

cooler · lighter · safer

## Q2 FISCAL 2021 LETTER TO SHAREHOLDERS



AUGUST 17, 2021

Dear KULR Shareholder,

When we founded KULR in 2013, our mission was to harvest the technology portfolio our team had developed for over 30 years from aerospace and defense applications and apply it to keeping the world of electronics and batteries cooler, lighter and safer. Eight years later, in 2021, we find this mission statement more relevant than ever before. Technological advancements, automotive industry investments and state policies are driving increased transportation electrification. Bloomberg New Energy Finance projects that by 2040, 55% of new sales of automobiles worldwide will be electric vehicles (EVs).

We are pleased to announce strong results for Q2 2021, and, as we move into the second half of the year, we are continuing to execute on multiple growth fronts. In this letter, we will provide an update on some of our most significant recent achievements and progress over the last quarter as well as our roadmap for the future.

### Product Development Update

From inception, KULR's long-term strategy has been to co-develop cutting-edge, thermal management technologies alongside NASA, the US Department of Energy (DoE), and the US Department of Defense (DoD), while working in close collaboration with regulatory agencies and international testing organizations; our intent was to incorporate these technologies into mass market applications. In the second quarter of 2021, this strategy materialized into encouraging initial results with meaningful upside potential in two key markets: battery transportation and energy storage products. Within these key markets we've identified multiple areas where we could strategically and rapidly deploy our technology to support our growth goals. We expect our first energy storage customer to pass the UL (United Laboratories) certification and State battery safety certification in the third quarter and enter volume production with KULR in the fourth quarter of this year.

By way of our patented, NASA-proven Thermal Runaway Shield technology, we successfully secured three separate US Department of Transportation (DoT) special permits to allow for the safe transportation of lithium-ion batteries. Our special permits allow for up to 2.1 kWh (kilowatt-hour) capacity and retain seven times the energy capacity protection compared to our closest competitor. This technology was tested by NASA and has been used on the International Space Station to keep astronaut's laptop and tablet batteries safe from battery thermal runaway propagation since 2019. This same technology has been used to create the KULR-Tech Safe Case, a case that mitigates dangerous lithium-ion battery failures and provides safe and sustainable transportation of lithium-ion cells and battery packs of up to 2.1 kWh per case. We are the only company in the world with a product that is DoT approved for storage and transport of lithium-ion batteries that can manage up to a capacity of 2.1 kWh for recycled, prototype and DDR (damaged, defective and recall) batteries. The KULR-Tech Safe Case is also designed to be reusable -- so we can all contribute to a greener and healthier environment for ourselves and for future generations.



Additional testing is now underway to further increase energy capacity. We have also deployed our engineering team to design our smart battery system, which includes both hardware and software platforms to monitor the health of battery cells; integrating software and services with hardware will enable better control over data intelligence. Our long-term vision is to provide a completely integrated hardware and software platform to manage battery safety and thermal stability. Lastly, we listened carefully to the recommendations and desired design improvements of our DoD and aerospace customers who shared their feedback on the need for a strategic battery reserve. We responded by moving quickly to develop and complete the critical workflows necessary to meet these highly technical demands. Our team then sourced critical test equipment and automation suppliers to build out our proprietary test-pilot system. This strategic cell screening test-pilot system is expected to be in full operation with a currently non-disclosed customer in the first half of 2022.

We anticipate this system to be capable of processing up to 1.2 million cells per year for the 18650 and 21700 cylindrical battery cells. Each cell will be tested and categorized, and we will retain all test data through each process enabling customers to analyze it across all touchpoints. This reserve will help ensure our customers have access to fully screened, tested, and categorized cells data, should the need ever arise.

KULR started a research and development initiative using carbon fiber structures to produce battery cells with higher energy density and faster charging capabilities – the potential for a “super battery.” We believe fast-charging will be the killer app for next-gen batteries. Right now, overheating is the limiting factor in advancing fast-charging battery technology. We think there may be a way to solve that problem by using carbon fiber inside the battery cell to reduce thermal and electrical resistance which can dissipate heat more effectively. To address this need, we have been developing and testing new battery architecture to make the battery cooler, lighter and safer. We are working on lithium metal anode and thick cathode structures with higher loading factors to enable cells with higher energy density. There is a lot of work involved with testing for electro-chemical stability under real life operating and cycling conditions. We want this architecture to work with existing lithium-ion chemistries such as NMC (Nickel Manganese Cobalt) and LFP (Lithium Iron Phosphate) as well as new chemistries such as solid-state batteries. This is a long-term strategic development for KULR, and we hope to provide preliminary test data at our Battery Solutions Day event on September 21, 2021. This event is designed to showcase KULR's product roadmap from hardware to software and services as we expand our technology portfolio for battery safety, thermal stability, and new battery design architectures.

Even as we accelerate the technological development in these exciting new applications, we have continued to serve our existing aerospace and defense customers with improved technology and productivity. We are also developing solutions for hypersonic thermal management, high power cathode and phase change materials heat sink applications.

