

We had the pleasure of speaking with Harshan Jeyakumar, Manager of 118 West Capital Management, about intelligent investing in cleantech.

*This conversation is available as an episode of Gain Industry Insights, a member podcast of MOI Global. (Learn [how to access](#) member podcasts.)*

*The following transcript has been edited for space and clarity.*

**John Mihaljevic:** It is a great pleasure to welcome to the conversation Harshan Jeyakumar, a CFA charter holder and a private advisor to the cleantech sector. A former equity research analyst, Harshan has more than 15 years of experience in investing and operational matters in the cleantech sector. Currently, he runs 118 West Capital Management, a boutique registered investment advisor focused on publicly traded, globally focused cleantech companies.

Before we delve into the topic of intelligent investing in the cleantech sector today, I'd love to hear a bit more about your own background and experience in this space.

**Harshan Jeyakumar:** I do have a long operational and industry background in cleantech. I started off on the banking side, doing project finance, bringing capital to wind and solar projects when this industry was taking off at scale in the middle of the 2000s in the US. That's when significant federal tax credits were first implemented to drive the growth of wind and solar.

I was at Union Bank in Los Angeles when it was getting big into that field, particularly into tax equity financing, which is how the tax credits are monetized via fairly complex structured financings in the US - partnerships between tax equity finance, like that bank and the developers building those projects. I spent five years learning the nuts and bolts of the business from the banking side while I worked there.

Then I went to a startup called Amonix, which is based in Orange County, California. It was building a certain type of solar technology meant to compete with regular poly silicon PV panels back in the 2010 timeframe. This was a good idea when regular PV panel costs were very high. Unfortunately for these competing technologies, the cost of regular PV declined tremendously between then and now, which is what's driven the overall growth of solar and cleantech. The company's technology ultimately was not successful, but I did spend a solid four years helping build that business.

My last corporate stop was at SunEdison, the global developer of solar projects. I saw a lot of high volume of all kinds of projects there. After that, I've been independently consulting in the space, working with the same types of financiers and developers who invest in these solar projects and bring them to fruition. That pretty much leads up to the point when I decided to launch 118 West Capital, a long/short strategy focused on the cleantech sector. Before all of that, I was an equity research analyst coming out of grad school in New York. I truly enjoyed portfolio management and stock picking with a value-based perspective, so this was my opportunity to marry the two parts of my background and get back to doing what I enjoyed.

**Mihaljevic:** How would you describe your philosophy as an investor?

**Jeyakumar:** It's long term. Buy and hold is primarily where I expect to get most of the alpha from the strategy I'm managing. From an early stage, going through the CFA exams and following the value investing approach I was exposed to at that small equity research shop in New York, and then learning the Buffett, Munger, and Benjamin Graham ways of thinking is what resonated with me and got ingrained into my approach.

To put it concisely, it's about finding businesses where the stock prices are trading at a discount to what we deem their intrinsic value to be and doing the deep fundamental research to be fully confident that these are strong businesses that will continue to do well in the future and build on a moat, thus having a very low likelihood of failing. If anything, that's the number one criterion where we're trying to avoid the permanent loss of capital.

**Mihaljevic:** You do focus on cleantech in investing. How do you define that sector for your investment purpose?

**Jeyakumar:** I came from renewable energy, so it's a big portion of that - electricity generation from solar, wind, hydro, biomass, etc. Adjacent to that, you have energy efficiency, which is the reduction of energy use in buildings around the world. This is a huge driver of the overall cleantech revolution and reducing carbon emissions. It's not as "sexy" or spoken about as much, but it is a huge value driver, and many companies are focused on that.

Also, a lot of hardware and software technologies are going into making the grid smarter and more of a two-way platform instead of the traditional one-way of large, centrally generated power being delivered through a network to users. We're evolving to a spot where power is going to flow both ways, where it is being generated in a distributed fashion, meaning on the rooftops of commercial buildings and homes and other places. There's a lot of technology going into optimizing that. There are definitely opportunities there.

