

**Action Summary – 23 May 2023**

Analyst Theodore R. O'Neill – 1Q23 shows solid start despite miss to estimates - Reiterate Buy and \$7 PT

- **Minor miss to estimates.** It's too early in the game for analysts to forecast a steady, linear increase in revenue, but that is what we did in the quarter. KULR reported 1Q23 revenue and an EPS loss of \$1.8MM and \$0.06, respectively. Consensus 1Q23 revenue and EPS loss expectations were \$2.2M and \$0.04, respectively. The \$0.02 unfavorable EPS variance was due to lower sales and higher operating and non-operating expenses.
- **Early on revenue is coming in discrete packets.** It posted record revenue in the prior quarter and we all clearly expected another record, but it will happen. It has lined up commercial business with several customers, who must execute on their own plans, and it now has several government contracts that are likely to produce follow on orders. KULR products protect and solve complex, real-world issues of heat, vibration, and safety.
- **Lowering 2023 estimates.** We are lowering our 2023 revenue and EPS estimates to \$9.3MM and a loss of \$0.21, respectively from \$16.5MM and a loss of \$0.14, respectively, primarily due to higher operating expenses to support this growth and revenue at this time is somewhat lumpy.
- Although the shares trade at near peer averages, we believe it deserves a premium due to its high gross profit margins. Shares are trading below our discounted earnings-based price target.

5/22 Closing price: \$0.82	Market cap: \$68 million	2024 P/E: NMF	2024 EV / Sales: 2.3
Diluted Shares outstanding: 118 million	Insider ownership: 35%	3-month avg. trading volume: ~600,000	Dividend/Yield: NA/NA

**GAAP estimates (EPS excluding deemed dividend in dollars – Revenue in USD thousands)**

Period	EPS	Revenue	GP Margin
1Q21A	\$(0.02)	\$418	34%
2Q21A	\$(0.03)	\$628	30%
3Q21A	\$(0.03)	\$601	74%
4Q21A	\$(0.04)	\$766	70%
FY21A	\$(0.12)	\$2,413	54%
1Q22A	\$(0.04)	\$200	39%
2Q22A	\$(0.05)	\$588	28%
3Q22A	\$(0.05)	\$1,393	33%
4Q22A	\$(0.04)	\$1,813	92%
FY22A	\$(0.18)	\$3,995	59%
1Q23A	\$(0.06)	\$1,760	37%
2Q23E	\$(0.05)	\$2,000	50%
3Q23E	\$(0.05)	\$2,500	50%
4Q23E	\$(0.04)	\$3,000	49%
FY23E	\$(0.21)	\$9,260	47%

Note: Numbers may not add due to rounding. See our full model at the back of this report.

**Cash balance (in USD thousands)**

• 2020A	• \$8,880
• 2021A	• \$14,863
• 2022A	• \$10,334
• 2023E	• \$982

**Debt (in USD thousands)**

• 2020A	• \$142
• 2021A	• \$0
• 2022A	• \$0
• 2023E	• \$0

**Adj. EBITDA (in USD millions)**

• 2020A	• (\$2.4)
• 2021A	• (\$11.6)
• 2022A	• (\$17.8)
• 2023E	• (\$24.7)

**Risks/Valuation**

- Risks include Highly competitive business; changes in customer demand, commercialization of technology
- Our \$7 target is derived using a discounted future earnings model.
- 

**Company description:** KULR Technology Group, Inc. develops, manufactures and licenses next-generation carbon fiber thermal management technologies for batteries and electronic systems. Backed by a strong intellectual property portfolio, KULR enables leading aerospace, electronics, and electric vehicle manufacturers to make their products cooler, lighter and safer for the consumer.

Figure 1 – KULR Technology Group, Inc. – One-Year Trading snapshot



Source: FactSet

## Quarterly Results

As shown in Figure 2 (below), KULR reported 1Q23 revenue and an EPS loss of \$1.8MM and \$0.06, respectively. Consensus 1Q23 revenue and EPS loss expectations were \$2.2M and \$0.04, respectively. The \$0.02 unfavorable EPS variance was due to lower sales and higher operating and non-operating expenses.

