SkyTerra Group

TOO BUSY, DIDN'T ATTEND

NAATBatt 2026

Charging Innovation

17th Annual Meeting & Conference
February 9–12, 2026 | Tucson, Arizona

Trap shooting at NAATBatt 2026 (L-R): Heather Mulholland (MilliporeSigma), Dylan Poindexter (Sandia National Labs), Richard Harrison (MEI Industrial Solutions), Sarah Stiegelmann (IKA Works), Jonathan Scharf (SkyTerra Group)

KEYNOTE HIGHLIGHT

"We will expend on the order of $200 billion of CapEx this year, the majority of which going into data center build."

— Joern Tinnemeyer, VP Data Center Engineering, AWS

About NAATBatt International

- **Premier trade association** representing the advanced battery industry in North America
- Founded in 2008, now encompasses **385+ member companies** across the entire battery value chain
- Operates **18 active committees** covering safety, recycling, workforce, supply chain, ESS, military, and cybersecurity
- Mission: Promote advanced battery use and manufacturing in the U.S. and foster domestic job growth

NAATBatt 2026: Charging Innovation

- **17th Annual Meeting & Conference** | February 9–12, 2026 | Tucson, Arizona
- **150+ Member Update Presentations** across upstream, downstream, and early-stage companies
- **State of the Industry** addresses from CTO Bob Galyen and Nobel Laureate CSO Sir M. Stanley Whittingham
- **Keynote address** by Joern Tinnemeyer (VP Data Center Engineering, Amazon Web Services)
- **Market analyst briefings** from BCG, McKinsey, BloombergNEF, Roland Berger, and Avicenne Energy

Conference Focus Areas

Focus Area	Description
Materials & Manufacturing	Next-gen batteries; domestic production scale-up; AI in manufacturing
Sustainability & Circularity	Lifecycle thinking, recycling economics, closed-loop recovery
Safety & Standards	UL 9540A updates; NFPA 855 compliance; cell-intrinsic safety
Data Centers & ESS	AI-driven demand; high-power systems; grid-adjacent storage
National Security	DoW supply chain; 95% non-FEOC requirement; defense applications

Keynote Spotlight: Joern Tinnemeyer, AWS

- Former SVP & CTO of EnerSys, former Chairman of NAATBatt International
- AWS added **3.7 GW** of data center power in 2025, plans to double within two years
- Amazon spending **~$200B in CapEx in 2026**, majority on data center construction
- Decentralized UPS architecture: rack-level lithium-ion replacing centralized lead-acid
- Rack power: **4x increase in 2025**, projected **1 MW per rack by 2027** (10x increase)

> *"AI... This is a paradigm shift unlike my generation... This will fundamentally change the way we work, the way we play, the way we exist on this planet."*
>
> — Joern Tinnemeyer, VP Data Center Engineering, AWS

Committee Deep Dive: ESS & Data Centers

Committee Session: Tuesday, February 10, 9:00–10:00 AM

Co-Chair: Paul Charles (Charles and Associations)

Key Insights: "Grid Law" and AI-Driven Demand

- **Grid Law:** Power delivery, not compute capacity, now sets the ceiling on AI scale
- Global data center electricity demand projected to **more than double by 2030 to ~945 TWh**
- U.S. data centers will account for nearly **half of electricity demand growth**
- Modern AI data centers operate at **hundreds of megawatts**, moving toward **gigawatt-scale campuses**
- Each site operates at power levels **comparable to a nuclear reactor**

> *"Power delivery, not compute, now sets the ceiling on AI scale. This is what I call Grid Law."*
>
> — Paul Charles, Co-Chair, ESS & Data Centers Committee

The Infrastructure Bottleneck

- **Grid interconnection timelines:** Average 5 years (range: 3–10 years)
- **AI development cycle:** 2–3 years for chips, racks, and platforms
- **Infrastructure cycle:** 5–10 years for substations, transmission, and generation
- **Result:** Batteries now occupy every layer, from rack-level millisecond smoothing to grid-adjacent multi-hour cycling

Related Panel Discussion

"Understanding Data Center and AI Demand for Energy Storage"

Thursday, February 12, 8:45–9:45 AM

- **Moderator:** Paul Charles (Charles and Associations)
- **Panelists:** Shahid Tufail (NextNRG), Tom Lake (Turner Construction), Troy Miller (GE Vernova), Michael Sanders (Avicenne Energy)

Committee Deep Dive: Military Batteries & National Security

Committee Session: Tuesday, February 10, 8:00–9:00 AM

Chair: James Trevey (Forge Nano)

