

For Critical Minerals: Capability must precede Capacity

written by Jack Lifton | October 14, 2024

“An inquiry into the secure supply of domestic American critical mineral processing must precede any capacity build-out plan, which is currently based on projections from bureaucrats and consultants lacking real-world experience. The Western OEM automotive industry’s massive investments in EV batteries and critical minerals show a lack of due diligence, driven by misguided policy rather than market forces, risking a decline in the American standard of living.” – Jack Lifton

An inquiry into the status of a secure supply of ***domestic American critical mineral processing capability*** surely must precede any capacity build-out plan, itself based on the projections of bureaucrats, academics, and elected officials, who, in turn, get their data not from life experience but from paid “expert” consultants whose knowledge of human behavior comes from the statistics gathered and analyzed for them by their favorite “data analytics” vendors of SI, synthetic intelligence.

A case of the pure waste of capital in point is the lack of due diligence and forward planning common sense by the Western OEM automotive industry, which has thrown enormous amounts of capital into preparing for high volume manufacturing of the batteries for EVs and, for the purposes of this discussion, into the secure domestic supply of some of the critical minerals required for such a build-out, without any regard whatsoever for an investigation of the capability or capacity of contemporary domestic American chemical engineering to the job at the

required scale.

It's important to note that all of this 'investment' is not a result of market forces, but rather a response to predicted future demand for EVs. This prediction is based on the continued beliefs of policymakers who see the total disruption of the lowest-cost production of affordable fossil-fueled vehicles not only as the planet's salvation but as the salvation of the ordinary American's standard of living. In reality, the only threat to be overcome is to the re-election of those who champion this misguided approach to a sharp decline in our standard of living and quality of life..

In the minds of bureaucrats and academics, and the politicians who adopt their views, there are no insoluble economic problems if and only if enough money is thrown at them. Failure, from this point of view, is due solely to insufficient financing. Failure due to incompetence and lack of comprehension of the real world is never considered. Again, the OEM automotive industry's recent massive investments in EV manufacturing is a paradigm example of a lack of due diligence, perspective, and knowledge of the subject matter.

Understanding the sourcing of the raw materials critical for the manufacture of technology metal-enabled electrical and electronic components seems to be beyond the ability of our financial managers, bureaucrats, and politicians.

Planning a transition from total dependence on fossil fuels requires education, experience, and the highest-level technical and manufacturing managerial skills, but It also involves determining what is possible and practical.

The initial planning to successfully execute such a scheme can take years of focused studies. The execution of the plan can take more than a generation.

China has been planning and implementing its transition to technical modernity for 25 years. It is now entering the second generation of its plan to become the world's richest and most technologically advanced nation by mid-century.

In that same period, American manufacturing and its critical supply substructure have declined sharply.

It seems to me that our politicians and, sadly, the financial managers in our OEM industries simply do not understand mineral economics, nor do they seem interested in finding out anything about this discipline, upon which the mining industry depends when making its choices of what to mine, when and where.

The sole purpose of American manufacturing management in this century looks to have been self-enrichment by giving total operational control to finance, not to maintain performance to budget, but to pump share prices, enabling huge salaries and bonuses with no regard to any long term outlook.

In American manufacturing, DEI seems to have replaced STEM excellence as the critical determinant of managerial employment, but not, of course, in the finance departments.

It shows.