Figure 2 – KULR Technology Group, Inc. – Quarterly Variance Analysis (\$000)

	2023	2023	
	Q1E	Q1A	Better/(worse) than forecast
<b>Income Statement</b>			
Total Revenue	\$2,500	\$1,760	(\$740)
Total cost of revenue	1,250	1,116	134
Total Gross Profit	1,250	643	(607)
Operating expenses:			
R&D	1,300	1,388	(88)
General and administrative	4,500	5,516	(1,016)
Total Expenses	5,800	6,904	(1,104)
Earnings (loss) from Operations	(4,550)	(6,261)	(\$1,711)
Total Other income/(expense)	0	(342)	(342)
Earnings before taxes	(4,550)	(6,603)	(2,053)
Tax expense/(benefit)	0	0	0
Net income	(\$4,550)	(\$6,603)	(\$2,053)
Deemed dividend for Series C			
Net income attributable to shareholders			
EPS	\$ (0.04)	\$ (0.06)	(\$0.02)
Diluted common shares	107,000	112,877	(5,877)

Source: Litchfield Hills Research LLC

## Valuation Methodology

We believe KULR is undervalued, and we support that belief with two valuation techniques, one absolute and one relative. The following valuation techniques are being used:

- 1) The discounted value of all future earnings was used for our price target (see Figure 3)
- 2) Valuation relative to peers (see Figure 4)

## Discounted Future Earnings – Basis for Price Target

Our 12-month price target of \$7 is based on a discounted earnings model. For valuation purposes, we sum up all future earnings discounted at 8%. We are making two main assumptions:

- Near-term rapid growth for earnings which steps down to GDP after 5 years
- Company reaches breakeven in early 2024

Our valuation model is shown in Figure 3 below. Note, this model understates future new products and growth through acquisitions and probably understates the tax benefits, but offsetting that, the earnings never have a down year. The implied share price is \$6.62 which we round up to \$7.

*Figure 3 - KULR Technology Group, Inc. - Discounted Future Earnings*

<b>Discounted Earnings</b>		<b>\$ 6.62</b>
Year 1 is	Forecast	Discounted
2023	EPS	EPS
1	(0.23)	(\$0.23)
2	0.00	\$0.00
3	0.20	\$0.16
4	0.30	\$0.22
5	0.45	\$0.31
Terminal Value		\$6.16

Source: Litchfield Hills Research LLC

## Valuation Relative to Peers

In Figure 4 we look at a summary of metrics for KULR peers. If we compare KULR to a simple average of its peers, the shares sell, on average, just a little under par with its peers. We believe KULR shares should command a premium to its peers because it has high gross profit margins and companies with high gross profit margins tend to trade for higher sales multiples. A high multiple for KULR isn't extraordinary. Details on each of the peers can be found in Figure 5.

*Figure 4 – KULR Technology Group, Inc. – Valuation Relative to Peers*

	2024 EV / Sales	2024 Sales Multiple
Average	2.34	3.00
KULR	2.33	2.75
<b>Premium/(Discount) to peers</b>	<b>(1%)</b>	<b>(9%)</b>

Source: Litchfield Hills Research LLC and Refinitiv Eikon (Formerly Thomson Reuters Eikon)

## Guidance and Financial Forecasts

The company is not providing guidance. We anticipate a capital raise sometime in late 2023 to support working capital and growth. The company has been pulling together solid business relationships with companies that will use KULR products and those companies are executing their production plans.

Figure 5 – KULR Technology Group, Inc. – Comp Table

FactSet Ticker	Company Name	Closing Price	Market Cap \$MM	EV \$MM	2024 Consensus Multiples	
					EV /Sales	Market Cap / Sales
TSLA-US	Tesla Inc	\$180.14	570,954	608,593	4.99	4.67
RIVN-US	Rivian Automotive, Inc. Class A	\$13.47	12,547	4,302	0.63	1.73
QS-US	QuantumScape Corporation	\$6.04	2,257	1,782		
ENVX-US	Enovix Corporation (US Listing)	\$11.67	1,846	1,530		
FSR-US	Fisker Inc	\$6.17	1,221	2,023	0.58	0.61
LICY-US	Li-Cycle Holdings Corp.	\$4.54	802	727	4.19	4.65
MVST-US	Microvast Holdings, Inc.	\$2.10	650	544		
ABML-US	American Battery Technology Company	\$0.75	508	474		
BLNK-US	Blink Charging Co	\$7.05	431	301	1.70	2.96
NVX-AU	NOVONIX Ltd (AU Listing)	\$0.69	335	293	1.96	2.25
RIDE-US	Lordstown Motors Corp	\$0.27	66	(80)		2.67
SOLO-US	Electrameccanica Vehicles Corp	\$0.50	60	(33)		4.49
IPWR-US	Ideal Power Inc.	\$9.49	56	44		
FUV-US	Arcimoto, Inc.	\$1.55	11	18		
	<b>AVERAGE</b>				<u>2.34</u>	<u>3.00</u>
KULR-US	KULR Technology Group Inc	\$0.58	68	58	2.33	2.75
	<b>KULR-US Premium/(Discount) to peers:</b>				<b>-1%</b>	<b>-9%</b>

