

Preamble

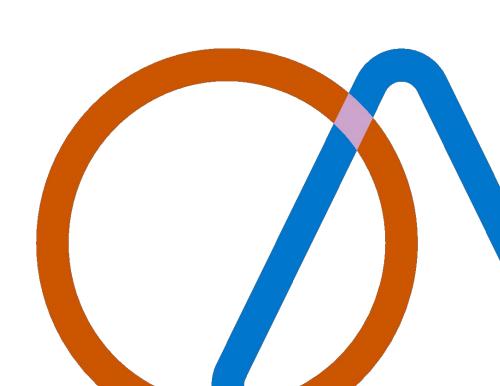
The following content is completely qualified by the legal disclosures on the following slide.

Our goal is to share with you some of our strategic thinking and financial analysis we are using to guide the growth of our business.

The content is in line with our principles of being accountable and transparent with shareholders.

We operate in a hyper dynamic economic environment. That's a fancy way of saying things change quickly. What we are telling you here is based on our estimates and assumptions which are our best guess. We reserve the right to revise our point of view based on new information and changes in the business environment.

Despite an uncertain, dynamic environment, we must plan and make operating and investment decisions. This presentation lays some of that out for your review.



Legal Disclosure & Disclaimer

This presentation includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act that reflect our current views with respect to, among other things, our operations, business strategy, interpretation of prior development activities, plans to develop and commercialize our products and services, "believe," "could," "estimate," "expect," "future," "intend," "may," "plan," "potential," "project," "will," and similar terms and phrases to identify forward-looking statements in this presentation.

The forward-looking statements contained in this presentation are based on management's current expectations and are subject to substantial risks, uncertainty and changes in circumstances. Actual results may differ materially from those expressed by these expectations due to risks and uncertainties, including, among others, those related to our ability to obtain additional capital on favorable terms to us, or at all, the success, timing and cost of ongoing or future operations, the lengthy and unpredictable nature of the project development, and technology process and businesses in which we currently engage or may engage.

These risks and uncertainties include, but may not be limited to, those described in our filings with the SEC. Forward-looking statements speak only as of the date of this presentation, and we undertake no obligation to review or update any forward-looking statement except as may be required by applicable law.

The material in this presentation has been prepared by Soluna and is general background information about Soluna's activities, current as at the date of this presentation and is provided for information purposes only. It should be read in conjunction with Soluna's periodic and continuous disclosure announcements filed with the Securities and Exchange Commission. This presentation provides information in summary form only and is not intended to be complete. Soluna makes no representation or warranty, express or implied, as to the accuracy, completeness, fairness or reliability of any of the information, illustrations, examples, opinions, forecasts, reports, estimates and conclusions contained in this presentation. It is not intended to be relied upon as advice or a recommendation to investors and does not take into account the investment objectives, financial situation, taxation situation or needs of any particular investor. Due care and consideration should be undertaken when considering and analyzing Soluna's future performance and business prospects. THIS PRESENTATION IS NOT INTENDED TO SERVE AS A FORECAST OF ANY SUCH FUTURE PERFORMANCE OR PROSPECTS. An investor must not act on any matter contained in this document but must make its own assessment of Soluna and conduct its own investigations and analysis. Investors should assess their own individual financial circumstances and consider talking to a financial adviser, professional adviser or consultant before making any investment decision. This document does not constitute an offer, invitation, solicitation or recommendation with respect to the purchase or sale of any security in Soluna nor does it constitute financial product advice. This document is not a prospectus, product disclosure statement or other offer document under United States federal or state securities law or under any other law. This document has not been filed, registered or approved by regulatory authorities in any jurisdiction.

This presentation contains statistical and market data that we obtained from industry publications, reports generated by third parties, and third-party studies. Although we believe that the publications, reports, and studies are reliable as of the date of this presentation, we have not independently verified such statistical or market data.

Any projection, forecast, estimate or other "forward-looking" statement in this presentation only illustrates hypothetical performance under specified assumptions of events or conditions that have been clearly delineated herein. Such projections, forecasts, estimates or other "forward-looking" statements are not reliable indicators of future performance. Hypothetical or illustrative performance information contained in these materials may not be relied upon as a promise, prediction or projection of future performance and are subject to significant assumptions and limitations. In addition, not all relevant events or conditions may have been considered in developing such assumptions. READERS OF THIS DOCUMENT SHOULD UNDERSTAND THE ASSUMPTIONS AND EVALUATE WHETHER THEY ARE APPROPRIATE FOR THEIR PURPOSES. SOME EVENTS OR CONDITIONS MAY NOT HAVE BEEN CONSIDERED IN SUCH ASSUMPTIONS. ACTUAL EVENTS OR CONDITIONS WILL VARY AND MAY DIFFER MATERIALLY FROM SUCH ASSUMPTIONS. READERS SHOULD UNDERSTAND SUCH ASSUMPTIONS AND EVALUATE WHETHER THEY ARE APPROPRIATE FOR THEIR PURPOSES. This presentation may include figures related to past performance as well as forecasted or simulated future performance. Soluna disclaims any obligation to update their views of such risks and uncertainties or to publicly announce the results of any revision to the forward-looking statements made herein.

Use of Projections and Illustrations - this presentation contains certain financial forecasts and illustrations. Neither Soluna's nor Soluna's independent auditors have studied, reviewed, compiled or performed any procedures with respect to the projections for the purpose of their inclusion in this presentation. The material in this presentation is for illustrative purposes only and should not be relied upon as being necessarily indicative of future results.

