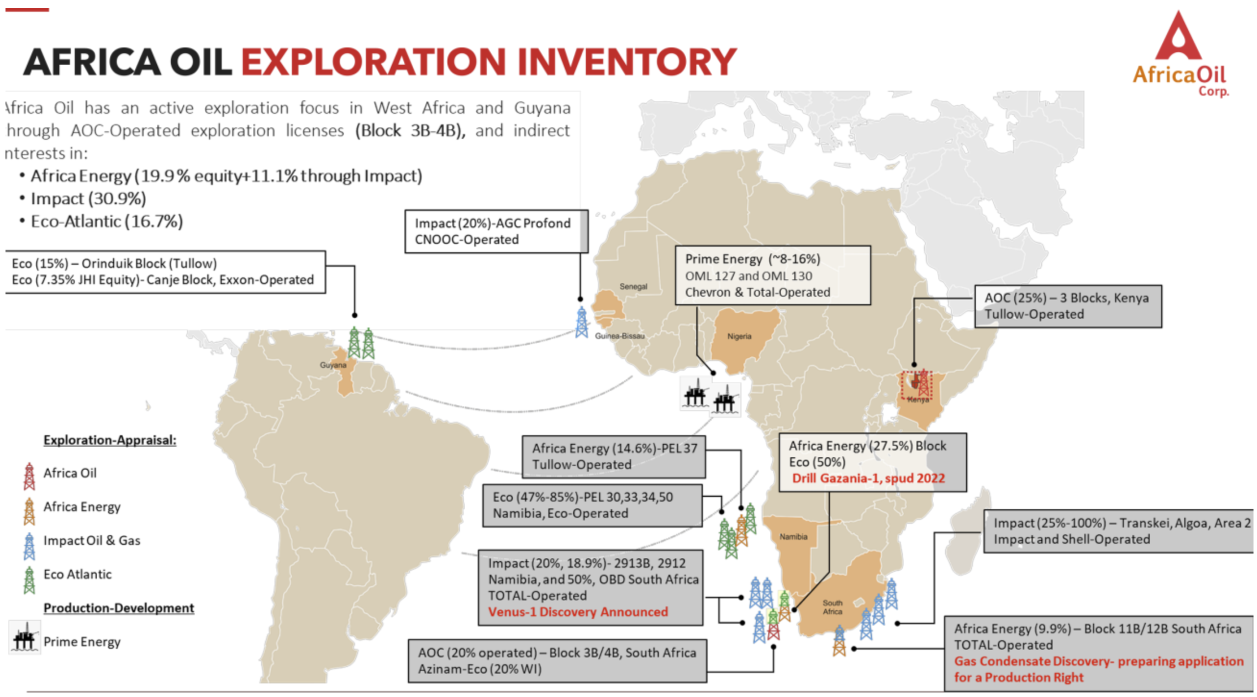
The main assets in Nigeria account for all the value in the stock right now. In fact, based on an average $73 oil price, at today's stock price you are buying the whole company at a 25% discount to just the value of the producing Nigeria assets.

We think there is low risk of losing any contracts because 90% of Nigeria's foreign exchange depends on oil production. AOI's interest in Nigeria (called "Prime") is 450 thousand barrels per day (kbpd) or 23% of Nigerian total oil production. The Nigerian government would not risk jeopardizing this major source of tax revenue. Prime's partners are Chevron, Famfa, Total, and SA Petro, which are world-class operators. Africa Oil's 50% interest in Prime's two producing assets is about 30 kbpd. Operating costs (Opex) per barrel are between $5 and $7.

The development asset in Kenya, and exploration projects we can buy for "free" as there is no value being given to them in the stock right now. Even after Total announced a 1.5 billion barrel light oil discovery in the Venus well on Feb 24th, most of this value is not priced in the stock.[4]

Below is a summary of the exploration projects. If successful, any of these could add significant value to the AOI's stock price.

