

NAATBatt 2020 GENERAL PROGRAM AGENDA

MONDAY FEBRUARY 10

1:00 p.m. **Advanced Battery Golf Tournament Starts**
La Cañada Flintridge Country Club

7:00 – 7:30 p.m. **Tournament Reception**
Courtyard

7:30 – 9:30 p.m. **Tournament Dinner and Awards**
Promenade

TUESDAY FEBRUARY 11

7:00 a.m. **Registration Opens**
Huntington Foyer

7:30 a.m – 11:30 a.m. **Battery Product Expo Set Up**
Huntington Ballroom Salon I

7:30 a.m – 12:00 p.m. **WORKSHOP: NAATBatt-MPSC Workshop on Military Batteries**
Georgian Ballroom

8:00 – 10:00 a.m. **Battery Recycling Committee Meeting**
Pavilion

10:00 – 11:00 a.m. **Zinc Battery Committee Meeting**
Pavilion

9:00 – 12:00 p.m. **WORKSHOP: Shmuel de-Leon Battery Safety Workshop**
Promenade

12:00 p.m. – 1:30 p.m. **Lunch for Registered Workshop Attendees Only**
Georgian Ballroom

TUESDAY FEBRUARY 11 (CONT.)

1:00 – 1:10 p.m.	Welcome by President and Executive Director of NAATBatt Huntington Ballroom Salons II & III James Greenberger, NAATBatt Joern Tinnemeyer, EnerSys
1:10 – 1:30 p.m.	Report of the Chief Science Officer of NAATBatt M. Stanley Whittingham, SUNY at Binghamton
1:30 – 1:50 p.m.	Report of the Chief Technology Officer of NAATBatt Robert Galyen, CATL
1:50 – 3:15 p.m.	Member Update Presentations – Group #1 EnerSys Digatron Power Electronics Battery Solutions Salt River Project Energy Storage Response Group Indie Power Systems Rolled-Ribbon Battery Company Titan Advanced Battery Solutions Sandia National Laboratories Call2Recycle ETAS CATL Pacific Northwest National Laboratory PPG
3:15 – 3:40 p.m.	Networking Break Huntington Ballroom Salon I

TUESDAY FEBRUARY 11 (CONT.)

3:40 – 4:40 p.m.	Market Report: EV Markets in North America Huntington Ballroom Salons II & III Logan Goldie-Scot, Bloomberg New Energy Finance
4:00 – 4:20 p.m.	Market Report: ESS Markets in North America Sam Jaffe, Cairn Energy Research Advisors
4:20 – 4:40 p.m.	Market Report: Industrial Batteries in North America Michael Sanders, Avicenne Energy
4:40 – 5:00 p.m.	Market Report: Military Batteries Market Shmuel de-Leon, Shmuel de-Leon Energy, Ltd.
5:00 – 6:20 p.m.	Member Update Presentations – Group #2 ESAMTAC Albemarle Corporation A123 Systems DuPont Amphenol Thermometrics SVOLT CAMX Power Umicore Soteria CSA Group Lithion Recycling ARMOR Group LORD UL
6:20 – 6:35 p.m.	The Most Interesting Things I Saw in Batteries in 2019 Shmuel de-Leon, Shmuel de-Leon Energy, Ltd.

TUESDAY FEBRUARY 11 (CONT.)

- 6:35 – 7:15 p.m. Opening Reception**
Huntington Ballroom Salon I
- 7:15 – 9:00 p.m. Opening Dinner**
Horseshoe Garden
- 7:15 – 9:00 p.m. NAATBatt Board of Directors Annual Meeting**
Pavillion

WEDNESDAY FEBRUARY 12

- 7:30 – 8:30 a.m. Continental Breakfast and Discussion Tables**
Huntington Ballroom Salon I
- 8:30 – 8:45 a.m. NAATBatt Annual Members Meeting and Election of New Directors**
Huntington Ballroom Salons II & III
- 8:45 – 8:50 a.m. Welcome by NAATBatt Chairman**
John Warner, American Battery Solutions
- 8:50 – 8:55 a.m. Breakfast Discussion Tables Reports**
- 8:55 – 9:40 a.m. Energy Materials Markets Forecasts: Lithium, Cobalt and Nickel**
Austin Devaney, IHS Markit
Henrique Ribeiro, S&P Global Platts
- 9:40 – 11:05 a.m. Member Update Presentations – Group #3**

Nuvation Energy
American Battery Solutions
Urban Electric Power
Soltex

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WEDNESDAY FEBRUARY 12 (CONT.)

Forge Nano
MANZ USA
Hive Battery Labs
Argonne National Laboratory
Snell & Wilmer
Durr MEGTECH
Ten-Nine Technologies
Li-Cycle Corp.
Arkema
Webasto Charging Systems

11:05 – 11:30 a.m. Networking Break
Huntington Ballroom Salon I

11:30 – 1:00 p.m. Member Update Presentations – Group #4
Huntington Ballroom Salons II & III

State of Indiana
WeRecycleBatteries
Battery Resourcers
UniEnergy Technologies
ZAF Energy System
Jabil
Electric Applications Incorporated
Jakertech
NREL
Spiers New Technologies
Battery Innovation Center
Everledger
Salient Energy
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WEDNESDAY FEBRUARY 12 (CONT.)

