



Michelle Martin 0:01

This SIEWCast is brought to you by Singapore International Energy Week and Money FM 89.3, in partnership with ExxonMobil. Welcome to another SIEWCast. I'm your host, Michelle Martin. SIEW, or the Singapore International Energy Week, is an annual platform where energy professionals, policymakers and commentators come together to exchange best practices and solutions within the global energy space. Today, we're happy to welcome global investment company, Temasek, to the podcast. The company has grown its 1974 portfolio of 35 Singapore-based companies to become a global investment giant with a S\$382 billion portfolio as of March 2023. So how does this generational investor based right here in Singapore view its role in Asia's energy transition? And what are its strategies to charting a greener future while delivering sustainable value? Joining me today is Kyung-Ah Park, Head of ESG Investment Management, and MD of Sustainability for Temasek. Thank you so much for coming on the SIEWCast, Kyung-Ah.

Kyung-Ah Park 1:12

Well, thank you for having me. It's a very topical area. So looking forward to the discussion.

Michelle Martin 1:18

Maybe we could start with a step back. Help us understand what Temasek's overarching vision and mission is in the context of ESG (Environmental, Social, and Corporate Governance)? And how would you characterise Temasek's commitment to this cause?

Kyung-Ah Park 1:31

Well, as you said, we are a long-term generational investor. So inevitably, we own the tail risk that comes from the growing climate crisis, as well as its increasing degradation of nature and rising societal challenges. So, really leaning in to help address these environmental and social issues, really goes hand-in-hand with managing the long-term risks and building a long-term resilient portfolio. The good news is, it's also about capturing a very large market opportunity by investing into sustainable solutions, scaling them, and then transitioning the global economy of which energy is one of the very big areas. It actually provides a significant opportunity to enable long-term financial returns that are sustainable, but also really protects the planet, and uplifts communities. In many ways, it's the trifecta of financial returns, environmental and social, and hence why we put sustainability at the core of everything we do, because we firmly believe that doing good goes hand-in-hand with doing well.

Michelle Martin 2:35

Doing good and doing well at the same time. In the midst of current challenges though, from the global economic landscape to rising interest rates, even geopolitical tensions, how does Temasek navigate these challenges while staying resolute to its commitment to sustainability and its investment objectives?

Kyung-Ah Park 2:55

It's a great question, because we are heading into a much more volatile and complex environment. But at the core of it, we aim to really build a resilient and forward-looking portfolio that really can help us navigate and manage the challenges that come with these different market cycles, as well as growing externalities as well. Right? And we do it through two big levers.

One is how we allocate capital, where we are actually increasingly aligning our cap allocation to four key structural trends, which I believe are very long-term durable across different market cycles, as well as actually cross-cutting, regardless of markets and sectors. And these are sustainable living, digitisation, the future of consumption, as well as longer lifespans. And sustainable living, in particular, is really a mega trend, given again, if you want to create a sustainable future, we have to transition our global economic systems. And it requires a multi-trillion-dollar per year investment. That's a challenge but also very big opportunity.

So we are leaning in and investing into companies that really drive, enable and benefit from this mega trend, in areas such as water, waste, you know, sustainable food and agri, and the built environment, you know, all the way through clean energy and mobility. So it is a very big investment opportunity for us. And we look for companies that have durable competitive advantage, large accessible markets, as well as, you know, a competitive moat from the perspective of balance sheet resiliency as well as management strength.

The second lever that we harness is integrating material, environmental and social issues, alongside strong sound governance in all of the investments that we do. Right? And coming back to where we started around climate, now given that is a growing urgent issue, and it really is a pervasive issue, we actually look at both physical risks and transition risks across all of our investments and internalise a carbon price. It's right now at US\$50 per tonne, and it's gonna go to US\$100 per tonne by 2030, to ensure that all of our investments are long-term resilient, when inevitably more and more of that carbon externality is going to get priced in.

Michelle Martin 5:12

So the company will be raising its internal carbon price?

Kyung-Ah Park 5:16

That's right, for investments. So de facto, it becomes a carbon spread on the carbon footprint of our investees, that we then have to have a higher return against.

Michelle Martin 5:26

How does Temasek approach financing Asia's energy transition? And what actions does Temasek take to support climate action here in the region?

Kyung-Ah Park 5:37

Well, the Asia region is absolutely critical when it comes to the transition and a sustainable future. But it's also incredibly complex. Right? Because Asia accounts for about half of the

global greenhouse gas emissions. And the majority of its energy system is actually fossil-based, and particularly coal energy-dependent. It's also a region where 60 percent of the global population resides. And many of them actually reside in economies that are still emerging and developing.

And so having energy access, affordable energy and reliable energy is absolutely critical. It's also the region that happens to be among the most vulnerable, unfortunately, when it comes to extreme weather events, as we've seen, unfortunately, you know, transpire, given droughts, flooding, and so forth. And so it is a big challenge. But again, with challenge comes opportunity sets. And the way we think about it, certainly for the region, but also globally, we got to harness all of the key levers. And let me talk about three primary ones that we are harnessing.

