



CharIN transformed its 4th CharIN North America Conference into a successful series of virtual events: *CharIN's Tuesdays!*

Representatives of government institutions, topic related alliances, and industries along the value chain of EV charging, gathered in three exciting virtual sessions to discuss pressing climate aspects and how the large scale adoption of clean transportation can contribute to flattening the scarring curve of environmental damages by CO2 emission, global warming and associated natural disasters.

A week long event including a Festival, trainings, working group and member meetings, as well as a 1-day conference were originally planned to take place at the premises of Lucid Motors in Newark CA at the end of April. However, in early March, COVID-19 impacted our communities and stopped all in-person meetings. The CharIN North America member community remained steadfast **to rally forward with our efforts to adopt e-Mobility and to further push the development of the required eco-system.**

The global lockdown revealed how far air quality can improve if the biggest polluters take a break:

- Amazing pictures of a clear sky over Los Angeles
- Significant reduction of fine dust pollution in capitals like Rome, Barcelona, and Madrid
- 50% decrease of nitrogen dioxide caused by the industry in Milan, Italy
- Stunning figures about the lowest level of aerosol pollution in New Delhi, India in the last decades!

All of these examples vividly illustrated the enormous impact of clean transportation and the important role of e-Mobility. At the same time, we are made aware of huge economic challenges and exploding unemployment rates caused by the Coronavirus crisis. These topics and concerns weave through the three expert panel discussions.

After a Welcome by **CharIN's Chairman Claas Bracklo, Eric Bach** from **Lucid Motors**, the host of the CharIN Festival week and **Oleg Logvinov**, CEO and founder of **IoTecha**, Member of the North America CharIN Board, and knowledgeable moderator through panel 1 and all sessions of the virtual event, the 1st CharIN Tuesday kicked off with **Katie Fehrenbacher**, senior analyst and writer of **Greenbiz**, who elaborated about "The future of clean transportation in our new world".

Commissioner Patty Monahan from the **California Energy Commission** broke down the global perspective given by Katie and detailed how California is investing in clean transportation to grow jobs, deploy charging statewide, and support the Post-COVID19 economic recovery.



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Riding the wave, the tsunami of electrification



During Panel 1, the experts “rode together the wave of the tsunami of electrification” sharing their perspectives on how future transport and mobility concepts should look to reduce CO2 emissions and slow down climate change. The group scrutinized the impact of the COVID-19 crisis on necessary strategic changes of the automotive industry, on required investments into infrastructure and solutions to stabilize the grid.



Erika Myers, Principal of Transportation Electrification from **SEPA**, the **Smart Electric Power Alliance**, explained that mankind will stand at the bottom of the food chain, although being the originator of climate change and its consequences. She elaborated on the benefits of Vehicle to Grid integration and how intelligent charge management of fleets can contribute to balance the demand of electricity during peak times.

Rustam Kocher, e-Mobility ecosystem lead at **Daimler Trucks North America**, highlighted that fleets imperatively include commercial vehicles. His Task Force, consisting of renowned players of the relevant industry, has been working for more than two years to define a new commercial vehicle high power charging standard to maximize customer flexibility by charging with powers > 1 Megawatt.

Bob Stojanovic, Director EV Infrastructure North America, described the **ABB** holistic approach to their vision of a zero-emission reality by means of complete interconnected solutions, fast charging management systems, as well as fleet management systems. Providing the required infrastructure is one of the key-factors to enable the EV-ecosystem. This was strongly supported by **Cliff Fietzek**, Director of Technology at **Electrify America**, who gave an insight into their present and future investments into the DC fast charging network in North America for passenger and commercial vehicles.

John Cooper, VP Business Development of **TETra (Transportation Electrification Transformation) Innovations Group**, gave a new perspective of the post COVID-19 world and explained how certain circumstances at a given point in time can lead to transformation. If “technology innovation meets a sense of urgency and social/economic readiness, they can be the stimulus for dramatic changes” and lead to collective focus and action. Coalitions of like-minded people and common interests can create the tsunami of electrification which gets supported by various initiatives of **EPRI**, the **Electric Power Research Institute**, represented by **Dan Bowermaster**, Senior Program Manager Electric Transportation.