Source: Litchfield Hills Research LLC and FactSet

Figure 6 – KULR Technology Group, Inc. – Income Statement (\$000)

December year-end	2020A	2021A	2022A				2022A	2023E				2023E
	Year	Year	Q1A	Q2A	Q3A	Q4A	Year	Q1A	Q2E	Q3E	Q4E	Year
<b>Total revenue</b>	\$624	\$2,413	\$200	\$588	\$1,393	\$1,813	\$3,995	\$1,760	\$2,000	\$2,500	\$3,000	\$9,260
<i>Growth</i>	-25%	287%	-52%	-6%	132%	137%	66%	778%	240%	79%	65%	132%
Cost of Goods	169	1,102	123	424	932	152	1,631	1,116	1,000	1,250	1,530	4,896
<b>Gross Profit</b>	<b>455</b>	<b>1,311</b>	<b>78</b>	<b>164</b>	<b>461</b>	<b>1,662</b>	<b>2,364</b>	<b>643</b>	<b>1,000</b>	<b>1,250</b>	<b>1,470</b>	<b>4,363</b>
<b>Gross Margin</b>	<b>72.9%</b>	<b>54.3%</b>	<b>38.7%</b>	<b>27.9%</b>	<b>33.1%</b>	<b>91.6%</b>	<b>59.2%</b>	<b>36.6%</b>	<b>50.0%</b>	<b>50.0%</b>	<b>49.0%</b>	<b>47.1%</b>
Operating Expenses												
R&D	\$290	\$1,662	\$721	\$999	\$1,070	\$1,187	\$3,978	\$1,388	\$1,400	\$1,500	\$1,600	\$5,888
% of total revenue	46%	69%	360%	170%	77%	65%	100%	79%	70%	60%	53%	64%
General and administrative	\$2,506	\$11,162	\$3,535	\$4,326	\$4,349	\$4,462	\$16,673	\$5,516	\$5,750	\$5,900	\$6,000	\$23,166
% of total revenue	402%	463%	1763%	736%	312%	246%	417%	313%	288%	236%	200%	250%
Total Operating Expenses	2,795	12,824	4,256	5,326	5,419	5,649	20,650	6,904	7,150	7,400	7,600	29,054
<b>Operating Income</b>	<b>(2,340)</b>	<b>(11,513)</b>	<b>(4,179)</b>	<b>(5,162)</b>	<b>(4,958)</b>	<b>(3,987)</b>	<b>(18,286)</b>	<b>(6,261)</b>	<b>(6,150)</b>	<b>(6,150)</b>	<b>(6,130)</b>	<b>(24,691)</b>
<b>Operating Margin</b>	<b>-375.1%</b>	<b>-477.2%</b>	<b>-2084.1%</b>	<b>-878.5%</b>	<b>-355.9%</b>	<b>-219.9%</b>	<b>-457.8%</b>	<b>-355.8%</b>	<b>-307.5%</b>	<b>-246.0%</b>	<b>-204.3%</b>	<b>-266.6%</b>
Total Other Items	(510)	(398)	42	(93)	(628)	(472)	(1,150)	(342)	0	0	0	(342)
<b>Pre-Tax Income</b>	<b>(2,850)</b>	<b>(11,911)</b>	<b>(4,137)</b>	<b>(5,255)</b>	<b>(5,587)</b>	<b>(4,459)</b>	<b>(19,436)</b>	<b>(6,603)</b>	<b>(6,150)</b>	<b>(6,150)</b>	<b>(6,130)</b>	<b>(25,033)</b>
<b>Pre-Tax Margin</b>	<b>-456.8%</b>	<b>-493.7%</b>	<b>-2063.1%</b>	<b>-894.3%</b>	<b>-401.0%</b>	<b>-245.9%</b>	<b>-486.6%</b>	<b>-375.2%</b>	<b>-307.5%</b>	<b>-246.0%</b>	<b>-204.3%</b>	<b>-270.3%</b>
Taxes (benefit)	0	0	0	0	0	0	0	0	0	0	0	0
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Net income</b>	<b>(\$2,850)</b>	<b>(\$11,911)</b>	<b>(\$4,137)</b>	<b>(\$5,255)</b>	<b>(\$5,587)</b>	<b>(\$4,459)</b>	<b>(\$19,436)</b>	<b>(\$6,603)</b>	<b>(\$6,150)</b>	<b>(\$6,150)</b>	<b>(\$6,130)</b>	<b>(\$25,033)</b>
Deemed dividend for Series C	(\$2)	(\$2,624)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Net income attributable to share</b>	<b>(\$2,852)</b>	<b>(\$14,535)</b>	<b>\$0</b>	<b>(\$5,255)</b>	<b>\$0</b>	<b>\$0</b>	<b>(\$19,436)</b>	<b>\$0</b>	<b>(\$6,150)</b>	<b>\$0</b>	<b>\$0</b>	<b>(\$25,033)</b>
<b>EPS</b>	<b>(0.03)</b>	<b>(0.12)</b>	<b>(0.04)</b>	<b>(0.05)</b>	<b>(0.05)</b>	<b>(0.04)</b>	<b>(0.18)</b>	<b>(0.06)</b>	<b>(0.05)</b>	<b>(0.05)</b>	<b>(0.04)</b>	<b>(0.21)</b>
<b>EPS plus deemed dividend</b>	<b>0.00</b>	<b>(0.15)</b>	<b>0.00</b>	<b>(0.05)</b>	<b>0.00</b>	<b>0.00</b>	<b>(0.18)</b>	<b>0.00</b>	<b>(0.05)</b>	<b>0.00</b>	<b>0.00</b>	<b>(0.21)</b>
Diluted Shares Outstanding	82,032	97,708	102,561	104,546	105,573	110,000	105,656	112,877	118,000	118,000	138,000	121,719

