



DAVID ROBERTS

- ▶ NAATBatt & State of Indiana
 - ▶ Battery Innovation Center, EnerDel, Eclipse Energy, Caterpillar
-

PREDICTIONS

Bloomberg New Energy Finance (BNEF) predicts that the lithium-ion battery market will be worth \$300 billion by the end of this decade.

Specific to the EV segment, BNEF projects that EVs will represent nearly 30% of all vehicle sales by end of decade, with battery-electric drivetrains becoming the majority powertrain solution sold globally by soon thereafter.

The World Bank has predicted that a 1,000% increase in battery metals will be needed within the next three decades to meet this demand.

REGULATORY FRAMEWORK

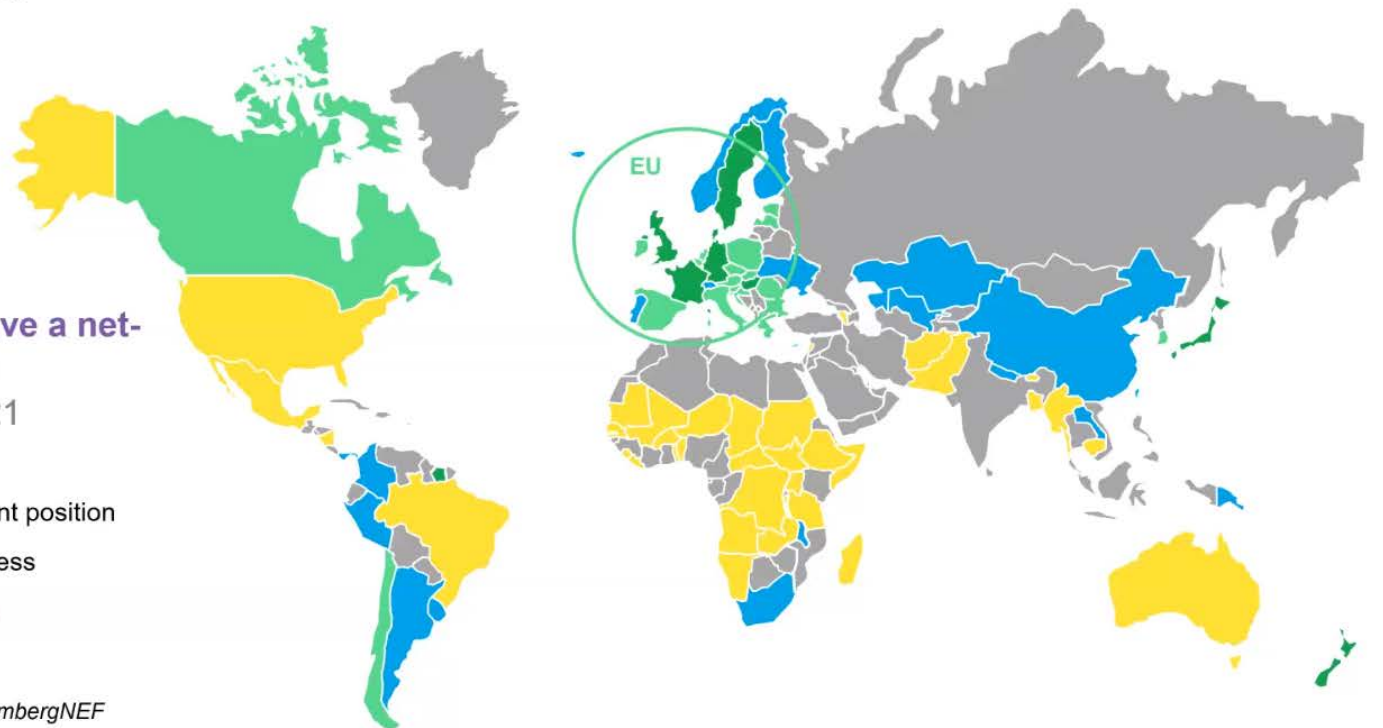
Country-level net-zero targets are becoming more common



Which parties have a net-zero target?