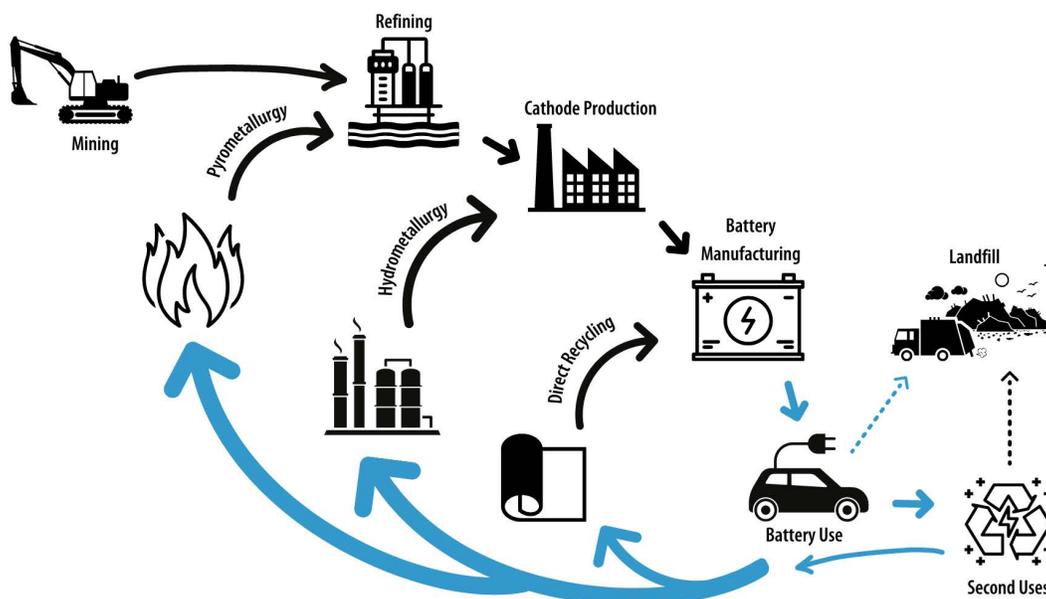
### [Sales and Marketing Update](#)

In addition to new product initiatives, we have also rapidly expanded our sales and marketing team with a strong emphasis on experienced sales professionals. In support of those efforts, we are pleased to welcome Greg Provenzano as our VP of Sales and Marketing. Greg joins KULR with over 35 years of leadership and worldwide sales experience in electronic components, design services, and system solutions across a variety of industries most notably at Advanced Energy and Arrow Electronics. At KULR, he will play a crucial role in developing the company's sales channel strategy as it pivots into large volume applications and products supporting strategic growth goals.

Over the past two quarters our team has been working diligently to develop our first-generation smart battery pack and software infrastructure, which we will formally unveil at our previously noted Battery Solutions Day event. This state-of-the-art design features KULR's proprietary thermal management materials directly incorporated within the battery cell itself, creating a self-contained thermal management solution. The initial pack is targeted for two specific, albeit currently undisclosed customers in the agricultural drone market. We specifically chose this market for our first smart battery packs because of the rapid growth in this market, which is expected to grow from [USD \\$1.2 billion in 2020 to USD \\$5.7 billion by 2025 at a CAGR of 35.9% during that period](#). We anticipate completing field trials with our first two customers in early Q4 2021 and look forward to deploying our packs for mass market sales at the beginning of the next calendar year.

We are continuing to grow sales in our foundational aerospace and defense businesses, while expanding into commercial EV's with our patented Thermal Runaway Shield technology for power packs. The granting of our recent DDR special DoT permit in July 2021, along with DoT special permits for both shipping prototype batteries and lithium-ion batteries for recycling, marked a key strategic step for us. These permits have allowed us to continue to push our Thermal Runaway Shield as an integrated design solution that provides total battery safety for more efficient battery systems, increased sustainability, and end-of-life battery management, making KULR a key strategic asset in the migration to a global circular economy. Our passive propagation resistant solutions have been proven by various government testing authorities, such as the Consumer Product Safety Commission and NASA, to stop or mitigate the impacts of thermal runaway, which can occur during transportation of batteries. KULR's special DoT permits validate the commercial and regulatory viability of our solution.

According to [Circular Energy Storage](#), in a report to the Global Battery Alliance, by 2025 the approximate global volume of lithium-ion cells reaching end of-life will be approximately 700,000 tonnes while the amount of lithium-ion cells available for recycling will reach approximately 400,000 tonnes. If you estimate 22,000 lithium-ion cells per metric ton, that roughly equates to 14 billion lithium-ion cells globally reaching end of life and 8 billion lithium-ion cells globally ready for recycling all by 2025. We have this market in our crosshairs and plan to pursue it aggressively in the quarters and years to come.



**KULR's Focus on Transportation Logistics within the Battery Recycling and Battery End of Life Economy**

## Operations Update

During the quarter we added a new Vice President of Operations in Antonio Martinez. Antonio joins KULR with over 37 years of leadership and worldwide manufacturing experience in electronics manufacturing and operations. He spent most of his career at Pulse Electronics Corporation in the electronics manufacturing services industry. Most recently, he served as Principal Program Manager of Jabil since 2015, managing business operations spanning quality assurance readiness, large production line transfers, project management, process improvement with increased productivity, and customer qualification support. At KULR he will be tasked with spearheading our day-to-day operations.

