

sustainable
HEROES
green leaders in focus



Pooja Goyal

Moving the Energy Transition Forward

Lila Preston

Writing the Roadmap for
Sustainable Capital

Anja-Isabel Dotzenrath

Earth, Wind, and Power Player

Jeff Eckel

Counting Carbon

Sarah Slusser

Powering a Sustainable Future

NOMURA
greentech

Now is the time to lead!

Effective leadership is inspirational - it enables people to find meaning and purpose in life. Effective leadership also creates systems which optimize how teams of people cooperate and harmonize their respective strengths to create sustainable value for customers, employees, communities and investors.

It is easy to confuse effective leadership with outcomes, and to focus only on results. There are other myths about leadership. One is that it is a formula. Another is that the team suffers when a great leader is gone. Both are wrong, as leadership is intensely contextual, and true leaders build effective cultures and processes that enable the team to succeed long after the leader has transitioned.

This issue of Sustainable Heroes profiles five accomplished leaders who are in the prime of their careers, driving change in companies that are on a mission to deliver a more sustainable future. While having already created valuable businesses, our Sustainable Heroes are striving for greater impact. Their stories have both significant similarities and differences.

Lila Preston, the Co-Head of Growth Equity Strategy at Generation Investment Management, began with an environmental awareness gained through a love of the outdoors, and is enabling sustainable growth companies to scale and succeed by investing equity capital and delivering deep expertise.

Anja-Isabel Dotzenrath, CEO of RWE Renewables, oversees 3,500 employees across APAC, Europe and the U.S. and puts employee well-being and health and safety as her number one priority. Anja has utilized her foundational training as an engineer to lead RWE Renewables to help solve the world's environmental

problems, and is encouraged by trends in floating offshore wind, hydrogen and energy storage.

Jeff Eckel, Chairman and CEO of Hannon Armstrong, had an epiphany about the environmental footprint of proteins, wrote a critically acclaimed academic paper about the flaws in utility capital budgeting frameworks (only to then find it difficult to get a job at a utility), became enamored with the second law of thermodynamics, and then launched a career financing energy efficiency projects and took Hannon Armstrong public.

Pooja Goyal, Partner and Head of Renewable and Sustainable Energy at The Carlyle Group, for over 15 years has aided the energy transition by investing capital in teams and projects which are rapidly decarbonizing power. Harnessing the global resources of Carlyle, Pooja is able to utilize her extensive industry relationships and knowledge to back high quality entrepreneurs with the vision and foresight to make the world sustainable.

Sarah Slusser went from Wall Street to a leading global Independent Power Producer to founding two clean energy companies before becoming CEO of Cypress Creek Renewables. Crediting her success as a leader to being a good listener, Sarah's interest in sustainability began as a young girl watching President Jimmy Carter's fireside chat on energy, and she remains mission driven in her leadership at Cypress Creek.

The stories of these Sustainable Heroes are both inspirational and informative. They illustrate that the challenges and opportunities of the sustainable transition are varied, and that there is more than one life / career path to effective leadership. I hope you enjoy them as much as we did!



A handwritten signature in dark ink, appearing to read 'Jeff McDermott' with a stylized flourish at the end.

Jeff McDermott
Head of Nomura Greentech

Contents

4



Writing the Roadmap for Sustainable Capital
Lila Preston

10



Earth, Wind, and Power Player
Anja-Isabel Dotzenrath

14



Counting Carbon
Jeff Eckel

18



Moving the Energy Transition Forward
Pooja Goyal

22



Powering a Sustainable Future
Sarah Slusser

Writing the Roadmap for Sustainable Capital

Lila Preston, the Co-Head of Growth Equity Strategy at Generation Investment Management, began with an environmental awareness gained through a love of the outdoors, and is enabling sustainable growth companies to scale and succeed by investing equity capital and delivering deep expertise.

Lila Preston, Co-Head, Growth Equity Strategy, Generation Investment Management

Your career has been centered around sustainability for some time now, going back to your time as a Fulbright Fellow in Chile working on forestry and conservation projects. What was that experience like and, stepping further back, how did your interest in sustainability start?

I grew up in a New York City apartment, and that environment led me to search for something more expansive. I was motivated to be outdoors whenever possible, and I spent all of my high school summers out West in Idaho and Wyoming, conducting wilderness studies and working on a ranch.

In high school during the mid-1990s, I was inspired by the work of Doug Tompkins, the Founder of North Face. He was a deep ecologist working in the Patagonia region of Chile to preserve some of the most pristine temperate rainforests still undeveloped.

After graduating from Stanford, I went to Southern Chile with a Fulbright Fellowship to focus on community-based conservation. I wanted to better understand conservation models that took into account the needs of local communities to be involved as stewards, educators, and conservationists. I was fascinated with the ecosystem and the vast beauty of Southern Chile. The experience piqued my interest in how to scale impact beyond one piece of land, or one country, but across systems.

I moved back to California in April 2000 almost the day the tech bubble burst. I was trying to get a job and so many of the tech companies where I was interviewing were going out of business. I landed at a nonprofit organization called VolunteerMatch, where I was first introduced to finance and fundraising in order to help them scale. It was on-the-job finance training, and really sparked my interest in how to use finance as a tool to drive impact.

Ultimately, I chose to go to business school to get formal finance training at London Business School. It just so happened that in my second year of business school



LILA PRESTON



Image credit: Generation Investment Management

I was introduced to a start-up called Generation Investment Management. It had some very impressive founding partners, and I was lucky enough to do a project which eventually turned into a job. So, since early 2005 I've been at Generation – beginning in our London office for 11 years, and in the U.S. for about five years. I've worn many hats – first as a thematic research analyst, then as a public equity analyst covering the consumer sector, and for the past decade or so, I have been focused on private equity and growth stage investment through our Sustainable Solutions platform.

Generation is tackling the entire sustainability sector with investments in smart mobility, consumption, energy, food, and a half dozen more areas. With so many different subsectors under the general umbrella of sustainability, and Generation's own limitations, how do you think about meaningfully allocating capital across all of them?

Within our private equity strategy, we focus on investments in growth-stage businesses in three core areas: Planetary Health, People Health, and Financial Inclusion – addressing a broad set of the sustainable development goals (SDGs).

- Planetary Health includes low or zero carbon solution transforming mobility, food, energy and enterprise
- People Health relates to better health outcomes and a lower-cost, more accessible healthcare system
- Financial Inclusion supports access to finance and an equitable future of work

At Generation, we believe that we are in the early stages of a systemic, secular, and multi-decade transition to a sustainable economy – we call this the “Sustainability Revolution.”

Whether it is the shift to electric mobility, plant-based diets, the distributed future of work, or to remote healthcare – all of these trends are exactly why Generation exists: to research, debate, and to translate developments into the very best investment opportunities. By creating competition for capital across a set of themes, we believe we can find the very best investment opportunities. You can look at our latest published Sustainability Report regarding our third fund, which sets out the work Generation does across the three pillars.

We are seeing the power of consumer demand for more sustainable products and services.

What are the drivers that will continue the push toward sustainability in consumer companies? What is the biggest hurdle in the retail sector in reaching goals such as zero waste or net zero carbon emissions?

We are seeing the power of consumer demand for more sustainable products and services. This has been a drumbeat that has only continued in pace and volume over the past 15 years that we've been looking at this sector.

