

SPECIAL SECTION: Industry Insights and Grid Innovation

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For power system expertise



Niclas Wetterstrand, Global Industry Director -
Utilities - Power Protection, Megger



John Gounaris, Vice President
G&W Electric



Holger Ketterer, CEO
SGB-SMIT Group



Dr. **Diego Robalino**, Global Industry Director - Power
Transformers, Megger



Stéphane Page, CEO
Condis. Power Grid Solutions



Jacco Smit, Senior Advisor Technology Cable and Lines
Chairman national CIGRE SC B1 Cables



Dr. **Bahadir Basdere**, President and CEO
Trench Group



Amanda Olson, Vice President
Burns & McDonnell



Usama Ahmed, Technical Director - T&D Insulators
and Solutions, Jiangsu Shemar Electric Co., Ltd.



Seamus Allan, Product Portfolio Manager
Dynamic Ratings



Bob Hobson, Associate Technical Consultant for
UG and Submarine Cables, Burns & McDonnell



Brady Jenkins, Senior Vice President
Jiangsu Shemar Electric Co., Ltd.



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Editor's Note: Sadly, I was not able to make it to Paris for the CIGRE 2024 event, one of the most important organizations globally, bringing together professionals from all segments of our industry for one reason, the betterment of society. But with the help of Ben Lanz one of our Executive Editorial Board Members and the staff at APC Media, we were able to capture great interviews with key leaders on the value of CIGRE and the Paris event. Enjoy!

Ben Lanz: We're here at CIGRE 2024 in Paris and my first guest is Seamus Allan of Dynamic Ratings. Seamus, what excites you about being at this event?

Seamus Allan: I love that CIGRE brings together people from all over the world to share their challenges, discoveries, and solutions. It's a place where utilities can stop reinventing the wheel. Utilities tend to work in isolation, but here we can come together, share solutions, and learn from each other. I'm a part of a working group on dynamic thermal modeling of power transformers, and it's amazing to see experts from all over the world sharing their models and experiences. It's an incredible learning and networking opportunity.

Ben Lanz: It sounds like a great environment for collaboration, right?

Seamus Allan: Yes, I would encourage everyone to get involved in industry organizations, come out of their offices, and share knowledge. There's so much we can learn from each other, and events like this accelerate that process. The more we collaborate, the faster we can solve the emerging problems we're all facing. I'd recommend investing in learning, relationships, and networking. It will benefit everyone.

Ben Lanz: My next guest is Dr. Bahadir Basdere the CEO of the Trench Group. Dr. Basdere, how valuable is CIGRE to you personally and to the industry as a whole and where do you see the industry moving and what are you seeing here at CIGRE Paris?

Dr. Bahadir Basdere: The industry is developing well, and there's a lot of excitement around new products and solutions. We're seeing more innovations in power quality and digital solutions. For example, there are drones for maintaining transmission lines and mobile robots for servicing HVDC converter stations without needing to shut them down. These innovations are reducing costs and making the industry more efficient. Service will play a crucial role in meeting the increased demand, as it will help extend the life of existing equipment.

Ben Lanz: It sounds like Trench is well-positioned to meet the growing demands. You mentioned extending the life of existing equipment—can you tell us more about that?

Dr. Bahadir Basdere: Yes, we have over 1.1 million components in the grid, and we know exactly where they are, and which customers are using them. We're planning to offer proactive service on these components to help our customers run their equipment for longer, in a reliable manner. This is crucial because, as much as the industry is growing, we can't build new capacity fast enough to meet the demand. Extending the life of existing components is a key part of the solution.

Ben Lanz: Your passion for the industry really comes through. Do you have any final thoughts for our readers?

Dr. Bahadir Basdere: Besides all the growth and demand, we shouldn't forget about the most valuable resource we have people and their knowledge. We need to attract young people to the industry, especially in areas like high-voltage electrical systems, production, and manufacturing. Engineers are essential for designing the grid, and skilled workers are needed to build the components. Ensuring we have knowledgeable people is key to coping with the industry's growth.

Ben Lanz: My next guest is Holger Ketterer, Group CEO at SGB-SMIT.

Holger, it seems that long-term collaboration sounds essential. Lead times are a real challenge, but those strong relationships must help mitigate that. You're here at CIGRE 2024. What value do you see in attending this event?

