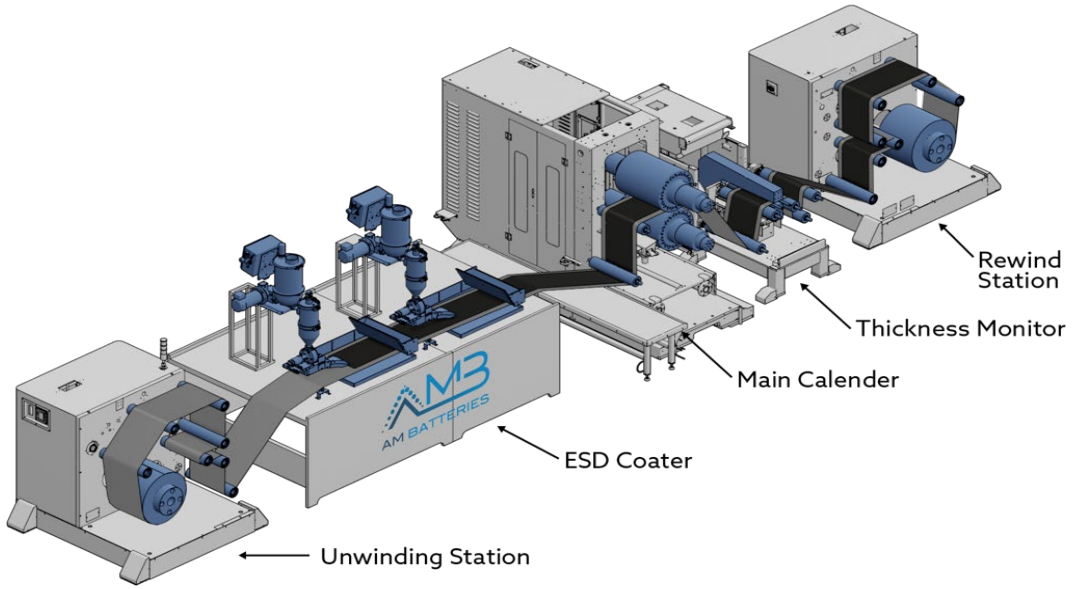
NAATBatt Member Update

AM BATTERIES

Revolutionizing Li-ion battery electrode manufacturing

February 18, 2025

AMB Overview



Key attributes over wet coating

- 60% lower OPEX
- 40% less CAPEX
- 5x smaller Footprint

Talented team

- 56 FTEs comprised of 40 engineers

Raised $74M+ in the last three years

- Infrastructure buildout & industrialization demonstration

Technology scaling

- 500 MWh Engineering Pilot Lines

AM Batteries aims to offer a turnkey dry electrode manufacturing solution to battery makers

Why AM Batteries Dry Manufacturing?