We believe consumers should not need to pay more or sacrifice quality for sustainable products on a holistic level. In our view, the best products in the market have sustainability baked into a superior total value proposition. This is a key tenet of our investment case in the area of sustainable consumer. At Generation, we see strong secular growth of many segments – including healthy/natural food, natural personal care, natural homecare, smart home and so on. Over the years there have been many examples of how consumer demand can propel more sustainable products – just take Patagonia, Tesla, Nest, Seventh Generation and Beyond Meat.

The biggest hurdle in the retail sector is often not the innovative products and more sustainable technology, it is the distribution channel – whether it be the lack of commitment from big retailers or the high investments needed in terms of marketing dollars. I do believe consumer demand will continue at pace, but we need to see more pressure so that large retailers and consumer brands also manage and measure their own footprints, and commit to bringing more sustainable products to market. There needs to be more visibility and transparency in supply chains and the impact of consumer choice on environment and society.

You are a board observer at Optoro, which aims to eliminate waste in the retail industry by offering a seamless returns platform. What is the pathway to scale for these technologies that sit at the intersection of retail and logistics? Will there be any movement to partner with sustainable mobility providers?

Optoro sits at the software layer to power the decision making related to product returns. Each year in the U.S. alone, \$400bn worth of merchandise is returned. Five billion pounds of waste from returns are sent to landfill. On average, Optoro clients were able to keep 96% of their returned and excess goods out of landfill. This gives just a sense of the size of the problem or opportunity. This is a massive intervention point for large retailers, especially during COVID-19 when more and more people are buying online, which boosts the volume of returns.

Optoro itself does not power transportation and logistics. They are more like the brains behind smart disposition – finding the best next home for a product. They work closely with incumbents – they have a partnership with UPS, as well as with major retailers like IKEA, and they will benefit from advances in clean mobility and efficient fleet management.

Complementary to this, we've done work on broader supply chain and logistics – this has been a consistent focus for our

team for over a decade. One example of driving efficiency in the trucking and logistics market is Convoy, one of our portfolio companies. It is a digital freight marketplace that connects shippers to carriers to optimize the movement of hundreds of thousands of truckloads across America. Convoy uses advanced analytics and a centralized decision-making platform to solve inefficiency and wastage in the \$800bn trucking industry. They save money for shippers, increase earnings for carriers and reduce emissions from empty truck miles.

There needs to be more visibility and transparency in supply chains and the impact of consumer choice on environment and society.

Generation recently invested in Andela, the largest network of software engineers in Africa, and has also invested in M-Kopa, a solar energy company out of Kenya. Both of these represent the firm making a push toward investments which help to democratize sustainability in Africa and emerging growth markets. How do you view the sustainable opportunity and related challenges in emerging growth countries, and how does Andela fit into that broader theme?

As mentioned, our Growth Equity strategy addresses a broad set of the sustainable development goals across the pillars of Planetary Health, People Health, and Financial Inclusion. M-Kopa is a great example of a company that addresses all three. First, they principally sell distributed solar systems to off-grid households across Africa (this displaces in many cases fossil energy previously used for lighting). Second, they are able to address indoor air pollution due to displacement of kerosene indoors, not to mention reduce risk of fire, so that addresses respiratory health. And finally, they enable households to make micropayments (using the displaced kerosene budget) so that the family owns the solar system after a year, and also establishes a payment history such that they can enter the formal banking system. So, while it isn't always the case, we recognize that looking at an investment systemically from different angles can reveal some of the most profound sustainability solutions.

Part of Financial Inclusion for us is ensuring the future of work is resilient, inclusive and low or zero carbon. In 2016, Generation embarked on work to sketch out trends in the future of work including the power of distributed workforces.

For those who don't know the company, Andela is a provider of engineering-as-a-service. They empower African software

developers to address the global undersupply of engineering talent and match them with tech companies in markets across the U.S. and Europe. They have trained and matched several thousand software developers across six African countries.

It is increasingly clear that the future of work will be distributed, and we have absolute conviction that the model of work is changing to be more remote, dynamic and empowering, enabling access to new and different forms of talent. As Jeremy Johnson, the CEO, is known to say, “Brilliance is evenly distributed, opportunity is not.” We believe Andela represents the education and up-skilling model of the future, while broadening access to earnings and development of a global workforce.

Many sustainability-focused companies are trying to implement change with new technology, business models or value chains. From your perspective, is COVID-19 hurting or hastening the implementation of these innovations? On a more macro-level, how do you see COVID-19 impacting sustainable themes?

Even before COVID-19, Generation has always aimed its research and origination engine at pockets of the market where we see disruption and growth that we think can drive a better long-term future. We study cost down curves across technologies, track changes in consumer demand, and monitor broader climate and societal shifts. So, in some respects, putting aside so many things that are challenging at this time, navigating disruption is what we actually do best.

One of our great methods for understanding sectoral shifts

towards sustainability are what we call Solutions Summits. Generation has held over a dozen of these Summits, which are curated two-day events gathering 30-40 executives and thought leaders in a particular industry around a massive board table to discuss the long-term transformations taking place in their industries.

To give an example, at the end of last year two members of our team put together a Sustainable Healthcare Summit in San Francisco. The event included big companies like Google, Apple and Danaher, policymakers from the FDA and NHS, doctors from some of the top medical schools, and about a dozen private companies we wanted to build relationships with. These summits help us identify how disruption may affect various sectors and where the most sustainable solutions may lie.

Despite the abundance of investors seeking to deploy capital in the sustainability space, especially recently, do you still see unmet funding needs? In which sectors or areas? What is behind the shortfalls in those areas?

In some respects there is quite a bit of capital chasing high quality companies. The growth markets have been somewhat frothy with respect to chasing high quality digital disruption and software business models. That probably is true through cycles and makes sense.

Perhaps the one area that is less fully-resourced is project development finance for new tech deployment. This seems to be a harder area to attract capital, especially for deployment of novel environmental technologies that may still have some



Image credit: Generation Investment Management

tech risk to work through. For example, the bioeconomy is a more challenging pocket of the market to scale, requiring sometimes significant capex for new production systems, and there I've seen some companies struggle. However, we have observed some of the large asset managers, like KKR and TPG, jumping in to provide a broader spectrum of capital alternatives, which is great to see.

Nomura Greentech as an advisor, and Generation as an investor, have had parallel experiences in seeing sustainability moving from the peripheral to the core. Are you confident that this momentum will continue?

Yes, we are confident that the momentum around more sustainable business innovation is still in the early innings. We actually track these shifts in our annual Sustainability Trends Report. Our 2020 report was released in July. The report draws on more than 190 sources, and now is in its fourth year. It provides insight into the transition to a sustainable economy, the accelerated steps made partly because of the global pandemic, as well as the critical choices now facing governments, businesses, and investors to ensure a healthier, safer and more equitable world.

Key findings from the 2020 Sustainability Trends Report include:

- A rising awareness of the need for change: the data in the report confirms that the pandemic triggered fundamental changes in consumer and social behavior. This is matched by an acceleration in innovation by governments and businesses.
- The report finds a growing awareness that the world's collective social and economic fate is inextricably linked to that of the natural world. There is now a shared understanding of what an existential threat might look like. The consequences of ignoring scientific advice and of poor governmental decision making are in focus.
- The report finds that to limit global temperature rise to 1.5 degrees Celsius – in line with Paris Agreement targets – greenhouse gas emissions need to fall by 7.6% per year for the next decade. That is more than the drop expected in 2020 due to COVID-19.
- The report also highlights the many ways in which the burden of the crisis has fallen unequally, reinforcing and highlighting unfairness across societies. It argues that addressing these historical injustices – reflected in the Black Lives Matter movement – must be at the center of a transition to a sustainable future.