[4] https://africaoilcorp.com/news/africa-oil-announces-major-light-oil-discovery-off-122825/



Valuation

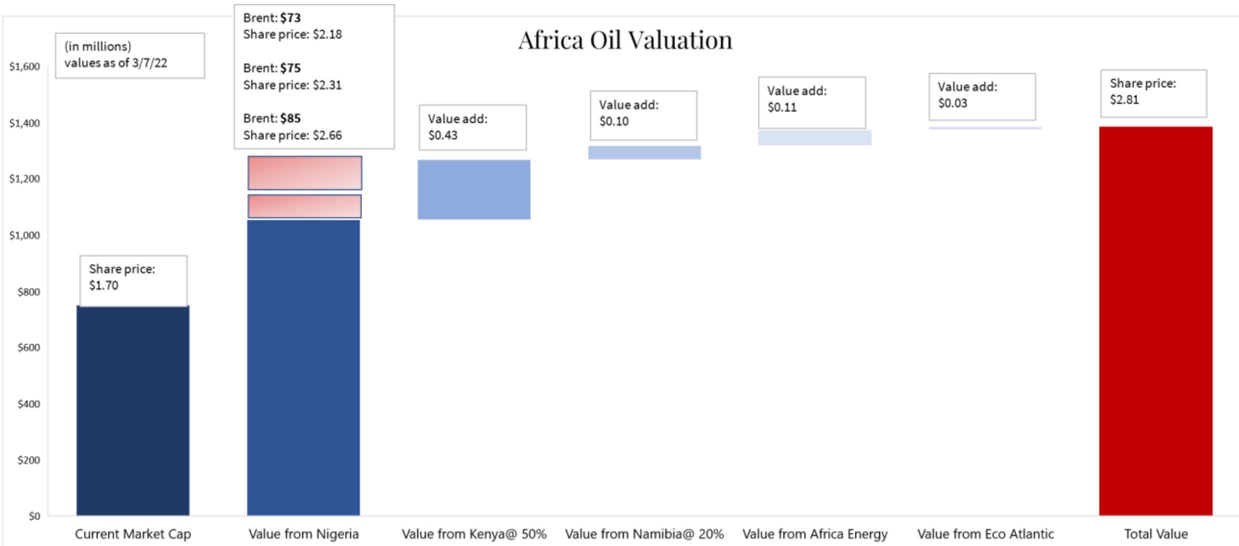
Africa Oil has their production hedged for the first half of 2022 (1H2022) at $73. This is a good price for the first half, and the hedges guarantee financing. We assume 2022 realized price of $78 Brent which values the Prime Asset in Nigeria at $2.18. Based on a 5x earnings per share (EPS).

For the Kenya development "free option", we have the proven but undeveloped reserves risked at 20% which gives a potential upside of $0.43 per share.

The Venus exploration well "probable" reserves which is typical risked at 20% due to the recent discovery, for a potential value of $0.33 per share

We get a value of $0.23 through Africa Oil's ownership in Africa Energy and Eco Atlantic, which are both public companies.

To summarize, Nigeria's Prime assets alone are worth $2.18 which is a 25% upside from today's price. With oil price staying above $100 in the second half of the year as we expect, we could have 100% upside from here. When further appraisal wells get drilled by Venus well or a joint venture development with the Kenya development finalizes by June, there is even more upside potential.



Near term catalysts:

1. Oil price remain above $70 for the second half the 2022
2. Positive results from Venus, expected in Feb 2022 **(1.5 bil. discovered on Feb 24)**
3. Kenya Lokichar JV farm out to Indian or Chinese SOEs expected in March 2022
4. M&A expected by June 2022
5. Nigeria license extension by 3Q2022
6. Further deleveraging in Prime.
7. Dividend and and/or buyback expected

Risks:

