

UPDATE NOTE

CLIMATETECH & SUSTAINABLE INVESTING

Soluna Holdings, Inc. (NASDAQ: SLNH)

Project Dorothy Gets the Greenlight; Moves Company Closer to Inflection Point

December 23, 2022

Graham Mattison

graham.mattison@watertowerresearch.com

+1 (727) 300 4702

KEY POINTS

- **Soluna's 50 MW flagship project has cleared all major technical studies and is now tracking toward energization as early as February 8, 2023.** Texas electric grid operator ERCOT, which has held up the project while it created and implemented its Large Flexible Load approval process, has now moved the project into its modeling phase from the planning phase where the project was evaluated for its impact on the Texas electric grid.
- **We see this as a key milestone.** This step now gives the company a line of sight to energize the project, which should allow it to begin procuring/planning miner installation or contract with potential hosting customers, moving the project closer to revenue generation.
- **Energization of Project Dorothy will be game-changing for Soluna.** The project will more than double consolidated project cash flows and the installed base of megawatts under management when it is expected to energize in 1Q23 (see details on the following page).
- **Project Dorothy will be a replicable template for future projects.** Once energized, the project will be one of the lowest-cost facilities of its kind in North America. Soluna's unique modular data center design should allow the company to quickly expand its capacity both for the next 50 MW at Dorothy and help secure new project sites as the 'de-risked' model makes it an attractive partner for project developers, grid operators, and financial investors.
- **Soluna's data centers provide a solution that helps support the growth of renewable energy.** By purchasing electricity that would have otherwise been unsold, Soluna helps improve project economics for renewable power and further its growth on the grid. Moreover, data centers can easily ramp down their power use to help balance the grid in times of extreme power demand.

KEY STATISTICS

Price	\$0.41
52-Week Range	\$0.30-12.25
Average Daily Trading Volume (30-Day)	167,271
Shares Outstanding (MM)	18.66
Market Capitalization (\$MM)	\$6.38
Enterprise Value (\$MM)	\$34.79
Fiscal Year-End	December

Source: YCharts, as of December 21, 2022

OUR INSIGHTS

The Opportunities

Soluna is on the cusp of a major jump in its revenue and size with the start-up of its delayed flagship project Dorothy. Low energy costs and renewable power sources give the company a competitive advantage to grow the profitability of its Bitcoin mining and expand its customer base into batchable, GPU cloud computing. With recent competitor bankruptcies, there is an opportunity for lower-cost miners or hosting customers that seek new low-cost plugs.

The Obstacles

Soluna is subject to multiple factors that are outside of its control, mainly the timing of approvals from transmission operators, such as the Electric Reliability Council of Texas (ERCOT), and Bitcoin pricing/hash rate. The company has executed on what is in its control and has proved adept at reacting to these challenges, but they have slowed progress and forced Soluna to raise additional capital. As the company grows and brings on more projects, we expect portfolio diversification will help minimize the impact of individual project risk on corporate results.

Figure 1: Illustrative Monthly Earnings Power of Dorothy

(Bitmain XP chips, \$ in 000)

Illustrative Summary of Monthly Financials from Dorothy

(\$ in 000)	100% Hosting	50% / 50%	100% Prop
Cash Inflows			
Dorothy 1A	1,098	1,433	1,767
Dorothy 1B	1,098	1,433	1,767
Total Cash Inflows	2,196	2,865	3,534
Cash Contribution Margin			
Dorothy 1A (Net of 32% Spring Lane Ownership)	311	539	766
Dorothy 1B	458	792	1,127
Total Cash Contribution Margin	769	1,331	1,893

Note: Represents non-GAAP financial metrics and forward looking statements.

Note: Assumes \$17k BTC price, 270 EH / s network hash rate, 90% capacity factor, 95% availability factor, and estimated \$35 / kWh average annual power costs (including assumed seasonal demand fees and taxes). Hosting contract based on \$60 / kWh fixed rate. Assumes that purchased and hosted machines are 140 Th/s Bitmain XPs.