What themes or trends in sustainability are you most excited about over the next 5-10 years? With a longer-term perspective, perhaps through the second half of the century, what are macro changes and drivers you anticipate?

If you ever meet someone from Generation, you will probably hear the word “roadmap.” These are market maps that help us research the future and how sectors will evolve, and identify the risks and opportunities associated with sustainability.

As a firm, Generation has completed 280 roadmaps, and 120 of those have been completed by the Growth Equity Team.

Recent roadmaps have included: “Asset and facility management software” as part of Energy & Buildings, “personalized medicine” under Healthcare coverage, and “alternative protein,” which framed our most recent investment into a novel protein company called Nature's Fynd.

As an example, our Agriculture & Food coverage area is one which has been built up over a decade, including three roadmaps on tracking plant-based trends since 2015, three on biologicals in agriculture, two on logistics and last mile delivery, two on environmental intelligence, one on soil health, and so on.

Recently we had a great roadmap debate on “Restaurant Software and Commercial Food Waste” – this is one that was a refresh built upon our initial coverage of this space in 2015 and informed by our investment in a company called Toast. A fact I was reminded of again was that “if food waste were a country, it would be the third largest greenhouse gas emitter after the U.S. and China.” That, plus the current market dislocation related to COVID-19, makes this an important time to recast our work and think about not just the environmental opportunity of waste reduction, but the social and financial inclusion opportunity for technology disruption to improve restaurant profitability and viability through this crisis.

Are there any themes in sustainability around which you have a contrarian view?

We do take a contrarian view in that we will be very long-term oriented, and perhaps see a market transition before others.

Back about five years ago, we were very early to identify the trends towards electrification, automation and sharing in the mobility sector. This is an area where we have made several investments over the years including Proterra, Motivate, Greenroad, Gogoro and Deepmap.

Last year's Sustainability Trends Report cited that 2019 marked a milestone as the world reached five million electric or plug-in hybrid vehicles on the road, over 1,500 bike sharing schemes and, in the U.S., 70,000 alternative fueling stations. Many countries have set dates to permanently end sales of petrol and diesel cars.

At the same time, the WHO cited that 90% of children still breathe toxic air, and congestion in major cities continues to increase while public transit ridership is in decline.

I mentioned the future of work and thinking about remote collaboration and distributed workforce back in 2015. We would have never expected that this would play out this way, but certainly we see an acceleration on the appetite for distributed workforce with COVID-19.

Today, we are quite bullish about the future of personalized medicine, the adoption of biologicals in agriculture, the advances of non-animal protein and the acceleration of green data infrastructure for cloud computing, just to cite a few examples.

You've been working in and around sustainability for over 15 years. What has surprised you the most in the way the space has changed?

One of our favorite quotes that we often refer to at Generation is by the economist Rudi Dornbusch, "In economics, things take longer to happen than you think they will, and then they happen faster than you thought they could." I truly did think back in the 2008-2009 timeframe that we were on track to put a price on carbon in the U.S. We had the Waxman/Markey bill and were in an environment where that could have taken place. So, it is astounding to me how long it has taken for us to have a more significant price signal related to pollution.

That said, 2019 proved to be a seminal year in terms of mainstream coverage of impact investment and sustainability. The topic of climate change rose to the top of the World Economic Forum's global risk matrix, traditional investment groups like BlackRock made bold climate commitments and more and more companies are setting an internal price on carbon or adopting net-zero targets. Discussion of diversity at the board level, the true costs of income inequality and how to address the Sustainable Development Goals ("SDGs") are becoming more common investor topics. As we entered 2020, we were seeing increased attention to Environmental, Social, and Governance ("ESG") disclosure and were glad to see progress at many levels.

Then the past nine months have been unprecedented in terms

of a health crisis, an economic crisis, and a still-looming climate crisis. There has never been a more important time to think about systems-positive investing and the imperative to "Build Back Better." In July, two of our founding partners, Al Gore and David Blood, just published an op-ed in The Wall Street Journal which advocates for that and we are heartened to see this philosophy play through into some of the public discourse now too.

Having worked in finance for much of your career, how have you been able to navigate a field that is dominated by men? What obstacles need to be removed for the industry to become more diverse?

Diversity and inclusion are topics that have only grown in importance over my 15+ years in finance. It has not reached a tipping point yet, despite global attention and social movements. I just don't think – especially in the finance sector – that we've made enough progress. I must say there were times, especially when I used to be a public equity analyst, where I'd end up at an analyst day and be one of three women in a room of hundreds. I think private equity traditionally has been just as poor in terms of the metrics around female participation.

According to Prequin, 18% of private equity employees worldwide are women. This is the lowest figure of any asset class and is unchanged from 2017. And only 10% of senior roles at private equity firms are occupied by women.

Generation has and will continue to focus on diversity, equity, and inclusion as a key business topic because it is conclusive that more diverse teams make better investment decisions. Full stop. And while we have made progress in gender diversity at our firm, we still have distance to travel in terms of broader diversity, and this is a key priority. If we don't learn, build capabilities and join forces with co-investors, clients and others on this topic, we will not succeed in delivering sustainable capital allocation.

Who is your sustainable hero and why?

I get to work with one of them every day. I could list several people like the late Edward Abbey or Rachel Carson, or current leaders like Paul Polman, Christiana Figueres and Greta Thunberg, but I can't tell you what a privilege it is to work alongside Al Gore, among my other partners at Generation. To see Al host a Solutions Summit on any number of topics like the future of food, the future of mobility, or the future of health-care is to watch a true systems thinker at work. Rarely in my career have I seen someone able to operate at 30,000 feet and three millimeters in terms of depth of knowledge on topics related to sustainability. It is inspiring.

Earth, Wind, and Power Player

Anja-Isabel Dotzenrath, CEO of RWE Renewables, oversees 3,500 employees across APAC, Europe and the U.S. and puts employee well-being and health and safety as her number one priority. Anja has utilized her foundational training as an engineer to lead RWE Renewables to help solve the world's environmental problems, and is encouraged by trends in floating offshore wind, hydrogen and energy storage.

Anja-Isabel Dotzenrath, CEO, RWE Renewables

At what point in your life did you feel compelled to play a role in creating a more sustainable future?

During the 1970s and '80s the phenomenon called acid rain was one of the most well-known environmental problems in Europe and North America, appearing frequently in the news. I started to realize then that our world as we know it and the future we want were at risk.

My insight on the importance of sustainability topics grew over time. I am an electrical engineer by training and motivated by the benefits of technology development. I am driven by thoughts on how new energy technology can contribute to carbon neutrality, access to energy, and also affordability.

How has your experience working and living in multiple countries with diverse approaches to energy policy and sustainability shaped your perception of how the world can move towards a more sustainable global society?

If I look around the world it is evident that mental models regarding how we live and how we do business are changing. 2015 was a decisive year. The Sustainable Development Goals, the 2030 Agenda for Sustainable Development and the Paris Agreement were adopted that year. This is tangible proof that we can find global solutions to global challenges.

Yet what is also true is that despite considerable efforts we are not on track to achieve the 2030 goals. The COVID-19 pandemic, with the ongoing health and economic crises, should be used as a catalyst to get the world on a more sustainable track and accelerate efforts towards climate-neutrality. Look at what is currently happening in Europe. As we speak, the debates in Brussels on the stimulus package – is a chance to shape the stimulus package to drive sustainability.



ANJA-ISABEL
DOTZENRATH



Image credit: RWE Renewables

The efforts to stimulate economic activity which are being developed now will shape of our economies and lives for the foreseeable future. This decade will be decisive for people and our planet. We as individuals, corporations, and governments need to stay fully committed.

