

# TOTAL MEETING SCONFERENCE

OMNI LACOSTA RESORT AND SPA • CARLSBAD, CA

### ATBATT2024

#### **GENERAL PROGRAM AGENDA**

#### **MONDAY • FEBRUARY 19**

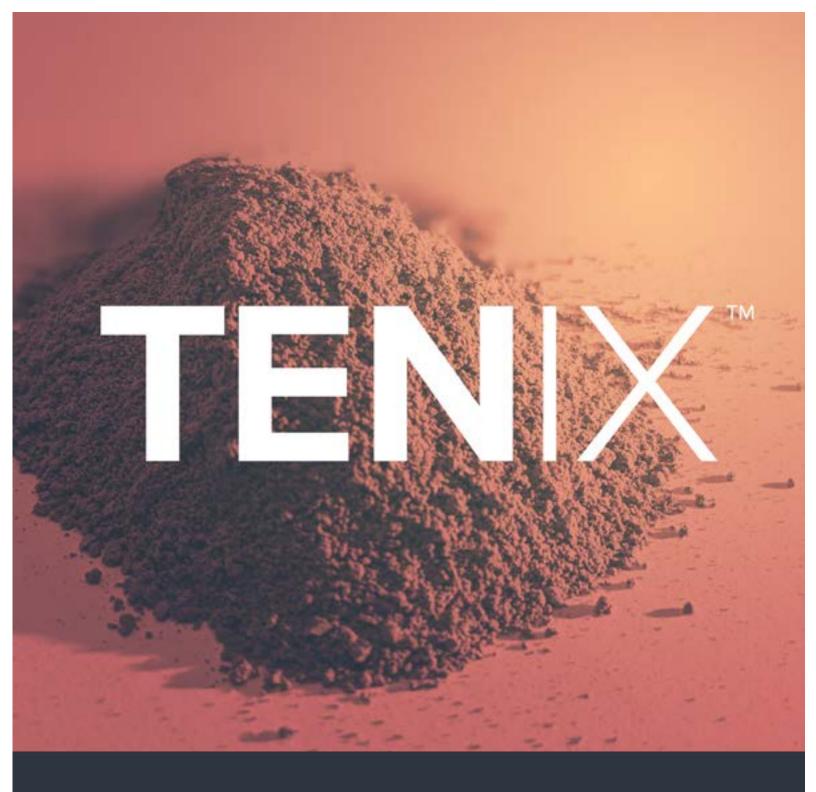
TIME	EVENT	LOCATION	SPEAKER/SPONSOR
1:00 PM	Golf	LEGENDS COURSE	Sponsor Bechtel/Maccor/Qad Schenck Process
2:30 PM	Tennis & Pickle Ball	TENNIS COURTS	Warner Norcross & Judd/Butzel
7:00 - 9:30 PM	Tournament Dinner	VALLEY PROMENADE	Butzel

#### **TUESDAY • FEBRUARY 20**

TIME	EVENT	LOCATION	SPEAKER/SPONSOR
7:00 AM	Ascend Elements Running Meet UP	HOTEL MAIN LOBBY	Sponsor Ascend Elements
7:30 AM	Registration Opens	COSTA DEL SOL LOBBY	
8:00AM - 2:00 PM	Exhibit Set up	COSTA DEL SOL LOBBY/F-H	
8:00 - 9:00 AM	Second Life Use Committee	COSTA DE LA LUNA 1-2	
8:00 - 9:00 AM	Markets Committee	COSTA DE LA LUNA 5-7	
8:00 - 9:00 AM	Zinc Battery Committee	COSTA DE LA LUNA 3	
8:00 - 9:00 AM	Military Batteries Committee	COSTA DE LA LUNA 4	
9:00 - 10:00 AM	Recycling Committee	COSTA DE LA LUNA 4	
9:00 - 10:00 AM	Education Committee	COSTA DE LA LUNA 5-7	
9:00 - 10:00 AM	Policy and Regulatory Committee	COSTA DE LA LUNA 3	
9:00 - 10:00 AM	Lithium Battery Safety Committee	COSTA DE LA LUNA 1-2	
10:00 - 11:00 AM	Track and Trace Committee	COSTA DE LA LUNA 4	
10:00 - 11:00 AM	Onshoring Battery Technology Committee	COSTA DE LA LUNA 1-2	
10:00 - 11:00 AM	Electrode Materials Committee	COSTA DE LA LUNA 3	







Ten-Nine Tech is proud to serve as the NATTBatt 2024 Terawatt Sponsor!

Visit the Ten-Nine team near Registration and learn how to TENIX your battery.



### ATBATT2024

#### GENERAL PROGRAM AGENDA

#### TUESDAY • FEBRUARY 20 (CONT.)

TIME	EVENT	LOCATION	SPEAKER/SPONSOR
10:00 - 11:00 AM	Battery Logistics Safety Committee	COSTA DE LA LUNA 5-7	
11:00 - Noon	Sodium Battery Committee	COSTA DE LA LUNA 1-2	
11:00 - Noon	Manufacturing in NA Committee	COSTA DE LA LUNA 4	
11:00 - Noon	Energy Materials Committee	COSTA DE LA LUNA 5-7	
11:00 - Noon	Battery Finance Committee	COSTA DE LA LUNA 3	
Noon - 1:00 PM	Welcome Meet and Greet	COSTA DEL SOL LOBBY	
1:00 PM	Opening of NAATBatt 2024	COSTA DEL SOL A-E	
1:00 - 1:05 PM	Welcome Remarks of the NAATBatt Executive Director	COSTA DEL SOL A-E	Speaker Jim Greenberger NAATBatt International
1:05 - 1:10 PM	Welcome Remarks of Terrawatt Sponsor: Ten-Nine Technologies	COSTA DEL SOL A-E	Speaker Paige Johnson Ten-Nine Technologies
1:10 - 1:30 PM	Report of the Chief Technology Officer of NAATBatt	COSTA DEL SOL A-E	Speaker Bob Gaylen  Gaylen Energy
1:30 - 1:50 PM	Report of the Chief Science Officer of NAATBatt	COSTA DEL SOL A-E	Speaker Stanley Whittingham Binghamton U (SUNY)
1:50 - 2:10 PM	Market Report: EV Markets in North America	COSTA DEL SOL A-E	Speaker Evelina Stoikou Bloomberg NEF
2:10 - 2:30 PM	Market Report: ESS Markets in North America	COSTA DEL SOL A-E	Speaker Vanessa Witte Wood Mackenzie
2:30 - 2:50 PM	Market Report: Energy Materials Extraction & Processing	COSTA DEL SOL A-E	Speaker Andrew Miller  Benchmark Mineral Intell.
2:50 - 3:30 PM	Opening of Exhibit Showcase and Networking Break	COSTA DEL SOL LOBBY/F-H	Sponsor EnerSys
3:30 - 3:50 PM	Market Report: Cell, Cathode and Anode Production in NA	COSTA DEL SOL A-E	Speaker Ken Hoffman  McKinsey & Company
3:50 - 4:10 PM	Market Report: Lithium Battery Recycling and Second Life Markets	COSTA DEL SOL A-E	Speaker Nathan Niese  Boston Consulting Group







## POWERING THE FUTURE – EVERYWHERE FOR EVERYONE

From all of us at the EnerSys® family of companies, welcome back to NAATBatt! It's great to see you in person to talk about how we can put our world-class energy system solutions to work for you.













ABSL

**VISIT US AT NAATBatt BOOTH #46** 

www.enersys.com

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### ATBATT2024

#### GENERAL PROGRAM AGENDA

#### **TUESDAY • FEBRUARY 20 (CONT.)**

TIME	EVENT	LOCATION	SPEAKER/SPOI	NSOR
4:20 - 5:50 PM	Member Update Presentations (Upstream): Session 1A	COSTA DEL SOL A-E	Companies Ten-Nine Technologies Siemens Honeywell Precision Roll Grinders Flexo Concepts Benchmark Mineral Intelligence Ltd. TRUMPF Inc. Orbia	Cabot Corporation American Electric Power Bechtel Rockwell Automation Abbott Furnace Co Borman Specialty Materials Avery Dennison
4:20 - 5:50 PM	Member Update Presentations (Midstream): Session 1B	COSTA DEL LA LUNA 1-4	Companies Regional Growth Partners QAD Mettler Toledo GFL Americas EAS Advisors/24M Technologies Enovix Maccor, Inc. EnerSys	DuPont Customized Energy Solutions Soteria Battery Innovation Group AM Batteries A and D Technology South Star Battery Metals
4:20 - 5:50 PM	Member Update Presentations (Downstream): Session 1C	COSTA DEL LA LUNA 5-7	Companies Airgas Cirba Solutions Stryten Energy Alabama Power Co Amphenol Daikin America Hitachi America Ltd. California LMCC	IBEW-NECA Aqua Metals Hatch CRU Butzel Long NEU Battery Materials Ascend Elements Renewance Inc
6:00 - 7:00 PM	Opening Reception	COSTA DEL SOL LOBBY/F-H	Sponsor Ten-Nine Technol	ogies
7:00 - 9:30 PM	Opening Dinner	LUNA LAWN	Sponsor Battery Innovatio	n Center (BIC)
7:15 - 9:30 PM	Board of Directors Meeting and Dinner	PARLOR ROOM		







#### When you need more than just gas

Gases play a critical role in your process and all throughout the battery ecosystem—you need the right industrial gas with reliable and uninterrupted supply to meet increasing BEV market needs—from start up and certification into production and through to expansion.

A typical two-year transition from certification into full production demands access to multiple supply mode options to accommodate increasing gas consumption. Airgas, an Air Liquide company, can help with a variety of supply options starting with bulk and increasing to on-site gas generation and pipeline supply as needed.

Backed by a global R&D network, our application experts and local teams near you are ready to help optimize gas use and battery performance, simplify your supply chain, and improve your TCO.

Visit us at Booth #44 and learn how we can help you stay competitive.





Scan this code to discover the right Airgas supply mode for your process.



