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As the largest operator of commercial ground and roof solar panels in the United Kingdom, Lightsource Renewable Energy is taking advantage of what will be the power of the future.

Images by Ben Lister

n a world becoming increasingly aware of the dangers of climate change, and looking for sustainable methods of power generation that are more environmentally friendly, renewable energy is a booming industry. In 2010, the founders of Lightsource Renewable Energy created what would quickly become Europe's leading solar energy company. Lightsource now operates the largest portfolio of commercial solar photovoltaic (PV) in the UK-with more than 1 gigawatt of solar capacity—and the company is growing by the day.

Managing Director Kareen Boutonnat has been working in the solar industry since 2008. Kareen spoke to *The CEO Magazine* about the future of energy, the challenges involved in running a solar energy company like Lightsource and how it works with the best staff and partners to ensure success.

The CEO Magazine: Throughout your time with the company, what have been the biggest changes you have overseen and how has the business grown?

Kareen: When I joined the company, Lightsource was effectively at the beginning of its growth. While other developers were spending a great deal of time finding new sites, Lightsource went in search of funding for projects and partnered with Octopus Investments, a leading retail investment company. This partnership has enabled Lightsource to dominate the

UK's commercial solar PV market, as it means we have been able to deploy large-scale solar installations at considerable pace while other developers were still trying to source funding for projects. I think that's what really propelled Lightsource to become the leaders of the UK market.

When I joined the company,
Lightsource had captured a large
share of the UK solar market, so
the focus has been on maintaining
and, ultimately, growing our
market share. The UK has a very
competitive ground-mount solar
market that has grown significantly
in recent years. However, we have
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26 per cent of the large-scale market share and in total we have about 16 per cent of the entire solar market share in the UK. We are number one in the UK and we're number one in Europe right now, as well as being third largest in the world, if you exclude China. Lightsource has seen phenomenal and significant growth. It is one of the most exciting growth stories that I've been involved with.

How do you think your past experience has shaped your leadership style?

My background is in software and IT. After completing a masters degree at Stanford University in 1993, I started working for a number of different start-ups in the Silicon Valley. I had always

"An important moment for the launching of the photovoltaic technology in the energy mix—Lightsource has begun a revolution in the British solar market that will soon reach Europe and the whole world. It is a privilege to work together." - Ander Muelas, CEO, Grupotec Renewables

closely followed what the venture capitalists were investing in and when I saw their focus shifting to the clean-tech industry, I saw it as a great opportunity to change field. I started to explore the industry further and, coincidentally, was headhunted by one of the largest EPC [engineering, procurement and construction providers, Solarcentury. It was through a very productive relationship with Lightsource, which saw more than £100 million of contracts signed. that I first met Nick Boyle [CEO at Lightsource] and he asked me to join the company.

My past experience in the US, working in a fast-paced environment with companies that have seen rapid growth, has definitely been a huge benefit when it comes to working at Lightsource as we have grown very quickly to 350 people in just four years. I think I was fortunate enough to go through the curve with a number of start-up companies as it has enabled me to

have the role that I have today in managing various teams with different backgrounds in different subject matters. My role at Lightsource has grown and evolved considerably as the company has.

What is your vision for the future of Lightsource?

It's a very interesting time for Lightsource at the moment, as I think the energy market is effectively redefining itself. There is a massive opportunity to challenge and change the traditional electricity supply market that we know today. I think that Lightsource has built a stable platform from which we can grow into new solar markets, as well as continuing to push forward with ground-mounted developments.

We have already opened two new divisions in the UK. The first is looking at commercial rooftop solar installations for small- and medium-sized business. We have created a solar power purchase agreement offer which enables businesses to have a free solar installation on their roof space and they then buy electricity generated at a considerably discounted rate. We've seen an amazing take-up of that new product in the market, as businesses are able to reduce costly energy bills without any upfront costs.

Our second new division is focused on residential customers. The average consumer today is paying about 13 pence per kilowatt-hour of electricity. Traditionally, anyone with an interest in putting solar panels on their roof would be looking at quite a high cost for installation or would often have to pay for electricity they weren't actually using to cover the cost of 'free' panels. Lightsource is able to offer a truly free domestic solar install.

The future for Lightsource will see the introduction of the 'connected home' concept, where a home has solar panels linked to an onsite storage battery which can be managed to deliver electricity to devices around the home whenever it is needed. A centralised system can be used to allow customers to power devices around the home, such as the thermostats for central heating or water heaters, at the most suitable time. When we see these systems being put in place, we'll see the end of the traditional utility model and give the end user total control of where they want their electricity to be used, allowing them to save electricity and money at the same time.

We have been entirely focused on the UK market since our inception and all of our assets are based here; however, we're now also exploring new opportunities globally. It's certainly an exciting time for us.

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What have been the biggest challenges and how have you worked to overcome them?