How has COVID-19 impacted your business, and what actions have you taken as a leader to help RWE come out of this crisis strong?

We are relieved that our staff was not heavily affected by the virus so far. Of course, running a business across so many different countries in APAC, Europe and the Americas demands we stay alert. The developments in the US for example are very worrying.

We are responsible for our people but also for society because producing electricity is critical. RWE has a culture of working flexibly and remotely as we are an international organization that works in global teams. That helped us in the crises as we had the necessary digital infrastructure already in place to have the vast majority of the workforce work from home.

It is also important for me to focus on the mental well-being of our teams in such special times. The lack of in-person interactions for our colleagues can lead to feelings of isolation and distress. Additional stressors like taking care of kids, or vulnerable family members have to be taken into account.

We have provided maximum flexibility for our colleagues - work from anywhere, anytime. Also, post COVID-19 this will become the new normal.

On the project side, we have some minor delays because of supply chain disruptions, and we are working very closely and collaboratively with our suppliers to find solutions.

This decade will be decisive for people and our planet.

What are your top priorities as CEO of RWE Renewables?

My number one priority is Health and Safety. That is why we implemented a management system focused on "Zero Harm."

Given that we are in a post-merger situation, cultural integration is another priority. At RWE Renewables, three corporate cultures come together: former E.ON, former innogy and RWE. The task is to weld together 3,500 highly qualified and motivated colleagues to form a new team aligned via the same purpose and goals, and to create an inspiring company culture.

From a shareholder and external societal perspective, we will be measured by how well we manage to deliver on our ambitious

renewables growth targets and our contribution to the energy transition.

RWE has a goal of carbon neutrality by 2040 - do you see this as attainable? What will be the biggest hurdles to getting there?

It is more than a goal – it is embedded in RWE's purpose: 'Our Energy for a Sustainable Life.' It means much more than the energy we produce, it is the energy everybody at RWE puts in every day to make the energy transition happen.

It's backed by a clear plan: RWE has already lowered its CO₂-emissions since 2012 by more than 50%. In 2030 it will be minus 75%, and by 2040 climate neutrality will be reached.

The whole company is united and committed to this plan – colleagues in conventional generation as well as in the renewables business.



Image credit: RWE Renewables

Out of all of RWE's R&D projects, like thermal storage, hydrogen, geothermal and more, which do you see as having the greatest likelihood of taking off and making a scaled impact?

I would name three technologies: floating offshore wind, battery storage, and hydrogen. All of them are key to deliver full decarbonization of the energy system.

Offshore wind will be key in many regions around the world to decarbonize the energy system as there is simply not enough land available. In the E.U. for example, 450 GW of offshore wind has to be built by 2050. Floating offshore is needed to access areas for renewables production where water depth limits the potential for fixed bottom solutions, such as in Japan or the West Coast of the U.S. and where demand for renewables capacity in the future will require installs in very far offshore areas.

Battery storage is important to balance the intermittent character of renewables over shorter periods (up to a few hours), stabilize the grid (T&D deferral), as well as foster sector coupling with the transport sector.

Green hydrogen will be key to foster decarbonization in the industry, and serve for the long term balancing of intermittent renewables production, one example is the summer winter shift.

RWE is well positioned in all these fields and willing to take the challenges.

Energy is the key to economic development and to human and social well-being.

How does RWE set itself apart from its competitors?

RWE Renewables masters four technologies at scale: offshore wind where we are number two in the world, onshore wind, solar and battery storage. It is a good starting position to be one of the world's largest producers of green electricity. Scale matters in this business.

We are fully integrated along the value chain from origination of projects to engineering, commercialization, construction to self-perform operations, so we can address all value pools to produce clean electricity as competitively as possible.

We are disciplined and focused with regards to where we invest. We are active in 20 countries with strong fundamentals in terms of market size, growth, political and regulatory stability and solid energy market design. We want to build sizable positions in every market we operate in to realize economies of scale.

Lastly, we have a 22 GW pipeline and the financial means to profitably grow. By the end of 2022 we will invest €5 billion net. Together with partners, our investment budget could reach up to €9 billion over the next three years.



Image credit: RWE Renewables

What advice do you have for women seeking leadership roles in sustainability focused fields?

In many aspects the same rules apply to women as to men: you need to prove yourself, stretch yourself, look for new challenges to develop and grow. This means working in different functions, different companies and different countries to nurture an open and global mindset.

I would always encourage women in particular to look at the leadership of a company. How diverse is it? Are there sufficient credible examples of women who made it into leadership roles?

What's a trend in sustainability that excites you?

I am particularly passionate about decarbonizing the energy sector. Energy is the key to economic development and to human and social well-being.

The share of renewables in electricity generation is increasing quickly. Yet the use of renewables for heat and transportation remains limited. Scaling of green hydrogen and storage technologies, and electrification of energy end uses are the next “big thing” and will become the drivers of decarbonization in the energy sector.

We also need to put more emphasis on providing access to

energy. Energy poverty remains extensive. According to current estimates, there will still be 700 million people in 2040 without access to electricity and billions of people are relying on solid fuels for cooking. Changing this – based on renewable energy – would be a major step.

Who is your sustainable hero and why?

Ursula von der Leyen, President of the European commission, for her ambition to make the E.U. the world's first climate neutral continent by 2050. The Green Deal can be a major step towards this target.

Counting Carbon

Jeff Eckel, Chairman and CEO of Hannon Armstrong, had an epiphany about the environmental footprint of proteins, wrote a critically acclaimed academic paper about the flaws in utility capital budgeting frameworks (only to then find it difficult to get a job at a utility), became enamored with the second law of thermodynamics, and then launched a career financing energy efficiency projects and took Hannon Armstrong public.

Jeff Eckel, Chairman and CEO, Hannon Armstrong

How did you first become interested in sustainability and energy efficiency?

It's hard for me to imagine a world where sustainability is not my focus. It has been since I was young. A pivotal moment came when I was seventeen and read Frances Moore Lappé's 'Diet for a Small Planet.' There was a bar chart in the book showing BTUs per gram of protein from beef, pork, chicken, goat, seafood, and soybeans. I remember exactly where I was sitting in the library when I came upon that data. Consider there are three reasons why people become vegetarian: health, compassion for animals, and environmental impact. And at seventeen, I was not particularly concerned with my health. But, the efficiency of resource use was profoundly impactful to me. I've always thought that you should get as much out of resources as you can without wasting them. I've always looked at things this way.

Tell us about your early career leading up to Hannon.

Every job I've held had to have a sustainability focus. It also had to make money because I didn't have any. If the job only had one of those components, and not the other, it wouldn't work for me.

I graduated from college in 1980. Along the way, I learned the second law of thermodynamics. The first law is, of course, that energy is a constant. The second law is that as energy is used, a portion of it is converted to useful work, and the balance is wasted. If you look at Hannon Armstrong's energy savings performance contracts and our investment thesis, you will see they are built on that concept.

Those concepts just stuck with me. I was in college when the Three Mile Island nuclear meltdown occurred, and that focused me on electric power and utilities. I went and got a Master's in Public Administration with a concentration on Energy Policy at Syracuse. I started thinking about capital budgeting for utilities. I was sure that building ten billion dollar increments of utility power capacity was at least risky, if not stupid.