One is investing into climate-aligned opportunities. These are green solutions that we have to scale. And an example of that is we have a partnership with EQT in a renewable energy platform in India that is scaling utility-scale solar, wind and hybrid projects. So that's a good example of really helping India's green transition.

A second lever that we are harnessing is really enabling carbon negative solutions. And we have a dedicated platform called GenZero that is investing to technology and nature-based solutions and carbon market ecosystem enablers. And just to give you a different juxtaposition around this, I talked about large utility-scale projects in India. But GenZero is actually investing into quite a number of different opportunity sets, including energy-efficient clean cookstoves in Southeast Asia. So these are literally cookstoves that enable communities to be able to, you know, replace kerosene as well as coal, and in some cases, biomass wood. Right. So you have the carbon benefit, reduced deforestation, but importantly, health benefits, given many of the, you know, households are small, and vulnerable areas. And there's a lot of smoke inhalation that happens, particularly for women and young children. So again, you have that environmental and social benefit, right?

And then the third lever is really encouraging and engaging around the decarbonisation of incumbent companies, both in our portfolio as well as targeted investment and greater green transition. And another example of this, you know, in Singapore is Singapore Airline. It's a hard-to-abate sector. We all like to travel. And so we have been partnering with them as well as the Civil Aviation Authority of Singapore to really pilot test and operationalise sustainable aviation fuel in Changi Airport. So it gives you a flavour of all the different levers that we need to harness.

Michelle Martin 8:36

Many different geographies, and many different solutions, at different scales as well. Really fascinating. Bridging the investment gap is a critical challenge in advancing clean energy projects in Asia. What is Temasek's perspective on this challenge? And how does blended finance factor into your approach?

Kyung-Ah Park 8:55

So Asia is as mentioned earlier, it's really critical. It's where we can win and lose the battle in many ways. It does require multiple trillion dollars of capital. In fact, we did a Southeast Asia green economy report. And you know, we need about a \$1.5 trillion requirement just to get to the NDCs. These are Nationally Determined Contributions that countries have pledged by

2030. And we only have a fraction of what's required. So we need to harness all of the financial toolkits.

And then we talk about a few different levers. One is we have to think about blended finance, not just mainstream finance. And the reason for that is even though renewable energy is already the lowest-cost option in most regions around the world, including in Asia, there are actual challenges on the ground, whether it be the markets, or in some cases, fiscal constraints. There's also challenges around technical capacity in terms of being able to harness renewable energy. And then renewable energy itself is actually upfront capital-intensive. So it's very sensitive to cost of capital and, in some of these areas, cost of capital is very high. It also requires long-term returns. And policy stability is really important. You don't have that in some places, either. And so there's a myriad of reasons why renewable energy doesn't get deployed at scale, in addition to the fact that many of these regions have very young coal fleets.

So blended finance, where you take concessionary capital, and oftentimes that comes from governments' DFIs (Development Finance Institutions), as well as multilateral development banks and philanthropy. And blending that to really de-risk some of these issues and crowding in mainstream capital is very important in scaling. And so we're doing our part by partnering with HSBC, and setting up this platform called Pentagreen Capital, which is doing blended finance through debt financing in sustainable infrastructure, including clean energy in Southeast Asia, and crowding in mainstream capital. And in fact, it just did its inaugural deal, where it's doing a Mezzanine Construction Loan, really, with Citicore Renewable Energy, to be able to scale solar projects in the Philippines and crowding other debt financing as well. So that's a good example of a financing tool that is extremely critical for the region. But also, I just want to put in a plug for transition financing as well, because I do think it's really an important part of the toolkits. And some places, the taxonomy doesn't really enable you to do that. But the Singapore Monetary Authority of Singapore is taxonomy. Actually, I think it has taken a good approach of opening the aperture to transition financing, and taking a traffic light approach to how we want to be able to transition the global economic system.

Michelle Martin 11:45

I just want to pick up on that note of transitional financing. So it's clear that Temasek Holdings is making significant strides in building these pathways to a sustainable future. How is Temasek actively collaborating with its portfolio companies to reduce carbon emissions Scope 1, 2, 3?

Kyung-Ah Park 12:03

Yeah, it's a great question, because we do have to do the hard work of engaging and encouraging our portfolio companies because we are a long-term owner. So we're not in the game of divesting purely because it has high carbon exposure. And so what we're doing is we have multiple modalities of engagement. One is we can convene. We do it through a very large convening called Ecosperity, but also through targeted convenings where we have a Sustainability Council that brings portfolio companies together to raise awareness, share best practices, and identify pain points where we can actually partner and try to actually catalyse and collaborate.

