
PRINCETON
NUENERGY
Li-ion
Battery
DIRECT
RECYCLING
THE BEST SOLUTION
Faster.
Cleaner.
Sustainable.
ESG

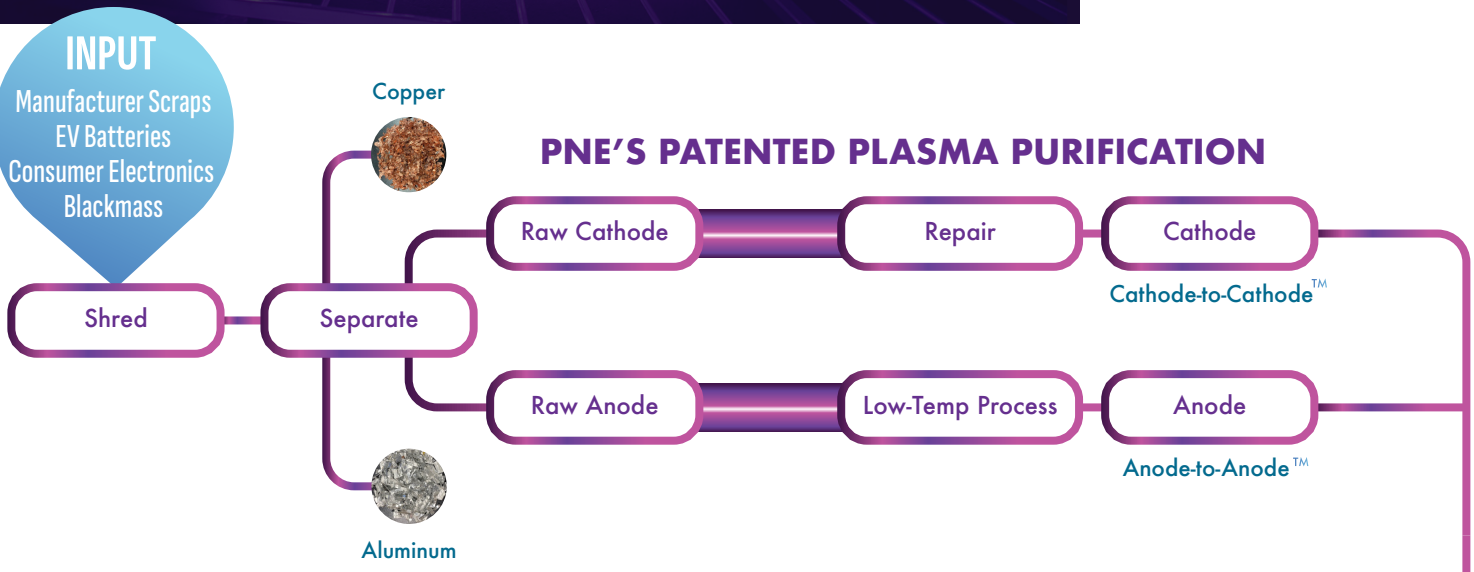
About Princeton NuEnergy

Princeton NuEnergy (PNE) a U.S.-based, innovative clean-tech company founded out of Princeton University, is focused on the direct recycling of lithium-ion batteries sourced from manufacturing scrap, electric vehicles, consumer electronics, energy storage, and black mass.

PNE's patented low temperature plasma-assisted separation process (LPAS®) produces battery-grade cathode and anode materials suitable for direct reintroduction into cell manufacturing. PNE's direct recycling process provides strong ESG values and delivers recycling efficiency rates of over 95% at half the cost of conventional methods.

The result: A fully domestic - truly circular economy!

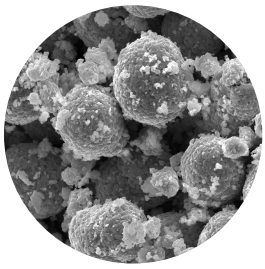
Clean it.
Repair it.
Why damage it?



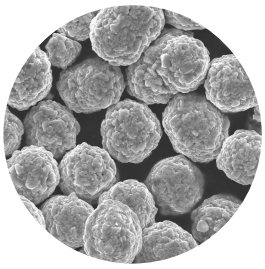
Battery Grade Rejuvenated Materials

- **Cathode** (99.9% purity)
- **Anode** (99.9% purity)

NCM
Commonly used in EVs

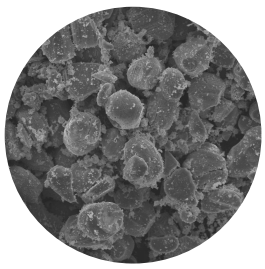


Aged NCM

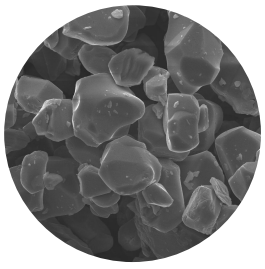


Rejuvenated NCM

LCO
Commonly found in CEs



Aged LCO



Rejuvenated LCO

ENVIRONMENTAL IMPACT REDUCTION

compared to mining

68% less CO2 GHG

69% less water use

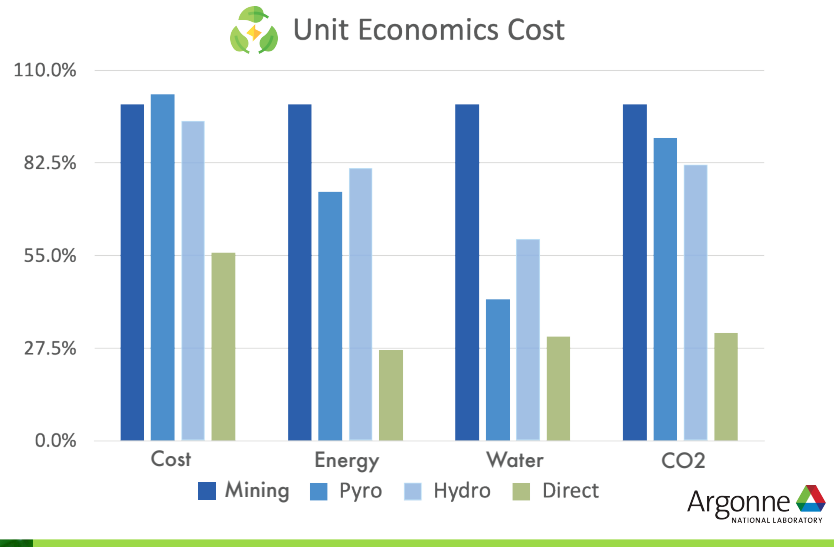
73% less energy use

LOW gas & liquid waste

COST REDUCTION

44% less than Mining

39% less than Hydro



OUR PARTNERS

GRANTS & AWARDS

DOE

NJEDA ECONOMIC DEVELOPMENT AUTHORITY

CLEAN TECH OPEN

INVESTORS

wistron

Shell

Hillhouse Capital

WORLDQUANT

GREENLAND

INDUSTRY

wistron

CENNTRO AUTOMOTIVE

GREENLAND

TRAXYS

eTak WORLDWIDE

BUSINESS MODELS

Recycling as a Service

No feedstock ownership transfer

Manufacturing

Source feedstock and sell to open market

Equipment/IP Licensing

Regional and overseas business expansion

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