JEFF ECKEL



Image credit: Hannon Armstrong

I got a cover article published about utilities in the Financial Analysts Journal. It was called “Assessing a Troubled Investment Environment.” I very proudly sent that article off to 88 investor-owned utilities to make the case on why they should hire me, and I got 92 rejection letters back. So here I am feeling crushed and without a job, and my co-author, a Syracuse University professor, suggested I talk to a guy doing utility supply studies. That launched my career through Booz Allen, then Time Energy Systems, the first U.S. energy service company. After that, I joined Hannon Armstrong and started a new energy project finance group, which was followed by stints at Wärtsilä Power Development and Energy Works, working on high-efficiency power systems and renewables in emerging markets, before finding my way back to Hannon Armstrong as CEO. I’ve basically been doing the same thing the entire time.

How has the business model at Hannon Armstrong changed over time? What caused you to decide to transform the business model of the predecessor company to focus on sustainability?

Hannon has always been a classic vendor finance shop even in the 1980s when I was doing efficiency and solar projects – the latter of which are still running today I might add. When I came back in '99, Mike Hannon said to me, “Jeff, we’re old, we don’t work very hard, and we’ve made our money. You’re young, you work like a dog, and by the way you are dressed, you clearly haven’t made your money. So, why don’t you take

this thing over?”

I came back with a whole head of steam on climate change, which had been my focus the decade I was away. There was no capital. The firm had operated 32 years with a thousand dollars of paid-in capital, so it was very much a transactional business that focused on reducing carbon. Nobody else cared about it, even in the company. But I knew that was what I needed to do to be happy. I knew that someday it would make money. I just thought it would make money a whole lot sooner than it eventually did!

In 2013, we took time for deep reflection on this business. We were making decent money, and a modest positive impact on climate change. But if we were going to make a difference, we would need capital. I was certain that clean energy was a large investable area that would produce outsized returns — and it was going to need a lot of capital. Thank goodness a few bankers and investors believed in us, and we went public that same year.

“I was certain that clean energy was a large investable area that would produce outsized returns – and it was going to need a lot of capital.”

What's exciting to you now? What trends do you anticipate in the next 4 to 5 years? Hannon has roughly doubled its AUM and its core net investment income since 2015, while at the same time nearly tripling annual avoided CO₂ emissions from 1.3m metric tons to 3.2m, proving that being sustainable and profitable can be a win-win combination. What initiatives currently underway at Hannon Armstrong are you most excited about for the next five years of growth?

Everyone is talking about green hydrogen, but for us that is further in the future. What excites me now is the convergence of technologies into true microgrids and smart buildings, taking things that nobody values and creating value out of that.



Image credit: Hannon Armstrong

I'm also amazed and enthused by what is happening in the convergence of the supply-side and demand-side of energy, particularly in what our clients are doing with their corporate clients. They can supply renewable energy and manage their commodity energy bill, and get on the ground to upgrade the infrastructure. This is what companies really want. They want someone to do it, certify it, report it, and get meaningful results in reducing their carbon footprint.

We have a strong alignment with our clients as to what the

future of energy will look like. It often starts with a very small transaction, and that's fine; we know if we perform the capital need will be orders of magnitude larger over time.

We believe the ability to offer permanent capital that is internally -managed with a stable team is a significant advantage we have over funds. That may sound very subtle, but it's an extraordinarily powerful combination. We know who we want to do business with, and our clients know they have a partner who is not going to have to liquidate a fund in seven years. We have seen so many instances where the client runs an auction to get the cheapest capital, and then they realize there are very long tails on these assets. Who your partner is really matters.

If we are going to get an acceptable outcome on climate change, we have to price carbon pollution.

Hannon has been a pioneer of the CarbonCount® system. Why is leadership in carbon and sustainability reporting important to Hannon?

The best way to think of the assets we invest in is that they are a means to an end. Energy efficiency, wind power, and solar power are a means to decarbonize, but the end is to decarbonize so we can avoid the catastrophic impacts of climate change and build a cleaner and more resilient future. We developed the CarbonCount® concept in 2015 as a tool for evaluating investments to determine the efficiency by which each dollar of invested capital reduces annual carbon emissions.

The notion is pretty simple: if carbon counts – and because of climate change it does really count – and capital is scarce, we ought to make the most impactful investments. This is a framework that is obvious to me, but has been elusive to a lot of people. I'm glad to see that's maybe changing now with the emergence of the Partnership for Carbon Accounting Financials (PCAF) gaining some momentum. It's very much aligned with CarbonCount® and it's encouraging to see we now have a global initiative that enables financial institutions to measure and disclose the greenhouse gas (GHG) emissions financed by loans and investments.

Our recent partnership with ENGIE on a U.S. solar and wind portfolio has a carbon count of 2.0, which is the metric tons of carbon emissions avoided by these projects. There is nothing inherently useful about that number except that relative to our overall portfolio, which is about 0.2 carbon count, you can say that it's ten times more impactful.

If we are going to get an acceptable outcome on climate change, we have to price carbon pollution. When that happens, our investments will be even more valuable, and we will have the knowledge of where that carbon is.

Do you believe, as a matter of public policy, that a price on carbon would accelerate decarbonization?

No question. Look at the rapid changes over the past 5-10 years in the wind, solar, and efficiency business. If anybody is not impressed with the power of markets from that experience, they're not really paying attention.

Once the carbon price is set, our clean power industry will be able to accelerate – and not just that industry – but also transportation, agriculture, and industrial sectors. The flip side is that fossil fuel companies' ability to attract capital will deteriorate even further. Investors will have to exit those investments for economic reasons. Frankly, we need both to happen. Let's find the political will to do that.

What are the biggest obstacles to increasing carbon and sustainability reporting in the finance industry in the future? Will we ever have a universal standard like the US GAAP or SASB standards for carbon and sustainability reporting?

One of our clients said the wonderful thing about reporting standards is that there are so many to choose from, and that is a problem.

As mentioned before, we're very impressed with what PCAF is doing. Their initiative has tremendous potential to bring prompt changes in portfolios, addressing the financed emissions problem and putting us in line with what science and the Paris Agreement calls for.

I've said before that investors need to consider whether an incremental investment is good or bad for climate change. It is a simple question, but hard for a lot of banks to ask themselves because of legacy businesses.

Investors also need to report on every investment, not just the ones they want to talk about. The third piece is the efficiency with which we are using capital to reduce carbon, with a metric like CarbonCount® and what PCAF is proposing.

Who is your sustainable hero, and why?

Amory Lovins and his concept of soft energy paths. If you look at what he articulated 50 years ago and the timelines he projected, they were quite on track. He has done a marvelous job and is still doing great work as co-founder and chairman

of the Rocky Mountain Institute.

Also, my two daughters, Elizabeth and Madeline, who for 20 years have been even more thoughtful eaters than I have been!



Image credit: Hannon Armstrong

Looking back on your career, what advice would you give your 22-year-old self? Speaking to young people today, what should they do if they have a passion for accelerating sustainability?

Embrace the instability that is inherent in this decarbonization battle. Work with companies that are growing, but perhaps a bit unstable. You will learn a lot, perhaps become unemployed occasionally, but you will come out of it with so much more experience than somebody who chooses a more conventional path. Take the risk when you're young because it's harder to do that later.

If you have a passion for sustainability, get the skills to match it. Master the conventional analytical and quantitative skills to be useful in the industry. I would also suggest gaining intellectual capital by getting a Master's degree in any one of the hundreds of brilliant energy and environment programs that are out there today.

Lastly, because we love reading and talking about books at Hannon Armstrong, I would recommend young people read *Energy and Civilization: A History*, by Vaclav Smil. It is not an easy read, but you will understand carbon, energy, and physics in a way that will be a foundation that you can lean on throughout your sustainability career.