#### **GENERAL PROGRAM AGENDA**

#### **WEDNESDAY • FEBRUARY 21**

TIME	EVENT	LOCATION	SPEAKER/SPONSOR
7:00 AM	Ascend Elements Running Meet UP	HOTEL MAIN LOBBY	Sponsor Ascend Elements
7:30 - 8:20 AM	Continental Breakfast Focused Breakfast Discussions	COSTA DEL SOL LOBBY/F-H	
	Table #1: Silicon Strategies for Lithium Batteries	COSTA DEL LA LUNA 1-4	Sponsor Enovix
	Table #2: Evolution and Future of the Battery Pack	COSTS DEL LA LUND 5-7	Sponsor American Battery Solutions
	Table #3: Improving Economics of Battery Recycling	COSTA DEL LA LUNA 1-4	Sponsor Ascend Elements
	Table #4: Upstream w/o a Paddle: Battery Materials Challenges	COSTA DEL LA LUNA 1-4	Sponsor Siemens
	Table #5: Tailoring LDES for Varied Use Cases and Durations	COSTS DEL LA LUND 5-7	Sponsor Stryten Energy
8:20 - 8:25 AM	Welcome by the Chairman of NAATBatt	COSTA DEL SOL A-E	Speaker Renata Arsenault Ford Motor Company
8:25 - 8:35 AM	Reports by Breakfast Discussion Leaders	COSTA DEL SOL A-E	
8:35 - 8:45 AM	NAATBatt Annual Members Meeting	COSTA DEL SOL A-E	
8:45 - 9:35 AM	Filling the Gaps in the Supply of Energy Materials (Session #1)	COSTA DEL SOL A-E	Sponsor BIC Dave Roberts (Moderator) Li-Bridge Initiative
			Peter Fitzmaurice Fastmarkets
			Abby Wulf <b>Initiative</b>
			Rahul Walawalkar Customized Energy Solutions India
			llka von Dalwigk InnoEnergy/European Battery Allia

**CLICK HERE** 

To learn more about your 2023 speakers









Cirba Solutions is the premier battery recycling materials and management company. Advanced technology is used to extract critical materials from scrap and end-of-life batteries, and then those battery-grade metals are reintroduced into the supply chain. Cirba Solutions is transforming finite resources into sustainable critical metals that can be infinitely reused through recycling.

Global Reverse





**Battery Processing** 



Safety-Centric



Customer Service Excellence

30+ Years Experience





### BATT20

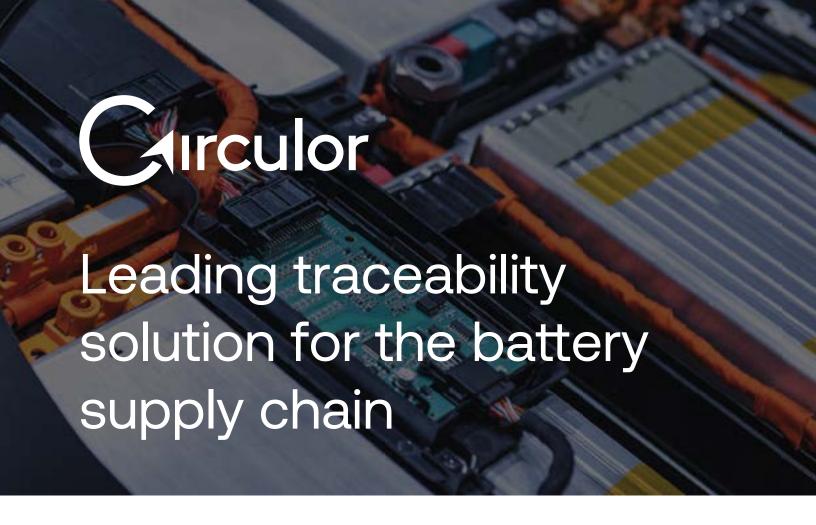
#### **GENERAL PROGRAM AGENDA**

#### WEDNESDAY • FEBRUARY 21 (CONT.)

TIME	EVENT	LOCATION	SPEAKER/SPONSOR
9:35 - 10:25 AM	Looking Beyond Lithium-Ion/ How Soon? (Session #2)	COSTA DEL SOL A-E	Sponsor Pomega Energy Storage Technologies Safak Dogu (Moderator) Pomega Energy Storage Technologies Michael Sanders Avicenne Energy US Erik Spoerke Sandia National Laboratories Khalil Amine Argonne National Laboratory Celina Mikolajczak Lyten
10:25 - 11:00 AM	Networking Break	COSTA DEL SOL LOBBY/F-H	Sponsor SAE & InnoEnnergy
11:10 - 12:25 PM	Member Update Presentations (Upstream): Session 2A	COSTA DEL SOL A-E	Companies Waygate Technologies Digatron Power ELectronics Panasonic Corporation of North America Sion Power Navitas Systems UnitX Inc. SAE International Amcor  Charles Ross & Son Company Panasonic Corporation of North America Sion Power Navitas Systems UnitX Inc. International Zinc Association
11:10 - 12:25 PM	Member Update Presentations (Midstream): Session 2B	COSTA DEL LA LUNA 1-4	Companies  KATOP Automation Co., Ltd.  American Battery Solutions Blue Solutions Canada Inc. National Renewable Energy Laboratory Huntsman  Nth Cycle ZincFive Photon Automation Martin Automatic South 8 Technologie Nuvation Energy Forsee Power PEC North America
11:10 - 12:25 PM	Member Update Presentations (Downstream): Session 2C	COSTA DEL LA LUNA 5-7	Spiers New Technologies Technologies Ecobat Botree Recycling Technologies Yates Construction Company Circunomics Plante Moran Turner Construction M.A. Mortenson Dolav US Epsilon Advanced Materials Pvt Ltd  ReElement Technologies Circunomics Circunomics Circunomics Turner Construction Circulor Ratel Consulting







The most proven and trusted technology solution for supply chain transparency.

- Enables proof of responsible and sustainable resourcing
- $C_4$ Prevent and mitigate risks and improve business performance
- Gain full visibility of supply chain with actionable insights

#### **Trusted by market leaders**



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### BATTZO

#### **GENERAL PROGRAM AGENDA**

#### WEDNESDAY • FEBRUARY 21 (CONT.)

TIME	EVENT	LOCATION	SPEAKER/SPONSOR
12:25 - 1:55 PM	Lunch	LUNA LAWN	Sponsor Ten-Nine Technologies
1:55 - 2:45 PM	Making Battery Manufacturing Equipment in North America (Session #3)	COSTA DEL SOL A-E	Sponsor Siemens Kyle Veugeler (Moderator) Siemens Sam Jaffe Addionics Bennett Resnik Venn Strategies Chad Shaffer Siemens Joern Tinnemeyer EnerSys David Ventola Durr USA
2:55 - 4:10 PM	Member Update Presentations (Upstream): Session 3A	COSTA DEL SOL A-E	Comapnies  Aspen Aerogels Impossible Metals Delta ModTech Sherwin-Williams Solvay COnovate  The Metals Company Owens Design Stratus Materials Jakertech eJoule Manz USA
2:55 - 4:10 PM	Member Update Presentations (Midstream): Session 3B	COSTA DEL LA LUNA 1-4	Companies Durr Systems Concentric Nano One Materials Coreshell Automotive Recyclers Assoc. Snell & Wilmer LLP Abel + Imray  Concentric KTON Green Li-lon Innophos Air Products Warner Norcross + Judd
2:55 - 4:10 PM	Member Update Presentations (Downstream): Session 3C	COSTA DEL LA LUNA 5-7	Companies  Coherent Robertson's Auto Salvage  Military Power Sources Consortium ElectraMet RecycLiCo Battery Materials  TDA Research BlueStone Advisors  UL Solutions KMC Global Currents  OPTEL Group
4:10 - 4:50 PM	Networking Break	COSTA DEL SOL LOBBY/F-H	Sponsor Renewance, Inc







### **Innovative Solutions Across the Battery Value Chain** Ensure Performance, Safety, and Quality

Efficient, safe, and rechargeable batteries are indispensable in today's economy. Ensuring raw material procurement and preventing battery failure is imperative for Li-ion batteries to dominate the alternative energy revolution.

Download our free guide to learn how to leverage innovative technologies to optimize various steps in the battery value chain, from testing raw materials and separated components to production, final quality control, and the recycling of batteries.



Download the guide today by visiting

bit.ly/battery-lifecycle-guide





#### **GENERAL PROGRAM AGENDA**

#### **WEDNESDAY • FEBRUARY 21 (CONT.)**

TIME	EVENT	LOCATION	SPEAKER/SPONSOR
4:50 - 5:40 PM	Infrastructure Challenges in the Build-Out of Battery Manufacturing (Session #4)	COSTA DEL SOL A-E	Sponsor SAE & InnoEnergy Oana Penu (Moderator) SAE International & InnoEnergy Kyle Vanderhoff AEP Robert Hess Newmark Scott Bulera Turner Construction Company
5:40 - 6:15 pm	Keynote Speech	COSTA DEL SOL A-E	Joe LoGrasso Polaris Ashley Zumwalt-Forbes US Department of Energy
6:00 - 6:20 pm 6:30 - 7:30 pm	Lifetime Achievement Award Presentations  Networking Reception	COSTA DEL SOL A-E COSTA DEL SOL LOBBY/F-H	Tien Duong U.S. Department of Energy Peter Lamp BMW Group Martin Winter University of Muenster
7:30 - 9:00	NAATBatt Annual Gala Dinner	LUNA LAWN	Sponsor QAD

#### **THURSDAY • FEBRUARY 22**

TIME	EVENT	LOCATION	SPEAKER/SPONSOR
7:00 AM	Ascend Elements Running Meet UP	HOTEL MAIN LOBBY	Sponsor Ascend Elements
7:30 - 8:20 AM	Continental Breakfast	COSTA DEL SOL LOBBY/F-H	
	Focused Breakfast Discussions Table #1: Advancing Inspection Technology in Battery Manufacturing	COSTS DEL LA LUND 1-4	Sponsor <b>Titan</b>
	Table #2: How traceability creates secure, responsible, and compliant supply chains	COSTS DEL LA LUND 5-7	Sponsor Circulor
	Table #3: Domestic Battery Supply Challenges for Aerospace and Defense Industries	COSTS DEL LA LUND 5-7	Sponsor EaglePicher
	Table #4: Advances in Battery Transportation and Storage Safety	COSTS DEL LA LUND 1-4	Sponsor Obexion AG
	Table #5: The Race To Solid State Battery Technology	COSTS DEL LA LUND 1-4	Sponsor Blue Solutions





## MAKING OUR MARK WITHOUT LEAVING ONE.



At Stryten Energy, we're using real-world applications of vanadium redox flow battery technology for long-term storage of renewables such as solar and wind. It's just one way we're helping power the U.S. transition to a clean energy future.



Learn more at Stryten.com.