And we do that also through one-on-one engagements where we have a very methodical engagement, where we apply a climate transition readiness framework. And from that, understand where some of the pain points and bottlenecks are. And if you can actually work with them to actually bring the synergies together, and the Singapore ecosystem synergies to really be able to pilot and testbed and scale solutions, that will accelerate the decarbonisation, and again, future-proof the portfolio.

So there are a number of examples of us doing this. You know, we talked about Singapore Airline and sustainable aviation fuel. But also, we've been partnering with the SP Group, as well as Tampines and MSE, the Ministry of Sustainability and the Environment, to actually do the very first Singapore-based brownfield District Cooling project. That when it's actually operational in 2025, is going to result in significant energy savings. And much more sustainable cooling for Tampines, somewhere around 2.8 million kilowatt-hours. I think that translates into about 17-18 percent energy savings. So it's very significant. So that's a good example of some of the support and collaboration that we do.

And then another example, just to contrast and compare, is really a business model transformation. I'm sure many of your audience members have read and seen that Sembcorp Marine merged together with Keppel Offshore & Marine to create Seatrium. And that merged company is now really leaning in to transition and actually capture the growth that comes from doing more offshore clean marine solutions, including renewable energy. So two very good examples of project as well as a business model transformation.

Michelle Martin 14:28

Well, thank you. We just love these examples on this podcast, this SIEWCast. I wonder if you have any more specific partnerships or collaborations that have made a significant impact in helping Temasek achieve its sustainability goals that you can share with our listeners and viewers?

Kyung-Ah Park 14:44

Yeah, I mean, we have so many partnerships. So, in the interest of time, I'll only highlight a few. We do really believe in radical partnerships and collaboration, given again this has to take a systems approach. And we've got to augment and bring our capabilities together, and in some cases, investors also scale third-party capital. Right?

So let me give you some examples of investment partnerships and ones that cut across investment in a value chain cycle. So a good example of this is we are a partner and a participant with Breakthrough Energy Ventures and its Select fund that's specifically looking at late-stage clean tech companies, helping them scale, and would enable them to build facilities in key markets, including of course Asia.

We also have a 50-50 joint venture with BlackRock, in Decarbonisation Partners. It just raised over US\$1 billion, and it is deploying capital to late-venture and early-growth investments to turbocharge the decarbonisation of proven technologies around different markets.

Michelle Martin 16:25

Kyung-Ah, you're responsible for integrating ESG across Temasek's global portfolio. So please share with us what key strategies you believe are essential for a successful energy transition towards a net zero world, especially considering Asia's unique challenges and opportunities.

Kyung-Ah Park 16:44

It's a big question, but perhaps I can bring some of the threads of things that we just talked about. And as mentioned earlier, Asia is really at the heart of this. It's not only a critical requirement to transition and do it in a sustainable, just, and inclusive way. But it's also an opportunity to really leapfrog, right? And be able to harness the green solutions and really catalyse green growth.

So, I think it's an incredible opportunity for the region. And to do this, we've got to harness all of the different tools. We talked about not only taking a linear approach to this, but really bringing a systems approach. We want to scale the green solutions, but also bring the incumbent industries and really help them transition. Again, in a social, just, and inclusive way.

We talked about the importance of radical collaboration and partnerships, certainly public sector and private working in concert. But also, you know, early-stage companies with these innovative technologies, incumbent companies working together, right, in stitching together, the value chain, including the enabling infrastructure, is incredibly important, given many of these solutions really require a systems approach to scaling. And I would say the example that I mentioned around investment partnership, how investors can work together and collaborate in mobilising capital, is also absolutely critical. Which then brings me to the fact that we have to harness all of the financing toolkits.

So we talked about blended finance, transition finance. We didn't talk so much about carbon markets. So I'll put a little bit of a plug in to that because I think it's actually a very important part of the financing toolkits. Where if we can really get high-integrity carbon markets going, even on the voluntary side of things, and be able to deploy capital to help carbon reduction and removal, given the time value of carbon, it's much more critical to deploy these solutions today than it is to wait until 2040 or 2050, and say, oops, we weren't able to get there and then try to do this. So there's a critical part of the toolkit. That's also a way to get financing into the global south where we need a lot of that capital. So many, many different tools that we have to harness.

And the last thing I'll just say is we all, as individuals, have to step up and take action as well. So just want to make that plug as well. A call to action for each and every one of us.

Michelle Martin 19:04

You know, this has been such a unique opportunity to look at Temasek's toolkit and strategies, and just how it invests with tomorrow in mind. Thank you so much for joining us. My guest today is Kyung-Ah Park, Head of ESG Investment Management and MD of Sustainability at Temasek. Thank you so much, Kyung-Ah.

Kyung-Ah Park 19:22

Well, thank you for having me. It's been a real pleasure.

Michelle Martin 19:25

Until the next SIEWCast, I'm Michelle Martin.

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