Moving the Energy Transition *Forward*

Pooja Goyal, Partner and Head of Renewable and Sustainable Energy at The Carlyle Group, for over 15 years has aided the energy transition by investing capital in teams and projects which are rapidly decarbonizing power. Harnessing the global resources of Carlyle, Pooja is able to utilize her extensive industry relationships and knowledge to back high quality entrepreneurs with the vision and foresight to make the world sustainable.

Pooja Goyal, Partner and Head of Renewable and Sustainable Energy, The Carlyle Group

You joined the Alternative Energy Investing Group at Goldman Sachs in 2005, when the renewable energy industry was nascent. What prompted your interest in the sector and what has kept you engaged during the past 15 years?

I began my Goldman career in the leveraged finance group within the Investment Banking Division and most of the deals I worked on were in energy and power. At the time, commodities financing in the E&P space was quite esoteric, so I was able to develop a strong understanding of corporate finance while building sector expertise. After doing that for a few years I wanted to move to the buy-side. At that time, The Special Situations Group was looking for someone with insight into both corporate finance and energy and power to support their renewable energy effort, a role I ended up taking.

Within the sector we had a lot of flexibility as to how we deploy capital, and as market conditions changed – for example when the global financial crisis happened – we were able to adapt. So that kept things intellectually interesting for me, and it was particularly tangible to see how the energy transition was creating interesting commercial opportunities within the ESG framework. Even today, it is incredible to see how the renewables industry has evolved. When I started investing, the industry was heavily dependent on government subsidies and alternative energy was expensive. But now, renewables are cost competitive with fossil fuels even on a subsidy free basis.

When you are part of a sector for so long, it becomes a significant advantage to stay in that industry. It teaches you pattern recognition that is specific to that industry – I have seen business models that do and don't work. My personal commitment to the sector has also enabled me to create and cultivate enduring relationships across the industry with executives, entrepreneurs, advisors and other market participants. I have been fortunate in my career to have made a commitment to a sector that not only provided for exciting investment opportunities and high quality entrepreneurs with the vision and foresight to make the world sustainable but also reached the scale and potential to grow over the next several decades.



POOJA GOYAL



Image credit: gettyimages/Yaorusheng.

Last year you moved to Carlyle to lead the dedicated Renewable and Sustainable Energy Team. What drew you to the opportunity?

I was drawn to Carlyle's very specific vision and commitment around the energy transition. I believe the investing opportunity set in renewables and sustainable energy is global, scalable and not only a logical but critical pillar within an asset manager such as Carlyle. Carlyle's decision making was and continues to be very deliberate; institutionally a lot of background work had been done on deploying capital to advance the energy transition. We believe making private capital available for businesses looking to grow is important. Private capital is patient and flexible; you have the ability to think strategically with senior company executives and board members in terms of how to grow a business over time. Being a part of Carlyle, you have many resources that you wouldn't necessarily have access to elsewhere. For example, we have the ability to think about take privates, corporate carve outs for development platforms that currently sit within utilities or OEMs, and we have the flexibility to offer multiple capital solutions given our resources. We also have the network and capabilities to provide management teams access to new markets or clients. I now have access to more tools that are accretive to my skill set.

The renewable energy industry has attracted a large and diverse investor universe, resulting in high competitive intensity for many deals.

What sets Carlyle's strategy apart in terms of finding value? How do you differentiate your capital when engaging with potential counterparties?

There is definitely an arms race around raising capital for renewables. Carlyle sets itself apart because of our expert team and credibility. Our renewables team comes from the industry and we all have strong investing backgrounds. Management teams are sophisticated when choosing the right financial partner. Our investment team's background in development, renewable energy and even conventional power along with the financial reach and reputation of Carlyle, makes for a very compelling value proposition with our partners. You asked how we engage with potential counterparties. Culturally, we don't use that mindset. We don't have counterparties and instead we have partners. We want to work with our business partners to see them thrive and with the right alignment, our success is driven by the success of these businesses.

There is definitely an arms race around raising capital for renewables.

Despite the abundance of investors seeking to deploy capital in the space, do you still see unmet funding needs?

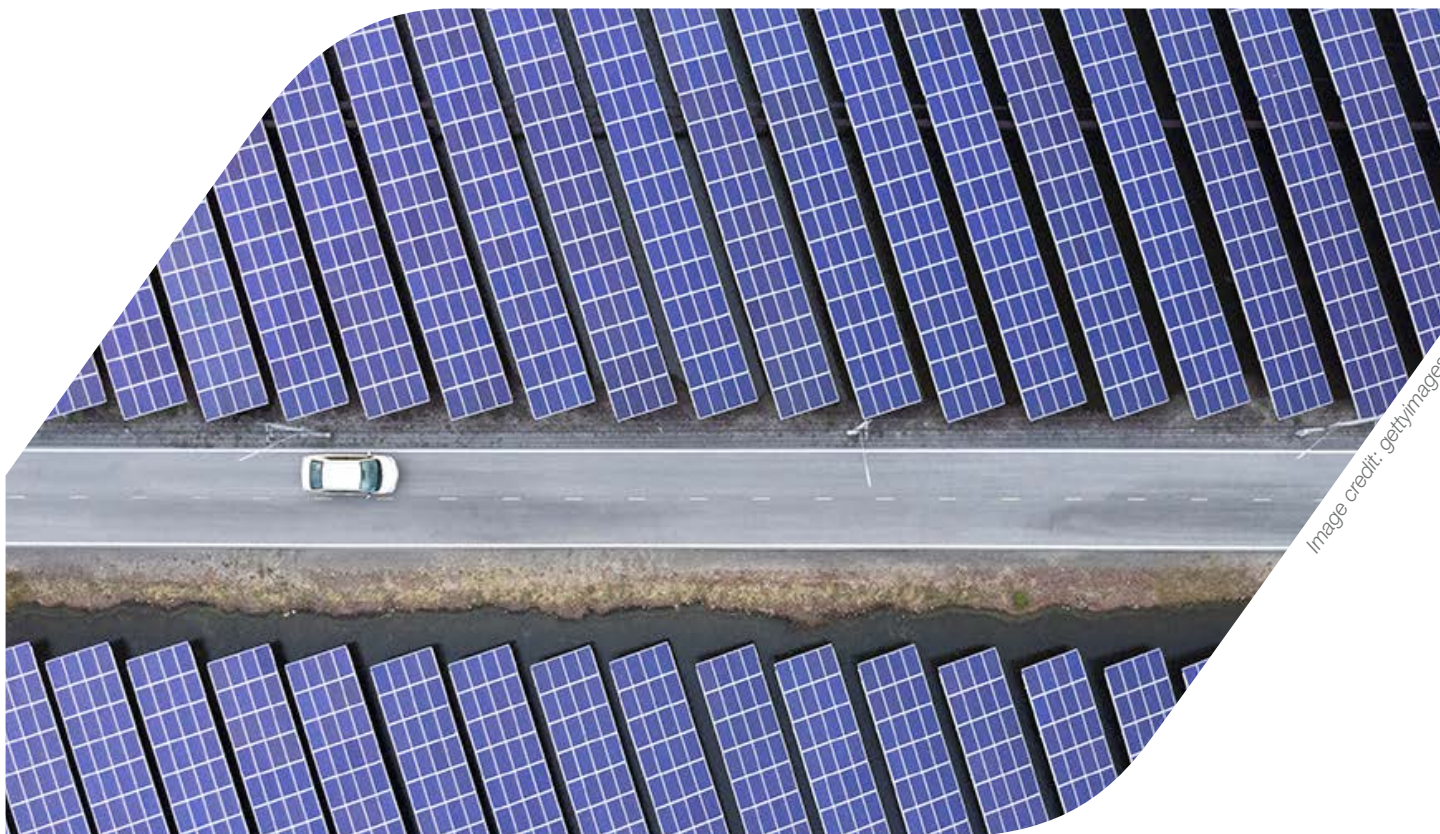


Image credit: gettyimages

What is behind the shortfalls in those areas?