#### **GENERAL PROGRAM AGENDA**

#### **THURSDAY • FEBRUARY 22 (CONT.)**

TIME	EVENT	LOCATION	SPEAKER/SPO	NSOR
8:20 - 8:25 a.m.	Welcome by President-Elect of NAATBatt	COSTA DEL SOL A-E	Speaker Brian Engel Amphenol	
8:25 - 8:35 a.m.	Reports by Breakfast Discussion Leaders	COSTA DEL SOL A-E		
8:35 - 9:25 a.m.	Developing the Battery Workforce in North America (Session #5)	COSTA DEL SOL A-E	Sponsor P&C Recruiting Joe LoGrasso (Moderator) Polaris Bernie Kotlier IBEW-NECA California Betony Jones U.S. Department of Energy Les Alexander Battery Innovation Center Wesley Henderson	
			Army Research Laborate Devin Horne Panasonic Corporation o	•
9:35 - 11:05 a.m.	Member Update Presentations (Upstream): Session 4A	COSTA DEL SOL A-E	Companies Octet Scientific Donaldson Armor Group American Battery Technology Company Festo Lyten	LiNova Energy Enpower Greentech 6K Energy LiNK Battery Technology Allnex USA Arkema
9:35 - 11:05 a.m.	Member Update Presentations (Midstream): Session 4B	COSTA DEL LA LUNA 1-4	Companies  Anguil Environmetnal Systems, Inc.  ForgeNano  Voltaiq  Liminal Insights  Sandia National Labs  CHEMTREC, LLC	Altris AB Exponent Electra Battery Materials Corp Brueckner Group USA Electric Applications Incorporated CSA Group
9:35 - 11:05 a.m.	Member Update Presentations (Downstream): Session 4C	COSTA DEL LA LUNA 5-7	Companies EaglePicher Technologies Glencore ReJoule	Blue Whale Materials Argonne National Laboratory Princeton NuEnergy



**BBB Industries** 

of Economic Development

**Georgia Department** 

**Veolia North America** 

**OnTo Technology** 

**Newmark Global** 

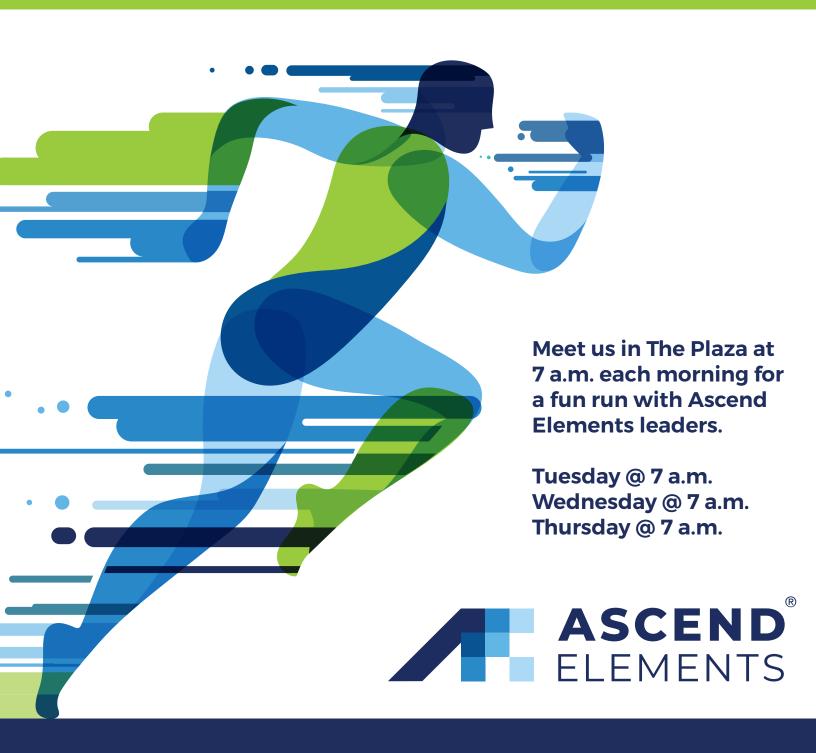
**Gresham Smith** 

**Higher Wire Inc.** 

Strategy



## JOIN US FOR A RUN AROUND THE RESORT LOOP.



#### **ASCEND ELEMENTS**

Sustainable EV battery materials made from recycled content for the road to zero carbon.

**ACCELERATE**TO ZERO CARBON

### ATBATT2024

#### **GENERAL PROGRAM AGENDA**

#### **THURSDAY • FEBRUARY 22 (CONT.)**

TIME	EVENT	LOCATION	SPEAKER/SPONSOR
11:05-11:45 am	Networking Break	COSTA DEL SOL LOBBY/F-H	Sponsor Airgas
11:45 - 12:35 pm	Addressing Health and Safety Challenges of Battery Materials (Session #6)	S COSTA DEL SOL A-E	Sponsor Cirba Solutions  Andrew Wood Cirba Solutions Jim Craner, MD Verdi Technology Robert Rezende San Diego Fire-Rescue Martin Winter University of Muenster
12:35- 2:00 pm	Lunch	LUNA LAWN	Sponsor Cirba
2:00 - 2:50 p.m.	Member Update Presentations (Upstream): Session 5A	COSTA DEL SOL A-E	Companies  PDF Solutions Netzsch Pumps USA Pacific Northwest National Laboratory Hycamite TCD Technologies  IP PowerSystems  Binghamton University SUNY Nomura Research Institute America CHASM Advanced Materials
2:00 - 2:50 p.m.	Member Update Presentations (Midstream): Session 5B	COSTA DEL LA LUNA 1-4	Companies  Dukosi Wirtz Manufacturing  Ionic Mineral NY-BEST Technologies RMI  Storagenergy Technologies Swindell Dressler SMC Corp of America
2:00 - 2:50 p.m.	Member Update Presentations (Downstream): Session 5C	COSTA DEL LA LUNA 5-7	Companies  Miracle Automation Engineering Co. Standard Energy Amos Manufacturing Li-Cycle Corp.  AEsir Technologies Lithion Technologies Alkegen INOAC Interior Systems
3:00 - 3:50 p.m.	Will the Second Life Battery Business Work? (Session #7)	COSTA DEL SOL A-E	Emil Nusbaum (Moderator) Automotive Recyclers Association Freeman Hall B2U Storage Solutions Dirk Spiers Spiers New Technologies Sumreen Rattan Moment Energy  Summan Association John Kincaide 2nd Life Batteries Surinder Singh Relyion Energy
3:50 - 5:15 p.m.	Closing Reception	LUNA LAWN	SEE YOU NEXT YEAR!



### EFFICIENCY AND QUALITY COME TOGETHER

Accelerate your journey to high-volume production with scalable technology: closed-loop control, connected quality management and a manufacturing execution system designed for the battery industry.



Honeywell

#### **2024 EXHIBITORS** (Alphabetically) **BOOTH** 24M Technologies Inc. 21 **Absolute Engineering Limited** 11 **Advanced Test Equipment** 36 Airgas, an Air Liquide company 44 **Anguil Environmental Systems** 17 35 **Ascend Elements** 32 Avident Advisors (An Affiliate of Jones Walker LLP **Battery Streak** 26 **BST North America** 19 **Chroma Systrems Solutoins** 23 **Delta ModTech** 24 Dukosi, Inc. 40 **EaglePicher** 33 **ElectraMet Enersys** 46 FlackTex SpeedMixer 13 **Flexo Concepts** 43





### VAATBATT2024

2024 EXHIBITORS (Alphabetically)	воотн
Forge Nano	5
Georgia Department of Economic Development	18
Greentec Auto	37
Hitachi	15
Honeywell International	27 & 28
IP PowerSystems Corp	10
Lyten	29
Maccor	34
Martin Automatic	41
Merge Chemistry	45
Mettler Toledo	22
NIIT MTS	12
Optel	31
Owens Design	8
PEC North America Inc	20
QAD	30
Sandia	14





2024 EXHIBITORS (Alphabetically)	воотн
Schenck Process	42
Siemens	6 & 7
Spraying Systems	25
SPX Technologies	16
Stryten Energy	38
Ten-Nine Tech	Registration
Trumpf	39
Turner Construction Company	9
Waygate Technologies	4
Webesto Power Test Systems	2







Battery & Cell Test Equipment Worldwide



### INNOVATION

in Battery & Energy Storage Testing









**MACCOR** Model MTC-020 Temp Chamber



MHCCOR SERIES 40001 TEST SYSTEM

HIGH ACCURACY & HIGH PRECISION TESTING CHANNELS FOR BATTERIES AND OTHER ENERGY STORAGE DEVICES

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- Materials Research
- Automotive
- Grid Storage
- Medical
- · Cells | Modules | Packs
- Power Tools

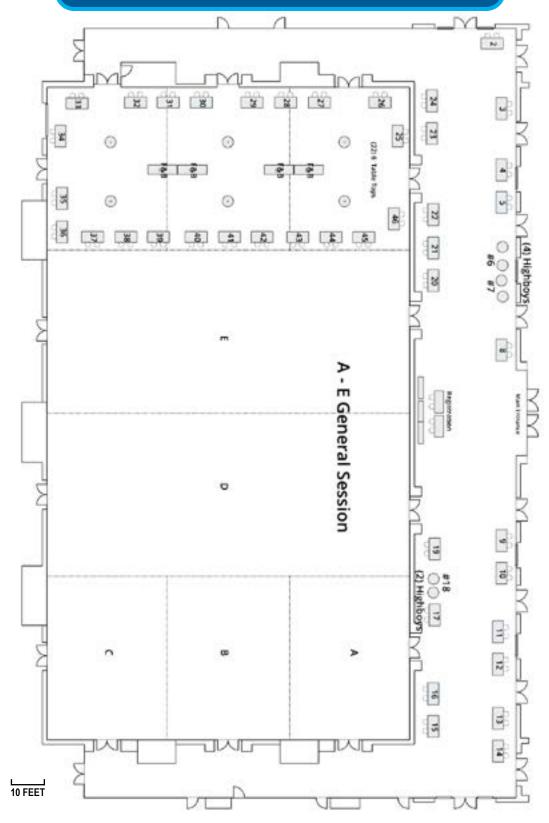
- Integrated Impedance Spectroscopy
- Quality & Standards Testing
- Military
- Mobile Devices
- Aerospace

- · Cell Balancing
- · CAN | SMB | I2C | DBPT
- Integrated Temperature Chamber
- Channels over 1200V | nanoAmps to thousands of Amps

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#### **EXHIBITOR FLOOR PLAN**



#### EVENT SPONSOR & EXHIBITOR INFORMATION



E 24M answers the world's need for affordable energy storage by offering a revolutionary battery manufacturing and product design platform, technology set and process enabled by the 24M SemiSolid™ and Unit Cell manufacturing platform. By re-inventing today's battery manufacturing methods and product design, 24M solves the critical, decades-old challenge associated with the world's preferred energy storage products and technologies: reducing their high cost while improving their performance, safety and recyclability. Founded and led by some of the battery industry's foremost inventors, scientists and entrepreneurs, 24M is headquartered in Cambridge, Mass. For more information, please visit www.24-m.com.



