Whatever the weather

Providing reliable monitoring solutions for measuring onsite weather conditions continues to be an increasingly important part of successful solar projects through every stage, from planning and installation to maintenance. PES caught up with Eric Rollins, Business Development Manager for RainWise, to find out more about the latest technology for accurate weather monitoring.

PES: It's great to welcome you back to PES Eric; we've featured RainWise on previous occasions, but to recap, would you mind giving us a brief introduction to your company?

Eric Rollins: RainWise is a leading provider of high-quality weather monitoring solutions for various industries, including the solar industry. Our company was established in 1974 and has since evolved to offer advanced weather monitoring technologies and services.

Our PVMet weather monitoring solutions play a crucial role in enhancing the efficiency and success of solar projects. By providing accurate and reliable environmental data, we empower solar installers and operators to optimise their systems and make informed decisions. Factory tested and calibrated, our stations are not only highly accurate but compact and durable to ensure reliable performance throughout the life of the project.

PES: How has your development within the solar industry evolved, from when your company was first established back in the 1970s, to where you are today?

ER: When RainWise was first established, solar energy was still in its infancy, and there was limited understanding of how weather conditions could impact solar power generation. However, as the industry grew, the importance of accurate weather monitoring became evident. Providing reliable monitoring solutions for measuring onsite weather conditions continues to be an increasingly important part of successful solar projects.

PES: What changes have you seen in the industry?

ER: In terms of industry changes, one notable trend is the scale of solar projects. We have seen a shift towards larger utility-scale solar farms and the integration of solar panels into various structures such as rooftops and carports. This expansion has created a greater need for accurate and reliable monitoring systems to optimise the performance and efficiency of solar assets.

Eric Rollins

In addition, there are a few trends we're seeing that lead to increased adoption and growth in the C&I and utility sectors, including improved efficiency and performance. Solar panel efficiency has improved over the years, meaning that modern panels can convert more sunlight into electricity. This advancement allows for better performance in various environmental conditions and increases the energy yield of solar installations.

We are also seeing more supportive policies and incentives, as many governments and local authorities recognise the potential of solar energy. Supportive measures include tax credits, feed-in tariffs, net metering, and renewable portfolio standards, which have encouraged investments in solar projects.

In addition, many commercial and industrial entities are now adopting solar energy as part of their sustainability initiatives. Businesses recognise the importance of reducing their carbon footprint and are increasingly turning to solar power to meet their energy needs in an environmentally responsible manner.

PES: With technological advancements, is it getting easier to keep track of the weather and collect data?

ER: Technological advancements have made tracking weather conditions and collecting data easier. We now have access to a wide range of weather monitoring instruments that can provide real-time and historical data on various weather parameters, such as solar radiation, temperature, wind speed, precipitation, and even module temperature. These instruments are becoming more affordable, reliable, and easier to integrate with solar monitoring systems. Solar operators can make informed decisions regarding energy generation, maintenance schedules, and overall system performance.

PES: What are some of the main challenges that your clients come up against and how can you help address these?

ER: We frequently assist numerous clients, particularly EPCs, who approach us for guidance on weather monitoring solutions without clearly understanding their needs. Given the technical nature of weather monitoring equipment, deciphering the requirements can be challenging for those unfamiliar with the field.

We understand that our clients may not possess precise knowledge of the ideal solution for their needs. Therefore, we encourage them to share their requirements with us, allowing us to offer our expertise in recommending the most suitable solution available. We tell our clients, 'You let us know your needs and let us be the experts in this matter.'

PES: Reliable environmental hardware and data reporting is enormously important in this sector isn't it?

ER: Absolutely, this is vital in the solar industry. Accurate weather data helps solar operators optimise energy production, anticipate potential issues, and ensure the longevity of their solar assets. It also enables them to comply with regulatory requirements and report on environmental performance.

PES: How does RainWise address this?

ER: One of the key factors that sets us apart is our rich history of providing durable and reliable weather monitoring solutions. We've been in the business since 1974, and over the years, we've honed our expertise in creating hardware that can withstand various environmental conditions, ensuring accurate data collection even in the harshest of climates.

Our PVMet weather stations are compatible with all major inverter and datalogger brands. We take a consultative approach with every customer. We work closely with solar projects, understanding their specific environmental monitoring needs, and tailoring their solutions accordingly. This personalised touch allows them to address the unique challenges faced by each project, helping them achieve greater efficiency and success.

By investing in rigorous testing before shipping, RainWise ensures that the PVMet weather stations perform flawlessly in real-world applications, providing trustworthy data to solar projects throughout their lifecycle.

Our dedication to excellent customer service is another critical aspect of our success in the industry for decades. We stand by our customers, offering continuous support, guidance, and assistance in interpreting the data gathered by their weather monitoring solutions.

Since being acquired by Nielsen-Kellerman, an established and award-winning manufacturer, in 2020, the business has gained access to additional resources, enabling them to focus even more on continual improvement. This ensures that the PVMet weather monitoring solutions are at the forefront of meeting and exceeding the evolving environmental monitoring standards.

PES: There are increasingly stringent environmental monitoring requirements too. What is your position on this?

ER: We continue to keep our finger on the pulse of the industry and evolving requirements. We always focus our R&D on what the industry needs. We started with weather stations that have only air temperature, back of module temperature, and low-cost silicon pyranometers. Our latest PVMet 500 can do ultrasonic wind, rain, barometric pressure, humidity, air temp, module temp, and any class thermopile pyranometer.

With the rising demand for renewable energy and solar projects, there are indeed increasingly stringent environmental monitoring requirements. We recognise the importance of meeting these requirements and are fully focused on supporting the industry's needs.

We are committed to helping solar installation projects thrive in an increasingly regulated environment. The PVMet weather monitoring solutions not only meet the stringent requirements but also offer the reliability, accuracy, and support necessary to make solar energy projects more efficient and successful in the long run.

PES: Perhaps we could finish up by looking at what are you focusing on at the moment in your product development?

ER: We are constantly focused on product development to meet the evolving needs of the solar industry. We are committed to improving the performance, reliability, and ease of use of our weather monitoring systems. Our ongoing efforts include incorporating wireless communication technologies, enhancing data visualisation and analysis capabilities, and exploring partnerships to leverage the latest weather monitoring and data management advancements.

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