Clear thinking

As the world steers its way towards carbon neutrality and the immediate effects of climate change are brought into ever sharper focus, Claire Gardner, Marketing Manager, Europe, at Solis spoke to PES about what the future may have in store and how solar technology looks set to play its part.

PES: It's great to welcome you back to PES Solar Claire. Perhaps it would be good to begin with a short overview of Solis Inverters and where the company fits in the solar market if we may, for those readers who aren't so familiar with your work?

Claire Gardner: Our parent company, Ginlong Technologies was established in 2005 by entrepreneur, Yiming Wang who still leads the company today. He is driven and passionate about providing sustainable solutions which help to deliver against global carbon reduction targets.

In recent years Solis has become a top tier, respected string inverter manufacturer and we are proud of our top 3 market share position globally. We operate in countries across all continents and local teams provide service and support to our customers.

PES: As targets for carbon neutrality edge ever closer and the world of solar continues to develop too, presumably business is quite brisk for you at the moment?

CG: It's certainly been an interesting time over the last year or so hasn't it. The emergence of Covid -19 put the spotlight on so many areas of our lives that we had all perhaps overlooked.

Renewable energy and solar had been on an upward trajectory for some years and images of cities across the globe suddenly appearing in crystal clear focus with no smog hanging over them visualised the stark impact we all have on the world around us. 2020 turned out to be our most successful year yet, which we are incredibly proud of.

Quite uniquely we offer products from 700W all the way up to 350kW so whether it's a small new build residential property or a utility scale solar project, we have an inverter to fit every situation. The journey towards carbon neutrality is a long one and with the commitment and focus from all key players in the energy sector, it's one that we can all make together.

PES: It's always good to see systems and solutions being used in a real-world context to get a feel for their benefits. We noticed an interesting case study involving Solis Inverters recently, involving a carbon neutral fuel station in China. Can you give us some background on that one?

CG: Absolutely. This is a great example of different sectors across the energy spectrum working together for a higher common goal. Sinopec is China's largest petrochemical company and as such, can make a huge impact on reducing carbon emissions.

We are working with them on several projects like this to bring carbon neutrality to a batch of Sinopec fuel stations.

PES: It's not often we see the world of fossil fuels and clean energy colliding in this way, is it?

CG: I think we can expect to see more of it though. We are in a period of energy transition and unless there is a certain amount of collaboration across the different sectors, that transition will be a very difficult one.

This relationship and the fuel station project, demonstrate how working together can lead to the achievement of positive results.

PES: How did Solis contribute to creating the balance between the CO_2 reduced and the CO_2 emitted that the client was hoping for do you think?

CG: In mid-2020 we worked with Sinopec on the initial design and survey of the site as well as in partnership with Longi who were supplying the solar modules.

The project is BIPV where the modules are integrated within the roof itself so discussions and decisions on the solar system needed to happen at a much earlier stage than in more commonly used roof mounted systems.

Claire Gardner

This project utilises the Solis 110kW string inverter which delivers excellent efficiency at almost 99% and supports 150% oversizing making it both flexible from a design point of view and highly economical.

PES: Is this the first carbon neutral fuel station that you know of, and do you think this will become more common in the future?

CG: Certainly the first we have worked on in this way and the statistics speak for themselves. Solar power generation enables the fuel station to annually reduce over 81 tons of carbon dioxide emissions.

The site would annually emit 76 tons of carbon dioxide and therefore a balance is created between the CO_2 reduced and the CO_2 emitted. A genuine carbon neutral situation.

PES: China has a national target of carbon neutrality by 2060. Do you think this is realistic?

CG: Of course, it's not just the adoption of more solar power that will achieve that target

but signs all point in the right direction. In 2020 China was the main growth driver in solar installations, boosting its solar grid-connections by 60% to 48 GW.

PES: It's not just China of course, with many countries now having targets in place; it's a global effort, isn't it? Which other countries are you seeing leading the way in this regard?

CG: There needs to be a huge effort across the globe and this year's COP26 will be a good indicator of who the committed nations are.

There are now more markets that installed 1 GW per year than ever before. In 2018, there were only 11 countries, which grew to 18 in 2020, and this is expected to reach 29 by 2023.

PES: How are your products and solutions helping towards this?

CG: Our mission is to develop technology to power the world with clean energy. This runs through the business as whilst we look for new and innovative products to meet the needs of our different markets, we are committed to ongoing development of our core product range.

Now moving to its sixth generation the Solis string inverter offers one of the most technologically advanced solutions available.

PES: Are there certain countries where you have made more of an impact than others and how do you see this developing in the future?

CG: The Solis brand is particularly strong in North America and in the UK and is showing strong growth across other European markets.

The residential, commercial, and industrial rooftop markets in the UK are very strong for us. Greece is an emerging market and with strong relationships there, it is a utility scale market we see growing very fast over the next few years.

PES: Which countries or regions do you think will win the race to net zero?

CG: That's what we need a crystal ball for! As we all know, geopolitics will play a critical role in how fast or slow any market might move towards this. There are parts of the US that are well on the way to achieving it and equally we have the EU who seem committed to their targets.

PES: How do you think the solar market in general can help? Just how important is solar energy in meeting these targets?

CG: Solar is critical to reaching this target. For homeowners, landlords, business owners, farmers etc. the cost of installing solar is now lower than it has ever been. Solar's cost improved across the board for all segments with utility-scale solar now superior to fossil fuels in all unsubsidised investment cases.

Solutions for solar + storage are well established and the solutions for commercial and utility scale storage are continually improving. In most countries the network grid operators are at the mercy of their aging systems so storage solutions will be critical to any real success.

PES: It's certainly a very interesting time for solar and the topic of carbon neutrality with some exciting things to come don't you think? Is there anything particular in the pipeline from Solis that we can look forward to hearing about?

CG: Always! We've launched a new residential storage solution which delivers on both design and aesthetics as well as flexibility of battery choice. The FlexiONE is a sleek looking home energy storage solution that is rolling out now globally.

At the other end of the spectrum, we have a new 350kW inverter launching. Updates to the core range will see all Solis inverters move to our sixth generation to adopt higher input currents to make planning and designing alongside high-powered modules no problem.

PES: We look forward to watching things evolve and wish Solis Inverters all the best.

www.solisinverters.com