Absolute design and manufacture the World's only on press ultrasonic engraved roll cleaner - SONO. The system resolves the issue of cleaning engraved rollers 100% without removing them from the coating line. Smart design ensures it's a completely de-skilled process, carried out by Operators, not a maintenance crew. This allows frequent, quick, deep cleaning to provide a permanent, consistent laydown of coating without offline equipment, subcontract cleaning companies or maintenance crews. Ultimately it allows users to produce a more consistent reliable product with no unscheduled machine downtime due to laydown discrepancies.



Advanced Test Equipment Corp. (ATEC) is a leading provider of test & measurement equipment rentals, sales, calibration, and service. Since 1981, test engineers, government agencies, and Fortune 500 companies have relied on ATEC to guide them to the right equipment, ship it quickly, and offer them the industry's best technical expertise and customer care. ATEC's broad inventory includes EMC, Power Supplies & Loads, RF Safety, Electrical, NDT, Environmental, Communications, and General Purpose test equipment. Explore the ATEC inventory at www.atecorp.com.



#### **(E)** MEGAWATT SPONSOR

Backed by a global network of application-based experts, Airgas understands the fast pace of the battery ecosystem and how our bundle can be integrated in the complex flowsheets of mineral extraction and material processing, to the gas intensity of battery production, to integrating into vehicles, and first commercial operations in recycling. And we've been helping our customers fill their own potential for over 40 years—instore, on site, over the phone and online at Airgas.com.





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put you in position to scale up and deliver on your goals and market expectations.

Find out how QAD enables Manufacturing success.

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to ramp production and to develop the supply chain to deliver it at the right time!

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#### EVENT SPONSOR & EXHIBITOR INFORMATION



American Battery Solutions designs and manufactures modular battery solutions for transportation, industrial and commercial markets primarily in North America and Europe. The team at ABS includes some of the most recognized battery systems experts in the industry, possessing decades of experience in designing, developing, and manufacturing high-volume advanced battery systems. Our experts are now applying this experience to the emerging and rapidly growing transportation segments, concentrating on module production, pack assembly, and customer integration. ABS operates a 120,000 sq. ft. technical center in Michigan and a dedicated 170,000 square foot State-of-the Art purpose-built state of the art battery manufacturing facility in Ohio. It employs more than 250 people in Michigan, and Ohio.



Anguil Environmental provides highly-engineered, environmental equipment and service solutions that help clients solve complex industrial air and water challenges across the globe and throughout the battery production chain; from material mining to powder production, anode coating, battery recycling, and component manufacturing.

On air pollution control applications, Anguil handles the design, manufacturing, service, and installation of thermal and catalytic oxidizers for the destruction of Volatile Organic Compounds (VOCs), Hazardous Air Pollutants (HAPs), process odors and Nitrous Oxides (NOX). Anguil also specializes in energy recovery systems that reduce a company's operating costs, lower their carbon footprint, and decrease energy consumption by utilizing waste heat from manufacturing processes.

For wastewater treatment applications, we provide turnkey treatment trains that target solid or liquid pollutants from industrial and remediation applications. As a custom solution company, we can integrate a range of technologies to meet specific site challenges with unmatched engineering, innovative equipment, guaranteed compliance, and reliable service.



Based in Westborough, Mass., Ascend Elements is the leading provider of sustainable, closed-loop battery materials solutions. From EV battery recycling to commercial-scale production of lithium-ion battery precursor (pCAM) and cathode active materials (CAM), Ascend Elements is revolutionizing the production of sustainable lithium-ion battery materials. Its proprietary Hydro-to-Cathode® direct precursor synthesis technology produces new pCAM from spent lithium-ion cells more efficiently than traditional methods, resulting in reduced cost, improved performance, and lowered GHG emissions. With fewer batteries going to landfill and a cleaner manufacturing process, Ascend Elements is taking the lithium-ion battery industry to a higher level of sustainability.







Food and Performance Materials

Powering production

Schenck Process FPM offers a wide range of bulk material handling, processing and dust collection systems that allow us to provide equipment solutions through various stages of lithium processing including:

- Refining of lithium and other critical materials
- Processing of materials for anode and cathode
- Manufacturing of cells and battery packs
- Recycling of batteries



Scan the QR code for more information



### BATTZ

#### EVENT SPONSOR & EXHIBITOR INFORMATION



🟮 Avident Advisors, an affiliate company of Jones Walker LLP (law firm), is a strategic provider of site selection consulting services in North America both in traditional sectors and in advanced manufacturing and green energy.

The Avident Advisors team combines, in one firm, this broad range of knowledge and experience required to provide effective location advisory services and economic development guidance. We have helped negotiate dozens of high-impact projects resulting in billions of dollars in investment and the creation of tens of thousands of jobs.

For more information, contact Tommy Kurtz, Managing Director, at 504-582-8371 or tkurtz@avidentadvisors.com. www.avidentadvisors.com



5 The Battery Innovation Center (BIC) is a collaborative initiative designed to partner with commercial enterprises, renowned universities, government agencies, and industry leaders to focus on the rapid development, testing and commercialization of safe, reliable and lightweight energy storage systems for commercial and defense customers.



Battery Streak commercializes patented advanced material technology that allows lithiumion batteries to charge in 10 minutes or less. The batteries utilizing Battery Streak's patented nanostructured materials charge extremely fast, have a very long cycle life, and eliminate many thermal issues compared to conventional batteries.

Fast Charging Battery Technology Using Niobium

Unlike conventional cathodes and anodes, our nanostructured battery materials store charge like a capacitor and discharge like a battery. This process is much faster than traditional Li-ion storage and limits the loss of capacity from phase changes during cycling. With this improved speed and efficiency, our cells generate much less heat during charge, even when high currents are used.







# **Build the right foundation** for your battery gigafactory using smart building automation systems.

Visit booths 6 & 7.

usa.siemens.com/smartfactory

#### EVENT SPONSOR & EXHIBITOR INFORMATION



Bechtel is a trusted engineering, construction and project management partner to industry and government. Differentiated by the quality of our people and our relentless drive to deliver the most successful outcomes, we align our capabilities to our customers' objectives to create a lasting positive impact. Since 1898, we have helped customers complete more than 25,000 projects in 160 countries on all seven continents that have created jobs, grown economies, improved the resiliency of the world's infrastructure, increased access to energy, resources, and vital services, and made the world a safer, cleaner place.

Bechtel serves the Energy; Infrastructure; Manufacturing & Technology; Mining & Metals; and Nuclear, Security & Environmental markets. Our services span from initial planning and investment, through start-up and operations. www.bechtel.com



Blue Solutions is the sole manufacturer of commercially available and globally deployed solid-state batteries used in EV applications. It is part of Groupe Bolloré, a Global 500 company. Lithium Metal Polymer (LMP®) batteries do not require cooling and have been installed for over a decade to power electric vehicles over 500 million kilometers.

We are working on our 4th Generation solid-state batteries to serve the needs of global OEMs seeking safety, performance, and higher energy density. LMP® solutions are built at two vertically integrated factories in France and Canada with a team dedicated to supporting the success of vehicle manufacturers and renewable energy integrators.



BST North America is a leading suppliers of quality assurance systems for web processing industries. We provide solutions for web guiding, surface inspection, web monitoring, 100% inspection, color measurement, color management, register control and automation. The company has decades of practical expertise in these areas, with installations at more than 15,000 customers worldwide in the printing and packaging, paper and film, rubber and tire, battery and fuel cell, and printed and organic electronics industries. BST stands for high-quality monitoring, smooth production processes and first-class service worldwide.



For nearly 170 years, Butzel has played a prominent role in the development and growth of the automotive industry. Business leaders continue turn to Butzel for innovative legal counsel that produces clear-cut results. We're adept at guiding entities through the maze of governmental mandates and regulations imposed in advanced battery manufacturing and storage, including approved methods for recycling and disposal for HEVs, BEVs, PHEVs, and others, including charging infrastructure and additional emerging technologies in the E/AV sector. We were one of the first firms in the US to form a Connected and Autonomous Mobility Team. Always positioned as a leader in advising industry groundbreakers on technology, manufacturing, intellectual property, and other areas of the law, we're now deeply immersed in this ascending segment of the automotive industry and stand ready to assist our automotive and defense clients to adapt, diversify, and expand in this ever-evolving market.









#### Standard & Custom Battery Packs







Custom Last Mile Delivery Van Battery 400V 94kWh



Custom Transit Bus Battery 665V 110kWh



POWERING TOMORROW'S ENERGY NEEDS, TODAY.

info@americanbatterysolutions.com



www.americanbatterysolutions.com Michigan-Ohio-Massachusetts

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### Chroma

Chroma manufacturers battery and power conversion test equipment and automated test systems. Chroma is the largest worldwide provider of high precision, integrated battery test and energy storage test solutions designed for lithium ion and other battery chemistry. From R&D to end of line, Chroma provides advanced battery test features including regenerative discharge systems that recycle energy sourced by the battery back to the channels in the system or to the grid.

#### **MEGAWATT SPONSOR**



Cirba Solutions is a premier battery recycling materials and management company using advanced technology to extract critical materials from manufacturing scrap and used batteries, then supplies those battery-grade metals back into the supply chain. With over 30 years in the industry as the most experienced battery recycling processor, this vertically integrated team has an operational and differentiated platform of capabilities. Across 7 operational sites, Cirba Solutions' expertise is in collecting, packaging, transporting, disassembly and processing batteries. Creating a circular battery supply chain is critical to ensuring that today's resources are used to their fullest potential.

#### KILOWATT SPONSOR



Significant Circulor is the market leader in battery passports and digital identifiers, and critical mineral value chain traceability. The Circulor platform enables miners, refiners as well as battery and auto manufacturers to gain visibility into their supply chains to demonstrate responsible sourcing, improve their ESG performance, reduce Greenhouse Gas (GHG) emissions, manage the supply chain risks and then combine all this into a battery passport. Circulor is a global business with growing teams based in EMEA, NA, and APAC, collaborating with clients worldwide.