As at May 24, 2021

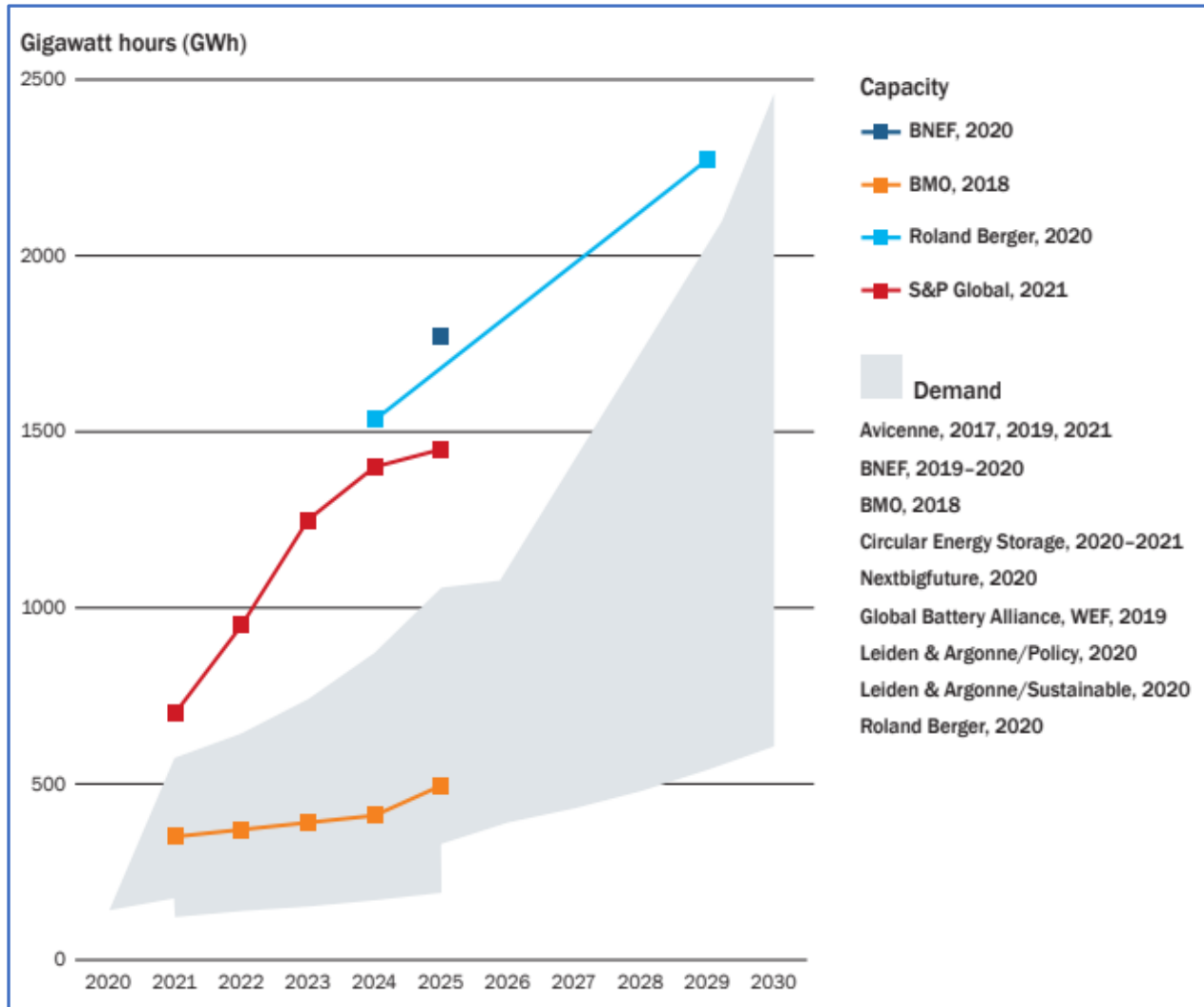
- Legislated
- Official government position
- In legislative process
- Under discussion
- No target



