

MEMO

To: All

From: Li-Bridge Organizing Committee

Date: April 15, 2022

Subject: Li-Bridge Forum #1, "Defining our Ambition and Target State" (held April 5, 2022)

I. Meeting objective and activities

Li-Bridge's first forum was held April 5 in Chicago with over 40 participants from industry, academia, and national labs. The main objective was to define a shared ambition and target state for the US lithium-based battery supply chain. Participants worked in breakout groups to define several unique target states, shared these target states with the broader group for discussion, and then synthesized the common threads into a unified target state (below).

II. Key themes that emerged from group discussions

a. Capturing jobs & economic value is the #1 priority for Li-Bridge initiative

- i. Debate centered around how central national security needs to be within the to-bedeveloped industrial policy. Will a doubled-down focus on economic value creation serve as sufficient impetus to break free from the momentum case (business-as-usual path resulting from expected demand growth)?
- ii. Desire to prevent situations like the semiconductor shortage in auto or Germany's dependence on Russian oil/gas

b. Immediate action is needed

- i. US lithium-based battery industry viewed as behind China and Europe
- ii. Broad consensus that the Li-Bridge roadmap must focus on immediate actions that generate results in the next 1 to 5 years

c. Strong sentiment that US must shift the value-cost paradigms to spur domestic production

- Support for using regulations (example: EU's carbon border adjustment mechanism or Battery Passport proposal) to favor domestic production and level the playing field vs imports.
- ii. Desire to leverage US companies' strengths in understanding/anticipating customer needs to shape products brought to market and the business models in which they will be sold

d. Creating an attractive environment for investors is critical to increasing the manufacturing base

- i. Gap remains between the industrialization needs of companies and the expectations of capital market; further discussions required on levers to align and adapt
- ii. Concern that uncertainty from US elections/political parties' differing agendas has negatively affected capacity investments in the US. Long-term, politically neutral policy is required.

e. Building the workforce is a chicken-and-egg challenge

- i. Talent shortage is acute and readily apparent today
- ii. Need to optimally leverage foreign-based know-how



- iii. Need to synchronize site selection, supply chain strategy, and re-training programs for maximum impact
- f. Strong eagerness among participants to accelerate discussion toward "How to win", e.g., incentives, regulations, standards, etc.
 - i. Desire for government to align targets and incentives, e.g., offering higher incentives to manufacturers that produce higher performing cells (similar to China)
- III. Summary of Li-Bridge target state as defined by participants:

Processes and regulations simplified and harmonized across US

Total Societal Impact (TSI): Total benefit to society from a company's products, services, activities; related to total shareholder return (TSR)

Unified target state: The preferred choice of customers & manufacturers

Sufficient cost competitiveness to enable scale and robustness Global cost competitiveness enables exports, driving greater scale and enabling further cost reductions Innovation targeted at where it matters most Leapfrogging existing technologies Removing supply chain and geopolitical constraints, e.g., replacement for cobalt Industry Led Owning the customer-centric ecosystem Deep understanding of customer needs (end-user and OEM) that enables the US to anticipate and create new markets · Creating and defining dimensions (e.g. standards, business models) in which producers must compete to attract consumers 4) Strong end-to-end manufacturing/industrialization know-how and capacity Domestic knowledge of how to design, build, quickly/efficiently ramp up, and operate new production lines · Key manufacturing equipment produced domestically 5 Attractive returns on investment, from both financial and Total Societal Impact (TSI)1 perspective Capital markets view industrialization investments as offering attractive returns Market demand highly stable despite alternating agendas of elected officials
Producers are rewarded for practices that adhere to high environmental, social, and governance standards Cohesive policy environment Every aspect of the industry working toward common high-level goals in a coordinated manner, including those a "half-step" outside of battery manufacturing, e.g., fire safety, regulatory bodies, education institution

IV. Path forward

With a unified target state for the US lithium battery supply chain created and agreed to, and with committee charters and workplans defined, the topic committees are now set to begin working towards Forum #2 "Where to Play" (May 4). In Forum #2, participants will share assessments performed by the committees on economic attractiveness, strategic importance, and ability to maintain a competitive advantage. The objective of Forum #2 will be to develop a prioritized list of areas warranting differential policy support.

V. Opportunity for input:

If you have any comments, suggestions, or questions, please provide your feedback by visiting the following link (<u>Feedback form</u>)