Delta ModTech offers innovative converting, packaging and coating equipment solutions for roll-to-roll and roll to discrete part manufacturing. From fully automating the electrode coating and drying process, to laser etching an electrode, to advanced stacking and assembly. The proven modular designs of our machines allow the process to be as simple or complex as you need, with minimal risk. Delta ModTech machines are known for their innovative technology, ease of use, robust performance and upgradeability. Each machine is backed by our passionate Service team for support, training and upgrades. Delta clients often referred to us as the "best in the business". Each system is proudly built in the USA and supported world-wide. Bring us your toughest challenge!







Focusing on the rapid development, testing and commercialization of safe, reliable and lightweight energy storage systems for defense and commercial customers.

- Training and advisory support
- Basic and applied research
- Technical Consultation
- Elementary cell concept
- Cell research and development
- Battery and Cell Manufacturing
- Testing and Evaluation
- Hazards and safety testing
- Low volume manufacturing
- Field service and support
- Pack systems advisory
- Technology development and start-up incubation





#### EVENT SPONSOR & EXHIBITOR INFORMATION



Dukosi develops revolutionary technologies that dramatically improve the performance, safety, and efficiency of battery systems, and enable a more sustainable battery value chain. The company provides a unique cell monitoring platform based on intelligent chip-on-cell technology and contactless near field communication for electric vehicles (EV), industrial transportation and stationary energy storage markets. This innovative solution allows the most flexible battery design, automated manufacturing, optimized battery performance, highest safety standards, and lifetime traceability. Headquartered in Edinburgh, Scotland, Dukosi has a global footprint with locations in USA, Asia and Europe.



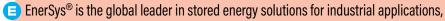
EaglePicher Technologies has been a trusted domestic supplier of advanced technology battery and energy storage systems for over 100 years With over 30 different electrochemistries, we design unique solutions to meet the specific application requirements of our defense and aerospace customers. Our AS9100 certification and extensive experience in battery development allow us to provide highly engineered solutions for mission critical applications on weapons, aircraft, spacecraft and more. Trust EaglePicher Technologies for your advanced battery and energy storage needs.



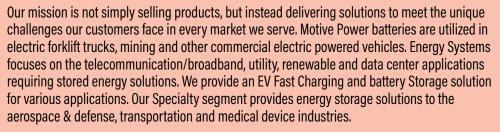
ElectraMet is a proud member of NAATBatt, contributing our expertise in sustainable battery recycling with highly selective, advanced purification solutions for lithium-ion battery recycling.

We're revolutionizing the industry through copper and manganese impurity removal to sustainably maximize material value while eliminating environmental impact. ElectraMet's innovative technology selectively and sequentially removes impurities to exceed specifications with battery recycling streams without generating secondary waste streams or byproducts.

#### **GIGAWATT SPONSOR**



complementing an extensive line of Motive Power, Power Systems and Specialty batteries with a full range of integrated services and systems.



We define success by our customers' success and deliver solutions that help our customers succeed. Put our experience to use helping you overcome your next powering challenge.







### Blue Solutions

BOLLORÉ

Safe, Sustainable & Smart

4<sup>th</sup> Gen of SSB

20+ years into R&D

12+ years industrial operations

SOLID-STATE BATTERY

Gen4

The science of materials & interfaces

#### EVENT SPONSOR & EXHIBITOR INFORMATION



Enovix is on a mission to power the technologies of the future. Everything from IoT, mobile and computing devices, to the vehicle you drive, needs a better battery. Our disruptive architecture enables a battery with high energy density and capacity without compromising safety. We are scaling our silicon-anode, lithium-ion battery manufacturing capabilities to meet customer demand. Follow our progress at www.enovix.com/scale.



Fastmarkets provides access to verified, market-reflective data and insights, as well as forecasts, spot prices and reports for the rapidly evolving battery materials market. Fastmarkets offers an in-depth battery cost analysis for the battery manufacturing market, as well as a ten-year forecast for the battery recycling market and risk management tools to reduce your exposure to price volatility.



FlackTek SpeedMixer® will be demonstrating an advanced tool for mixing, grinding milling and dispersing. This Non-Invasive Mixing® technology can be used to process any combination of powders, pastes, putties and liquids from <1g-10kg. The FlackTek SpeedMixer® removes air bubbles while homogenizing the sample, in seconds, and ABSOLUTELY NO CLEANUP!



For more than 30 years, Flexo Concepts has been a leader in doctor blade innovation. We pride ourselves on having the most advanced suite of high-performance doctor blades for roll doctoring and roll cleaning. Our TruPoint doctor blades are the choice for many industry leaders, OEMs, and engineers. All TruPoint blades are manufactured and quality-tested in our USA headquarters and distributed globally.

TruPoint products have become the standard in coating & lamination, and are ideal for applying separator film coating, calendar roll cleaning on the anode and cathode layers of high-quality Lithium-ion batteries. Products like TruPoint Edge, Polylam, Renew, Orange, and Keon are optimized for various attributes including stiffness, wear, or resistance to certain chemicals or temperatures.

Whether your battery application requires a standard product or a custom engineered solution, we want to be your partner. For more information about the company and its global TruPoint portfolio visit www.flexoconcepts.com.





### **Experience the Power of EaglePicher!**

We develop unmatched, fully-integrated battery solutions for military, space and aviation applications.

Stop by Booth #33



### EAGLEPICHER

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Forge Nano optimizes material performance to enable better products. Forge Nano's proprietary Atomic Layer Deposition technology, Atomic Armor, allows for the application of thin coatings to the surface of materials or objects in order to enhance the underlying substance's performance and durability. Forge Nano technology has been adopted into multiple commercial markets to impart improvements to materials which enable highperformance products such as lithium-ion batteries.



For over a century, the state of Georgia has cultivated the nation's premier business environment, encouraged collaboration and innovation, and positioned the state as a leader in developing and harnessing emerging technologies for the rapidly evolving automotive and mobility industry. Georgia continues to grow its EV and battery manufacturing ecosystem, focusing on every step of the supply chain. From battery materials, cells, modules and recyclers to EVs and vehicle components, more than 40 EVrelated companies have committed to invest at least \$22.7 billion in Georgia manufacturing facilities since 2020. The state's unmatched logistics and infrastructure network, diverse and skilled workforce, research institutions and low cost of doing business continue to attract leading automotive and battery companies. Learn more at www.georgia.org/ev



With more than 110 years of experience, Hitachi is actively reinventing to help increase quality of life for people across the globe with sustainable products and solutions used by consumers and across various industries such as automotive, power generation, and energy management.

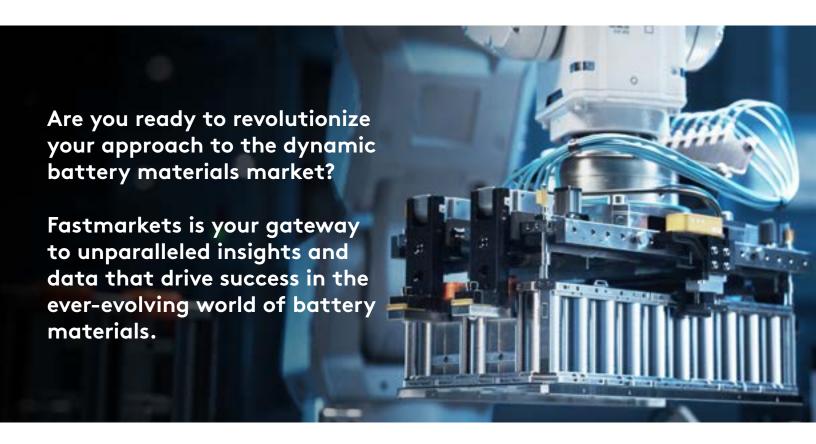
Hitachi High-Tech is developing a Battery Degradation Diagnostics solution that evaluates the performance degradation and remaining life of lithium-ion batteries during or after use, enabling an efficient data management platform to monitor individual battery usage status, evaluate remaining performance at the reuse/recycling phases, and visualize supply-anddemand balance.

Hitachi America R&D is engaged in research activities that leverage big data analytics, internet of things, artificial intelligence (AI), machine learning, blockchain, and other technologies. These activities are designed to help organizations optimize operations, improve efficiency, and enable circularity in industrial products, electric vehicle, and battery energy storage value chains.









#### Verified, market-reflective data

Fastmarkets provides access to meticulously verified, market-reflective data that forms the bedrock of informed decision-making. Stay ahead of the curve with real-time insights into the battery materials market.

#### Forecasts, spot prices and reports

Navigate the twists and turns of the market with confidence. Fastmarkets equips you with powerful forecasts, spot prices and comprehensive reports, empowering you to make strategic decisions that maximize your opportunities.

#### In-depth battery cost analysis

Dive deep into the heart of battery manufacturing. Fastmarkets offers an in-depth battery cost analysis, unveiling critical insights that streamline your production processes and boost efficiency.

#### Forecasts for battery recycling

Sustainability meets foresight. Fastmarkets delivers a vision for the future with a ten-year forecast for the battery recycling market. Align your strategies with long-term trends and position yourself as a sustainability champion.

#### Risk management tools

Stay ahead in a volatile market. Fastmarkets provides essential risk management tools, empowering you to mitigate risks and secure your investments in the face of market fluctuations.



#### Find out more

fastmarkets.com/find-outmore-about-fastmarketsnewgen/

#### **EVENT SPONSOR & EXHIBITOR INFORMATION**

Honda is working toward its global goal of zero environmental impact by 2050 through its "Triple Action to Zero" approach, including achieving carbon neutrality for all products and corporate activities, 100% utilization of renewable energy, and resource circulation, utilizing 100% sustainable materials by reprocessing products back to raw materials and reusing those materials to create new products. Toward this goal, Honda will strive to make battery-electric and fuel cell electric vehicles represent 100% of auto sales in the U.S. and globally by 2040.

#### HONDA

To reduce the environmental impact of business operations, Honda also is offsetting CO2 emissions from its North American manufacturing operations through long-term virtual power purchase agreements for renewable wind and solar power, seeking to cover more than 60% of the electricity Honda uses in North America. Honda also promotes environmentally responsible business practices with its suppliers and retail dealer partners across North America.