Yes, there is an abundance of investors looking to deploy capital in the space. But for platforms such as ours, we continue to see attractive opportunities with proven management teams. The macro fundamentals are driving the need for capital. As the energy transition transpires, we will continue to see a need for capital.

Renewable energy projects are generally becoming more exposed to merchant risk at a time when wholesale power pricing is under pressure in many markets. How does an industry – and an investor base – that is accustomed to having long-term revenue contracts evolve?

We believe it's only going to get increasingly complex and Carlyle thrives in complexity. Experience and creativity will matter more. Amongst my team, we have experience working on all of the offtake structures out there. At Carlyle, we currently own and operate over 7 GW of thermal capacity in the U.S. As a result, we know power. Our broader capabilities inform our capital allocation decisions around markets and specific geographies that continue to have potential with or without long-term revenue contracts. Candidly, this is an area where we can support our management teams and ensure that high quality projects reach fruition.

Numerous independent developers in the U.S. have been acquired by strategic companies during the past several years. Do you see the industry continuing to consolidate in the hands of balance sheet players? How would that change the opportunity set for private investors like Carlyle?

I agree that consolidation is occurring, but there is still significant fragmentation across the value chain. Look at residential and C&I solar, for example. Although there is some consolidation, we are still seeing many opportunities to partner up with smaller, regional leaders.

Also, wearing my private equity hat, it's in my nature to pursue larger deals, so we like to see that transactions are getting bigger. We have enough flexibility where we can deploy smaller or larger checks with varying financing structures.

YieldCos had a brief heyday before falling out of favor with public equity investors, and several have been taken private or merged. ESG stocks have since regained momentum, however, and are outperforming during recent market volatility. Do you see the public equity markets reemerging as a prominent source of capital for low carbon infrastructure?

It's difficult to apply a broad stroke assessment across various public companies because they are all valued differently, so I wouldn't want to make a general statement. I will say that today, private pools of capital for investment in this space are generally more competitive than public capital. We certainly monitor developments in public markets closely as a potential exit option. Overall, not every business or portfolio should be publicly listed. Executives do have to evaluate the nature of their business, earnings profile and capital needs over time when deciding whether to go public or stay private.

Sitting where we are today, in the middle of a global pandemic, renewables as an asset class continues to be resilient and an important part of the recovery story going forward.

What are the most significant threats to the overall energy transition?

I don't see much by way of binary factors given how much costs have declined, but there could be factors that lead to a slowdown, for example macroeconomic headwinds. Sitting where we are today, in the middle of a global pandemic, renewables as an asset class continues to be resilient and an important part of the recovery story going forward.

You work at the intersection of finance and renewable energy, two industries in which women are underrepresented. How has that affected you? Are you seeing more women pursuing careers in renewables? What obstacles need to be removed for the industry to become more diverse?

Being in the minority definitely makes your job harder. I have always believed in tenacity, hard work and ultimately the quality of work being the most important determinants of success. Having said that, institutional support is important to enable that success. At Carlyle, over 50% of our assets under management are run by women. That is unique in the private equity industry and was important to me when deciding to join Carlyle.

Regarding the gender gap in renewables or infrastructure, I don't think change will happen overnight, but hopefully we can contribute to incremental changes and build more diverse and inclusive workplaces moving forward.



Image credit: gettyimages/Yaorusheng.

Are there any sustainable infrastructure themes in which you have a contrarian view, whether binary or in terms of adoption timeline? What has you most excited as you look ahead to the next several years?

I am skeptical about some of the growth projections relating to decommissioning of conventional power assets – I think people are overestimating the rate of decommissioning of coal and nuclear. I like to take the view that these projections are upside scenarios.

Conversely, I am very excited about batteries and storage – we have spent a lot of time in the space. I personally am very excited about new business models that are challenging the status quo around energy distribution and consumption more broadly. While these deals are typically smaller in nature, there could be a greater upside if you are patient.

Powering a Sustainable Future

Sarah Slusser went from Wall Street to a leading global Independent Power Producer to founding two clean energy companies before becoming CEO of Cypress Creek Renewables. Crediting her success as a leader to being a good listener, Sarah's interest in sustainability began as a young girl watching President Jimmy Carter's fireside chat on energy, and she remains mission driven in her leadership at Cypress Creek.

Sarah Slusser, CEO, Cypress Creek Renewables

Throughout your career, you have repeatedly achieved success as both an investor and in operating and guiding a variety of different companies. To what or whom do you attribute your success?

I was fortunate to start my career steeped in the numbers as an analyst at First Boston. I believe that is the best way to understand the core of a business, and then you build from there. After business school at Yale, I wanted to take a more holistic view of the energy sector beyond finance so I found AES, which was a small startup at the time. What immediately drew me to AES was the core values: fun, fairness, social responsibility, and integrity. I remember those values to this day. Here was this small startup challenging the goliath electricity sector with the least cost energy model. It was such an exciting time and I found my home in energy for the next 21 years at AES. What was also special there was that young people like me were given tremendous responsibility. It was really exciting to not be siloed. Everybody was asked to be a generalist, so you learned a broad set of skills. It meant learning the permitting aspects of the business, community relations, land acquisitions, EPC contracting, project finance, you name it. AES also set itself apart by being a long-term owner and operator of its facilities which built in me a strong desire to be a long-term investor and owner of these long-term assets. For AES that meant building a company that would last for the long haul. Importantly, owning and operating power plants really creates a virtuous cycle where you bring back into the front end of development the nuts and bolts of operations so that you can continuously improve your development cycle, which is really something my team and I have brought to Cypress Creek Renewables in the last year.

After AES, I founded two companies, GeoGlobal Energy and Point Reyes Energy Partners. I kept a lot of the principles I learned at AES in mind as I proceeded with these new companies. I certainly wanted every company that I would work for going forward to be mission driven. I was also very focused on making sure that young people who worked for me would have a chance to become well-rounded business



SARAH SLUSSER



Image credit: Cypress Creek Renewables

leaders with the ability to tackle any challenges that came their way, so that they get the tools to build their own companies someday much like I got the tools from AES to build my own companies after leaving.

If I had to choose one word that led to my success it would be family. Being the youngest of five rambunctious children growing up in New York City, I had to learn to listen from a young age. So, I listened and I learned from all of my older siblings. And believe me, my siblings were very different from one another. I do think that being a good listener is a key factor in effective leadership. I've learned that multiple viewpoints can unveil all aspects of a problem, making decisions more informed and resulting in better outcomes. I also listened and learned from my parents who were great stewards of our large family and of their community. They taught me to respect the great outdoors, which is connected to my interest in sustainability. My mom was on the board of the Sierra Club Foundation and my dad was raised on a ranch in Northern California – a ranch that's been in the family since the gold rush and where we still farm today – so I feel very connected to the land which is another big part of sustainability for me.

Where did your interest in sustainability come from and was sustainability in your mind when you started your career?

There was a seminal moment for me when I was in high school.