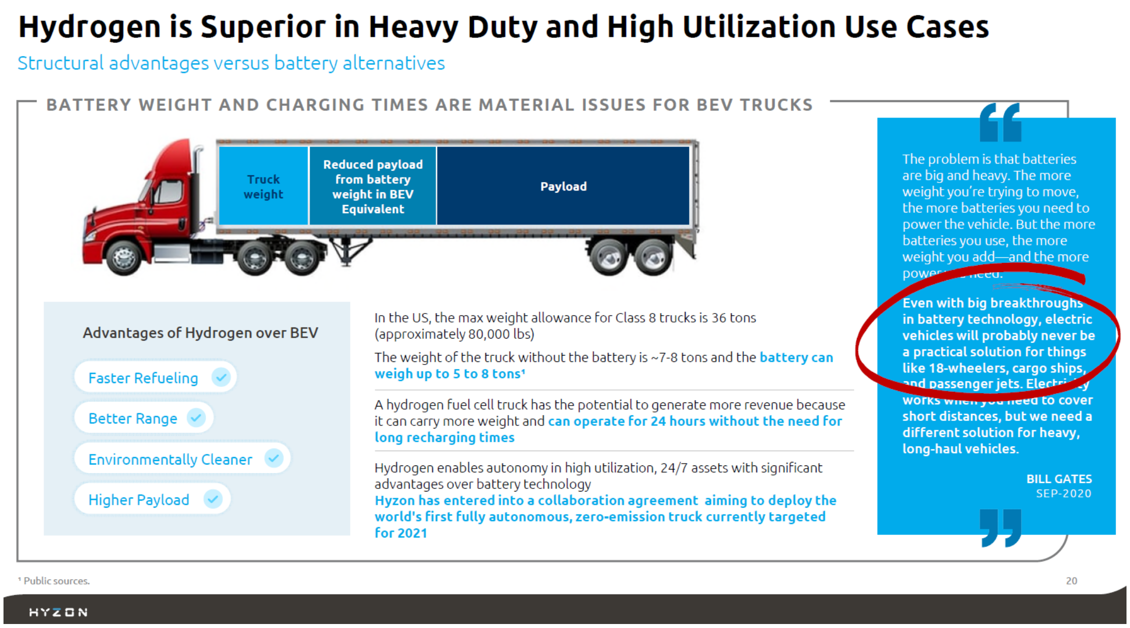
1. Oil price below $70 in 2H2022
2. Kenyan elections in March without positive JV deal, would delay for 1-2 years
3. Issue with Nigerian license

New investment in Hydrogen through Hyzon Motors (HYZN):

As oil price surpasses $100, the unit economics for electric vehicles (EVs) are becoming more competitive. While battery powered EVs have won the passenger vehicle market with 10 million units sold, hydrogen fuel cell EVs (FEV) are a better replacement for traditional diesel in the commercial vehicle market. We believe there is huge opportunity for investment in the hydrogen space, specifically with hydrogen fuel cell electric trucks and buses.

Here are the key reasons we arrived at this conclusion:

- The key driver for commercial trucks is the cost per mile unit economics which are better for hydrogen EV than battery EV
- 10,000-pound battery for EV cuts into the load as shown in the graphic below



- The charging time for battery EV creates additional down time for the truck
- ***1 kg of hydrogen can store 236 times more energy than 1 kg of Li-Ion batteries.***
- Advancements in solar power allow for “green” hydrogen production which is carbon negative. An example is the NEOM project in Saudi Arabia
- Existing pipelines for industrial gasses can be used to transport hydrogen
- Emissions of renewable hydrogen and battery EVs are similar as shown in this chart:

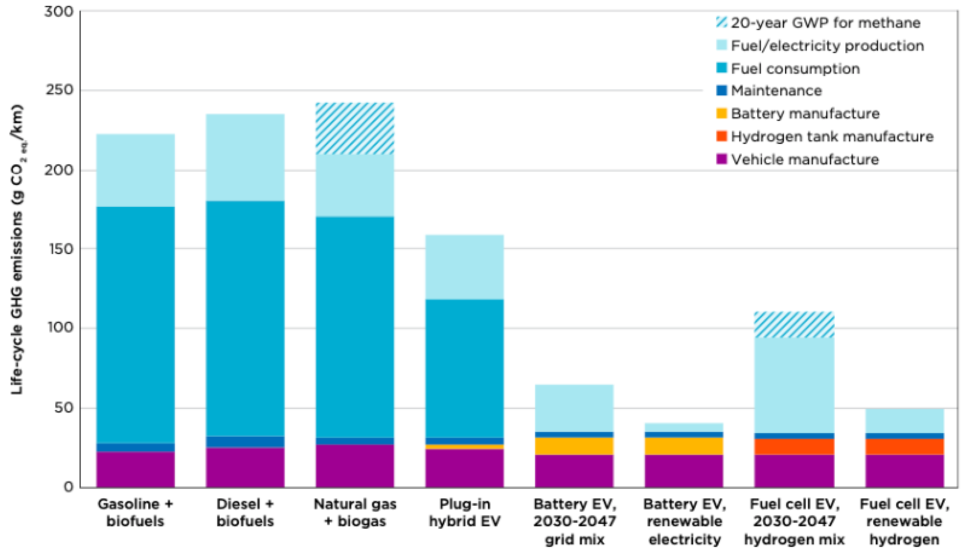


Figure 2. Life-cycle GHG emissions for global typical medium-size passenger cars registered in 2030.

