# ACE READY & NEAR-TERM LITHIUM-ION/LFP

SOLUTIONS

DPEC June 4-6, 2024





## CONTENT

#### What Does ACE Offer?

- Lithium-ion Technology
- Ready Now LFP-Li Safe Solutions
  - Cylindrical Cells
  - Pouch Cells
  - Prismatic Cells
- Near Term Offerings
- Domestic Production IRA Compliant
- Vision for the Future



### **ACE'S LITHIUM-ION TECHNOLOGIES**

- Developer of New Battery and Energy Storage Technologies:
  - Advanced Lithium-ion LFP Chemistries
    - Dopants and Additives
  - Advanced Lithium-ion LFP Powder
  - Cell Designs (Cylindrical, Pouch, Prismatic)
  - Military & Commercial Manufacturer
  - Grid Storage Cell
- ACE Technology is Protected by 12 Patents

ADVANCED CELL ENGINEERING

#### **READY NOW LFP-LI SAFE SOLUTIONS**

 Lithium-ion - LFP Batteries Using ACE's Technology Solutions Offer:

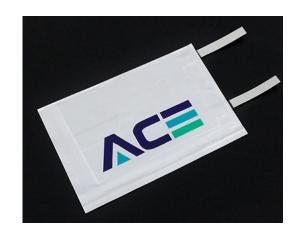
- Safety (No Fires)
- Low Heat Generation
- No Nickel or Cobalt
- Slow Rate Capacity Loss
- No Thermal Runaway
- Strong Charge and Discharge Profile
- High Energy Density
- Long Life Cycles Overall Stability



### **TODAY'S LITHIUM-ION SOLUTIONS**

- Power & Safety Insure Battlefield Survivability
  - A-LFP\* Cylindrical 21700, 18650 Cell
  - A-LFP\* 5-20Ah Pouch Cells
  - A-LFP\* 280Ah Grid Level Storage Prismatic Cells







<sup>\*</sup> Advanced Lithium Iron Phosphate

### **NEAR TERM ADVANCED CHEMISTRIES**

ADVANCED CELL ENGINEERING

- LFP Power Cells
  - LFP LTO High Power Cell
  - LFP NCA High Energy and Power Cell
  - LFP Si Anode High Energy Cell
  - LFP Li Metal High-Capacity Cell



#### DOMESTIC PRODUCTION IRA COMPLIANT

- Exiting Pilot Line for Pouch and Prismatic Cells
- Developing Plans for LFP Cylindrical Cell Production
- LFP Powder Produced In House
- Plans for our LFP Powder Mass Produced Domestically

#### **TECHNOLOGY VISION FOR THE FUTURE**

#### Expanding the Technology Portfolio

- LFP SiO Anode (Silicon)
- LFP LTO (High Power Cell for Trucks, Buses and Trains)
- LNFP (Nickel) High Energy Cell
- Bi-Polar Cell High Energy & Power Cell
- Safe Electrolytes & Separator
- Low Temperature & Fast Charging
- Higher Energy Density