I think one of the biggest challenges is that the solar market changes so quickly. It makes it difficult to put together a traditional three- or five-year strategy, if you put together a plan and then six or 12 months down the line you have to revise it because of changes to government subsidy tariffs or changes in the supply chain. A further challenge has been the supply of Chinese panels coming from Chinese manufacturers and the whole EU anti-dumping regulation which has been put in place that has effectively changed the cost of solar in Europe. To succeed in the solar industry, it is essential that you are agile as a company and able to adapt quickly to external changes. I think that we're fortunate that even though we now have 350 staff, we have the kind of culture where it's easy to introduce change in the company. We have a dedicated team that have been able to rise to the challenges put in front of us, and our success is testament to their flexibility.

What gives Lightsource its competitive edge?

I think it's the combination of the leadership of our CEO Nick Boyle, the Lightsource business model, and the people who work here. Nick is a visionary leader who pushes boundaries and inspires people around him to do the same. He's full of ambition and that has been a driving factor behind our success.

I think that the initial concept for Lightsource being a developer, an owner and an operator of solar plants was the right business model from the start. To be able to generate secure revenue streams >



"We are really delighted to be able to work for Lightsource. We're really impressed by their achievements, leading the deployment of the PV technology in UK. We feel really comfortable working with their really professional and very nice team." - Mr Pablo Cuesta, CEO, Praxia

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over 25 years that are government backed is what many pension funds or institutional investors are looking for. We have effectively put the right business model in place and delivered upon our initial aims. That delivery has only been possible due to the people who work here at the company.

If you look at the talent that we have attracted, we have brought a lot of solar talent from around Europe to the UK. We have staff of more than 23 different nationalities that have brought skills to the table that have helped us become what we are today. It's all about identifying the right people and the right skills that can be integrated into the company. That's one of factors about the industry that I like so much-there is no predefined set of skills required, and many skills are transferable into the renewable energy market. It's an industry filled with opportunities.

What key values are paramount to the business?

Firstly, we're a very open organisation so we like to have an open and honest dialogue with our employees. Being able to tell them what is going on and where we are heading is very important to us. There is a level of trust between the employees and the company, which I think is critical when you have such a fastgrowing organisation in such a changing environment. Secondly, I believe we're a very ethical player in the way we interact with all of our suppliers, our supply chain and our customers. I think Lightsource has set a pioneering path in terms of professionalism in the industry. If you look at the solar industry in the UK, it was a very different industry four years ago and I believe we have helped set a very high benchmark for standards. This is something we want to continue to do to make

sure that this industry fulfils its true potential.

How does Lightsource work with key suppliers to achieve success?

Our solar plants are valuable assets that will be in place for 25 or 30 years, so it's important that they are managed effectively and efficiently from start to finish. We need to be sure that the people and the companies that we partner with on the supply-chain front, who will be our partners for 25 years, are the right companies to get the best out of these solar assets. It's important to make sure that we have a productive relationship with our partners and that the selection is done in a way where we're looking at a win-win situation.

We tend to work with only a small number of partners and ones that we have total trust in and can communicate well with. If you look at the names of companies that have been involved with the construction of our plants, for example, you will see the same names appearing over and over again. A good example of that is an EPC company called Grupotech, which is one of our major partners. Grupotech have been with us pretty much from the start and they have built maybe half of our portfolio. They are completely integrated into our team. Every time we have a new design we work closely with them to check it will fit in with the way they are building the plant.

How does Lightsource invest in its staff?

While we have outsourced some elements of plant installation, everything else is done in house. This in-house function is an important part of the Lightsource model. When you're a fast-growing company it can be difficult to find the time to do lots of training, but we have some of the leading industry talent in each of our in-house teams who have been key in developing staff by passing on their knowledge and expertise as each department has grown.

We are also doing management training because a lot of the people who have been here for a long time have moved into management positions. We have been able to help them to become good managers, so they can pass on their skills and really shape each department. That's been key to the business. The training for what we do is quite specialised, so it's also about making sure staff get a real understanding of what we do and also what is being done in other countries. Our teams regularly attend conferences around the world to learn and share industry knowledge.

A good example of this would be our operations and maintenance division. This team has grown to about 30 employees and they maintain and operate our plants on a daily basis. The head of the division has been to a number of conferences in Italy, "The training for what we do is quite specialised, so it's also about making sure staff get a real understanding of what we do and also what is being done in other countries."

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where plants have been operating and maintained for a longer time than in the UK, to understand best practice and bring some of these ideas back to streamline our processes.

Where do you see the renewable industry heading in the future and what role will Lightsource play in this?

I truly believe that the renewable energy industry will have a huge part to play in the overall energy mix of the future. More specifically, I think that solar has a definite role in this mix. You look at countries like India, where they have a very large portion of their population that doesn't have access to electricity at all. Solar technology is a no brainer in this situation to address many of the issues they are facing in terms of power generation and

distribution. I think that
Lightsource has the right platform
to become a leader in this market.
We want to be part of this
development and we want to be
part of that success.

The solar industry is driving towards a point of price parity with other forms of energy generation. Once we reach that point of parity there will be no need for government subsidies. The UK subsidies are reducing each year with the overall goal for solar energy to be able to stand on its own two feet and make it far more accessible for people. We believe we are not far off that point in the UK. We are seeing a number of new technologies emerging, such as large-scale battery storage, which will help us reach this goal. And when we do reach that point, the whole game changes for the energy industry. •