### Honeywell

Honeywell is a global technology and service company delivering industry-specific solutions that include integrated manufacturing systems for the Lithium-ion battery industry. Our business is aligned with three powerful megatrends – automation, the future of aviation and energy transition – underpinned by our Honeywell Accelerator operating system and Honeywell Connected Enterprise integrated software platform. As a trusted partner, we help organizations solve the world's toughest, most complex challenges, providing actionable solutions and innovations through our Aerospace Technologies, Industrial Automation, Building Automation and Energy and Sustainability Solutions business segments that help make the world smarter, safer and more sustainable. For more news and information on Honeywell, please visit www.honeywell.com/newsroom.



IP PowerSystems offers unique electrolyte filling equipment for Lithium-ion battery cells: round or prismatic hard case, as well as pouch cells.

Our machines offer quick, precise electrolyte filling. You'll find us in R&D labs and pilot lines, as well as fully automated mass production lines. Our filling technology ensures precise electrolyte filling every time with smart processes like direct filling of the electrolyte.

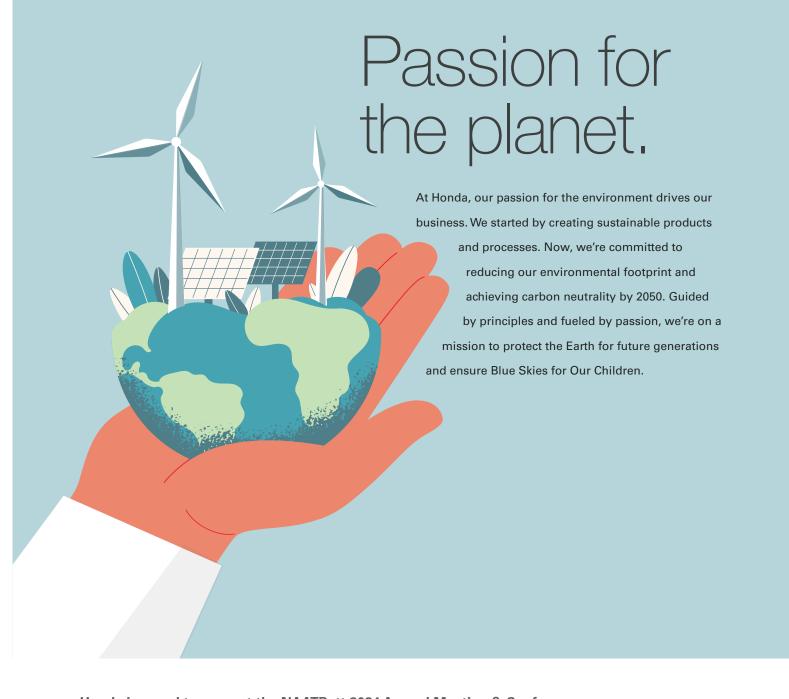
Thanks to the modular construction of our machines, battery cell filling is scalable and more stations can easily be added to quickly increase capacity. Automation with robots is also available as a current or future add-on.

For R&D we offer filling machines with many adjustable parameters. Most of our innovative technologies have patents or are patent pending.

Of course IP PowerSystems offers engineering and after-sales service for all its product lines. Come visit us at Booth 10 to learn more, or visit our website: ip-powersystems.com







Honda is proud to support the NAATBatt 2024 Annual Meeting & Conference. Learn more at csr.honda.com @TeamHondaCares













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Lyten is a supermaterial applications company that is making an advanced Lithium-Sulfur battery which can be sourced and manufactured in North America.

LYTEN

Lyten's proprietary processes permanently sequester carbon from methane in the form of 3D Graphene and utilize the tunable supermaterial to develop many decarbonizing applications, including next-generation Lithium-Sulfur batteries for use in the automotive, aerospace, defense, and other markets. Because they require no NMC materials in the cathode, Lithium-Sulfur batteries eliminate the risks and expenses of today's conventional Li-lon supply chain.

Lyten investors include industry leaders such as Stellantis (third-largest auto manufacturer in the world), FedEx, Honeywell, and Walbridge and is led by a group of experienced executives from across Automotive, Energy, Batteries, Manufacturing and Defense. The company has over 415 patents granted and pending and is currently manufacturing Lyten 3D Graphene supermaterial and its applications in San Jose, California. Visit https://lyten.com.



Maccor manufactures testing equipment for the battery and energy storage market (i.e. batteries, capacitors, fuel cells, etc.). Maccor Inc. was the pioneer, and is the world's largest commercial manufacturer for this type of equipment. Maccor continues to be the leader in technological innovation for both hardware and software to allow the test systems to be configured for any application and is recognized the world over as the industry standard in performance, reliability, speed, accuracy, precision and customer support. More companies rely on Maccor everyday for their battery and cell test equipment needs. Now Maccor systems are more powerful than ever with EIS integration which allows the system to perform in situ impedance spectroscopy experiments when integrated with a Solartron Analytical or Princeton Applied Research frequency response analyzer. Maccor also supplies cell formation equipment for a variety of cell formats and sizes. Today Maccor has thousands of systems in operation in more than 60 countries with local sales and customer support services available in many areas.



📘 High performance splicing, rewinding and tension control systems. Martin Automatic Inc. is a U.S. based company with locations in Europe and the Pacific Rim. With nearly 8,000 installations in more than 50 countries, Martin Automatic is known for its extensive line of automatic splicing unwinds, automatic transfer rewinds and tension control systems based on its patented inertia compensation technology. Martin has provided innovative solutions for the most demanding web handling challenges, including; Lithium-Ion Manufacturing Processes, webs designed to produce cathode and anode cells and battery and electronics films. Martin Automatic has been developing, engineering and manufacturing automation solutions for over 56 years.





# Charging Ahead with ObexionAG



Specifically designed for transporting and storing lithium batteries.

Utilizes Akkugrain's groundbreaking technology integrated into lightweight UN-certified packaging.

Akkugrain swiftly extinguishes fires, reduces temperatures, and neutralizes toxic gases into harmless water vapor.

Unparalleled safety at a lower cost for new, end-of-life, or damaged batteries.

Redefine your lithium battery logistics with





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MERGE Chemistry is a custom chemical manufacturer specializing in energy storage applications with an emphasis on electrolytes, additives, and stabilizers (EAS) for aqueous battery technologies.

Our additive packages, based on metals and inorganic salts, are optimized to inhibit hydrogen evolution, decrease corrosion, and control plating and dendrite growth. Each package is custom tailored for compatibility with your proprietary electrolyte chemistry, from acidic to alkaline.

We also offer a portfolio of battery-grade starting materials and trace metals testing services to evaluate degradation of cell materials after long cycle times. Our manufacturing capability ranges from prototype/pilot scale, all the way up to full commercialization.

#### **KILOWATT SPONSOR**

### METTLER TOLEDO

METTLER TOLEDO is a leading global manufacturer of precision instruments. The Company is the world's largest manufacturer and marketer of weighing instruments for use in laboratory, industrial and food retailing applications. The Company also holds top-three market positions in several related analytical instruments markets and is a leading provider of automated chemistry systems used in drug and chemical compound discovery and development.

Our website is www.mt.com If you are able to add a laboratory specific page: Laboratory Live Webinars (mt.com)

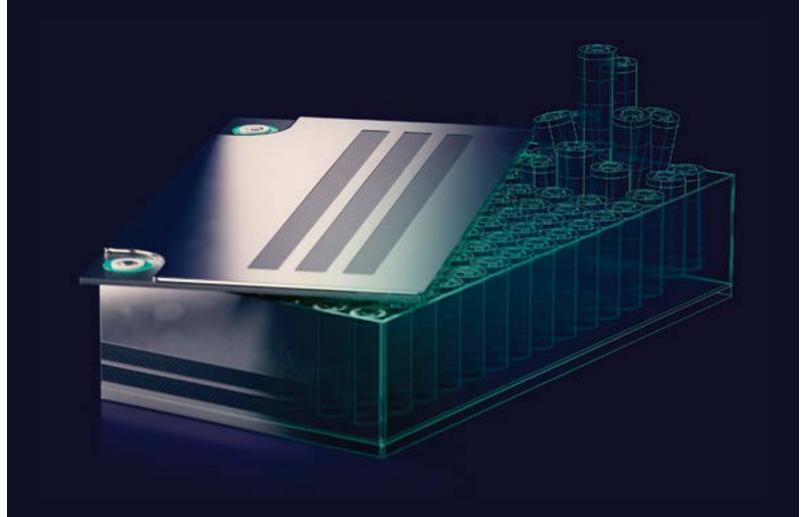


A secure and resilient material supply and manufacturing base is crucial to modernize the nation's infrastructure and support the energy transition. The Modeling, Mapping, and Analysis Consortium (MMAC) offers insights from cross-cutting industries to inform investments in America's energy future. Our experts leverage cutting-edge capabilities, a robust analysis framework, and complex data to map interconnected manufacturing and clean energy supply chains. With objective, targeted, and timely analysis, MMAC is helping chart a course that is both domestically focused and globally resilient. MMAC combines state-of-the-art capabilities from the National Renewable Energy Laboratory, Argonne National Laboratory, and Idaho National Laboratory with support from U.S. Department of Energy's Office of Manufacturing and Energy Supply Chains.





#### **SIEMENS**



Your partner for automation, digitalization, and recycling solutions.

Visit booths 6 & 7.

usa.siemens.com/automation

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S NEU is pioneering an electrochemical technology for sustainable recovery of iron-based cathode battery materials. Whether you're a cell manufacturer, eMobility OEM, or recycler, our system is designed to help you retrieve maximum value from LFP material. NEU's technology integrates advanced redox-reaction technology into a modular design, making it possible to have ultra-efficient and scalable lithium extraction on-site at your facility. No acids, no heat, just water and electricity to process batteries and production scrap into battery-grade lithium. From lab to industrial scale, NEU is your go-to LFP recycling partner, ensuring sustainability and value at every step of the way.





Co-funded by the European Union



E The InnoEnergy Skills Institute is one of Europe's leading training skills providers for the sustainable energy workforce through applicable and effective modular training courses developed by Europe's leading sector experts and academic institutes. NIIT is a leading provider of transformative managed learning solutions to the world's leading companies across 30 countries.

The strategic partnership between InnoEnergy Skills Institute and NIIT combines the unrivalled expertise of IESI in green skills training with NIIT's presence and capabilities as a global managed learning services leader to rapidly scale and create the highly skilled and certified human capital essential for the transition to green energy.



ENABLED BY Akku & Grain'

**S** Labelmaster, the leading provider of products, services and technology for the safe and compliant transport of dangerous goods (DG) and hazardous materials (hazmat), has been named the North American distributor of Dolav's AkkuGrain® containers. Available as part of Labelmaster's line of Obexion protective packaging, ObexionAG offers a safe, simple and cost-efficient packaging solution for transporting and storing lithium batteries.

