

UPDATE NOTE

CLIMATE TECH & SUSTAINABLE INVESTING

Soluna Holdings, Inc. (NASDAQ: SLNH)

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

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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

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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.

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