



CONSORTIUM FOR BATTERY INNOVATION 2026 ONLINE TECHNICAL UPDATE ON ALBA PLUS PROJECTS

First webinar: Thursday 15th of October, 2026 from 15:00 – 16:00 (CET), 9:00 – 10:00 (EDT)

Second webinar: Thursday 22nd of October, 2026 from 15:00 – 16:00 (CET), 9:00 – 10:00 (EDT)

Third webinar: Thursday 29th of October, 2026 from 14:00 – 15:00 (CET), 9:00 – 10:00 (EDT)

Topic	Speaker	Time
Ageing of lead-battery state-of function and charge-recovery: For new 12V battery applications in electrified vehicles and as backup for sensitive power loads, new IEC 60095-8 specifies new test procedure for “pulse-power characterization” (PPC) and “charge recovery” (CR). Both utilize the concept of “state of function” (SOF) characterizing the battery’s power performance. For the first time, this study systematically compiles test data for aged batteries under these new test regimes. How does SOF degrade with capacitive or resistive ageing mechanisms, and to which degree is SOF recovery during charging affected in aged batteries? <i>The work under CBI ALBA Plus funding was performed by the Department of Electrical and Computer Engineering of Villanova University, Philadelphia.</i>	Pritpal (Pali) Singh, Jake Armstrong, Koda Jones, Villanova University	Thursday 15 October 15:00-15:30 CET
SOF recovery under real-world driving conditions: The fast recovery of state of function (SOF) – particularly under winter conditions – differentiates lead batteries from other storage technologies, restoring full vehicle function after only minutes of charging time. This study evaluates this performance boost under realistic operating conditions and quantifies parameters of both underlying mechanisms, pseudo-capacitance and potential plateau as they evolve during a trip and from trip to trip. These results may be used for optimizing batteries to charging performance in modern vehicles. <i>The work under CBI ALBA Plus funding was performed by UL Batterieingenieure, Aachen/Germany. It utilizes drive-cycle simulations recorded with real batteries by CBI’s SSOF working group.</i>	Jonathan Wirth, UL Solutions	Thursday 15 October 15:30-16:00 CET
End of First Webinar		
The ALBA Charging Guide for lead batteries in BEV: Over the recent two ALBA editions, a precompetitive working group of OEM and battery application experts has prepared a charging guide for lead batteries in electrified vehicles. Based on a century of automotive battery application experience, it aims at maximizing field durability and avoiding premature “flat battery” breakdowns, as they are too often observed in first-generation electric vehicles of many carmakers. <i>The documentation under CBI ALBA Plus funding (2025) was coordinated by Combatec, Winterbach/Germany.</i>	Roger Zimmermann, Combatec Benjamin Hübner, Moll Batterien Eckhard Karden, ALBA	Thursday 22 October 15:00-15:30 CET

Comparing charging strategies in drive cycle simulations: This study evaluates different charging strategies under worst-case customer-usage conditions, simulating them as complex programs on test benches with real batteries. Such empirical data can be used as evidence when selecting and parameterizing strategies. A summary of the results will be fed into the above ALBA Charging Guide. <i>The work under CBI ALBA Plus funding was performed by IBR Röttger battery test laboratory, Werl/Germany.</i>	Sebastian Mauer, Moll Batterien Jörg Tiburcy, Clarios	Thursday 22 October 15:30-15:45 CET
Monitoring battery charging operation in vehicles: During a demonstration at ALBA 2026, participants saw a state-of-the-art instrumentation (sensors and data logger) in a vehicle as it is typically used by OEMs to verify and debug power supply strategy and 12V battery operation in vehicles. It was discussed how battery suppliers can benefit from doing their own analysis with such tools. This webinar will present the setup and some typical results. <i>The work under CBI ALBA Plus funding was performed by Combatec, Winterbach/Germany.</i>	Roger Zimmermann, Combatec Eckhard Karden, ALBA	Thursday 22 October 15:45-16:00 CET
End of Second Webinar		
CAE tool for selection and sizing of auxiliary and backup batteries: Legacy carmakers have efficient methods for determining the cold-cranking requirement of “starter” batteries. However, whenever engine cranking is not the key function that sizes 12V battery power, methodologies are less stringent and may result in under- or oversizing. Since 2025, an online sizing tool has been developed within the ALBA Workshop environment that can guide OEMS – even for system-level trade-offs like minimum voltage allowance versus battery downsizing. <i>Two ALBA Plus projects (2025 and 2026), partly funded by CBI, were performed by UL Batterieingenieure, Aachen/Germany.</i>	Jonathan Wirth, UL Solutions	Thursday 29 October 14:00-14:30 CET
Reference data for SOF performance and recovery of various lead batteries: How universal is the power performance across lead battery types at partial state of charge, extreme temperatures, and out of freshly charged condition? Modified versions of the new PPC and CR test method (IEC 60095-8) have been applied for characterizing 4 starkly different battery designs over a wide range of conditions. A reduced version of this test program (2 or 4 weeks duration) will be proposed to characterize additional battery types, particularly small sizes that may be preferred for auxiliary and backup applications. <i>This ALBA Plus project, partly funded by CBI, was performed by Combatec, Winterbach/Germany.</i>	Eckhard Karden, ALBA	Thursday 29 October 14:30-15:00 CET
End of Third Webinar		