Interested in getting more details? Please go to Panel 1

Video 1/2 at <https://youtu.be/IOVJ0m4oa8Q>

Video 2/2 at https://youtu.be/_t4-3IVpag4



The magic of Plug ´n Charge



Part 2 of the Virtual Conference, moderated by **Barton Sidles**, Director of Corporate and Business Development from **Huject**, focused on technologies that can increase the acceptance of E-Mobility and enchanted the audience with the **Magic of Plug ´n Charge**. Based on ISO/IEC 15118 on a robust security framework, a seamless charging experience requires the collaboration of various ecosystem players and interoperability among multiple stakeholders. “Standards and Interoperability” was the focus of **Chris King**’s presentation, SVP – Policy & Regulatory Affairs for **Siemens e-Mobility**, where he emphasized the importance to deliver products to the same specification to lower costs and the risk of stranded assets. The session kicked off with a compelling video about applications in EV fleet and energy management based on ISO 15118 presented and commented by **Muffi Ghadiali**, CEO and Founder of **Electriphi**. A further virtual demonstration of ISO/IEC 15118 and Plug ´n Charge was presented by **Mike Macaluso**, Co-founder and EVP of Engineering from **IoTecha**, who accelerates the Electric Vehicle Revolution by providing a comprehensive IoT.ON™ Platform for the Smart Charging infrastructure and enabling the integration of tens of millions of Electric Vehicles with the Power Grid. The circle of panelists was completed again by **Cliff Fietzek** from **Electrify America**, as charging network provider and indispensable stakeholder to build up the EV-ecosystem.

The session was concluded by a video presentation on Automated Conductive Charging, pre-recorded and presented by **Patrick Bray** from **ConnectMyEV**, giving the audience an exciting outlook to the close future where conductive charging will be done by charging robots. Get all information at the links below:

Video 1/2 at <https://youtu.be/lAkkb2m7EoQ>

Video 2/2 at https://youtu.be/wpL_Qoex_GE



Living on the grid's edge and saving \$60B



"The future is today" postulated **Eric Bach, Vice President of Hardware Development** from **Lucid Motors** and **Oleg Logvinov, CEO and Founder of IoTecha**, during the 3rd and last day of CharIN's Tuesdays. They illustrated in their common presentation how Vehicle to Grid (V2G) enabled by ISO/IEC 15118 allows a single EV to generate over \$5k per year through V2X services! **Living on the grid's edge and saving \$60B**, moderated by **Noel Crisostomo**, Air pollution specialist at the **California Energy Commission**, was an animated discussion about solutions that can assist with the transition to renewable electric grids that are reliable and cost-effective. **Joseph Gottlieb**, Founder and Chief Technology Officer of **Rhombus Energy Solutions**, elaborated on the question of who's in charge of the charger and highlighted the different ways to save money, to make money, and to support the community. Taking energy from the grid when it's lower cost and feeding it back to the grid in moments of peak consumption, offers great savings for each EV driver and a feature that would positively increase the buying decision of 86% potential

customers, according to the audience poll. Meanwhile **William Pui Martinez**, Global Product Manager for DC Wallboxes at **ABB**, explained opportunities and challenges of V2G wallboxes. **John Halliwell**, Senior Technical Executive Electric Transportation, Power Delivery, and Utilization from **EPRI**, shared his expertise about Vehicle/Grid Integration beyond Technology. Easy workflows, competitiveness, reliability, scalability, and cybersecurity are the enablers of V2G integration at scale.

The technology is available and the rollout on a large scale needs to be supported by all stakeholders for the benefit of consumers, mankind, and a cleaner planet.

Curious to hear more?

Video 1/2 at <https://youtu.be/3DNoPyOMc10>

Video 2/2 at <https://youtu.be/LR5jKfiB8ro>