I was watching the news and President Jimmy Carter was giving a fireside chat on energy. Wearing a sweater on TV, he explained very simply that the energy crisis we were facing wasn't just about national security, but also about conservation. Telling us to turn down our thermostats, he was really imploring all of us as individuals to make changes in our daily habits and that those individual changes could make a difference in terms of the energy profile of our country. That was pretty empowering for me. I was immediately energized by this and wanted to take it to the next level. I didn't just want to change my personal habits, I wanted to do something in the energy arena.

Being a good listener is a key factor in effective leadership.

My first real job was a three-week internship at a passive solar architecture company in Princeton, New Jersey. I lived in my sister's dorm room during this period and I rode my bike out to Route 1 and worked there for three weeks. This was in 1980, and solar modules were still too expensive to be realistic but passive solar energy design was gaining ground. It used common sense tools like how you orient the house, which building materials you use, and placement of windows and the trees in design. These were simple principles, but incredibly powerful. That was really my first job in the energy world.

Then at Harvard I majored in Geology because I wanted to better understand the earth's natural resources and how we could use them more efficiently. Being there, that's when I became interested in geothermal energy, and happily years later I was able to build a geothermal plant, so it came full circle.

What are the biggest challenges you see for sustainability and sustainable infrastructure?

On sustainability, there is no doubt the biggest challenge is population growth and the concomitant energy use in places that are not using renewables. Sadly, infrastructure for sustainability is still competing with traditional unsustainable sources of electricity, so that limits our acceleration. Along the same vein I would say that our regulatory bodies continue to lag where the technology capabilities are, and as a result they tend to favor traditional power sources. I think that is another impediment.

What industry trend or opportunity are you most excited about?

I'll say the obvious here, but the most revolutionary development is the fact that storage has become economic. This completely changes the game for wind and solar to contribute meaningfully to the grid. It's a complete game changer.

As a person that is on the front lines of the energy evolution, how do you see us getting to a scenario of 100% renewable energy and is that reasonable or even possible?

I think we're heading there as storage and offshore wind continue to decline in cost. Storage will accelerate the onshore wind, and we can continue to do solar at scale. I think we will get much closer to 100%. I do think it's possible in my lifetime.

The renewable energy market has continued to consolidate, with larger companies acquiring smaller developers. What has been driving this trend and do you believe it will continue?

I think it will continue. It's still pretty fractured, so it will definitely continue. Larger companies, like Cypress Creek, have great advantages in terms of procuring equipment. We get economies of scale. Capital is such a big component of these projects. Doing it on a portfolio basis or for a larger project is just much more efficient. Both from an equipment and capital raising perspective, larger is better. The same applies to storage.



Image credit: Cypress Creek Renewables

You have definitely had an eventful first year at Cypress Creek and there is no way anyone could have imagined having to navigate through COVID-19, but then you have also had to design and implement a new strategy for Cypress Creek. What have been the biggest surprises, both positive and negative? What suggestions would you give others that may face similar challenges at some point in their careers?

On the positive, from the get-go I was sold on the team. Our team is just incredibly passionate about and driven by the mission of powering a sustainable future one project at a time. I do continue to be amazed, it's like peeling an onion. I continue to be impressed by the depth and strength of this team as I have gotten to know them one person at a time.

We're building Cypress Creek into the leading solar independent power producer.

On the flip side, we've had to work really hard on establishing a culture of value creation. We've made tremendous progress on implementing value metrics across the company that everybody embraces and buys into. That has put us into a very positive competitive position today. My advice to others in the same spot I was in a year ago is to have faith that you can make change. We've made incredibly positive change in the last year and a lot of progress. It's taken a lot of work, but it is worthwhile. Our team is very tight and united in the mission and the goals of the company.

Throughout your career, you have had the privilege of seeing and navigating through a lot of change as the energy industry has evolved, both in the U.S. and abroad.

What future trends are you most focused on as you navigate Cypress Creek into this next decade?

We're building Cypress Creek into the leading solar independent power producer. This means we are focused on the entire solar lifecycle, including development, operations and maintenance, asset management and fleet ownership. Cypress Creek is poised to grow both with solar and storage, and storage will play a larger role going forward. In addition to utility-scale solar, I also think we will see more distributed generation, which is why we will continue growing the DG side of the Cypress Creek business, for resilience and for other reasons too.



Image credit: Cypress Creek Renewables

As a woman in the energy sector, how have you navigated a field that has been and continues to be dominated by men?

I try to stay true to myself. My age group has had the good fortune of following a generation that paved the way for us, so we can feel intuitively comfortable bringing female traits into the workplace.

I talk freely about being a mom or a wife or a daughter, and heartily welcome others to do the same. I try hard to be authentic which means I integrate my personal and professional lives.

With your experience in the industry and founding a women-owned and led company in Point Reyes Energy Partners, what needs to change with regards to diversity and how can the industry work to attract more women and minorities?

Sadly, as a country, we have so much work to do here. In the wake of George Floyd and the long history of racial atrocities,

we are working hard to find ways to bring more people of color and more women into Cypress Creek. I am a part of the Diversity Equity & Inclusion committee called One Cypress. The group had already started before I joined Cypress Creek. I asked if I could be a part of it, and thankfully they said yes. I have to say it's one of the most exciting parts of my job.

We are doing a lot to educate ourselves so we can be better citizens including holding a series of workshops on racial injustice, with the support of a history professor from UCLA, compiling a resource guide on racial issues including books, movies, shows, podcasts and articles, working to understand our own implicit biases through training and collaborating with others in the industry to share best practices and resources. Very importantly, we are working on ways to improve our recruiting and hiring practices to be more inclusive and to draw from local communities where we operate so our workforce reflects the diversity in the communities we serve.

Do you have any advice for women who are looking to enter or looking for leadership roles in the industry?

Interestingly, my advice to women is no different from what I say to men: first, know the numbers, this gives you authority. Secondly, pay attention to and be respectful of the people around you. Since nothing gets done alone, teams are critical for success. Being a good leader means listening to others and building from that. One of my tried and true personal mantras is that it is just as good to recognize other people's good ideas as it is to have come up with the idea. I also would advise young people to stay active. Getting exposure is a great way to learn and grow.

Who is your sustainable hero and why?

No doubt, Roger Sant, founder of AES. He put his money where his mouth is. He believed the essence of a good company is to be mission driven and specifically, he was ahead of his time on fighting global warming. In 1989, we planted 52 million trees in Guatemala to offset carbon. This was the first voluntary large scale investment in carbon offsets, and it was funded 100% by our company.

NOMURA greentech

WE LOOK FORWARD TO PARTNERING WITH YOU!



Jeff McDermott



Derek Bentley



Laurent Dallet



PJ Deschenes



Michael Horwitz



Olav Junttila



John McClure



Stephen Megyery



Frank Nicklaus



Diego Pignatelli



Damien Sauer



Alexander Stein



Duncan Williams

The Future Heroes

This magazine intends to bring our sustainable heroes and heroines to the forefront and celebrate their achievements and insights into how they are shaping our future.

nomuragreentechcommunications@nomuragreentech.com
www.nomuragreentech.com

NEW YORK

309 W 49th St
New York, NY 10019
United States
Phone: +1 212 667 9300

SAN FRANCISCO

Three Embarcadero Center, #1150
San Francisco, CA 94111
United States
Phone: +1 415 445 3800

CHICAGO

1 N Upper Wacker Dr
Chicago, IL 60606
United States
Phone: +1 312 234 9584

ZÜRICH

Bahnhofstrasse 26
8001 Zürich
Switzerland
Phone: +41 44 578 3900



SUSTAINABLE DEVELOPMENT GOALS



NOMURA
greentech