Designed specifically for transporting and storing multiple lithium batteries, the AkkuGrain material allows for the handling of new, end-of-life or damaged batteries in Dolay's reusable UN-certified HDPE containers. The rugged containers are third party tested to UNP911 test protocols —delivering total protection and safety at the lowest cost and container weight. ObexionAG is an ideal container for new, damaged, end-of-life, prototype and ready to be recycled batteries, without requiring secondary, overpack components or void fill materials. Our full product portfolio offers certified options up to 125 kWh.





# Hiring and HR Experts in Green Energy & Mining

- Recruiting for technical professionals, leaders and c-suite executives
- Interim contract professionals for project-specific assignments
- Human resources consulting





PANDCRECRUITING.COM

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OPTEL has a proven track record of over 30 years in providing end-to-end and highly granular traceability solutions that enable companies to unlock the potential of intelligent and digital supply chains. Optchain, OPTEL's flagship traceability solution, connects all stakeholders across the value chain to ensure complete, real-time visibility for better supply chain performance, sustainability, and compliance with regulatory standards.

Founded in 1989, OPTEL is a Certified B Corporation headquartered in Canada, with facilities in Germany, Ireland, India and Brazil, as well as employees worldwide.

For more information, visit optelgroup.com.



For 40 years, Owens has worked with 0EMs and manufacturers for startups to fortune 500 companies, to design and build over 2,500 tools with 100% delivery. This is achieved through a proven product development process, a team of engineers that average 45 successful development projects each, the discipline to focus on projects in our area of expertise, 75,000 square feet of facilities, and the commitment of our clients to succeed.

Owens Design focuses on high tech industries, offers special expertise in semiconductors, renewable energy, emerging technologies, data storage, and medical devices. Our wide range of application experience includes:

Laser Processing (Via Hole Drilling, Edge Forming, Welding, Etc.) • Thin-Brittle-Dry Material Handling • Custom Cassette and Tray Handling • Delicate Cell Layer Cleaning • Layer Metrology and Inspection

Come see Danny and Randy at Table 8 near the Reg Desk. HAPPY HOUR ALL DAY !!!!



S The P&C Recruiting and HR team understands that employers rely on top talent working effectively to achieve cultural, financial, and operational objectives.

With a team of 12 employees located throughout North America who bring experience and knowledge within the green energy and mining sectors, P&C's diverse client employers are happy to provide references – with reputation being a key value that P&C was built upon.

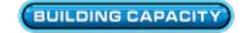
Contact us for the following services:

Technical, Professional and C-Suite Recruiting ● Interim Contract Professionals ● Human Resources Consulting (Leadership Training, Compensation, Employee Relations, Communications, Retained HR Support)

P&C offers a concierge approach to the search process; providing superior service to employers and the candidates they work with. From customized leadership aptitude assessments to immigration, relocation, housing and school assistance for families, and onboarding into the new role.

We look forward to hearing from you! www.pandcrecruiting.com ● toll-free: 833-775-7729







Pomega provides energy storage technology with industry-leading safety, reliability and efficiency. We customize end-to-end solutions for your project, from manufacturing, to installation, to operation and maintenance – all made in Walterboro, South Carolina.

- Utility-Scale battery energy storage solutions (BESS)
- Residential Energy Storage Solutions
- Manufacturing LFP cells, packs, racks, and turnkey BESS
- One-stop-shop for IRA-Compliant Utility-Scale Energy Storage Solutions

• 650,000 square foot facility

Technologies' Manufacturing

Facility for LFP Batteries & BESS

- 6 GWh of 302Ah batteries for utility-scale projects
- 1.5 GWh of 100Ah batteries for residential systems
- Pack production beginning 2024



For more information – salesteam@pomega.com

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#### EVENT SPONSOR & EXHIBITOR INFORMATION



PEC helps battery cell producers in the development and scale up of their GIGA factories. We provide the technology and equipment for the complete activation including RAPID Single-Step Electrolyte Filling, soaking, charging, final degassing and sealing, formation, aging and testing of battery cells with a clear focus to the Total Cost of Ownership. The PEC technology reduces energy consumption and improves cell performance and yield.



Pomega Energy Storage Technologies, Inc., is among the first U.S. companies to begin construction of a manufacturing facility for LFP batteries dedicated to utility-scale and residential stationary storage systems. In addition to the LFP battery cells, Pomega will manufacture the modules, packs, and racks used in battery energy storage systems (BESS) as well as their own turnkey BESS. This makes them among the first and only one-stop-shops for IRA-compliant utility-scale energy storage solutions manufactured in the U.S.A. Pomega's factory is being built in Walterboro, South Carolina, in the heart of the emerging "battery belt" of the southeastern United States. The 650,000 ft² facility will produce 6 GWh of 302 Ah and 1.5 GWh of 100 Ah LFP batteries.

This follows the completion of Pomega's first LFP battery and BESS manufacturing facility outside of Ankara, Türkiye. That facility has a 3 GWh capacity and will supply markets outside the U.S. Pomega is the subsidiary of Turkish company Kontrolmatik Technologies, the world's 28th-largest systems integrator for power generation, transmission, and distribution projects.

Visit Pomega U.S.A. https://pomega.com/ and follow us on social media.



QAD's ERP and Supply Chain solutions for emerging EV 0EMs and suppliers were built on our deep automotive manufacturing expertise and experience. Find out how we can help ramp quickly, control costs, mitigate unforeseen disruptions, and ensure quality, compliance and sustainability. Visit us in the Exhibit Showcase and learn how your business can be #1 in the race to market.



Sounded in 2015, Renewance's mission is to promote the transition to greener energy and mobility solutions through enabling the safe and sustainable use of industrial batteries. To maximize recovery rates of critical battery materials, end-of-life reverse logistics must be simple and provide the most cost effective, environmentally friendly, and compliant solution. Renewance delivers on this need through **RenewanceConnect™**, a digital marketplace for end-of-life battery reuse and recycling.





#### EVENT SPONSOR & EXHIBITOR INFORMATION



SAE International's Sustainable Mobility Solutions (SMS) is an innovation unit responsible for creating new products, programs, and services that help lead the mobility industry to net zero-emission transportation.

We're developing comprehensive, data-driven research, technical frameworks, training, certification programs, and standards vital to achieving net-zero emissions:

Battery Academy, in partnership with EIT InnoEnergy: features 22 on-demand batteryrelated courses for professionals looking to excel in the field of e-mobility and prepare for the electric future;

Sustainable Mobility Career Center: showcases the latest careers in sustainable mobility and offers career advice and industry thought leadership;

EVSE Technician Certification Program: defines the certification scheme that specifies the knowledge, skills, and competencies required for EVSE technicians;

EV Charging Infrastructure Training Program: comprises a multi-part training program addressing EV-charging concepts and skillsets, including cybersecurity; standards, regulations, and safety; and safety principles for medium- and high-voltage charging.



Sandia National Laboratories is committed to pioneering advancements in electric grid modernization and ushering in a sustainable energy future. Our comprehensive approach encompasses a spectrum of energy storage research initiatives and engineering endeavors, spanning from fundamental R&D to the implementation of large-scale demonstrations and deployments.

Leveraging cutting-edge capabilities and a cadre of world-class experts, our primary focus is on rendering energy storage solutions economically viable. Our research extends across six key domains within stationary and distributed energy systems: Safety and Reliability, Power Electronics, New Battery Technology, Distributed Energy System Modeling and Analysis, National Policy Development and Outreach, and Demonstrations and Pilot projects.

In alignment with our dedication to social responsibility, we are actively engaged in the DOE Energy Storage for Social Equity (ES4SE) initiative. This transformative program aims to empower urban, rural, and tribal disadvantaged communities by promoting the adoption of energy storage technologies. Our objective is to position energy storage as a tangible pathway toward community prosperity, well-being, and resilience. Under the ES4SE initiative, eligible communities receive invaluable technical assistance and support, facilitating the development and deployment of new energy storage projects.

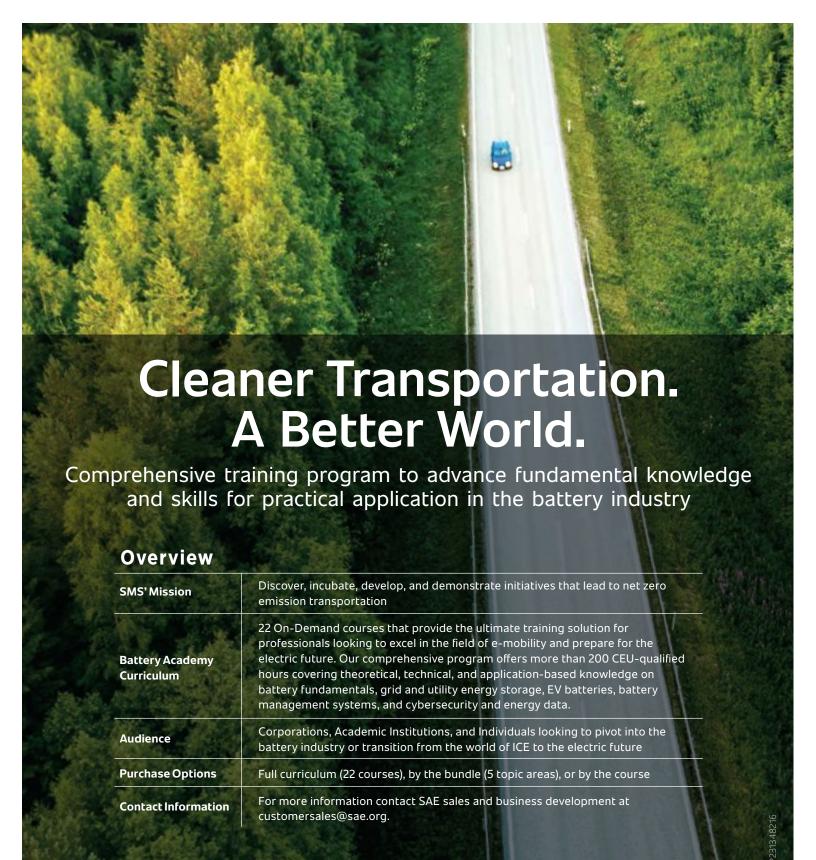






In Partnership with





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Schenck Process Food and Performance Materials (FPM), a Hillenbrand company, engineers cutting-edge technologies & solutions across the bulk material handling spectrum. Our teams deliver complete solutions for your real-world needs, based on engineering expertise.