In the second quarter we also began transitioning into our new and significantly larger facility. While we will have certain personnel housed in our current facility until the end of Q3 – to complete a strategic DoD project that requires remaining in a certified location until the order is completed – once finished, the rest of the equipment and team will allow for a full transition. As KULR pivots to large volume applications and products to support its strategic goals, we will continue to scale our workforce in the areas of battery pack development, quality assurance, engineering, accounting, and many other disciplines. We are certain that investing our time and resources in these key areas will result in the highest ROI.

## Financial & Corporate Governance Highlights

KULR has significantly improved its balance sheet, and we are now in the strongest financial position in our company's history. Our cash reserves have increased to over \$12.2 million as of June 30, 2021 with virtually no debt. This increase was mainly attributable to gross proceeds of approximately \$6.5 million received from the registered direct offering we completed on May 20, 2021, and gross proceeds of approximately \$3.7 million received in Q2 2021 from the exercise of warrants to purchase an aggregate of 3,000,000 shares of common stock. In July 2021, additional gross proceeds of approximately \$1.5 million were received from the exercise of warrants to purchase a total of 1,200,000 shares of common stock.

In June, KULR was approved to up-list to the New York Stock Exchange American Exchange. Our "KULR" ticker remains unchanged, and our stock commenced trading at the opening of trading on June 7, 2021. Trading on the NYSE provides the company more visibility to a much broader pool of institutional and retail investors and, in turn, could increase liquidity.

Corporate governance is another key area where we've made encouraging progress. During the quarter we appointed Lieutenant General Stayce D. Harris to our Board of Directors. General Harris, who also serves as Chairperson of the KULR's Compensation Committee, is a retired United States Air Force Reserve Lieutenant General that last served as the Inspector General of the Air Force. She is an experienced pilot with over 10,000 flight hours safely transporting passengers and cargo worldwide for United Airlines and was a pilot for nearly 30 years before retiring from the company in 2020. Stayce serves as a Director of The Boeing Company, an independent Director/Trustee of BlackRock Fixed-Income Mutual Funds and is a member of the Board of Directors for Direct Relief.

## Summary

In conclusion, we continue to make progress across many parts of our business. From building our commercialization and automation processes, to achieving key technical milestones, our team is fully committed to executing on the goals ahead. We've established ties with government agencies such as the DoT, CPSC, NASA and the United Nations, raising the profile of KULR's superior cooling technologies that enhance performance and energy efficiency of batteries and electronics. The endless lithium-ion battery related applications from utility and residential energy storage to electric mobility to battery recycling stand to benefit from KULR's thermal management technologies.

The massive \$3.5 trillion climate change resolution sets the stage for unprecedented investments into climate change initiatives and reducing greenhouse gas emissions. However, there is still a tremendous amount of work to be done, including: continuing to improve the manufacturing process of our Thermal Runaway Shield technology, increasing the quantity and performance of our high-capacity lithium battery packs for the commercial drone market, and bringing higher-volume manufacturing tools and processes online in preparation for mass commercialization.

Finally, marking a symbolic end to an eventful second quarter, KULR was invited to ring the NYSE closing bell on July 9th. It was truly an honor to mark the beginning of our next chapter as a publicly traded company by ringing the closing bell at NYSE. We couldn't be more excited about our prospects serving the world of e-mobility, battery transportation, and energy storage products at a time when the world is clamoring for more sustainable ways to work and live.



**KULR Team Rings NYSE Closing Bell on July 09, 2021**

Our 25-plus employees work incredibly hard to make these achievements possible, and we're extremely proud to share the results of their efforts with you. We will continue to innovate with our space-proven technologies to make batteries and electronics cooler, lighter and safer.

Thank you for your continued support.

Sincerely,

Michael Mo  
Co-Founder and CEO

## Safe Harbor Statement

This letter does not constitute an offer to sell or a solicitation of offers to buy any securities of any entity. This letter contains certain forward-looking statements based on our current expectations, forecasts and assumptions that involve risks and uncertainties. Forward-looking statements in this letter are based on information available to us as of the date hereof. Our actual results may differ materially from those stated or implied in such forward-looking statements, due to risks and uncertainties associated with our business, which include the risk factors disclosed in our Form 10-K filed with the Securities and Exchange Commission on March 19, 2021. Forward-looking statements include statements regarding our expectations, beliefs, intentions, or strategies regarding the future and can be identified by forward-looking words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "should," and "would" or similar words. All forecasts are provided by management in this letter are based on information available at this time and management expects that internal projections and expectations may change over time. In addition, the forecasts are entirely on management's best estimate of our future financial performance given our current contracts, current backlog of opportunities and conversations with new and existing customers about our products and services. We assume no obligation to update the information included in this letter, whether as a result of new information, future events or otherwise.