Source: Company reports and Litchfield Hills Research LLC

Figure 7 – KULR Technology Group, Inc. – Balance Sheet (\$000)

December year-end	FY2023E	FY2022A	FY2021A	FY2020A	FY2019A
<b>Balance sheet</b>					
Current Assets					
Cash and S.T.I.	\$982	\$10,334	\$14,863	\$8,880	\$109
Accounts receivable	1,600	1,542	136	55	30
Inventories	1,800	1,962	191	55	27
Other assets	1,500	1,898	570	150	43
<b>Total Current Assets</b>	<b>5,882</b>	<b>15,736</b>	<b>15,761</b>	<b>9,142</b>	<b>209</b>
Net PP&E	6,000	3,193	374	58	28
Goodwill & Intangible	0	721	217	0	0
Other non-current assets	3,000	3,976	2,879	9	0
<b>Total Assets</b>	<b>\$14,882</b>	<b>\$23,626</b>	<b>\$19,231</b>	<b>\$9,208</b>	<b>\$237</b>
Current Liabilities					
Accounts payable	\$2,000	\$1,408	\$455	\$67	\$349
Accrued exp. & other	\$3,000	\$2,370	\$1,454	\$398	\$659
Deferred revenue	\$0	\$23	\$132	\$20	\$15
Other current liabilities	\$7,000	\$5,879	\$418	\$2,463	\$0
<b>Total current liabilities</b>	<b>12,000</b>	<b>9,681</b>	<b>2,458</b>	<b>2,947</b>	<b>1,034</b>
Notes payable	0	0	0	142	0
Other Liabilities	500	3,452	408	0	0
<b>Total Liabilities</b>	<b>12,500</b>	<b>13,132</b>	<b>2,866</b>	<b>3,090</b>	<b>1,034</b>
Stockholders' Equity					
Preferred stock	0	0	0	0	0
Common stock	9	11	10	9	8
Additional paid-in-capital	70,000	53,373	39,512	17,356	7,591
Retained earnings	(67,627)	(42,594)	(23,158)	(11,246)	(8,396)
Cum. Other comp and treasury stock	0	(296)	0	0	0
Total stockholders' equity	2,382	10,494	16,365	6,119	(797)
<b>Total Liabilities and equity</b>	<b>\$14,882</b>	<b>\$23,626</b>	<b>\$19,231</b>	<b>\$9,208</b>	<b>\$237</b>

Source: Company reports and Litchfield Hills Research LLC

Figure 8 – KULR Technology Group, Inc. – Cash Flow (\$000)

	FY23E	FY22A	FY21A	FY20A
Net Income	(\$25,033)	(\$19,436)	(\$11,911)	(\$2,850)
Accounts receivable	(58)	(1,406)	(81)	(25)
Inventories	162	(1,771)	(136)	(28)
Other assets	398	(1,328)	(420)	(107)
PP&E	(2,807)	(2,819)	(317)	(30)
Goodwill & Intangible	721	(504)	(217)	0
Other non-current	976	(1,098)	(2,870)	(9)
Accounts payable	592	954	388	(282)
Accrued exp & other - related party	0	0	0	(10)
Accrued exp. & other	630	916	1,056	(262)
Deferred revenue	(23)	(109)	112	5
Other current liabilities	1,121	5,462	(2,046)	2,463
Notes payable	0	0	(142)	142
Other Liabilities	(2,952)	3,044	408	0
Common stock	(2)	1	1	1
Additional paid-in-capital	16,627	13,861	22,156	9,765
Cum. trans. adj. and treasury stock	296	(296)	0	0
Dividends	0	0	0	0
Total Cash Flow	(9,351)	(4,530)	5,983	8,771

Source: Company reports and Litchfield Hills Research LLC

#### Disclosures:

##### Analyst Certification

We, the Litchfield Hills Research Department, hereby certify that the views expressed in this research report accurately reflect our personal views about the subject company and the underlying securities.