Holger Ketterer: CIGRE is unique. It's not just a trade show where manufacturers connect with suppliers or customers. It's a place where both come together. You see a lot of Transmission System Operators (TSOs), Distribution System Operators (DSOs), and suppliers. The conversations here are not just between sales and supply chain teams but involve deep technical expertise. The poster sessions and technical committees are great for interacting with customers and suppliers. It's a real community, and that makes it a special event.

Ben Lanz: The collaboration and sense of community are strong here. It seems CIGRE has grown from being a primarily transmission-focused event to one that also encompasses distribution and generation.

Holger Ketterer: Indeed. It has developed into an event that covers all aspects of our

industry, from transmission to distribution to generation. It's fantastic to see everyone here, sharing knowledge and working together on the industry's future.

I would encourage everyone to promote our industry, especially to the younger generation. We need more engineers and skilled labor to meet the challenges ahead. We should start talking about the energy sector's importance even in schools—let young people know that this is an exciting field to work in. We need passionate people who want to be part of solving some of the world's biggest challenges, from sustainability to technological innovation.

Ben Lanz: From sustainability to data and AI, everything requires power, and that makes this industry so crucial, right?

Holger Ketterer: Exactly! The shift from fossil fuels to electricity is the foundation of today's megatrends. It's what's driving the transformer boom, along with other developments like data centers, which were barely on the radar years ago. The future is electric, and transformers are central to that.

Ben Lanz: My next guest is Dr. Diego Robalino, the Global Industry Director - Power Transformers at Megger. Diego, from a power transformer perspective, what are the specific challenges you're observing in the industry? What are people discussing?

Dr. Diego Robalino: During the A2 subcommittee discussions, particularly on dielectrics, we've noticed that the failure rates of bushings are continuously increasing, as shown in the new reliability document from CIGRE. This challenge is intriguing because it highlights an issue with a component rather than the transformer itself.

CIGRE is a fantastic opportunity to share our experiences. I encourage everyone to participate in technical sessions like CIGRE. There are so many experts with diverse expertise contributing to solving industry issues. If anyone has questions, please come to us—we'd be more than happy to help.

Ben Lanz: Also joining me from Megger is Niclas Wetterstrand, Global Industry Director for Utilities - Power Protection. Niclas, what are the highlights from your presentation at the conference?

Niclas Wetterstrand: One notable aspect is the increasing use of low power instrument transformers in the industry. We need to simulate these differently compared to





traditional instrument transformers due to their lower output ratios. We've collaborated with partners to ensure accuracy at these lower ranges and developed completely new test equipment, which is currently a prototype here at the show. We also presented a paper on this topic together with Siemens at the conference.

It's a pleasure to be here at CIGRE Paris. I'm excited about the innovations happening in the industry. There's so much going on, and we are passionate about solving the challenges we face.

Ben Lanz: Jacco Smit joins me now. He is the Senior Advisor Technology Cable and Lines at Tenet, and Chairman of the national CIGRE SC B1 Cables and a member of CIGRE CAG B1. Jacco what is your experience with CIGRE?

Jacco Smit: I've been coming to CIGRE for many years, and I see that it plays a crucial role in developing and accelerating standards. We work through working groups to address technical challenges, which eventually lead to new standards and codes. The expertise we have across countries is invaluable; we can leverage the best knowledge worldwide without reinventing the wheel.

I'm proud to share my insights through interviews like this. I believe that knowledge sharing, and collaboration will be crucial as we move forward. The grid does not come to you—you must go into it.

Ben Lanz: My next guest is John Gounaris, Vice President at G&W Electric. John is there anything that you're highlighting here at CIGRE or in the marketplace regarding these solutions?

John Gounaris: Yes, as part of the exhibition piece of CIGRE, we've been showcasing a product that addresses some of the new challenges faced in the grid—our 72 kV Viper® - HV. This is a vacuum interrupter with solid insulation, meaning there's no oil, gas, or SF6 involved. It can perform sectionalizing, circuit breaking, and reclosing functions, and it can be mounted directly on a pole without needing a substation.

What we found through collaboration with our utility partners is a need to extend sectionalizing and protection capabilities outside the substation. We could do this with distribution but found a gap in the sub-transmission market. After a lot of innovation and patience, we were able to bring this product to market a couple of years ago, and it's been quite successful for us.