- The Public transport sector is an early adopter of hydrogen FEV with a back to base model in markets like Japan and California. Japan already has 150 hydrogen fueling stations to support a fleet of 40,000 FEVs.
- Waste to hydrogen plants which use methane from farmland, dairies, and industrial waste allow for extremely cheap production of hydrogen which is carbon negative.
- The current global supply of commercial vehicles is 22 million per year, of which 99% are diesel trucks. As seen in the graphic below, the unit economics for hydrogen are already better than diesel in key geographies, due to higher diesel costs in markets like California and Europe.

Fuel Cell EV (FCEV) Economics Are Driven by Fuel Cost: In Key Geographies, Economics are *Already* at TCO Parity with Diesel

Compares to $4.00/g in February 2021 transaction announcement presentation

Compares to $3.25/g in February 2021 transaction announcement presentation

	DIESEL CALIFORNIA	DIESEL EUROPE	NEAR TERM FUEL CELL ECONOMICS	MEDIUM TERM FUEL CELL ECONOMICS
COST OF CLASS 8 TRUCK	$140,000	$115,000	$240,000	$150,000
MILES DRIVEN	700,000	700,000	700,000	700,000
TRUCK COST PER MILE	$0.20	$0.16	$0.34	$0.21
FUEL COST PER US GALLON	$4.00	$6.34		
FUEL COST PER kg			$4.00	$3.00
MILES PER US GALLON	6.25	6.25		
MILES PER kg			7.5	9.0
FUEL COST PER MILE	$0.64	$1.01	$0.53	$0.33
SERVICE + MAINTENANCE PER MILE	$0.21	$0.21	$0.15	$0.15
TOTAL COST PER MILE	$1.05	$1.38	$1.02	$0.70
INCL. EUROPEAN SUBSIDY[1]			$0.85	$0.53
INCL. CALIFORNIA SUBSIDY[1]			$0.79	$0.47

HYZON Motors (HYZN)

We were introduced to the Hyzon management team through another close friend who is the Managing Partner at Ascent, a hydrogen focused PE fund, and one of Hyzon's biggest and earliest investors. We trust their thesis, but also spent a lot of time with the management team ourselves. Hyzon went public through a SPAC last year and raised $500 million in cash, still sitting in the bank. They sold over 80 trucks in 2021 and plan to sell 600 this year. We started purchasing shares at around $9, and today with the price of around $5 HYZN is trading at 2x cash, and over 60% below our bear case assumptions.

Hyzon share price chart.

Company intro

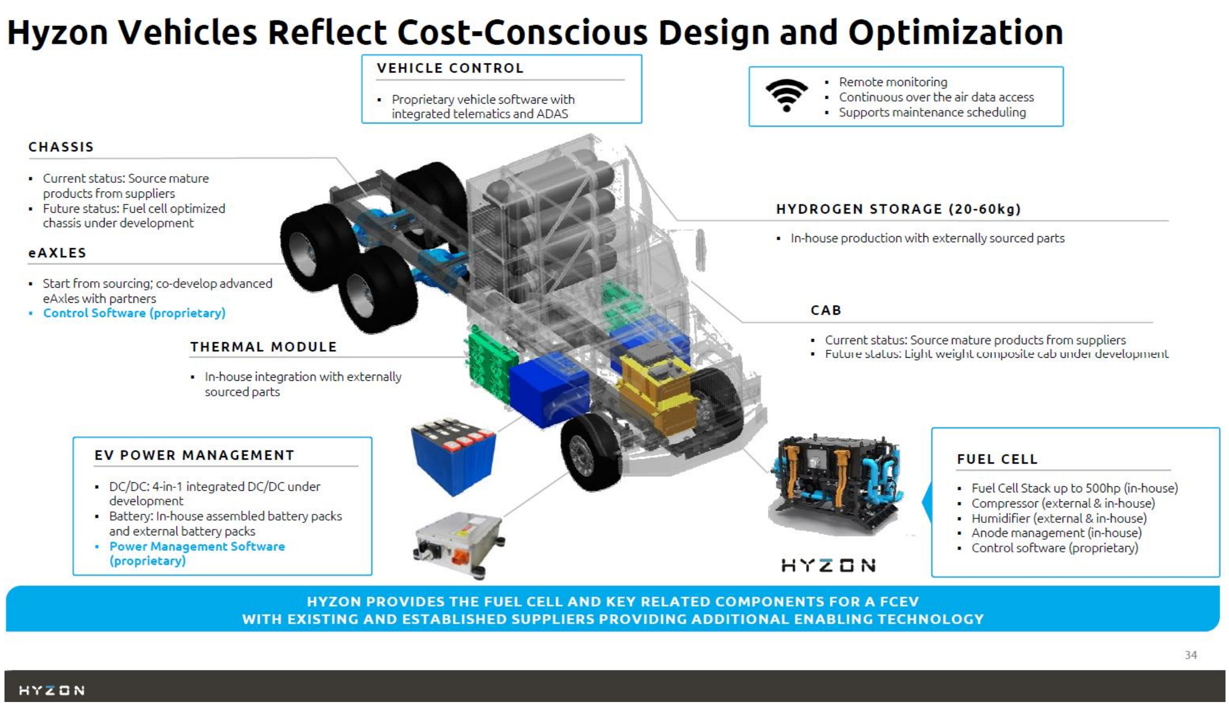
Hyzon is a hydrogen technology company and was established as a new business of Horizon Fuel Cell, a Chinese company. Horizon, the parent company, already has 17 years of hydrogen technology development and commercial sales in Asia.

