



Lithium: The Lightest Metal has a Heavyweight Impact!

Our supply chains start with raw materials – the lithium battery supply chain is no different.

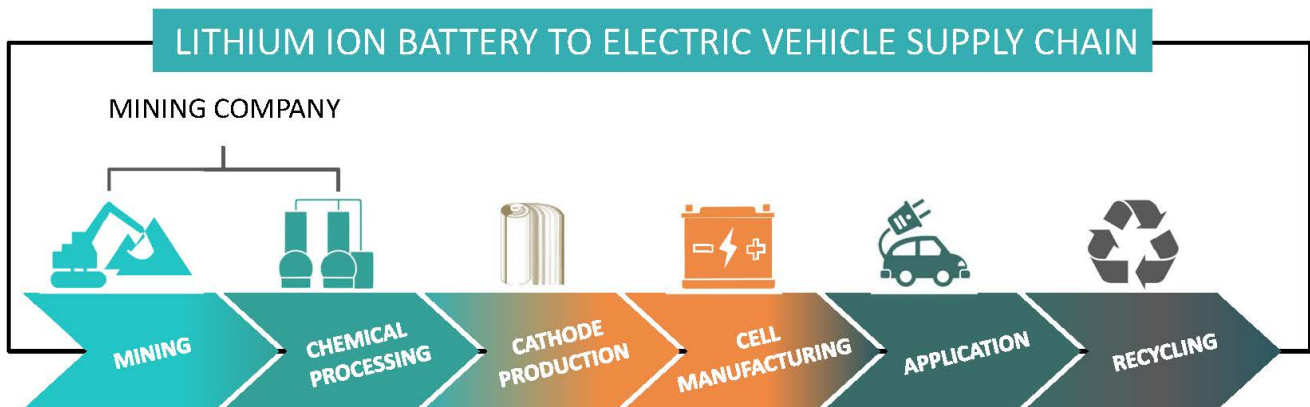
The USA has the lithium resources to develop its own battery supply chain, from mining of the minerals to the manufacturing of batteries, enabling our Nation to meet low carbon energy goals without the risk of supply disruption. Lithium is an essential mineral in the manufacturing of products such as lithium-ion batteries, resulting in placement of this mineral on the USGS list of Critical Minerals. It also is included in the list of crucial minerals compiled by the European Union, in addition to Australia and Canada, showing the worldwide efforts by nations to ensure their battery supply chains.

All electricity generation, transmission, and storage require materials which conduct heat and electricity. The only materials which conduct heat and electricity are metals. Lithium metal, being the very lightest metal, is indispensable for America's energy transition to a low carbon energy grid. Lithium for battery storage is essential to provide a means for developing reliable renewable energy.

To attract the investment required to develop the deposits and to build domestic processing and manufacturing facilities we must have access, security of tenure, and an efficient permitting system. A strong domestic battery supply chain to meet demands today and in the future is within our reach.

U.S Lithium Production and Development

Presently, lithium production in the United States is from a single brine operation in Nevada, the Silver Peak Mine, which does not meet the current demands of our nation. Several advanced lithium mineral extraction projects (Thacker Pass and Rhyolite Ridge in Nevada) are in the permitting phase with projected production in 2022-2025. Development of our domestic lithium resources is critical to the battery supply chain.



**Graphic produced for WMC by Ioneer USA Corporation*

Market Statistics for Lithium Utilization

Uses for lithium by percentage of the market include: batteries (71%), ceramics and glass (14%), lubricating greases (4%), polymer production (2%), continuous casting mold flux powders (2%), air treatment (1%), and other uses (6%)¹. Lithium is critical in manufacturing rechargeable batteries because of its high capacity to store energy. From electric vehicles to pacemakers, lithium is an essential metal.



Moving to a renewable/low-carbon future is a mineral intensive effort which will require mining minerals, like lithium, critical to building the technologies and clean energy of the future. Congress must enact policies to support mining the minerals important to our economy, defense, and to meet our clean energy objectives which:

- Promote responsible and timely development of U.S. lithium resources;
- Ensure public lands with potential lithium deposits remain available for mineral exploration and development; and
- Reduce our reliance on lithium from non-allied foreign countries².

WMC will be distributing additional information on the processes of lithium extraction, processing and application with future papers.

About WMC

WMC is a grassroots organization with over 200 members nationwide. Our members work in all sectors of the mining industry including hardrock and industrial minerals, coal, energy generation, manufacturing, transportation, and service industries. We hold annual Washington, D.C. Fly-Ins to meet with members of Congress and their staff and federal land management and regulatory agencies to discuss issues of importance to both the hardrock and coal mining sectors. For more information about WMC, please visit our website at:

www.wmc-usa.org.

¹ <https://www.statista.com/statistics/268787/lithium-usage-in-the-world-market/>

² <https://www.usgs.gov/centers/national-minerals-information-center/mineral-commodity-summaries>