Ben Lanz: That's quite a story! Given the dynamics of power flow, renewables, distributed generation, and climate change impacts, this tool is useful for utilities in solving various challenges.

John Gounaris: Absolutely. It's been rewarding to educate customers about this product. The unique aspect of this time is that utilities are facing problems without clear solutions. They're not approaching us with a specific need; instead, they have challenges and are looking for help. This opens the door for us to educate them on solutions we can provide, which is a different approach to sales but also a fulfilling one.

Ben Lanz: I imagine that's a significant part of why you're here at CIGRE. What excites you about being at SE 24 in Paris, France?

John Gounaris: Our commitment to CIGRE goes back many years. This technical community excels at knowledge sharing and is dedicated to serving the power industry, which is currently undergoing transformational change. Organizations like CIGRE play a crucial role in educating the industry, highlighting mega-trends, and showing where technology is headed.

For us, being involved with CIGRE is key to our innovation efforts. We want to stay close to CIGRE, participate in working groups and committees, and really drive those initiatives forward.

Ben Lanz: We are joined now by Usama Ahmed, Technical Director - T&D Insulators and Solutions at SHEMAR and Brady Jenkins, Senior Vice President AT Jiangsu Shemar Electric Co., Ltd. What excites you about being here at CIGRE? I know Shemar has made a huge investment in your booth and other aspects. Can you tell us about that?

Usama Ahmed: Absolutely. CIGRE is a global event. I've met people from all over the world here. Beyond our booth, we've made technical contributions, presenting three technical papers and engaging in various working groups. It's been a collaborative experience for us.

Brady Jenkins: I echo Usama's sentiments. CIGRE is a fantastic event for us. Coming from North America, many people may not think of this, but we have significant customers coming from North America to Paris. It's essential to build high-level relationships, and this event allows us to connect with the right people in a condensed timeframe. This year has been exceptionally rewarding.

Usama Ahmed: I'd say it's been a fantastic experience connecting with our customers, and we hope to return with even more innovations and solutions.

Brady Jenkins: It's always refreshing to see other manufacturers and like-minded people working towards modernizing and improving our industry. This event has showcased more progress and innovation than I've ever seen at previous shows, which is promising for our field.

Ben Lanz: Stéphane Page joins me now. Stéphane is the CEO @ CONDIS | Power Grid Solutions. Stéphane what value do you see in this CIGRE Paris conference?

Stéphane Page: This is the largest trade show in our industry, held every two years, and it's

always a highlight! You can't wait to be back here once the previous session ends. The blend of technical sessions, poster sessions, and the commercial showcases is truly unique and outstanding. If you want to understand trends in our markets, this is definitely the place to be, with all your customers and suppliers attending. Plus, it's set in Paris—a great interactive place to be!

Also, it is an exciting time for us in this industry. If I had a time machine, I'd jump back to being a young engineer again today because the challenges are incredibly exciting—electrification, digitization and optimization of the grid are all fascinating opportunities for a company like ours. Being privately-owned gives us the freedom to explore emerging niches, positioning ourselves at the forefront of these changes. I'm grateful to have witnessed so much progress in the industry and to experience this fantastic era in our field.

Ben Lanz: We are joined now by Bob Hobson, Associate Technical Consultant for UG and Submarine Cables with Burns & McDonnell and Amanda Olson, Vice President at Burns & McDonnell. Thank you both for joining me. What value do you see in attending the CIGRE conference from a cables' perspective?

Bob Hobson: The European market is much further along in utilizing underground cables compared to the U.S. They have more experience with direct-buried cable systems, while we have historically used pipe-type cables. The environmental conditions differ significantly—Europe has more farmland that accommodates easier cable burial, while the U.S. often faces challenges with urban sprawl.

Ben Lanz: It sounds like there's much to learn from the European approach.

Amanda Olson: Yes, I got involved with the CIGRE community early in my career through a Next Generation Network program for people with ten years or less experience. It was my first professional experience in an industry society, and the relationships I built have been invaluable. For example, a utility member I know reached out to peers after an earthquake at a nuclear facility. They were initially looking at the wrong repair procedures but got crucial insights from colleagues, which completely changed their repair approach and allowed for a successful restart without incident.

That's the power of connections in this industry, and it showcases the immense value of networking and collaboration in solving complex challenges.