3 Key Metrics for Battery Manufacturers

1 Cost

- Lower Capex
- Lower Opex
- Lower Material Cost

2 Performance

- SS Battery / Chem Agnostic
- High Energy Density
- Fast Charging

3 Sustainability

- Lower CO_2 Emission
- Less Material Waste
- No Toxic Chemicals

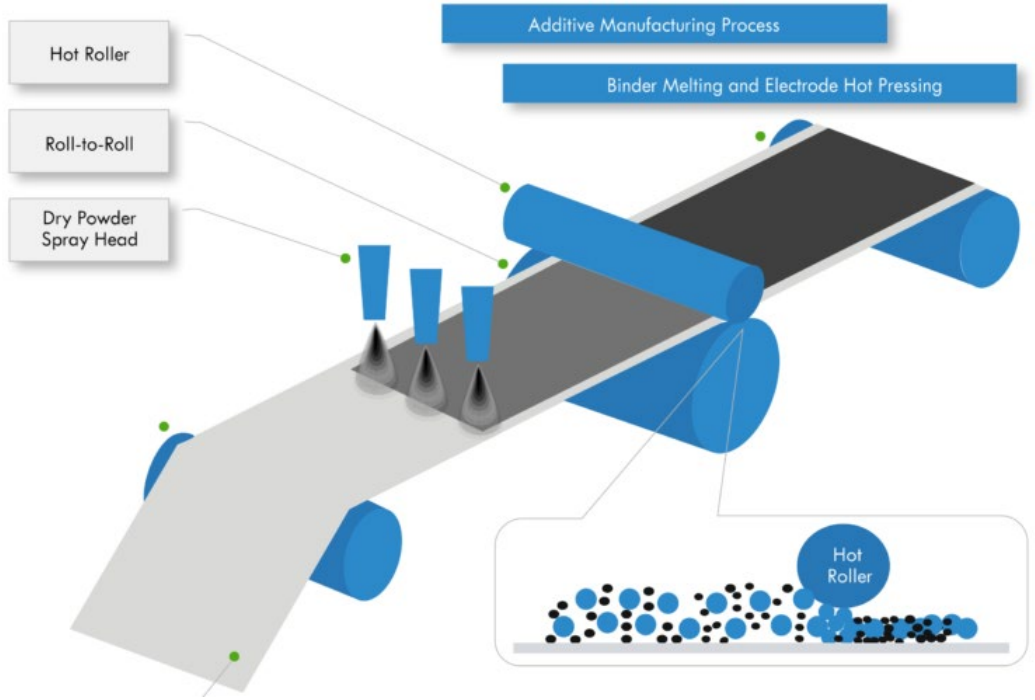
AM Batteries technology delivers on all 3

AMB Dry Electrode Manufacturing Process

Dry mixing of cathode/anode active powder, binder and conductive additive

Dry powder deposition onto a substrate via electrostatic

Mechanical compression of particles to substrate via a hot calendering system



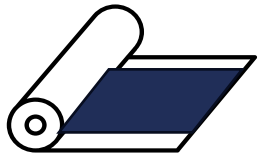
Mixing → Coating → Oven Drying → Solvent Recovery → Calendering

Reduces the number of electrode manufacturing steps from 5 to 3

AM Batteries Dry Advantage

…over other dry coating technologies

Powder Formulation



Electrode

Free-flowing powder

- ✓ Fast to mix, minutes regime
- ✓ Easy to convey
- ✓ Quick to deposit onto foil
- ✓ Direct active materials recycling/reuse

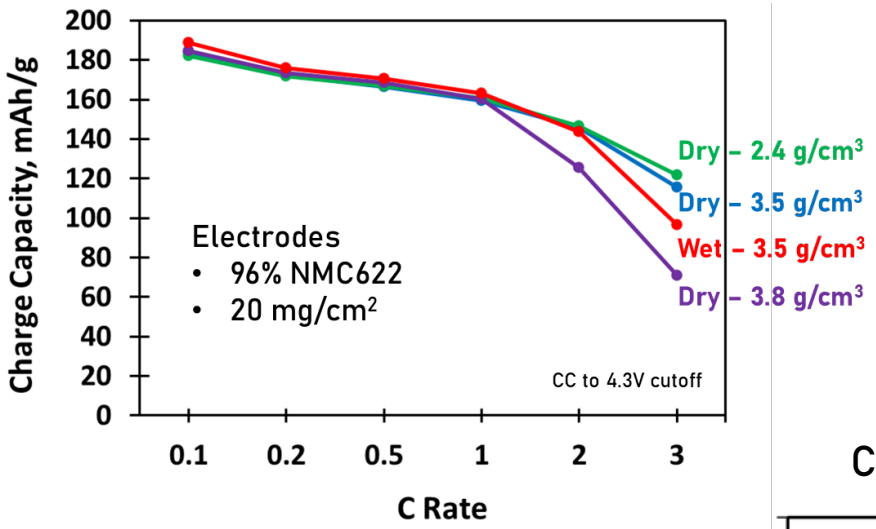
Improved cell performance

- ✓ Broader binder options
- ✓ Highly tunable density and gradient structure
- ✓ Fast electrolyte wetting
- ✓ Echem equal to or better than wet

