

PENSIONS FOR PURPOSE PODCAST TRANSCRIPT SEASON 2 EPISODE 16: INVESTING IN THE ENERGY TRANSITION DURING GEOPOLITICAL UNCERTAINTY

Laasya Shekaran, Pensions for Purpose: Hello everyone, and welcome back to the Pensions for Purpose Podcast. I'm your host, Laasya Shekaran. Now, on today's episode, we're going to be talking all about how to invest in the energy transition during times of major geopolitical uncertainty.

I'm very pleased to be joined by Hilikka Komulainen, Quinbrook's Global Head of Sustainability and Impact. Hilikka, welcome to the podcast.

Hilikka Komulainen: Thank you very much, Laasya, it is great to be here.

Laasya Shekaran, Pensions for Purpose: Let's get straight into this, Hilikka. There is a lot of geopolitical instability market uncertainty in the world right now. What does the global outlook for energy transition actually look like in amidst all this? I want to say chaos, almost, just all this turbulent times.

Hilikka Komulainen: Laasya, it's really quite a complex question, and as with most situations, it depends. It is not a uniform picture globally. Overall, we've talked about seeking to make an orderly energy transition, and I think we can now firmly say we're past that. We are firmly in the state of disorderly transition. There's complexity, but we continue to see opportunity, also from an investment perspective, which is great.

We are in what they term the 'energy trilemmas'. We're trying to somehow balance these differing needs of energy security, which is a big topic in all of Europe, in all of the US and definitely elsewhere in the world as well. We all have still good memory of the energy price hikes following the Russian invasion of Ukraine a couple of years ago, but also the sustainability of the energy that we consume, and trying to work towards a low-carbon transition.

So, it's not a uniform picture. There are pockets of progress in the US. With the trade war and the increase in energy demand, US energy demand is going up for the first time in 15 years. That has led to what we could call an 'all-of-the-above' energy policy. We hear things like 'drill baby, drill', but in practice, all energy supply that can get online in the short-term is definitely very welcome. That is influencing the picture.

In other places, like the UK, we're still seeing strong government commitment to low-carbon energy transition. Renewables are benefiting from, for example, their cost competitiveness, so it's not in any way a uniform picture everywhere. What I would also say is we are starting to see more physical climate risk within our system. This is the thing that we are trying to mitigate. The reason we're trying to move away from fossil fuels and energy in carbon-intensive industries is because 2024 was the warmest year on record. It seems like every year, once scientists get the record straight, we're seeing a warmer and warmer year, and we are seeing record losses from climate-related physical events. The estimates are between \$350-420-odd bn dollars in economic losses overall. The estimate is that one-third of this is insured, so huge amount of economic value that is being lost to climate change at the moment. I saw an estimate from Gallagher, that this is 15% above the average for the past decade, if you look between 2013 and 2023. I think we need to think about both aspects when we think about the energy transition.

Laasya Shekaran, Pensions for Purpose: Absolutely. Those are some pretty huge numbers, and I think we're going to come back to talk a little bit more about the economics around energy transition and net zero. While we're on the subject of geopolitics more generally, how important are the various policy positions around the world, and the general sentiment around net zero, when it comes to the success of the energy transition?

Hilkka Komulainen: I don't think we can underestimate the impact of public policy. It can be a significant driver of the transition. We've seen that across different jurisdictions in the US, like the Inflation Reduction Act, when it came in. I know we're in a world that's past that, but it had a very significant impact in spurring investment into the United States. Interestingly, and actually significant also into Republican states: there has been investment into new infrastructure, including low-carbon energy transition infrastructure, so it can be very significant in driving investment. I think what we see is that renewables in general are starting to be, or are already, competitive, and are the lowest cost, fastest-to-market solution, if you take out all subsidies and all regulation. Subsidised renewables are competitive, but the way the policy landscape is defined and the types of incentives that are put in place can be a really big driver in either accelerating or slowing down the energy transition.

I think linking in the public sentiment is also very interesting. It is a big driver of public policy in terms of, is there support and do politicians feel that they can stand behind it? This is one of the reasons we talk about the just transition being so important, bringing all people with us, because it is a big part of shaping public policy dialogue and where policymakers are taking it. Public sentiment around climate change is very interesting, because there are also studies that point to global support among the public for taking greater action on climate change, which doesn't always translate into the policy positions that we see. So, how that link gets defined isn't always particularly clear, but you can't argue with the fact that there, of course, is a link.