Electric vehicles is probably the corner of cleantech that's captured the mainstream attention the most and turned into an outright bubble in early 2021, and battery storage, I would say. These are all related, too. Battery storage feeds electric vehicles but also stationary energy storage, which is applicable on the grid and complementing all this renewable energy being put onto the grid. You can't control when the sun shines and the wind blows, but with more and more battery storage coming on to the grid, we have one major way to manage all that influx of renewable energy without going back and trying to rely on fossil fuels like gas and coal to stabilize the grid. I think the long-term goal would be to do that with renewables plus energy storage.

**Mihaljevic:** When it comes to the types of business models you tend to invest in, do you go all the way down to the commodity providers or do you stick to companies that are more value-added from a business model standpoint?

**Jeyakumar:** The business model is a pretty wide variety across the board and across the

sectors I mentioned. I probably do go almost all the way to the commodity level. One name in our portfolio right now is Livent Corp., which produces lithium out of Argentina. It's part of an oligopoly. It has access to one of the cheapest sources of lithium in the world. It's a great company.

I could speak on and on about its advantages, but one disadvantage is that it is ultimately selling a commodity, which is the lithium it first extracts and then processes. Thus, the company is subject to price volatility that it can't control. That's an example of where I feel like I still found a strong business with a great competitive position, but in the end, you could still call it a commodity player. It's a price taker.

All the way to the other end, there are software companies that focus a lot on cleantech now. There are very high value-added hardware and technology companies like SolarEdge, which was in my portfolio for some time and did quite well. It produces inverters which convert the DC power coming out of solar panels into the AC required for use in homes or to deliver on to the grid. There are many inverter manufacturers, but this one adds an advanced technology that enables the power to be maximized at the module level before it's distributed onto the grid versus a central inverter that gathers all the power from maybe tens or hundreds of modules and then modulates it and sends it onto the grid. These differences amount to a couple of percentage points of power saved or additional power put onto the grid, but it adds up. That's a high-tech company based out of Israel. A lot of R&D goes into producing its equipment and maintaining its competitive edge over the rest of the marketplace.

These are a couple examples that are like bookends of the basic, very upstream commodity end of that supply chain towards a pretty complex product on the other end.

**Mihaljevic:** You discuss a few other names in your investor letter, like Azure Power, Regal Rexnord, and Mastec.

**Jeyakumar:** Those are all different business models. Azure is an independent power producer. It owns and operates power plants over the long term. Azure is now focused pretty much exclusively on solar and solar-plus-storage projects, all of them in India. India has a huge growth market, and the government has big goals for renewable energy generation over the next decade or so. Even if India doesn't achieve those goals, there's still plenty of growth for companies like this. If Azure gets to even 50% or 60% of what it has stated, it's tremendous.

Regal Rexnord is a manufacturer of electrical components and energy efficiency equipment. These are things that go into industrial processes, so you and I don't see them on a day-to-day basis walking around; they are crucial and valuable but maybe low total cost items that power a factory. That kind of company tends to run under the radar. It's not producing some high-profile consumer product, but its products are so vital to so many different end users - mostly on the commercial side - and a lot of it drives energy efficiency. That's how it fits into my cleantech umbrella.

**Mihaljevic:** Given where we are in the cleantech cycle, do most of these businesses still

consume capital, or are they starting to throw off free cash flow?

**Jeyakumar:** I'm screening for and then investing in companies that are definitely free cash flow-positive, EBITDA-positive, showing a history of positive net income and ability to sustain those businesses and make money. Going back to the value investing approach - Buffett and Munger - not reaching for the stars or for some wide-eyed growth story that hasn't arrived yet. There are plenty of those in this space. Some EV stocks, for example, shot the moon last year, and a lot of them then came crashing down, as you would expect when the stocks get way ahead of the business fundamentals.

I'm starting with this cleantech universe and then rounding it down on some of the hard-nosed financial criteria I want to look for to find the companies that are going to last for the long term. Ideally, I'm looking for the best of both worlds. Cleantech is a story of the future, so not every company here is well established yet, and there are going to be some big winners - next year, five years from now, ten years from now - that may be public now, but we don't know about them yet or we're not sure about them yet.

I try to find that best of both worlds, companies with great forward-looking stories that have also shown an ability to make money to date because their management teams know what they're doing. If they've built strong balance sheets today and proven their ability to generate income and cash flows, that provides a great level of comfort that these companies will be around and can withstand downturns.

**Mihaljevic:** Maybe Mastec is an example of a company that meets those criteria. It's been around for a very long time - a contractor that has positioned itself to benefit from these trends but, at the same time, has a very well-established business model.

