

FUELING THE ECONOMY

Argonne helps make the United States a front-runner in hybrid battery production



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CHALLENGE

Incorporate and elevate U.S. participation in the production of materials for advanced lithium-ion batteries used in plug-in hybrid electric vehicles and other applications.

SOLUTION

Under worldwide licensing agreements with Argonne, companies including BASF, Toda America, and LG Chem now mass produce and market Argonne's patented materials for advanced batteries.

BASF develops its materials in a first-of-its-kind, \$50 million facility in Elyria, Ohio. Toda America opened a \$70 million plant in the Detroit area, and LG Chem built a \$303 million facility in nearby Holland, Michigan. All facilities were funded with U.S.

Department of Energy grants from the Recovery Act—Electric Drive Vehicle Battery and Component Manufacturing Initiative.

BENEFITS

- Further development and commercialization of advanced materials has resulted in continuous improvement in advanced battery performance, longevity, and safety.
- U.S. participation in the advanced battery market enhances U.S. economic competitiveness, energy security, and quality of life.
- Expansion of battery materials production makes lithium-ion battery use increasingly realistic, affordable, and widely available.
- BASF's Elyria location employs about two dozen new positions at one of the largest cathode material

production facilities in North America and has been hailed for its potential to position Ohio as the "new Silicon Valley," providing clean energy jobs of the future.

- The new Toda America facility is credited with stimulating the Detroit economy by adding more than 100 new high-tech manufacturing positions and indirect jobs.
- After just a few years in operation, LG Chem announced it would double the number of workers in the Holland plant, to a total of several hundred.

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