Laasya Shekaran, Pensions for Purpose: It's interesting as well, I think, that as well as the policymakers and then the public, there's also the media, who quite often will present a narrative about people being not supportive of climate transition and net zero, but actually, as you say, there are studies that are contradicting that in itself, and there are a lot of people who are supportive, and probably education is part of that as well. You mentioned that renewables are very competitive from a financial perspective, but I think lots of people don't really realise that.

Hilkka Komulainen: Yeah, I think that's right. Change is hard, and there is definitely a narrative on net zero being difficult, and that change being difficult and a positioning of fossil fuels being the norm, and renewables, which ultimately are very cheap to put in place and very cheap to run by comparison, being the new and different thing. So that, of course, does require people to come to terms with that.

Laasya Shekaran, Pensions for Purpose: Yeah, absolutely. I want to pick your brains a little bit more on this idea of the just transition. I know this is something you've thought about a lot, the social side of transition. You were part of the Department for Work and Pensions (DWP)'s Taskforce on Social Factors. I think it's something that probably affects the success of energy transition overall. What do we actually mean by 'just transition', and what are the social and people-related considerations we should be thinking about in this context?

Hilkka Komulainen: That's an excellent question. This is vital, but it is often completely overlooked, and as an investor, we at Quinbrook typically invest people's pension savings. It is somebody's money, and we don't take that responsibility lightly. People are always at the centre of investment. They should be at the centre of the energy transition. We're doing this for

ourselves, for people; we're not doing it from an environmental perspective. There is definitely a huge emphasis on the impact on communities and society's life as we know it. The transition is not just about technology and economics.

When we talk about the just transition, this principle means that we are seeking to ensure that the benefits of the transition are divided and shared widely and equally, and there are costs that are not unfairly borne by people who are vulnerable. There are lots of studies showing that populations that are vulnerable – we're talking small island states, we are talking women, we are talking people from disadvantaged backgrounds, who will, at the moment, bear the cost of the transition and the cost of climate change more – so it's about focusing on this when we're thinking about how we invest in it. The types of people we talk about go from the workers in fossil fuel industries – if we think about the impact of closing down a coal-fired power plant, typically that single power plant can be the lifeblood of an entire community, because there's not just people who work there, but all of the benefits of the money that they receive as salaries, and then they go spend in the community. So, there typically is this broader economic impact. So, it is about retraining, it is about who gets access to affordable, clean energy, and consumer price shocks that we have.

Just a couple of years ago, we saw the impact of the Russian invasion of Ukraine. All of this fits into the category of just transition. We rarely talk about the people who benefit from renewables. Our focus at Quinbrook tends to be on trying to find the lowest levelised cost of energy and people who benefit from that low-cost power, but then it's also the people who on whose expense that might happen. Workers and community tend to be the people we see as such, so on whose land are we building? In some nations, we talk about traditional owners, First Nations and indigenous groups as well, and how are we working with them and ensuring that the benefits of that infrastructure is shared with them as well. When we get into the supply chain, there are labour standards, and questions that also need to be addressed, so it is quite a wide-ranging issue.

Laasya Shekaran, Pensions for Purpose: It's so interesting you say that we don't often talk about the people who benefit from transition, because when we talk about just transition, we're often talking about 'how do we protect the people who might be disadvantaged by these changes?', but actually, on a much broader level, people are going to benefit from this. Some of those physical impacts of climate change that we're trying to mitigate, they ultimately affect people. They affect all of us, and they probably affect those most vulnerable people, as you say. I think it's important to obviously address the potential challenges that transition poses, but also recognise the benefits.

Hilkka Komulainen: I mentioned that figure of economic damage from climate-related weather disasters. If the estimate is that one-third of those only are insured, the cost of the two-thirds is borne either by companies or by households. So, even being able to protect people from damage to their home, their house and their property is a significant benefit that we don't talk about enough.

Laasya Shekaran, Pensions for Purpose: Yeah, absolutely. Let's talk a little bit more about the economic case for energy transition. You describe this energy trilemma, where you have energy security, affordability and sustainability that you're trying to balance. I think sometimes, there's a narrative that all of these three parts of the triangle are at odds with each other, that maybe you can't do affordability and sustainability at the same time, for example. Is this true, and what is the financial and economic case for energy transition?

Hilkka Komulainen: I like to think of this in two parts: the cost of acting on climate change and the cost of creating an energy transition of moving to low-carbon power, and then the cost of inaction, which I think should form a part of this narrative as well.