**Jeyakumar:** Yes, that's one well-established company in many ways, maybe almost by luck or just the skill set of its employees. It's building renewable energy projects, but it also happens to be building out the 5G telecom grid for all the big service providers. That's not my core industry expertise, but it certainly is a wonderful coincidence that Mastec is strong in both of these areas, both of which happen to be incredibly high-growth areas. It's great when you can find such a clearly proven name. It's also a founder-led company, which is great. You can be certain that the management team know what they're doing if they've built it from the ground up to where it is now, and they're still in charge.

It also speaks to an interesting point. I have what you might describe as a pretty narrow focus, how I've defined cleantech. If I only looked for companies that are pure plays - all of their businesses are 100% within those categories I described - that would rule out Mastec and some other names in my portfolio and probably a bunch of other names in my potential universe. That's probably not the best approach for me to take because what's happening here with cleantech is it is early days, and many companies are moving in from adjacent sectors.

Some are just starting to build a significant portion of their overall revenue from cleantech, but they're coming with some other legacy businesses which may or may not be related to cleantech. However, if those businesses provide the strength for this company to date, and

as long as they're not completely against the notion of cleantech and climate change that I'm trying to emphasize in my portfolio, I see no reason to screen those companies out, especially if I see them making a big commitment into this sector and can see them as being leaders in this space.

I guess the bottom line is that I'm not sticking only to 100% pure play cleantech companies because that - at least for right now - would create an extremely narrow universe.

**Mihaljevic:** And probably a universe that would have a harder time meeting your value-based criteria because a lot of the pure plays aren't there yet in terms of throwing off a lot of free cash flow.

**Jeyakumar:** Yes, that's right.

**Mihaljevic:** At this point in time, crude oil and coal prices are pretty high. What's needed on the renewable energy side to have an impact on all of that? What does it tell us about the ability of cleantech to take over on a mass scale and affect the pricing of the old energy commodities?

**Jeyakumar:** It tells us we're still in early days here. Clearly, renewable energy hasn't taken the dominant position in the grid. Natural gas is still the primary source of electricity generation in the US. Not long ago, it was coal. Coal came down fast, but natural gas has advantages over coal. It's about half as carbon intensive and can also be turned on and off faster. Some people call it a bridge to the clean energy future. It's a long road before you can say cleantech has truly taken over and pushed all the fossil fuels to the wayside.

I would say coal is on its way out much faster than oil or gas, at least in electricity generation. It can be replaced with renewable energy relatively quickly because coal is so polluting, and it's even cheaper to build renewable energy projects versus coal now. However, oil and gas are more complex beasts. They are used in more than just electricity generation. Oil goes into all petrochemicals and plastics. For the foreseeable future, I think there'll always be critical needs for both oil and gas, even outside of electricity generation and transport. Even if you remove that and electricity generation, you still have uses for oil and gas. As long as these uses exist, it's going to have that commodity price. It's at some crazy number right now - \$120 and above or something - because oil is priced globally. It's hard to forget that. As long as it's being used, there's going to be a market for that.

Renewable energy and cleantech are not going to replace every single application for oil and gas. Despite the inroads in electricity generation and transportation, they're not going to completely remove our dependence on fossil fuels.

**Mihaljevic:** Maybe we can go down the list of the areas you mentioned - renewable energy being a big one, energy efficiency, smart grid, electric vehicles, and battery storage. In each of those, what do you see as the biggest gating factor or the biggest challenge that needs to be overcome to help adoption take off?

**Jeyakumar:** If we start with renewable energy, I will say it's to overcome the major hurdle,

which is cost. Now, it's competitive or even cheaper to build pretty much any other power source, which is great, but the major disadvantage is their intermittent nature because the sun goes down and the wind stops blowing. That's the main hurdle to be overcome.

Battery storage is going to be a powerful tool to attack that problem. With more battery storage on the grid, the renewable energy can be stored whenever it's created. Whatever doesn't need to be used at that instant can be stored and used later on, pumped out into the grid when it does need to be used. I would say that's the primary obstacle for renewable energy.

**Mihaljevic:** Speaking of battery storage, I've read it's an extremely difficult problem to figure out. I don't understand why. Are we close to getting that figured out and having truly good batteries?