Keynote Speaker: Eric Shields (Department of War)

The 95% Non-FEOC Requirement: A National Security Imperative

- **Policy:** 95% of battery cell content by value must come from non-FEOC sources for all DoW procurements
- **Effective Date:** January 2028
- **Scope:** Cathode, anode, electrolyte, separator (all functional components of the cell)
- **FEOC Definition:** Consistent with Department of Energy standards
- **Context:** One of four core lines of effort in the National Defense Strategy to rebuild the defense industrial base

> *"The provision specifically says that 95% of the content in the cell by value has to come from non-FEOC sources. We say components, we mean cathode, anode, electrolyte, separator, all of the functional components that go into the cell."*
>
> — Eric Shields, Department of War

Recycling as a Pathway to Domestic Sourcing

- **Key provision:** If material is recycled domestically, it is considered domestic material **regardless of origin**
- **Goal:** Support domestic recycling industry and create a reinforcing loop
- **Impact:** End-of-life batteries recaptured and reprocessed within the U.S., reducing foreign supply chain reliance

> *"If it's recycled material, it's domestic material. It does not matter where it came from. It becomes domestic. That's intended to support the domestic recycling industry."*
>
> — Eric Shields, Department of War

Implementation and Coordination

- DoW developing **clear guidelines for compliance auditing and traceability**, leveraging SAE standards
- **Waiver process** being developed for program offices unable to meet requirements quickly
- **Interagency coordination:** DoE, Navy, and federal working groups ensuring consistent implementation
- **Military Power Sources Consortium (MPSC):** Facilitating industry-government communication

State of the Industry: Key Themes

1. The Reliability & Deployability Era

- Industry entering era where **system robustness and tail-risk management** matter more than marginal chemistry improvements
- Competitive edge shifting to **defect detection, safety-by-design, and compliance readiness**
- Emphasis on scalable non-destructive evaluation: **CT scanning, ultrasound, self-discharge screening**

2. Supply Chain Resilience & Compliance Engineering

- **IRA-aligned sourcing, FEOC restrictions** creating near-term compliance obligations
- Companies struggling with financial models amid **45X manufacturing credit uncertainty** (Treasury guidance expected end of 2026)

> *"We can't be reliant on foreign nations to build those machines for us."*
>
> — Bob Galyen, Chief Technology Officer, NAATBatt International

3. Pricing Compression & Differentiation Through Evidence

- Global average lithium-ion pack prices fell to **$108/kWh in 2025** (BloombergNEF)
- Driven by **cell manufacturing overcapacity, competition, and shift to lower-cost LFP**
- Differentiation now through **reliability, compliance, and bankability** rather than price alone

4. Workforce & Automation Challenges

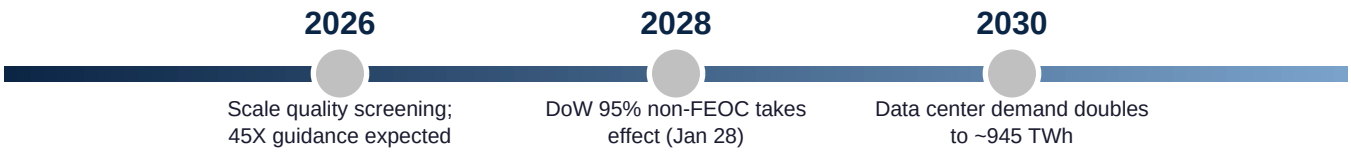
- Critical **workforce gap** in NDE, data engineering, quality statistics, and failure analysis
- Data center and ESS deployments require **cross-domain expertise** (power electronics, HVAC, site safety)

> *"We seem to have a very big lack in engineering and workforce development to be able to not only set up these systems, but execute these systems as they're set up."*
>
> — Thursday Breakfast Discussion (Table #1: Automating Manufacture), NAATBatt 2026

Notable Companies & Attendees

- **SES AI** (Scott Carlisle, SkyTerra Group partner): Lithium-metal battery manufacturer for drones and ESS applications
- **Blue Whale Materials** (David Monk, Ella Debode): Advanced battery materials
- **ZincFive** (Steve Jennings, SVP Sales & Marketing): Nickel-zinc batteries for data centers and backup power
- **Battery Innovation Center** (Dennis Kountz, Les Alexander): Testing, validation, and workforce development

Industry Timeline: Near-Term Milestones



*This report was prepared by **SkyTerra Group** as part of the **"Too Busy, Didn't Attend"** industry intelligence series. For questions or to request the full conference transcript analysis, please contact the SkyTerra Group team.*