



PLUGVOLT

July 2018 Battery Seminar

July 17, 2018: Day 1 – EnerDel Lithium Ion Battery Training

8:00 am – 5:00 pm	Registration Open
8:00 am – 8:25 am	Breakfast with Networking & Poster Presentations Sponsored by EXPONENT
8:25 am – 8:30 am	Welcome Note
8:30 am – 9:15 am	Introduction to Battery Technologies Tomasz Poznar – Vice President of Business Development <ul style="list-style-type: none"> • Intro to battery history, chemistry and technology
9:15 am – 10:00 am	Lithium Ion Theory of Operation, Cell Components and Design Principles Mary Patterson – Engineering Director Cell R&D <ul style="list-style-type: none"> • Li Ion cell theory of operation • Li cell components and design
10:00 am – 10:30 am	Coffee with Networking & Poster Presentations Sponsored by PEC
10:30 am – 11:15 am	Lithium Ion and Beyond Dr. Jin Sik Lee – CTO <ul style="list-style-type: none"> • What Gen 3 means for electrification • Future chemistries for all-electric applications
11:15 am – 12:00 pm	Engineering Tools for Analysis and Development of Cells, Modules and Packs Kurt Mink – Product Engineering Director <ul style="list-style-type: none"> • Module, pack and system design criteria • Battery Management Systems (BMS) criteria for design
12:00 pm – 1:30 pm	Lunch with Networking & Poster Presentations
1:30 pm – 2:15 pm	Battery Safety – Safety Aspects of Li Ion Batteries Bruce Silk – Transportation Account Manager <ul style="list-style-type: none"> • Charge and Discharge controls/ High Voltage safety • Tools for evaluation and service
2:15 pm – 3:00 pm	Quality – It's More Than Compliance Athena Reed – Senior Director of Quality <ul style="list-style-type: none"> • Setting quality standards • Integrating Quality processes • Risk management
3:00 pm – 3:30 pm	Coffee with Networking & Poster Presentations Sponsored by PEC
3:30 pm – 4:15 pm	Markets and Applications – Mass Transportation/Industrial Tomasz Poznar – VP of Business Development <ul style="list-style-type: none"> • Markets and applications for today and tomorrow
4:15 pm – 5:00 pm	Markets and Applications – The Challenges of The All-Electric World Chuck Metzgar – Transportation Sales Manager <ul style="list-style-type: none"> • Heavy duty transportation • Industrial applications
5:00 pm – 5:30 pm	Wrap-Up (Summary & Conclusions)

*Agenda subject to change without notice

All Day 1 presentations by EnerDel

Chairperson: Tomasz Poznar, Vice President of Business Development – EnerDel

July 18, 2018: Day 2 – Energy Storage Systems in Automotive Applications

8:00 am – 6:00 pm	Registration Open
8:00 am – 8:30 am	Breakfast with Networking & Poster Presentations Sponsored by EXPONENT
8:30 am – 9:00 am	Development and Vertical Manufacturing of Battery System for EV Ying Liu – SF Motors
9:00 am – 9:30 am	Motorsport, Driving Innovation for Production Electric Vehicles Ken Gould – Porsche North America
9:30 am – 10:00 am	State of Solid State Batteries for EV Applications Venkat Anandan – Ford
10:00 am – 10:30 am	Coffee with Networking & Poster Presentations Sponsored by MACCOR
10:30 am – 11:00 am	Vibration Matters in Ultrasonic Welding of Li-ion Battery Wayne Cai – General Motors
11:00 am – 11:30 am	Case Study For Technical, Electrochemical & Economic Development of an Automotive Lithium Battery Jan Wohlmuther – P3 Group
11:30 am – 12:00 pm	Typical Failure Modes and Design Considerations for xEV Lithium-Ion Batteries Ryan Spray – Exponent
12:00 pm – 1:30 pm	Lunch with Networking & Poster Presentations Sponsored by ENERDEL
1:30 pm – 2:00 pm	Start/Stop the uSTART® Way Jeff Colton – Ioxus
2:00 pm – 2:30 pm	Comparison of Cooling Fins and Cold Plates for xEV Battery Thermal Management Ben Kenney – Dana Inc.
2:30 pm – 3:00 pm	Impact of Changing Global Regulations on the Next Generation of 48V Hybrids Jason Muccioli – A123 Systems
3:00 pm – 3:30 pm	Coffee with Networking & Poster Presentations Sponsored by MACCOR
3:30 pm – 4:00 pm	Performance and Energy Management Considerations for a 48V Mild Hybrid Matti Vint – Valeo North America
4:00 pm – 4:30 pm	Enhanced Performance and Comfort Thanks to 48V Battery Carlton Brown – Robert Bosch Battery Systems
4:30 pm – 5:00 pm	Battery Pack Design and Controls for E-Mobility Harsha Nanjundaswamy – FEV North America
5:00 pm – 5:30 pm	Certification Challenges for Secondary Use EV Batteries Rich Byczek – Intertek
6:00 pm – 8:00 pm	Intertek Facility Tours with Cocktails Reception Exclusive opportunity to tour Intertek's 100,000+ square-foot Battery Testing Center of Excellence to learn about the latest testing methods for batteries of all sizes from coin-cell through electric vehicles. Intertek performs a variety of tests out of this facility, to industry and global standards, including life-cycling, vibration, environmental, abuse and safety certifications. See this facility firsthand and ask questions to resident experts, and enjoy some light appetizers and beverages while networking with industry peers.