**Jeyakumar:** Yes, battery storage is earlier on in its development cycle versus where solar and wind are. Frankly, there's still quite a bit of R&D and science experiments going on everywhere, which is great. Hardly a week goes by where I don't read something about some new type of battery chemistry being worked on, either in a university lab or in the private sector. Startups are out there trying to commercialize all types of battery technologies. A lot of them are closely related. Some of them you might describe as revolutionary.

What's taken hold today is lithium ion. It's the technology in all our smartphones and other consumer electronics and in all electric vehicles right now. That technology has gotten to a critical mass. It can do a lot. It's doing everything where it's provided all the progress to date. It can provide energy storage on the grid to some extent, but it's not a universal solution. If you want to be able to hold on to it for as long as you need and dispatch it later, like days, weeks, and months later, then lithium ion is not well set up for that. There are other technologies being worked on that can cheaply and efficiently store energy for days and weeks at a time or even longer.

With battery storage, there's more technological wood to chop to be able to serve the major needs coming through with electrification. Once you have all this renewable energy on the grid, if you want to rely just on that, how are you going to manage and store all of it? I think that's where the technological progress is going.

**Mihaljevic:** In terms of energy efficiency, specifically buildings, how are we doing there? What's most interesting to you in that space?

**Jeyakumar:** It's an important space, but not one widely covered in the news or easy to quote numbers. It's not about megawatts. With everything else, especially electricity generation, you can easily look up how many megawatts of solar or wind has been installed to date. With energy efficiency, you're talking about reductions in energy usage over time. It's not like there's some shiny box, a solar panel, or a wind turbine indicating that this building is energy-efficient and reducing its overall energy use by X percent. There's just no clear way to see that or even to measure.

It's real, that's for sure. That building owner is seeing energy savings over time. If you had access to their utility bill, you would see their energy usage going down over time, but it's a lot harder to aggregate that data and report it. As a result, it's a bit harder to keep your finger on the pulse of how much growth there has been in that area.

There are energy service companies dedicated to improving the energy efficiency of buildings. It's a lot of what you might call pedestrian or boring stuff. It's adding insulation to buildings, putting in a more efficient boiler or water heater in a commercial building, stuff like that. Those things make real differences once you aggregate and have done a bunch of them, but it's not the same as the shiny solar panel you sell. The energy efficiency part of it is a bit more of a black box. It's more B2B - the commercial side, energy savings contracts, and things that don't light up the imagination but are a crucial piece of the overall fight against climate change.

**Mihaljevic:** What's your take on electric vehicles, especially how you think the space will shake out? So many new entrants have come in, even a whole bunch of publicly traded companies now. Do you feel they can all be viable, or is there going to be a major shakeout?

**Jeyakumar:** There will be a shakeout for sure, but even before that, you'll probably see a bunch more names come through of different companies trying to build a certain type of electric vehicle. It seems like most of the recent names are companies building very high-end, upscale cars, and that appeals to a certain audience and a certain market.

In my view, the majority of the industry will be driven by Volkswagen, Ford, GM, and Toyota once they firmly decide to invest in electric vehicles. They are starting to now. Over the past years, a lot of them have announced investments in their own battery manufacturing and entering into JVs. Volkswagen is diving deep into the supply chain to figure out how to build electric vehicles. It's a little surprising to me that it took this company so long to figure out and truly commit to electric vehicles. Frankly, I think that's why Tesla has had such a head start. Tesla has a beautiful car, but it also didn't have much competition. It blows my mind. How come there hasn't been an electric Honda Civic, Accord, or Toyota Camry? That's the everyday car for so many people. If those companies had started building the EV versions of these cars and they proved to be reliable five or six years ago, I bet they would have taken so much of the market, and Tesla wouldn't be where it is right now. They didn't, though, and Tesla has taken off.

That's why I think that once the big automakers finally get their arms around this stuff and make the big capex investments to build their own electric vehicle fleets, the familiarity of the brand names, the size of those companies, the warranties, and everything you look for in buying cars will make people gravitate to the names they've known for so long.

**Mihaljevic:** You don't feel like Tesla has a decisive advantage because of its early mover status just because the other major automakers have huge cash flows they can invest into this space, right?