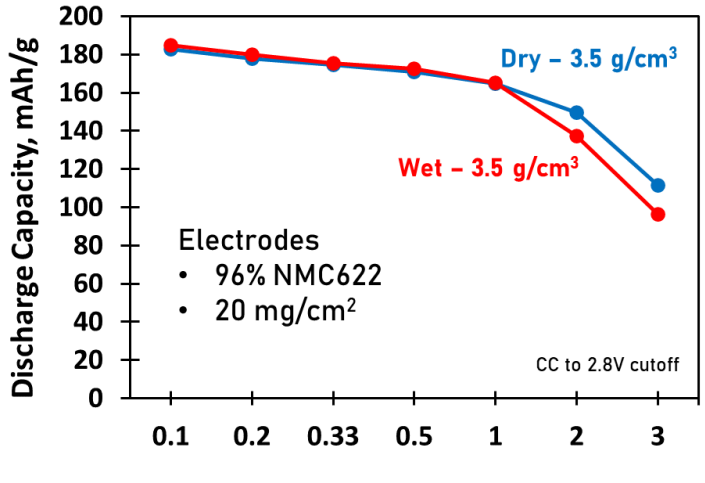
AM Batteries electrostatic deposition process provides significant chemistry flexibility, cost savings, and performance improvements

Dry Coated Electrode Cell Performance

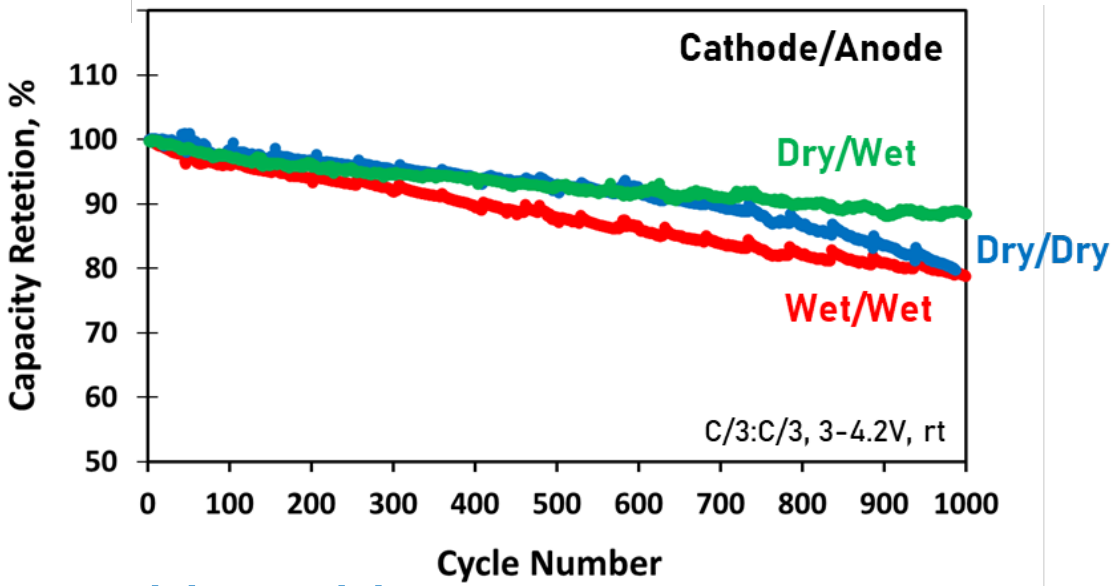
Charge Rate Test



Discharge Rate Test



Cycling Test

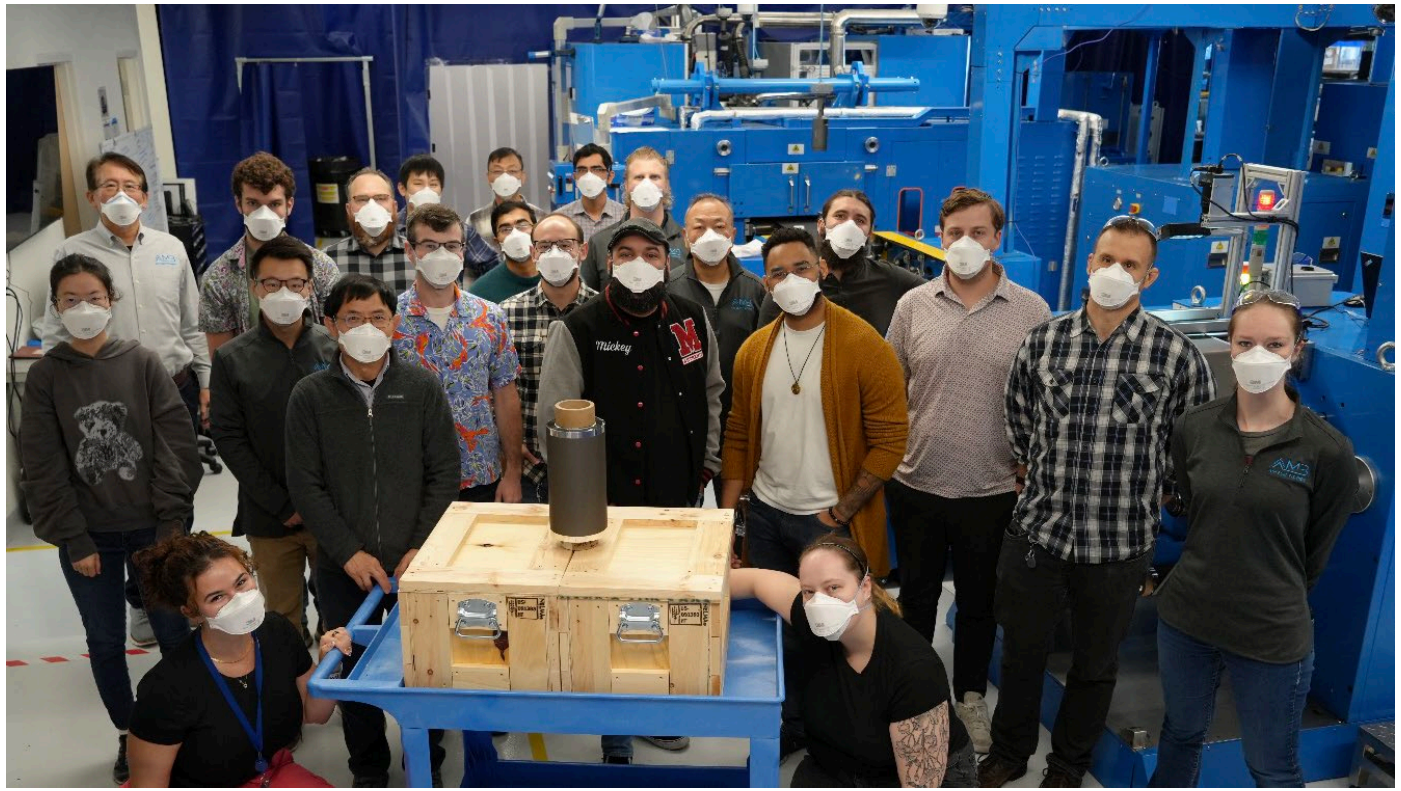


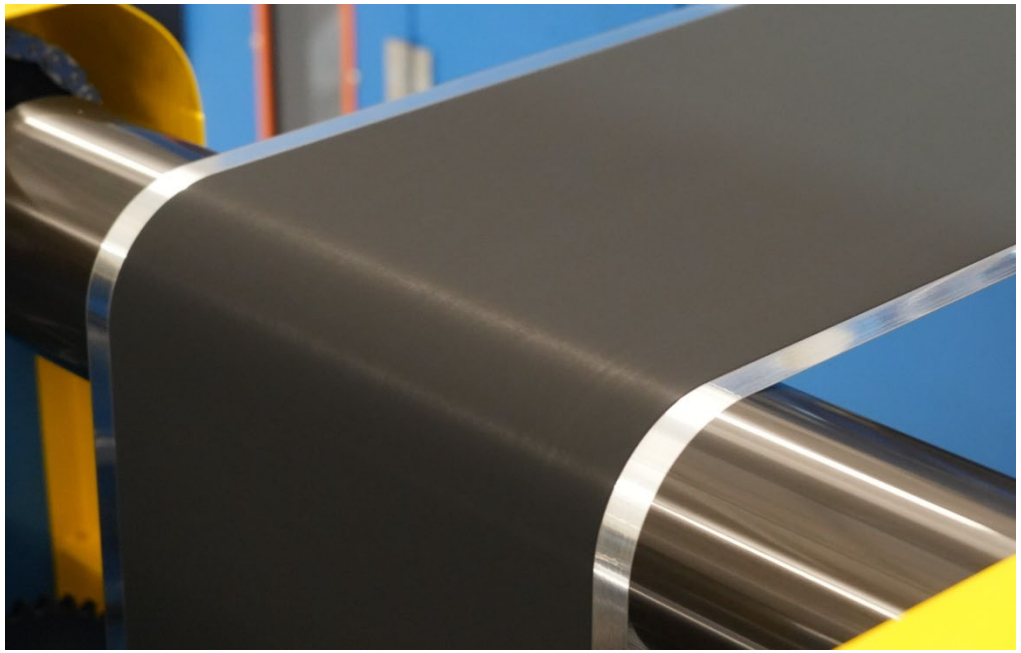
Cathode
- 96% NMC622