Hyzon Motors paid a one-time Intellectual Property (IP) fee to Horizon and now owns the fuel cell IP and exclusivity for all mobility. Hyzon then bought an abandoned General Motors hydrogen testing lab in Rochester, NY, for pennies on the dollar giving them a big head start on their own state of the art facility.

Hyzon today is the global supplier of zero-emissions hydrogen fuel cell powered commercial vehicles, including heavy duty trucks, buses, and coaches. As compared to Nikola, Lordstrom and other FEV startups which still don't have a product, Hyzon already has vehicles in commercial use.

Paurav driving a Hyzon FEV in July 2021

As shown in the graphic below, Hyzon pursues an asset-light model which means they only manufacture and produce the fuel cell and other key components, while they source everything else from the chassis to the motors and wheels from 3rd party OEMs. While they invest in building two hydrogen fuel cell factories in Chicago and Rochester, they can already source the fuel cell from Horizon, and the chassis from major truck manufacturers. Hyzon assembles the vehicles at their facilities in NY, Australia, Netherlands, and China.



Investment Thesis 1: Great exposure to Hydrogen, which fits our long-term view for energy.

Thesis 2: Back to base go-to-market strategy. Hyzon sells trucks directly to the end users with access to hydrogen supply at the base. The trucks or busses return to base at the end of the day to refuel. This model allows for sourcing of cheap off-grid hydrogen. Examples are a city bus or garbage truck fleets.

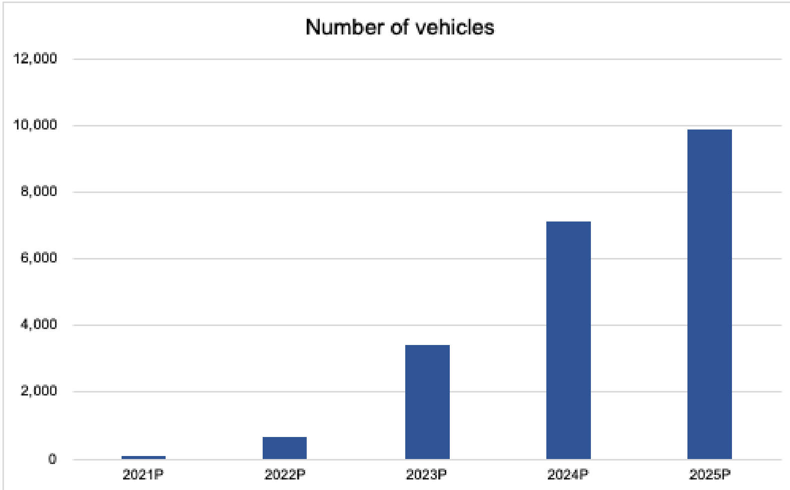
Thesis 3: Proven technology with a 20-year track record. The Horizon fuel cell is already proven and commercialized. Hyzon has redesigned it to be the highest power density fuel cell for trucks in the world. Hyzon owns the IP for Heavy and Medium truck class with a range of up to 380mi per fill, powered by electric motors up to 500KW and 670 horsepower.