**Jeyakumar:** I'd say Tesla has already taken full advantage of its early mover positioning. I'm saying I'm surprised it was able to keep that position for as long as it has. Tesla

produced the Roadster first in 2008, and then the Model S came out a few years later. It has enjoyed that perch without too much heat coming up behind it, but now is it finally starting. There are more and more options for electric vehicles out there now.

It's still taking some time. This doesn't happen overnight. Those big companies have to retool their supply chains, and building an electric car is quite different from building a gas-powered car. Luckily, when you break it down, it's generally simpler, far fewer moving parts. Hopefully, once they get their arms around it, they'll be able to build these pretty efficiently.

**Mihaljevic:** Going back to renewable energy, could you talk a little about the relative competitiveness of the various renewable energy types? Which do you feel is most ready for primetime now, and where are you finding the most interesting investment opportunities?

**Jeyakumar:** Solar and wind are far ahead of the rest. They are primetime. They've been major contributors. When you look at new additions to the electricity grid, year by year, those two are at the top. It's because they've come down the cost curve and proven their reliability, and they're as cheap to build as a gas or a coal plant now, if not cheaper. Those two are well-established and will hopefully continue to lead the drive to decarbonize the grid.

The other options are far behind, at least the ones gaining traction, like maybe biomass. It's pretty limited in scope and where you can build a biomass plant at a decent cost. It's got to be near or within forests to have your fuel supply, for example.

As for hydro, maybe I am giving it short shrift. It has been the primary renewable energy source well before solar and wind took off. We've had dams and hydropower for a long, long time. However, in terms of growth, it's a challenge. It's hard to build new dams, especially as environmental concerns have become more visible. The overall development work seems to be harder in this country than it was 50 or 60 years ago. Building more dams for hydropower seems like a tough proposition. There hasn't been any step change in the technology that would make everyone rush into it. It isn't solar and wind where the technology has incrementally improved with manufacturing at scale, primarily from Asia. That's what's enabled that cost curve to come down and make solar and wind the mainstream choices for renewable energy.

**Mihaljevic:** Do you have a take on fusion energy? There's been more buzz around it lately. A few of the companies in the space, like Helion, are getting fairly substantial funding. What's your take on its potential and the timeframe that could be realistic?

**Jeyakumar:** That's almost anyone's guess. I was following some of those stories. I think I posted about it on our LinkedIn page, but it's still in the science experiment phase. It's certainly encouraging to see some of these companies and maybe their lab joint ventures with universities.

They seem to be making progress, but given the extreme physics required to generate the energy, it's hard enough to make the reaction that appears. Even if they can get to the point



where they can make and sustain that reaction, it's the question of, "Did it require more power to generate the reaction than came out of it as output?" It's not clear to me if any of the progress to date has shown that yet. It's a basic requirement to be able to get more power out than you put in. It's very early days still for that, and people who have been following fusion for longer than I have will be able to say. Hopefully there's a future for it, but that's not going to be on my radar for publicly traded stocks anytime soon.

**Mihaljevic:** Could you talk a little about the way you've set up your firm? I believe you have a fund vehicle as well as separate accounts. How are you approaching that? To the extent you have, let's say, high-net worth individuals as clients, what are you telling them in terms of the portion of their portfolio that should be in this space?

**Jeyakumar:** I set up as an RIA (registered investment advisor) in California to begin with. That was the path of least resistance to get set up and start managing money, so I'm able to manage separate accounts after getting set up. They're relatively painless and a pretty low-cost process. There are plenty of compliance providers out there that can get you set up. We do have the fund entity. It's running in incubator mode for now, which means it's there, and that's where the performance is being tracked, but it hasn't been officially launched, meaning there are no offering documents or private placement memorandum.

The startup and running costs of a fund are not insignificant. I'm waiting for the point at which it makes sense with a large enough investor interested in being the LP or seed investor on that side in order for the business model to make sense before officially launching and growing that fund. It's certainly the goal and definitely what I'm driving towards. In the meantime, it's great to be able to build the business slowly, organically, and with separate accounts, starting with family and friends and taking it from there.

