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June 9, 2021

Dear President Biden, Vice President Harris, Senate Majority Leader Schumer, and House Speaker Pelosi:

We write to request that the federal government take impactful steps to develop a domestic supply chain for battery storage technologies, raw materials, and manufacturing. As the world moves to decarbonize its energy and transportation sectors, batteries are becoming an increasingly pivotal product to meeting our nation's climate goals, from grid scale storage to integrate renewable energy, to car batteries to harness that renewable energy for clean vehicles.

We applaud President Biden's recent effort to examine important supply chains and determine how best to protect American consumers, workers, and businesses. The United States has the potential to play a key role in the rapidly-growing battery manufacturing sector. We can be more than simply a buyer of foreign-made products and instead fill every link in the battery supply chain, from sourcing raw materials to manufacturing the final product.

Developing this supply chain domestically will create significant numbers of good paying jobs across the country. This initiative would create construction jobs for building of new plants and processing facilities, permanent plant and facility operator positions, high tech chemistry jobs, and scores of office and support positions. The economic benefits would reach regions throughout the country and provide work opportunities for generations as we are just entering this energy and transportation transition.

The time is ripe for a serious investment from government in this space. Over the next 10 years the demand for lithium is expected to grow six-fold and the world-wide supply will struggle to keep pace. The private sector is quickly increasing demand for these products. As just a few examples, Ford says it will invest \$29 billion in EVs through 2025, GM announced it will invest \$27 billion in EVs through 2025, and Volkswagen says it will invest over \$30 billion towards EVs by 2023. Enormous private sector investment will go into filling that gap in supply and demand. International supply chains are beginning to entrench in this new and growing market and the U.S. needs to ensure it can benefit from the explosion of jobs and investments that will occur.

While there are likely many policy tools the federal government can employ to spur the rapid development of this domestic battery supply chain, one opportunity would be to provide incentives to consumer product developers who utilize American-made or -sourced materials. For example, an auto manufacturer could receive a financial incentive or tax credit for each vehicle that is made with a domestically-produced battery. Each energy storage module produced could similarly receive such benefit or a production tax credit. Thus, the industry will be incented to develop such opportunities as quickly as possible. Perhaps most importantly, this would also be a low-risk investment by the government, as it is not making investments in individual technologies, firms, or facilities, but rather simply rewarding those manufacturers who are willing to source domestic supplies.

In order to develop the entire, complex supply chain, such a consumer product manufacturer credit could also be tiered to give differing levels of credit depending on how much of the battery is produced domestically. For example, use of domestic raw materials and chemicals like rare earth, manganese and lithium could provide a certain credit, while use



of cathodes manufactured in the U.S. could provide another, and use of whole batteries built in the country could provide yet another credit. This way, each level of the domestic supply chain can be incentivized together, but also independently to encourage more firms to invest in the space. There are very few, if any, vertically integrated battery manufacturers, so this incentive structure could benefit each level individually by ensuring upstream buyers source from domestic raw materials and manufacturing.

This effort would also promote national security and future energy independence. As the world moves from fossil fuels to cleaner forms of energy, a new supply chain will need to be created to ensure America has the resources it needs for military and domestic uses. The current international supply of lithium, for example, is dominated by China, which makes up the majority of supply for tier-one battery producers. Just as decades of domestic oil and gas production have helped the U.S. become an international energy supplier, the U.S. should promote investment in the energy resources of the next generation.

This initiative would also foster tremendous innovation while developing a more equitable economy by bringing economic opportunities to underserved areas in our country like the Imperial Valley region we represent. The Imperial Valley is one of the poorest areas in California with unemployment over 15% before the COVID-19 recession. The region, home to the Salton Sea, has the potential to supply 40% of the global lithium demand and significant effort is underway to employ new technologies to recover lithium and other resources from geothermal brine brought to the earth's surface for renewable energy generation. Importantly for the local community, the development of these facilities will create thousands of jobs and spur ancillary economic growth when it is desperately needed. Furthermore, extracting useful resources before sending the brine back into the earth would be the most environmentally-sustainable source of these chemicals in the world. As concerns rise over the environmental toll of production of raw materials, it's important to consider that building a domestic supply chain will allow the U.S. more direct control over its impacts.

For the above reasons we respectfully request your attention and consideration of facilitating a domestic supply chain for batteries. This technology will be a cornerstone of our clean energy and transportation future, and it is vital that America not be left behind. Investments in these resources could pay off for generations.

Sincerely,

EDUARDO GARCIA

California Assemblymember, 56th District

Contact: (916) 319-2056/Carlos.Gonzalez@asm.ca.gov

BEN HUESO

California Sepator, 40th District

Contact: (916) 651-4040/Erin.Hickey@sen.ca.gov

cc: Secretary of the Interior Deb Haaland
Secretary of Energy Jennifer M. Granholm
Secretary of Transportation Pete Buttigieg



U.S. Senator Dianne Feinstein

U.S. Senator Alex Padilla

U.S. Representative Raul Ruiz, CA 36

U.S. Representative Darrell Issa, CA 50

U.S. Representative Juan Vargas, CA 51

Janea Scott, Counselor to the Secretary of the Interior

Karen Skelton, Senior Advisor, Office of the Secretary of Energy

Jigar Shah, Director, Loan Programs Office

California Governor Gavin Newsom

California Secretary for Environmental Protection Jared Blumenfeld

California Secretary for Natural Resources Wade Crowfoot

California Air Resources Board Chair Liane Randolph

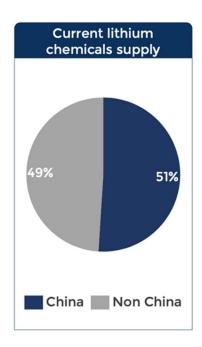
California Energy Commission Chair David Hochschild

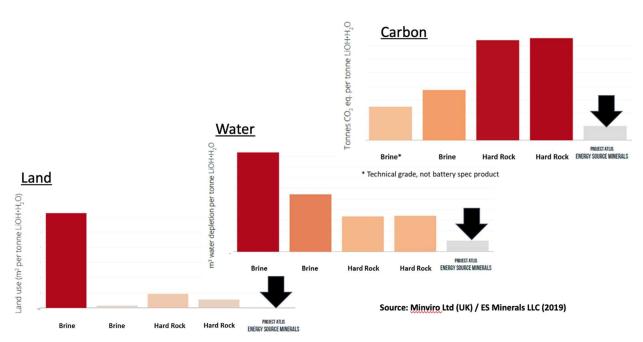
James Ralph, Senior Advisor for Federal Energy and Climate Policy to Governor Newsom



Source: Benchmark Minerals Intelligence (2020)







Life-Cycle Assessment study illustrating the land, water, and carbon footprint associated with producing one ton of battery-spec lithium product from leading commercial resources. There are clear environmental advantages of recovering lithium from geothermal brines, such as those in the Salton Sea of southern California (right-most bar in the above graphs).