##### FINRA Compliant Research Report

We, the Litchfield Hills Research Department, hereby certify that this report is compliant with FINRA research rules 2241, 3110, the analyst is registered with FINRA, and the report has been reviewed by a Supervisory Analyst.

##### MiFID II Compliant Research Report

Our research is classified as minor non-monetary benefit under MiFID II. This applies to all forms of transmission, including email, website, and financial platforms such as Bloomberg, FactSet, S&P Global, Refinitiv, Wind and 13 others. We do not seek payment from the asset management community and do not have any execution function. Investors can continue to receive our research under the MiFID II regime without the need for a contract for services to be put in place. This applies to all forms of transmission, including email, website, and financial platforms.

##### Litchfield Hills Research LLC Rating System

**BUY:** We expect the stock to provide a total return of 15% or more within a 12-month period.

**HOLD:** We expect the stock to provide a total return of negative 15% to positive 15% within a 12-month period.

**SELL:** We expect the stock to have a negative total return of more than 15% within a 12-month period.

Total return is defined as price appreciation plus dividend yield.



#### Other Disclosures

Litchfield Hills Research, LLC (“LHR”) is not a U.S. broker-dealer registered with the U.S. Securities and Exchange Commission nor a member of Financial Industry Regulatory Authority. The principal of LHR and publisher of this report, Theodore R. O’Neill, is a registered representative of Ascendant Capital Markets, LLC (“Ascendant”), a registered broker-dealer and FINRA member firm. Ascendant considers Mr. O’Neill’s association with LHR to be an “outside business activity” and is disclosed as such with FINRA. This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would subject LHR or any divisions, subsidiaries or affiliates to any registration or licensing requirement within such jurisdiction.

All material presented in this report, unless specifically indicated otherwise, is under copyright to LHR and the subject company. None of the material, nor its content, nor any copy of it, may be altered in any way, transmitted to, copied, or distributed to any other party, without the prior express written permission of LHR or the subject company. All trademarks, service marks and logos used in this report are trademarks, service marks, registered trademarks, or service marks of LHR or its affiliates. The information, tools and material presented in this report are provided to you for information purposes only and are not to be used or considered as an offer or the solicitation of an offer to sell or to buy or subscribe for securities or other financial instruments. LHR may not have taken any steps to ensure that the securities referred to in this report are suitable for any particular investor. The investments or services contained or referred to in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about such investments or investment services. Nothing in this report constitutes investment, legal, accounting or tax advice or a representation that any investment or strategy is suitable, appropriate to your individual circumstances, or otherwise constitutes a personal recommendation to you. LHR does not offer advice on the tax consequences of investment, and you are advised to contact an independent tax adviser. LHR believes the information and opinions in the Disclosure Appendix of this report are accurate and complete. Information and opinions presented in this report were obtained or derived from sources LHR believes are reliable, but LHR makes no representations as to their accuracy or completeness.

#### Ownership and Material Conflicts of Interest

The analyst owns no shares of the subject company. The analyst and his family have no known material conflicts of interest in authoring this report. No employees of Ascendant Capital Markets, LLC own any material amount of KULR stock or have any influence on the KULR Board of Directors.

#### Investment Banking and Fees for Services

Litchfield Hills Research has not received compensation for advisory or investment banking services from the Company in the past 12 months. Ascendant Capital Markets, LLC has not received compensation for advisory or investment banking services from the Company in the past 12 months. Litchfield Hills Research LLC has received compensation from the company for distribution and investor targeting services. Ascendant Capital Markets, LLC has not received compensation for non-investment banking services from the Company in the past 12 months.

#### Market Making

Neither Litchfield Hills Research, LLC nor Ascendant Capital Markets, LLC makes a market in the subject company’s securities.

Additional information is available upon request. LHR accepts no liability for loss arising from the use of the material presented in this report, except that this exclusion of liability does not apply to the extent that liability arises under specific statutes or regulations applicable to LHR. This report is not to be relied upon in substitution for the exercise of independent judgment.