Ralph Winter and Mario Eckl

Driving the future of solar

IDEEMATEC's Mario Eckl, Founder & Chief Executive Officer; and Ralph Winter, Chief Operations Officer, spend time with PES exploring the future of solar tracker solutions and look at how cutting edge technology and global partnerships drive sustainable solar energy solutions.

PES: We'd love to hear more about the innovative design principles behind your trackers that require less steel and fewer components. Could you elaborate?

Mario Eckl: It's my pleasure. Horizon L:TEC® trackers are designed around our patented drive system. This cutting-edge technology enhances the utility landscape and facilitates cost savings in production and logistics. The efficient design of L:TEC® provides the best possible LCOE during the tracker's lifetime, making for the most significant savings and best-in-class, eco-friendly trackers.

PES: How does the reduced steel requirement in the Horizon L:TEC® design enhance logistical efficiency, and what impact does this have on the overall sustainability of your projects?

ME: The reduced steel requirement enhances logistical efficiency by minimizing the volume and weight of materials needed for transportation and installation. This reduction in steel usage translates to fewer shipments, lower transportation costs, and reduced carbon emissions.

We can now ship 1 MW of trackers in an average of two containers, including foundations. Overall, this improvement significantly boosts project sustainability by conserving resources and decreasing the environmental impact associated with the production, transport, and assembly of steel components.

PES: In what ways do your global strategic reach and diverse production partnerships contribute to your leadership in the solar industry?

ME: They enhance our leadership in the solar industry by ensuring a reliable supply chain, localizing production to reduce costs, and increasing responsiveness to market demands. These partnerships enable us to leverage local expertise, optimize resource utilization, and implement sustainable practices across different regions.

This global presence and collaborative approach strengthen our market position and allow for the rapid deployment of innovative solar solutions worldwide.

PES: Regarding future sustainability initiatives, do you have plans to connect with green steel manufacturing hubs?

Ralf Winter: IDEEMATEC is committed to future sustainability initiatives, including exploring connections with green steel manufacturing hubs. This approach aligns with our goal to reduce carbon footprints and enhance environmental sustainability in our supply chain.

Moreover, we are participating in several new hydrogen projects in the early stages of development to help build a robust hydrogen infrastructure for multiple industries to capitalize on.

The more widely available hydrogen is, and the cheaper producers can get it, the more green steel will be available at market standard costs. This can further reduce emissions associated with steel production, contributing to a more sustainable and eco friendly solar industry.

PES: How is IDEEMATEC prepared for the growing number of local content markets worldwide?

RW: The Horizon L:TEC® design focuses on standardized components that are easy to manufacture and have the lowest number of drives per MW in the market.

Our excellent network of local manufacturing partners in South Africa enables us to provide over 90% local content.

Working with our network of local manufacturing partners worldwide in markets like the USA, Brazil, KSA, and South Africa, we can provide up to 90% local content and above in these markets.

This capability is significant for IDEEMATEC's operations as it enhances our competitiveness worldwide by meeting local content requirements, reducing import dependency, and supporting the local economy. This commitment to local content fosters strong relationships with local stakeholders, ensures compliance with governmental regulations, and positions us as a leader in sustainable and locally integrated solar solutions.

PES: Given the significant increase in shipping costs, how does IDEEMATEC's efficient design help mitigate these challenges and add value for your clients?

RW: Our efficient design helps mitigate increased shipping costs by reducing the weight and volume of required materials. Our innovative approach minimizes the steel content and number of components needed for our solar trackers, resulting in lighter, more compact shipments.

This shipping volume and weight reduction lowers transportation costs, reduces logistical complexity, and lessens environmental impact. Our global manufacturing infrastructure allows us to find the closest transport routes for each project, while the local production regions help to avoid almost all shipping. These efficiencies provide significant value to clients by decreasing overall project costs and enhancing sustainability.

PES: Can you elaborate on the production capacity built into your global supply chain?

RW: Our global supply chain has a secured weekly production capacity of more than 100 MW, which we can extend while maintaining a 30 day average raw material lead time. Our global supply chain produces in Asia, EU/ Turkey, and India, with several frame contracts in each supply chain.

Our local content supply chains in the USA, Brazil, South Africa, Saudi Arabia, and Australia can each guarantee 50 MW weekly production. We can ensure the highest service level thanks to our local on site teams in each key market, constantly working to develop new strategic partnerships and manage their piece of the puzzle.

PES: How do you ensure reliability and flexibility in your supply chain?

RW: Overall, we do this through strategic global partnerships, localizing production to meet regional demands, and maintaining robust supplier relationships. This approach helps mitigate risks, adapt to market fluctuations, and ensure a steady supply of materials. By leveraging a diversified supply network and implementing efficient logistics management, we can respond quickly to client needs and market changes, enhancing overall operational efficiency and client satisfaction. Streamlined processes and redundancies are key in production and procurement.

PES: You've taken an innovative approach and leadership in green steel utilization. Please elaborate on IDEEMATEC's development of a green steel supply chain and how it differentiates your company from others in the solar industry.

ME: Our green hydrogen production partner has announced a new MOU to launch a steel foundry powered by hydrogen produced with solar power. Austrian steel producers have already equipped their facilities with hydrogen for this purpose.

Over the years, hydrogen was a difficult market as off takers were few and far between. However, there is an exponentially increasing demand for hydrogen in the steel and chemical industries, making hydrogen production much cheaper as economies of scale come into effect.

It's our responsibility to use green steel in this industry; we are thinking long term and investing in the growing infrastructure. We are well positioned to be the partner of choice in this pioneering space. The future of steel isn't gray; it's green.

PES: How does your ISO 14001 Environmental Management System Certification reflect your commitment to environmental responsibility?

ME: We are all incredibly proud to receive our ISO 14001 certification. It proves we are more than just a mindful business but a dedicated group that takes environmental stewardship very seriously. We've planned and implemented a wide range of environmentally conscious practices that help minimize our company's and our product's environmental impact.

The certification process is no small task; an independent certification agency takes a fine toothed comb to our operational processes. This verification ensures we continuously improve and refine our environmental performance while always complying with regulations. Our current and future customers know they are partnering with an environmentally conscious company. That's a promise.

PES: Finally, it would be good to end by asking about your vision for the solar industry's future and how you plan to continue leading and innovating in this field.

ME: Our vision is to continue innovating with the best technology and delivering that technology to start solving real environmental impact challenges. We're striving for high class, environmentally responsible solutions, such as developing and enhancing green steel applications for the future. This long term thinking concerning consumption and emissions has and will continue to set IDEEMATEC apart as an industry thought and technology leader.

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