- 20 mg/cm²
- 3.5 g/cm³
- 20 N/m

Anode
- 96% Graphite
- 11 mg/cm²
- 1.6 g/cm³
- 20 N/m

Competitive with wet

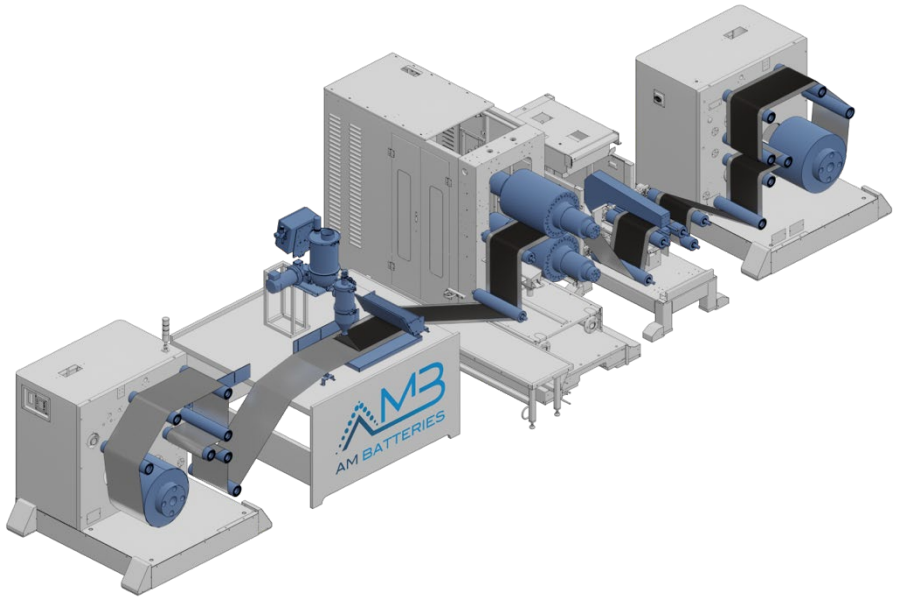
Dual-side Coated Electrode Rolls Production





NMC622 Cathode rolls shipped to our partner

Key Takeaways



AMB's Dry Battery Electrode (DBE) process offers

- Significant cost savings – CapEx, OpEx, & Space
- Sustainability – lower CO^2 emission & no solvent
- Performance – equal to or better than wet

AMB is entrusted by our investors and strategic partners to

- Build a world-class engineering team
- Develop a dry ecosystem
- Proliferate dry coating process & equipment

TOYOTA VENTURES · ANZU PARTNERS · TDK VENTURES · PORSCHE VENTURES · AsahiKASEI · RACAPITAL · foothill ventures · DORAL · ZEON · INDUSTRY VENTURES · WILSON SONSINI

Thank You!


AM BATTERIES