Source: Company reports

ABOUT THE ANALYST

Graham Mattison
Senior Research
Analyst
ClimateTech &
Sustainable Investing

Graham Mattison brings more than 20 years of experience in equity research, investor relations, and corporate operations, growth, and development. Graham was the Investor Relations Officer for two NASDAQ-listed companies where he led multiple equity raises as well as managed an activist investor campaign, M&A and corporate restructuring, and a NASDAQ delisting and relisting.

Previously, he was a Senior Equity Research Analyst, most recently at Lazard Capital Markets, covering the industrial and cleantech industries. He began his career in Southeast Asia as an Investment Analyst for Daiwa Securities. He was also co-founder of an online residential real estate start-up that developed a web-based auction platform.

Graham received his BA in East Asian Studies with minors in Economics and History from Hobart College and his MBA in Finance with honors from the Thunderbird International Business School at Arizona State University. He is an Investor Relations Charter (IRC) holder from the National Investor Relations Institute.

DISCLOSURES

Water Tower Research (“WTR”) is a professional publisher of investment research reports on public companies and, to a lesser extent, private firms (“the Companies”). WTR provides investor-focused content and digital distribution strategies designed to help companies communicate with investors.

WTR is not a registered investment adviser or a broker/dealer nor does WTR provide investment banking services. WTR operates as an exempt investment adviser under the so called “publishers’ exemption” from the definition of investment adviser under Section 202(a)(11) of the Investment Advisers Act of 1940. WTR does not provide investment ratings / recommendations or price targets on the companies it reports on. Readers are advised that the research reports are published and provided solely for informational purposes and should not be construed as an offer to sell or the solicitation of an offer to buy securities or the rendering of investment advice. The information provided in this report should not be construed in any manner whatsoever as personalized advice. All users and readers of WTR’s reports are cautioned to consult their own independent financial, tax and legal advisors prior to purchasing or selling securities.

Graham Mattison, who is the writer of this report, covers the ClimateTech & Sustainable Investing sector for WTR. Mr. Mattison and members of his household have no personal or business-related relationship to the subject company other than providing digital content and any ancillary services WTR may offer.

Unless otherwise indicated, WTR intends to provide continuing coverage of the covered companies. WTR will notify its readers through website postings or other appropriate means if WTR determines to terminate coverage of any of the companies covered.

WTR is being compensated for its research by the company which is the subject of this report. WTR may receive up to \$14,000 per month [for research and potentially other services] from a given client and is required to have at least a 1-year commitment. None of the earned fees are contingent on, and WTR’s client agreements are not cancellable for the content of its reports. WTR does not accept any compensation in the form of warrants or stock options or other equity instruments that could increase in value based on positive coverage in its reports.

WTR or an affiliate may seek to receive compensation for non-research services to covered companies, such as charges for presenting at sponsored investor conferences, distributing press releases, advising on investor relations and broader corporate communications and public relations strategies as well as performing certain other related services (“Ancillary Services”). The companies that WTR covers in our research are not required to purchase or use Ancillary Services that WTR or an affiliate might offer to clients.

The manner of WTR’s research compensation and Ancillary Services to covered companies raise actual and perceived conflicts of interest. WTR is committed to manage those conflicts to protect its reputation and the objectivity of employees/analysts by adhering to strictly-written compliance guidelines.

The views and analyses included in our research reports are based on current public information that we consider to be reliable, but no representation or warranty, expressed or implied, is made as to their accuracy, completeness, timeliness, or correctness. Neither we nor our analysts, directors, officers, employees, representatives, independent contractors, agents or affiliate shall be liable for any omissions, errors or inaccuracies, regardless of cause, foreseeability or the lack of timeliness of, or any delay or interruptions in the transmission of our reports to content users. This lack of liability extends to direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, losses, lost income, lost profit or opportunity costs.

All investment information contained herein should be independently verified by the reader or user of this report. For additional information, all readers of this report are encouraged to visit WTR’s website www.watertowerresearch.com.