Sales strategy

Hyzon's sales strategy gives them a first mover advantage over competitors with their global presence, asset light model, and back-to-base focus. They sell directly to large companies like Bao Steel (the largest steel company in the world) and directly to municipalities (cities and airports).

The asset-light model allows Hyzon to focus on building the best fuel cell and partnering with local OEMs for other truck parts. The assembly of the trucks happen at their local end markets with production in place to meet the demand in current end markets like China, Australia and Europe.

At the Rochester facility, they plan on assembling the core fuel cell stack, along with testing, with a capacity of 10,000 fuel cells a year, starting with over 600 in 2022. Based on our visit to the facility, and our conversations with the management team, we think this sales projection is achievable.



We believe there is further upside for Hyzon to increase their TAM (target addressable market) by entering ship and aviation markets in the future. This is highlighted by the evaluation order for Hyzon's fuel cell stack from ZeroAvia, a company working towards developing an aircraft powered by green hydrogen with Hyzon fuel cells. See ZeroAvia.

"Hydrogen provides three times higher specific energy content compared to jet fuel and is over 100 times higher than the best batteries today, making it the only viable option for large scale zero emission aircraft," says Val Miftakhov, founder and CEO of ZeroAvia. "We are always interested in exploring new technologies for our powertrains, and we look forward to seeing how Hyzon fuel cell stacks perform in the demanding aviation applications."

Valuation

We think that with a current price of around $5.00, even if Hyzon executes at half the speed, we still see the share price double to 10.53. Our cost basis is around $8.50 in the stock, and we hope to buy more if it goes below $3.00.

Our model is based on Hyzon management projections of 9,860 vehicle deliveries and 31% EBITDA margins by 2025.

Our Base case uses 8,000 vehicles and a 28% EBITDA, 10x EV/EBITDA multiple and a 15% discount rate. We provided our sensitivity tables below.

Sensitivity Tables

Number of vehicles 2025

EBITDA Margins	6000	7000	8000	9000	10000
24%	$ 10.53	$ 12.29	$ 14.04	$ 15.80	$ 17.55
26%	$ 11.41	$ 13.31	$ 15.21	$ 17.11	$ 19.01
28%	$ 12.29	$ 14.33	$ 16.38	$ 18.43	$ 20.48
30%	$ 13.16	$ 15.36	$ 17.55	$ 19.75	$ 21.94
32%	$ 14.04	$ 16.38	$ 18.72	$ 21.06	$ 23.40

EV/EBITDA 2025

EBITDA Margins	8x	9x	10x	11x	12x
24%	$ 13.84	$ 15.58	$ 17.31	$ 19.04	$ 20.77
26%	$ 15.00	$ 16.87	$ 18.75	$ 20.62	$ 22.50
28%	$ 16.15	$ 18.17	$ 20.19	$ 22.21	$ 24.23
30%	$ 17.31	$ 19.47	$ 21.63	$ 23.80	$ 25.96
32%	$ 18.46	$ 20.77	$ 23.07	$ 25.38	$ 27.69

Catalysts:

1. Completion of hydrogen fuel cell stack factories in Chicago and Rochester
2. Consistent monthly sales and deliveries of trucks meeting company guidance
3. More local governments supporting hydrogen fuel adoption
4. Large scale hydrogen supply like APD ACWA NEOM green hydrogen plant in Saudi Arabia

Risks

1. Failure to execute significant sales of vehicles
2. Higher than expected costs
3. Supply chain constraints
4. Slower than expected adoption of hydrogen
5. Availability of hydrogen fuel and fueling infrastructure

Conclusion

There are a lot of opportunities in the energy industry, both traditional oil and gas and in hydrogen. We have the background and the industry knowledge that has given us a small edge on two interesting companies that are now in the Ellisville portfolio. We are monitoring the energy situation globally, and trust that the managers of these companies are investing for the long term.

While stock market volatility remains high, we will make tactical changes when appropriate, such as doubling and tripling down on our platform and technology companies that are oversold.

Meanwhile, our focus is on building a long-term scalable investment business, so we will continue to refine our research process, and hunt for great companies to invest in.

Thank you all for your investment and support. Feel free to reach out any time if you have any questions.

We are grateful that you've entrusted us with your investment dollars and support our new venture.

Sincerely,

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