**Mihaljevic:** In terms of portfolio construction, how concentrated do you like to be in these names?

**Jeyakumar:** Pretty concentrated. I try to have about 10 to 12 long names in the book, 15 at the most. I want to be able to take advantage of the position of the strong fundamental research and take high-conviction positions in companies I feel strongly about, having the handful of leaders in the portfolio drive the performance. It's all about having my biggest positions in the names in which I have the highest conviction.

Now, I should state that every name in the portfolio is a high-conviction name. Otherwise, it wouldn't be in there. However, even within those names, you want to relatively rank them. I've had maybe as high as 20% of the portfolio in a position. I would probably call that pretty much a rough maximum. I would rather not go higher than that, but when I do feel strongly about one or more positions, I will let them get into the mid-teens easily. In short, I'm looking to drive the outperformance primarily from the long side of the portfolio and the highest conviction names.

**Mihaljevic:** In terms of geographies, Azure Power focuses on India, but I believe it's traded on the New York Stock Exchange. Are you focusing on US-traded stocks?

**Jeyakumar:** No, cleantech is global, so I'll go where the stocks are available. It's obviously easiest and most liquid to buy stocks traded in the US or ADRs, but we do own one Chinese stock right now. It's a wind turbine manufacturer that's not traded anywhere else. I believe the Hong Kong Stock Connect is the name of the channel that allows overseas investors to buy directly Chinese stocks trading in China. We got access. That's how we decided to get into that name. I'm not afraid to get into whichever markets the companies I really like are trading.

**Mihaljevic:** How big is the investable universe in terms of number of companies or any other metric you use?

**Jeyakumar:** It's been hard for me to pin that down because it's not like I look to a single benchmark. Many people can easily point and say, "That's my investable universe." There is no particular broad cleantech-focused index or benchmark out there with global coverage of everything I would want to look at. It goes back to my point about the 100% pure play cleantech companies. You see a lot of those grouped into various ETFs and suchlike these days, but I'm also looking at companies that are not 100% focused on cleantech but have a significant portion of their overall business focused on it. There's no handy benchmark or index covering all of that, or at least I haven't found any, so I compile.

I'm out there screening companies to see what they do and if they're involved in the sectors I'm focused on. Then I dive deep into the financial analysis and business analysis. When I start a screen, I oftentimes start from no filters at all and type in keywords for solar, wind, cleantech, or whatever I might use, and then drill down from there to see if a company makes sense for my portfolio or not. I don't have an exact thousand companies or something that I'm selecting from each time. It's a bit more of a hunt and peck to see what companies fit the bill.

**Mihaljevic:** Lastly, I'm curious about resources to learn about cleantech or track the space. Are there any you would highlight as particularly helpful, whether for more advanced users like yourself or people who want to learn about the space?

**Jeyakumar:** There are some pretty good industry rags. There's one called Canary Media, which has been following the space for a while. It's pretty good with publishing and following companies and trends in the space. There's a website called SolarWakeup.com that gives you a bunch of headlines, not just solar-related but related to cleantech in general. Those two pop up to mind immediately in terms of general media and news sources for someone to start diving.

**Mihaljevic:** How do you communicate with your clients about the space? I've read your letter. There was some nice discussion of some of your high-conviction positions. Is that primarily how you keep them updated on what you've seen in the space?

**Jeyakumar:** Yes, there are the semiannual letters and a quicker, shorter monthly quick blurb summarizing the prior months' performance. Then, on my website - 118WestCapital.com - there is a blog page where I occasionally post essays or in-depth pieces on any cleantech-related topics that come to mind. I try to add to it when I can.

Also, on LinkedIn, from 118 West Capital Management's page, I'm making it a point to post regularly on Fridays, whether it's an update on something interesting in cleantech-related news or something interesting happening at my firm or sometimes just random facts related to cleantech. I'm trying to build awareness and also build a brand for 118 West Capital. Those are the primary methods of communication I use, at least for a broad reach-out.

118 West Capital Management, LLC is a boutique registered investment advisor focused on opportunistic investing in publicly traded, globally focused, Cleantech companies. 118 West Capital serves as the management company to 118 West Fund, LP, and as investment advisor to clients participating in separately managed accounts (SMAs). 118 West Capital is registered as an investment adviser with the State of California.

The firm was founded by Harshan Jeyakumar, CFA, a former equity research analyst and private advisor to the Cleantech sector. Harshan has over 15 years' experience of investment and operational experience in the Cleantech sector.