	Moses Lake Industries SafeLi American Battery Metals Corporation										
1:00 – 2:15 p.m.	Lunch Viennese Ballroom										
2:15 – 3:00 p.m.	The State of Solid State Battery Technology in 2020 Huntington Ballroom Salon I Steve Visco, Polyplus Yuan Yang, Columbia University										
3:00 – 3:45 p.m.	The Impact of Fast Charging on Lithium-Ion Battery Cell Design Daniel Abraham, Argonne National Laboratory Benjamin Park, Enevate										
3:45 – 4:15 p.m.	Networking Break Huntington Ballroom Salon I										
4:15 – 5:15 p.m.	Battery Innovation Summit Huntington Ballroom Salons II & III Presentations by 10 Emerging Companies Invited by NAATBatt <table border="0"> <tr> <td>AEsir</td> <td>Brian Engle</td> </tr> <tr> <td>Idaho National Laboratory</td> <td>South 8 Technologies</td> </tr> <tr> <td>Alpha-en</td> <td>OnTo Technology</td> </tr> <tr> <td>Kinetic Batteries</td> <td>University of Michigan</td> </tr> <tr> <td>Feasible Inc.</td> <td>Battery Streak</td> </tr> </table>	AEsir	Brian Engle	Idaho National Laboratory	South 8 Technologies	Alpha-en	OnTo Technology	Kinetic Batteries	University of Michigan	Feasible Inc.	Battery Streak
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WEDNESDAY FEBRUARY 12 (CONT.)

- 5:15 – 6:00 p.m. The Future of Electric Powered Flight**
Chloe Holzinger, Lux Research
Ratnakumar Bugga, NASA
Pete Savagian, Ampaire
- 6:00 – 6:20 p.m. Conference Keynote Address**
Mary Nichols, Chair, California Air Resources Board
- 6:20 – 6:45 p.m. Presentation of NAATBatt Lifetime Achievement Awards**
Public Policy: Mary Nichols, Chair, California Air Resources Board
Industry: Robin Zeng, CEO, CATL
2020 Pioneer Medal: Prof. Stanley Whittingham, SUNY-Binghamton
- 6:45 – 7:30 p.m. Networking Reception**
Huntington Ballroom Salon I
- 7:30 – 9:00 p.m. NAATBatt International Annual Dinner**
Viennese Ballroom

THURSDAY FEBRUARY 13

- 7:30 – 8:30 a.m. Continental Breakfast and Discussion Tables**
Huntington Ballroom Salon I
- 8:30 – 8:35 a.m. Welcome by NAATBatt President-Elect**
Huntington Ballroom Salons II & III
Jeff Yambrick, SVOLT Energy Technology
- 8:35 – 8:45 a.m. Breakfast Discussion Tables Reports**

THURSDAY FEBRUARY 13 (CONT.)

8:45 – 9:35 a.m.

**Industry Leaders Roundtable: How To Make the U.S.
a Leader in Lithium-Ion Battery Manufacturing**

David Howell, U.S. Department of Energy, Vehicle Technologies Office
Imre Gyuk, U.S. Department of Energy, Office of Electricity
Robert Galyen, CATL
Joern Tinnemeyer, EnerSys
Craig Rigby, Clarios
Kenan Sahin, CAMX Power
John Warner, American Battery Solutions

9:35 – 10:25 a.m.

Potential Substitutes for Lithium-Ion Batteries in Motive Applications

Steve Clarke, QuanVerge Inc.
Gautam Yadav, Urban Electric Power
Yan Yao, University of Houston

10:25 – 10:50 a.m.

Networking Break

Huntington Ballroom Salon I

10:45 a.m. – 12:35 p.m.

**Improving the Safety of Lithium-Ion Battery Systems
Huntington Ballroom Salons I & II**

Galen Ressler, General Motors
Robert Galyen, CATL
Renata Arsenault, Ford Motor Co.
Manuel Rabl, EnerSys
Mike Canada, EnerDel
John Pinho, APS

12:35 – 1:45 p.m.

Lunch

Viennese Ballroom

THURSDAY FEBRUARY 13 (CONT.)

1:45 – 2:05 p.m. Introduction to the DOE Battery Recycling Prize

Huntington Ballroom Salons II & III

Samuel Gillard, U.S. Department of Energy

2:05 – 3:15 p.m. Prize Pitches**

(5-minute presentations by the Phase 1 Award Winners)

Holman Parts Distribution

Store Packs Umicore

LiB IoT

Admiral Instruments

OnTo Technologies

Titan AES

Renewance

Smartville

Team EVBs

SNT Laser Focused

** These presentations were developed based upon funding from the Alliance for Sustainable Energy, LLC, Managing and Operating Contractor for the National Renewable Energy Laboratory for the U.S. Department of Energy.

3:15 – 3:55 p.m. Regulation of Lithium-Ion Battery Recycling in California

Todd Coy, CalEPA Lithium-ion Car Battery Recycling Advisory Group

Bernie Kotlier, CalEPA Lithium-ion Car Battery Recycling Advisory Group

3:55 – 4:00 p.m. Concluding Remarks

James Greenberger, NAATBatt International