Renewables have come down the cost curve very significantly. In terms of verbalised cost of energy, they are, in many cases – nothing is ever black and white, so you can't say always – but in many cases, they are the lowest cost option in terms of power. Unsubsidised renewables, in an unsubsidised energy system, will be extremely cost-competitive. That is a very significant part of when we talk about the cost of the transition. Actually, when you're looking for new infrastructure, or if you've got existing energy generation, power generation that is coming offline, renewables tend to be extremely competitive, economically in that situation.

In terms of the cost of inaction, oftentimes, the most expensive scenario is failing to act at all, so extreme weather, sea level rise, disruptions to supply chains that can emerge from that. We can talk about the inability to produce food in the same ways that we have in the past. Those are hugely significant impacts on our economic system and should be counted in when we think about the cost of the transition.

When we make investment decisions, we will invariably look at the types of physical risks that we're facing, and how do we mitigate those, because both on an individual project level, when you are looking to make investments, as well as at an economic system level, not capturing the cost of that mitigation, as well as adaptation to those risks, the cost of ensuring that your investments are resilient. Maybe that's in terms of raising building walls, or raising the floor of your project in a way that flooding is not going to impact it, or putting in additional resilience measures to weather more frequent and heavier storms. All of that, if you're not thinking about it at the time of investment, is going to become a cost later on down the line.

Laasya Shekaran, Pensions for Purpose: Absolutely. It seems like we're at a point in time now where the cost of action is becoming less and less, but the cost of inaction is becoming greater, and that can be pound money, economic costs, but also human cost in terms of suffering and that sort of thing as well.

How do time horizons fit into this, because sometimes it feels like we focus a lot more on the cost of action compared to the cost of inaction, and I wonder if that's because people think the consequences around inaction are way off in the future, and the cost of action is right now, so they don't place the correct weights on the two?

Hilkka Komulainen: Definitely. I think what we're seeing is a lot of the extreme weather and climate change impacts – and not that extreme weather is the only climate change impact that we're seeing today – and making the link between human-induced climate change and the consequences of how our economy runs as a whole, and those individual events doesn't always happen. We're seeing increasing forest fires, all over the world. This is not just something that happens in emerging markets, it's also something that we've seen this summer in France, in Greece, all over the Mediterranean. Many people will recall the fires in Los Angeles, California, last year, but then making that link into activities happening today, we tend to always assume that this is not going to happen for us.

In many parts of the US, getting home insurance is becoming increasingly difficult, because insurance companies have understood that this physical risk is actually not far away into the distant future reality. It is something that is facing us today. Access to insurance for the sites that we are developing, also in the UK, it's definitely one of the questions that we ask ourselves when it comes to trying to understand the impact of climate change on our projects when we

are making investments into projects that will be around for decades. It becomes extremely material, but I do think that we still underestimate that linkage in the broader economy.

Laasya Shekaran, Pensions for Purpose: I think you're right. We've talked quite a bit about costs, so let's talk about opportunities, because obviously what you do at Quinbrook is spend a lot of time thinking about how investors can actually benefit from the energy transition and have this positive impact while generating returns. What, practically, are the opportunities that investors should be looking out for?

Hilkka Komulainen: The energy transition opportunity set is vastly ever-evolving, and that's what makes it super exciting. We are seeing a lot of investor interest flowing into this space, so you've got the focus on what we talked a lot about renewables, so energy generation, but that's absolutely not all of what we're going into. When we look at the opportunity set, we're also thinking about everything that's enabling our energy systems. We're talking about battery storage, we're talking about investments into the grid. Many people will recall the blackout that we had in Iberia, Spain, earlier on this year. There are investments and assets that we're investing into called synchronous condensers. I think we've spoken about that previously on your podcast.

Laasya Shekaran, Pensions for Purpose: Yeah, Mark [Burrows of Quinbrook] gets very excited about those.

Hilkka Komulainen: He does, and we think they're a great investment opportunity, investing into the stability of the grid, which we also need alongside renewables when we increase the proportion of wind and solar in the energy mix. We're also getting quite excited at the moment about clean fuels. It's one of the things that we're seeing a lot of opportunity for in the United States, so using various types of feedstock to create, fuels that can play in a similar space to some of the fossil-based fuels. Looking at the transport sector, even thinking about the demand that data centres are creating for power in the United States.