We specialize in precision solutions for pneumatic conveying, milling, extruding, depositing, sifting, weighing, and feeding. Expertise in baking, cooking, coating, mixing, shaping, dust collection and thermal processing are also part of our capabilities. Schenck Process FPM boasts a streamlined business model which enables us to deliver high-performing systems for customers in every corner of the world, supported by an extensive collection of services.

#### **SIEMENS**

Siemens helps the battery industry accelerate their transformation into a Digital Enterprise. We offer a comprehensive portfolio for Automation, Electrical Infrastructure and Digitalization throughout the entire supply chain.



Spraying Systems Co.®

Spraying Systems Co. is a global leader in manufacturing advanced spray and coating equipment. Currently, actively developing several applications within the battery manufacturing space, with the objective of optimizing scale up of the various stages of the battery material manufacturing process.

Pioneers in spraying systems technologies, Accelerated spraying development capabilities, Patented advanced spray drying and particle coating technologies (electrostatic, ultrasonic), Unique solutions through customization and dedicated engineering team, In-house testing capabilities enabling development and scale up from lab to full production, Scalable product lines: production capacities from grams to tons. Efficient processes for sustainable operations through reduced maintenance, product losses, and energy consumption.

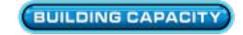


Marley® Cooling Towers. Naturally Efficient, Naturally Cool. Naturally Marley.

Inspired by processes born in nature, Marley evaporative cooling towers offer reliable heat rejection solutions for sustainable construction projects due to their potential for energy savings and low environmental impact. Effectively managing cooling tower water to minimize makeup and blowdown volumes conserves water and can gain water resource building credits as well. Even in areas challenged by hot, arid climates including the southwestern United States, evaporative cooling systems offer cost-effective, energy-efficient solutions for sustainable building design, construction, operation and maintenance.

Sustainable building standards have evolved from being the innovative exception to becoming the norm for today's communities. Building designers, engineers and managers expect manufacturers of HVAC systems to dedicate R&D resources to commercialize environmentally responsible cooling systems that offer exceptional performance and value while meeting global ASHRAE, LEED and other sustainability standards.





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Stryten Energy helps solve the world's most pressing energy challenges with a broad range of energy storage solutions across the Essential Power, Motive Power, Transportation, Military and Government sectors. Headquartered in Alpharetta, Georgia, we partner with some of the world's most recognized companies to meet the growing demand for reliable and sustainable energy storage capacity. Stryten powers everything from submarines to subcompacts, microgrids, warehouses, distribution centers, cars, trains and trucks. Our stored energy technologies include advanced lead, lithium and vanadium redox flow batteries, intelligent chargers and energy performance management software that keep people on the move and supply chains running. An industry leader backed by more than a century of expertise, Stryten has The Energy to Challenge the status quo and deliver top-performing energy solutions for today and tomorrow. Learn more at stryten.com.

## <u>-</u>9

T E N N I N E T E C H

#### **TERAWATT SPONSOR**

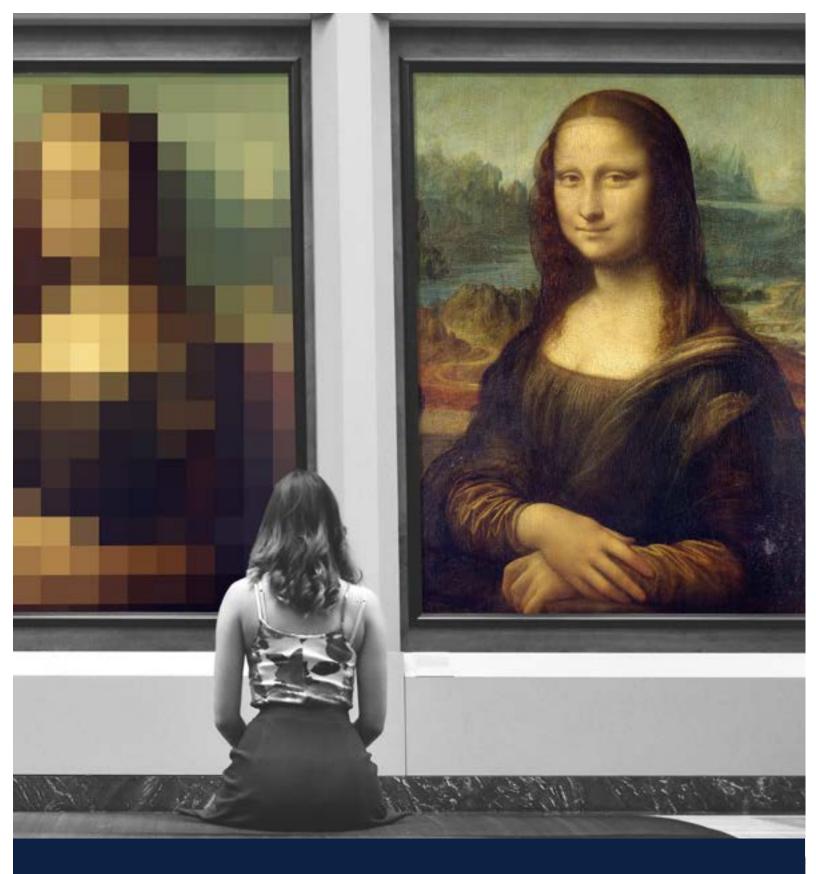
E Ten-Nine Technologies was founded in 2014 with a dream of creating new materials for new economies. Today, Ten-Nine brings to market breakthrough materials for the energy and chemical industries across a broad range of applications, including energy storage. Ten-Nine's proprietary nano additive, TENIX™, dramatically improves performance in cathodes - the primary driver of battery cost, performance, and greenhouse gas emissions. It's a simple powder, produced sustainably and domestically, that can be dropped into manufacturing lines for all kinds of batteries from single-use alkaline cells to rechargeable EV packs. Ten-Nine Tech is based in Tulsa, Oklahoma and works with leading industry partners to transform energy storage with TENIX™.



Silutions to battery manufacturers. Titan's platform, IonSightTM, leverages proprietary ultrasound technology to generate a real time stream of never-before-seen cell morphology data, resulting in novel insights about battery cell properties and process parameters. This enables customers to optimize and control cell manufacturing processes – leading to greater yields, improved product quality and reduced scrap and cycle time.







### EXAN

ADVANCED ENERGY SOLUTIONS

Battery Manufacturing Inspection. The Full Picture.

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TRUMPF is a technology and market leader in highly versatile machine tools for sheet metal processing and in the field of industrial lasers. The high-tech company offers manufacturing solutions and drives digital connectivity in manufacturing through consulting, platform products and software. TRUMPF's technological portfolio includes:

Systems for laser metal fusion and laser metal deposition • Laser technology for industrial applications • As well as other MT focuses such as laser welding systems and automated arc welding cells

As an independent, privately held company, TRUMPF is focused on doing business responsibly and sustainably for future generations and this long-term emphasis guarantees continuous innovative strength. The TRUMPF Group's largest subsidiary outside of Europe, TRUMPF Inc. was founded in Farmington, Connecticut in 1969 and serves the U.S., Canadian and Mexican markets.



Turner is a North American-based, international construction services company.
 A leading builder in advanced technology sectors, data centers, and manufacturing.
 With an expanding portfolio of work in emerging markets that support of energy transition,
 Turner utilizes its global presence—North America, Europe, Asia—to benefit clients.

Its comprehensive services range from site selection and planning to construction management and innovative solutions in areas including off-site prefabrication and supply chain management. Fostering innovation to develop and utilize digitization tools including artificial intelligence, robotics, and 3d visualization, Turner's professionals position Turner as a versatile leader in building advanced technology facilities.



The University of Texas at Dallas is a top public university located in the heart of Dallas, one of the nation's fastest-growing metropolitan regions. Our seven schools offer more than 140 undergraduate and graduate programs, plus professional certifications and fast-track programs. UT Dallas is an R1 Research Institution with \$145M in research expenditures in FY23. The university leads research activities in multiple areas including materials engineering, energy storage solutions, brain health, pain studies, and cancer.

UT Dallas's Batteries and Energy to Advance Commercialization and National Security (BEACONS) initiative organizes our new Department of Defense funded award, designed to re-shore the manufacturing of lithium-ion batteries, as well as assist in the development of new capabilities in battery chemistries, production, and workforce development. Visit utdallas.edu for additional information about our university and utd.link/beacons for additional information on our energy storage initiatives.





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For nearly a century, Warner Norcross + Judd LLP has been a prominent legal powerhouse in Michigan, dedicated to delivering top-tier legal solutions and unparalleled client service. With 230-plus attorneys and nine strategically positioned offices throughout Michigan, its roots are deeply embedded within the heart of the U.S. automotive industry. Warner provides proactive, timely and cutting-edge legal advice to suppliers throughout Detroit, North America and around the globe. Its attorneys are recognized leaders in every area of law that impacts the global automotive, battery, EV and mobility market. As new automotive technologies emerge, increased regulations and risks make it essential to strike a balance between innovation and preservation. From essential contract support and intellectual property protection to preemptive counsel on distressed suppliers, warranty and recall, litigation matters and corporate transactions, Warner's multidisciplinary full-service team anticipates and quickly responds to the challenges its clients face.



Ei-lon batteries are among the most powerful energy storage devices commonly used in portable electronic devices, stationary power sources and electric vehicles. Manufacturers and suppliers are working hard to increase load capacity, extend lifecycles, and comply with all quality assurance and safety standards.

Waygate Technologies, with 25 year experience in developing broad portfolio of premium X-ray inspection and CT systems, support quality control and failure analysis at all stages of a battery's lifecycle. From R&D to the post-mortem analysis of defective Li-lon batteries to analyze the cause of failure. Fast CT inspection also provides safe and secure at-line and automated production control with reliable inspection of all vital parts, supported with automated defect recognition (ADR) when required.



Webasto's Power Cycling and Test Systems are used for a wide range of testing, charging and development activities associated with advanced batteries, fuel cells, ultra capacitors, hybrid energy systems, motors, generators, uninterruptible power systems, and powertrain components. With a full power range of bi-directional DC equipment, our Power Cycling and Test Systems can handle virtually any DC supply or load requirement. In addition, Webasto systems can emulate any drivetrain component, enabling the testing of individual components or partial drivetrains accurately and realistically, allowing true hardware-in-the-loop testing. Our equipment provides unparalleled reliability and up-time – our original equipment is still in use after 30 years of service.