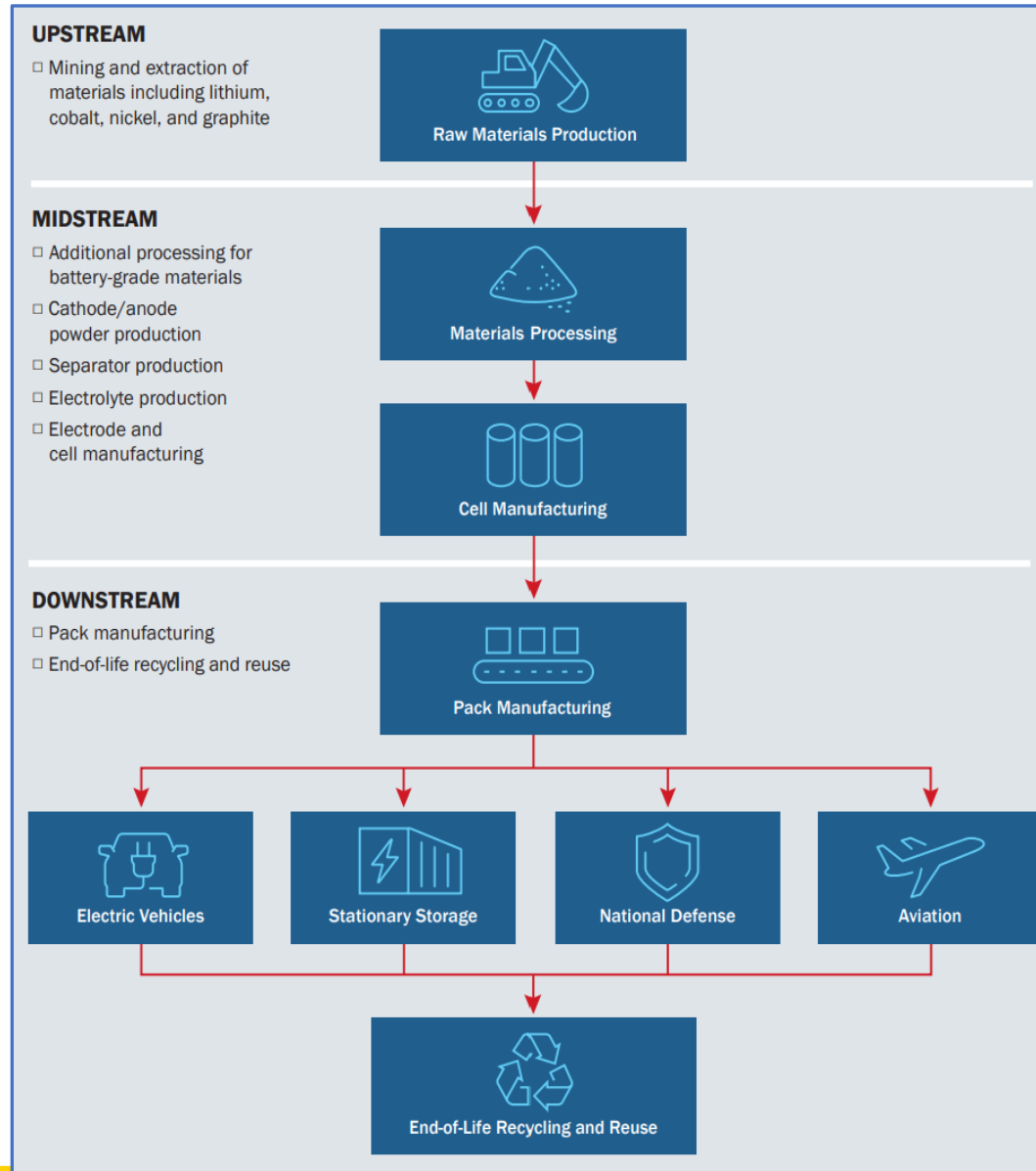
Source: Governments, BloombergNEF



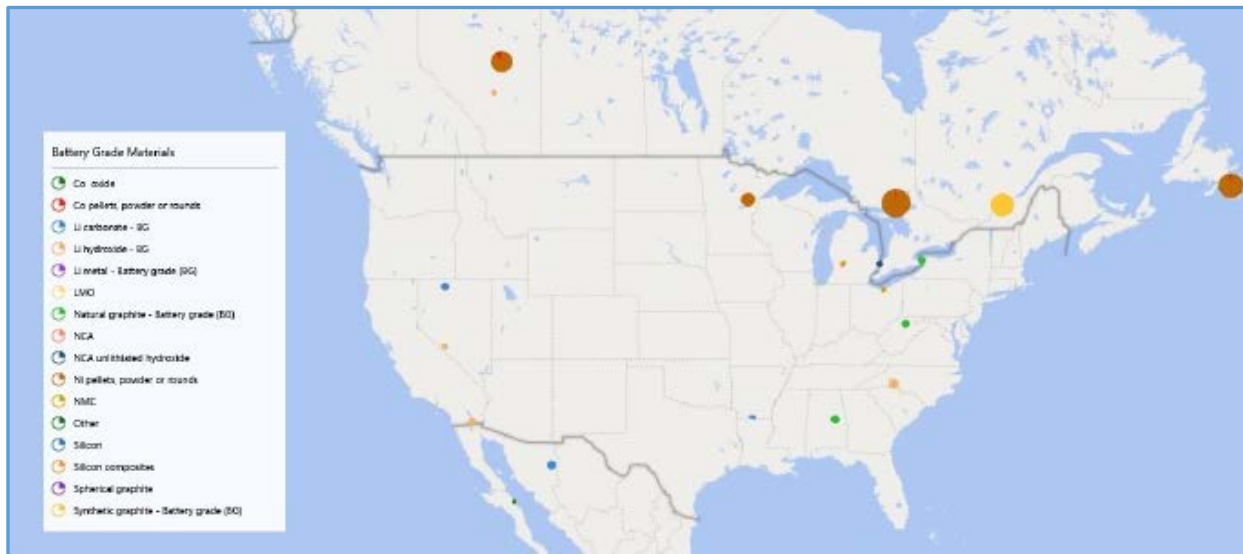
IMBALANCE OF SUPPLY & DEMAND



LiB SUPPLY CHAIN

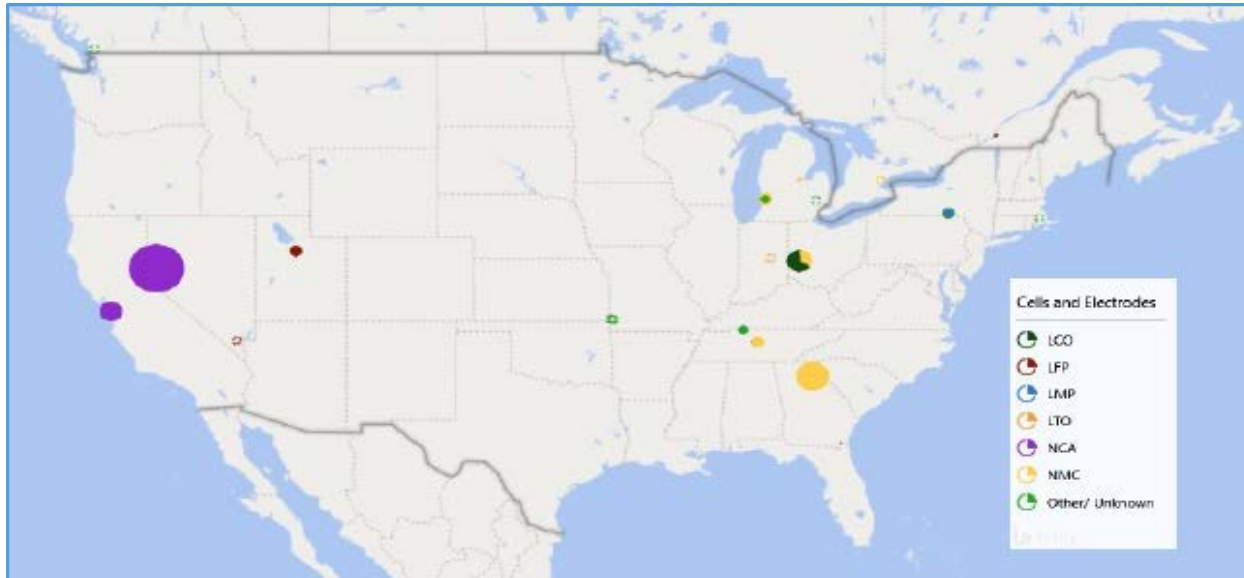


RAW MATERIAL PROCESSING



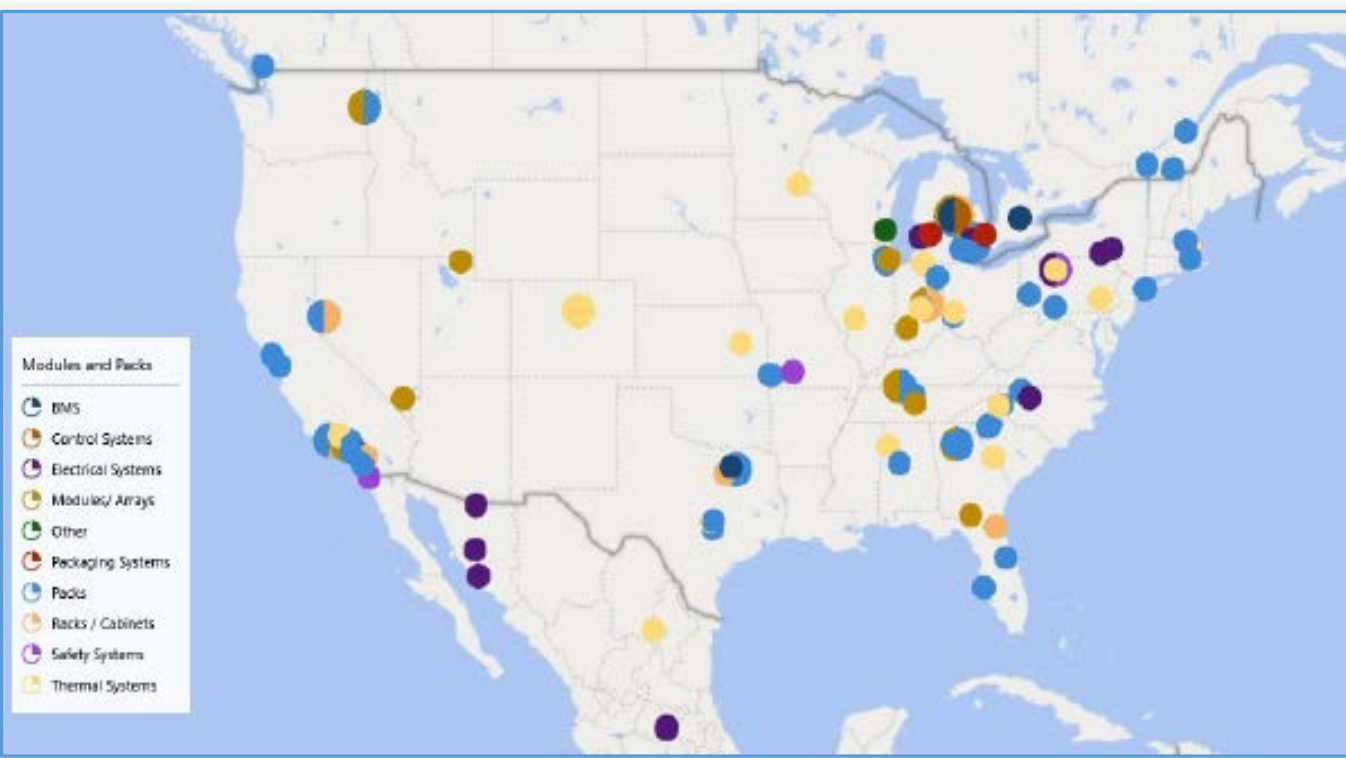
Alabama Graphite
 Amsted Graphite
 BASF Toda America
 Battery Resources
 Borman Specialty
 Enevate
 Group14 Technologies
 Livent Corporation
 Nanotech Energy
 Paraclete Energy
 Piedmont Lithium
 Pyrotek
 Sila Nanotechnologies
 Superior Graphite
 Ten-Nine Technologies