**Agenda subject to change without notice*

July 19, 2018: Day 3 – Energy Storage Systems in Stationary Grid/Utility Applications

8:00 am – 5:00 pm	Registration Open
8:00 am – 8:30 am	Breakfast with Networking & Poster Presentations Sponsored by EXPONENT
8:30 am – 9:00 am	Automated Mobility Services and the Grid – Feeding Off Each Other Sam Abuelsamid – Navigant Research
9:00 am – 9:30 am	Innovative Storage Business Models and Lessons Learned Adrienne Lalle – Consolidated Edison (Con Edison)
9:30 am – 10:00 am	Hybrid Energy Solutions – How Integrated Systems Excel Greg Hasler – Caterpillar
10:00 am – 10:30 am	Coffee with Networking & Poster Presentations Sponsored by DIGATRON
10:30 am – 11:00 am	Opportunities for Energy Storage in Microgrids and Data Centers Michael Maiello – Schneider Electric
11:00 am – 11:30 am	Solar Microgrids – Solar & Energy Storage for Off-Grid Applications Joe O'Connor – OCON Energy Consulting
11:30 am – 12:00 pm	Transforming Microgrids Through Clean Energy and Power Solutions Ramkumar Krishnan – NantEnergy (formerly Fluidic Energy)
12:00 pm – 1:30 pm	Lunch with Networking & Poster Presentations
1:30 pm – 2:00 pm	Project Management and Experiences in Deploying Energy Storage Kevin Fok – LG Chem
2:00 pm – 2:30 pm	Making the Most Money From Your Microgrid and Future Proofing It! Suzanne Escudier – EnSync Energy
2:30 pm – 3:00 pm	Compliance Programs to Mitigate Energy Storage System Risks Jody Leber – CSA Group
3:00 pm – 3:30 pm	Coffee with Networking & Poster Presentations Sponsored by DIGATRON
3:30 pm – 4:00 pm	Li Ion Cell Usage and Aging – A Case Study Joel Forman – Exponent
4:00 pm – 4:30 pm	Non-Battery Energy Storage Systems and Their Applications Mike Hopkins – Ice Energy
4:30 pm – 5:00 pm	Moving Beyond Theory – Is High Capacity Silicon Metal Applicable for the Stationary Storage Industry? If So, How and When? Jeff Norris – Paraclete Energy
5:00 pm – 5:15 pm	Closing Comments / End of Seminar

**Agenda subject to change without notice*

Register Online: [PlugVolt July 2018 Battery Seminar Online Registration Form](#)

Location – Battery Seminar

The Inn at St. John's
44045 Five Mile Road
Plymouth, MI 48170 USA
Tel.: (001) 734-414-0600

Location – Facility Tour

Intertek
45000 Helm St. #150
Plymouth, MI 48170 USA
Tel.: (001) 734-582-2900

Pricing

January 8, 2018	Registration Opens
January 8, 2018 – May 12, 2018	Early Bird: \$699/day, \$1099/2 days or \$1399/3 days
May 13, 2018 – July 16, 2018	Regular: \$799/day, \$1199/2 days or \$1499/3 days
July 17 – 19, 2018	On-Site: \$899/day, \$1299/2 days or \$1599/3 days
Networking Pass – access to evening cocktails reception and Day 2 Intertek facility tour (no access to seminar)	\$200/person* *already included with minimum 1-day event registration

- 10% group discount for 3+ attendees from the same corporation/institution (all attendees must register and pay at the same time)
- 10% discount for attendees from a government agency (copy of a valid government ID is required)
- 10% discount for attendees from an academic institution (copy of a valid academic institution ID is required)
- Contact us for additional attractive group discounts for parties of 5+ people attending from the same corporation/institution

PlugVolt discounted room rate is available at The Inn at St. John's until July 01, 2018, following which rooms may not be available and/or available at the prevailing rate. Reservations can be made directly at:

[PlugVolt July 2018 Battery Seminar Hotel Bookings](#)

Program Outline

This seminar will provide an entire day of in-depth training by EnerDel on Lithium Ion battery chemistry, its manufacturing, battery management system (BMS) design, thermal management, testing and validation methodologies, safety processes, etc.

These presentations will be accompanied by complementary industry updates offered by subject matter experts from major multinational OEMs, Tier 1 suppliers, and battery manufacturers. Topics will cover several existing battery chemistries and their application to stationary/grid storage and automotive xEVs, along with recent advances in some Li Ion technologies, challenges in bringing these batteries to volume production, and any specific performance requirements driven by such applications.

The seminar will also offer attendees an exclusive opportunity to take a tour of the 100,000+ square-foot Intertek Battery Testing Center of Excellence to learn about the latest testing methods for batteries of all sizes from coin-cell through electric vehicles. Intertek performs a variety of tests out of this facility, to industry and global standards, including life-cycling, vibration, environmental, abuse and safety certifications. See this facility firsthand and ask questions to resident experts, and enjoy some light appetizers and beverages while networking with industry peers.

Questions?

Contact JC Soman at 1-877-PLUGVOLT or juratesoman@plugvolt.com for more details, or visit our website www.plugvolt.com or www.batteryseminars.com

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