So, the opportunity set is really quite big. Supply chain is another aspect that is particularly pertinent in this global economy. With the US administration, there has been a lot of focus on the sourcing of different components of critical aspects of our economy. You could say that energy is definitely a critical aspect of the economy, so we are thinking about the supply chain that the transition requires, how we can invest into the critical minerals into their processing and refining, and the actual components and powering those with renewables. Some of the inconvenient truths around this space is that China holds a very dominant position in the value chains of the energy transition, from critical minerals through to refining and processing.

Polysilicon is a very interesting example. It is one of the key components of solar panels, but also semiconductors and computer chips. China dominates this supply chain. Around 90% to 95% of polysilicon comes from China, so opportunities to invest in that value chain and powering that through renewables elsewhere in the world can become quite interesting from a diversification perspective. It is the same for graphite, which is one of the key materials of batteries, which are not renewable in themselves, but are becoming a key component of the transition in terms of providing energy storage, both for stationary storage and for electric vehicles. Again, trying to refine some processes over 90% of the world's graphite for battery anode material.

Looking at the opportunities to think about those value chains, there's a big overlap between appetite globally to diversify. China, Europe, the UK, the US and Australia are all trying to build

their own battery industry, so finding those opportunities, and pairing that with power through renewables can be very interesting.

Laasya Shekaran, Pensions for Purpose: Yeah, it sounds like a really exciting time, and I'm sure it must be exciting for you on the ground, looking at all the different companies and assets that are out there to invest in.

Hilkka Komulainen: Definitely, this is a really significant transformation that is underway, that isn't just limited to the energy sector. Transport is one of the key emitters of the UK, for example, so looking at investing into decarbonisation of transport is something that we've done. We've actually made a very exciting investment into that here in the UK. Looking at all of the materials that we need for the different components that we need to build some of the big projects that we build, there's an opportunity to add it quite fast.

Laasya Shekaran, Pensions for Purpose: Let's zoom in a little bit on the UK specifically. UK pension schemes invest globally, but there is a push at the moment for increased investment in the UK: investment that supports the UK economy and UK growth. How do you think energy transition and net zero fits into these wider conversations around growth and productive finance in the UK?

Hilkka Komulainen: I think it is an enabler. Coming from a global investment angle, we like the UK for a number of reasons. There's still strong governmental support for net zero and for decarbonising the energy system. That is not the case in every jurisdiction around. There have been concerted efforts to remove some of the obstacles to being able to do that. I'm thinking about things like grid reform, the strong legal commitment to net zero, Clean Power 2030, which moved the target for this clean power system from 2035 to 2030. All of these are very strong signals to the market. The UK is one of the regions where it still is possible to rely on the policy environment. There aren't retroactive changes to decisions that have been made in the past, and a lot of effort has gone into overhauling the grid connection queue, which has been a major bottleneck for renewable energy. All of this is very positive from our perspective.

The other thing that we see when it comes to the appetite for investing into the UK, the benefit of being in the energy transition space when you are also building renewables, is that a lot of these projects are not in London. So, a real tangible economic benefit is the investment into the different regions of the UK. We work at all levels of government, so local, regional and, combined, mayoral, and combined regional.

The jobs that we are creating are not in London: they're in Kent, they're in Wales, they're in Lincolnshire, they are in Scotland. It just really becomes a very nice narrative, of where those investment opportunities come to light, of furthering broader goals of both the government, but also our clients, of investing locally and creating local economic benefit.

Laasya Shekaran, Pensions for Purpose: That's amazing, and that's also such a big area of focus at the moment, particularly amongst the local government pension scheme sector, so it's great to have this multiple benefit of supporting local economies, helping with the energy transition and of course, meeting your financial objectives as well.

This has been a brilliant discussion, with loads of food for thought. If there was one thing you wanted our listeners to take away from this, what would it be?

Hilkka Komulainen: There's still lots of opportunity and lots of progress being made. It's very easy to read the news and just see turbulence, geopolitical shifts and trade wars.

That is also, of course, the case, but we remain optimistic. It's not all doom and gloom. The energy transition is still very much alive and kicking.

Laasya Shekaran, Pensions for Purpose: Thank you so much. It's quite clear to me from this discussion that the opportunity set and the cost of inaction far outweighs the short-term cost of action, and this is really where we need to be focusing as an investment community.

Thank you so much for joining us today, and for sharing all of your insights. Listeners, if you want to make sure that you never miss an episode, hit the follow button and remember that you can find us wherever you get your podcasts. Thanks for listening, and we'll see you on the next one.