 Unifrax

BATTERY MANUFACTURERS



32: 24M, A123, Aesir, Altair, American Battery Factory, American Lithium Energy, Ateios, BrightVolt, Clarios, Cymbet, EaglePicher, Electrochem, EnerDel, Energys, Envision AESC (Nissan), Forge Nano, Imperium3 New York, Kore Power, LG, Lithion Battery, Lyten, Microvast, Navitas Systems, NexTech, Quantumscape, Samsung SDI America, SK Innovation, Tesla / Panasonic, Xalt Energy, Xerion Advanced Battery, and ZAF

PACK MANUFACTURERS



75 data points
=
incomplete

SECONDARY USE / RECYCLING

28: Agmet, American Battery Technology, ATC Drivetrain, B2U Storage Solutions, Battery M.D., Battery Resources, Battery Solutions, Blue Star Recyclers, Call2Recycle, Clean Earth, Evergreen Environmental, Gem Southwest, Global Battery Solutions, GlobalTech Environmental, INMETCO, Interstate Battery Recycling, IT Asset Partners (ITAP), IT eCycling Solutions, Recycling Coordinators, Redwood Materials, Retrieval Technologies, Secure E-Waste Solutions, Spiers New Technologies (SNT), Sybesma's Electronics, Veolia Environmental Services, and WeRecycleBatteries.com