In addition to figures prepared in accordance with GAAP, Soluna from time to time presents alternative non-GAAP performance measures, e.g., EBITDA, adjusted EBITDA, adjusted net profit/loss, adjusted earnings per share, free cash flow, both on a company basis and on a project-level basis. Project level measures may not take into account a full allocation of corporate expenses. These measures should be considered in addition to, but not as a substitute for, the information prepared in accordance with GAAP. Alternative performance measures are not subject to GAAP or any other generally accepted accounting principle. Other companies may define these terms in different ways. See our annual report on Form 10-K for the year ended December 31, 2023 for an explanation of how management uses these measures in evaluating its operations.



2024 Corporate Focus

Launch Al

We have 2 MW of our Project Dorothy 2 site slated for our Helix Pilot, focused on next generation data centers for Al.

To partner with industry leaders to bring this online and create a repeatable blueprint for our new AI business.

Optimize Projects

Our objective is to achieve operational excellence across all data centers, targeting a budgeted EBITDA and maintaining high customer satisfaction.

Finance Projects

Plan to raise funds to support our growth initiatives, particularly in our Al business.

Grow Pipeline

Aim to double our assets under management to 150 MW by the end of fiscal year 2024, focusing on constructing and energizing 48 MW of Project Dorothy 2, and breaking ground on Project Kati.



Illustrative Corporate Earnings Potential

Base case - \$45 Hashprice

Non-GAAP Financials	Actuals						
(in USD 000, except as noted)	Q1 24A	Q2 24	Q3 24	Q4 24	FY 24	FY 25	FY 26
Sophie	\$ 1,736	\$ 1,005	\$ 670	\$ 697	\$ 4,108	\$ 5,933	\$ 6,081
Dorothy 1A	3,542	3,743	3,758	3,791	14,833	14,880	14,880
Dorothy 1B	6,396	3,892	3,119	3,146	16,553	12,349	12,349
Dorothy 2	-	-	-	417	417	22,750	29,035
Demand Response	875	341	727	499	2,441	3,916	4,847
SHI Revenue	\$ 12,549	\$ 8,981	\$ 8,273	\$ 8,549	\$ 38,352	\$ 59,829	\$ 67,193
Growth (%)					82.1%	56.0%	12.3%
Sophie	1,219	629	262	315	2,426	4,327	4,476
Dorothy 1A	1,801	1,880	1,476	1,754	6,910	6,763	6,763
Dorothy 1B	4,552	1,972	779	1,051	8,354	4,003	4,003
Dorothy 2	-	-	-	(107)	(107)	9,230	13,274
Demand Response	 824	341	727	 499	 2,390	 3,916	 4,847
Total Site-Level EBITDA	8,397	4,821	3,243	3,512	19,974	28,240	33,363
SHI SG&A and Other Income / Expense	3,250	3,278	3,002	2,958	12,488	12,987	13,507
Consolidated EBITDA	\$ 5,147	\$ 1,543	\$ 241	\$ 554	\$ 7,486	\$ 15,252	\$ 19,856
Margin (%)	41.0%	17.2%	2.9%	6.5%	19.5%	25.5%	29.6%

Notes:

Hashprice is a term created by Luxor in 2019. It is a measure used in the Bitcoin mining industry to represent the revenue earned per unit of hashrate (usually per petahash per second, or TH/s). It is calculated by dividing the total daily mining revenue by the total network hash rate, giving an indication of the profitability of mining operations. Changes in Bitcoin price, network difficulty, and transaction fees all influence hashprice.

Soluna's ownership in each of the projects varies. See Appendix for more details.

SHI SG&A excludes stock compensation, impairment expense, and other miscellaneous non-cash expenses. 1Q24 Actuals include other income/expense.

Key Assumptions:

Hashprice (\$/PH/s / Day) \$ 92 \$ 57 \$ 45 \$ 60 \$ 45 \$ 45



Illustrative Corporate Earnings Potential

Upside case - \$65 Hashprice

Non-GAAP Financials	Actuals						
(in USD 000, except as noted)	Q1 24A	Q2 24	Q3 24	Q4 24	FY 24	FY 25	FY 26
Sophie	\$ 1,736	\$ 1,365	\$ 1,212	\$ 1,240	\$ 5,552	\$ 9,359	\$ 9,508
Dorothy 1A	3,542	3,743	3,758	3,791	14,833	14,880	14,880
Dorothy 1B	6,396	4,824	4,505	4,544	20,269	17,838	17,838
Dorothy 2	-	-	-	417	417	22,750	29,035
Demand Response	875	341	727	499	2,441	3,916	4,847
SHI Revenue	\$ 12,549	\$ 10,272	\$ 10,201	\$ 10,490	\$ 43,512	\$ 68,744	\$ 76,108
Growth (%)					106.5%	58.0%	10.7%
Sophie	1,219	988	804	858	3,870	7,753	7,902
Dorothy 1A	1,801	1,880	1,476	1,754	6,910	6,763	6,763
Dorothy 1B	4,552	2,904	2,165	2,450	12,071	9,491	9,491
Dorothy 2	-	-	-	(107)	(107)	9,230	13,274
Demand Response	 824	341	727	499	2,390	3,916	 4,847
Total Site-Level EBITDA	8,397	6,112	5,172	5,452	25,134	37,155	42,278
SHI SG&A and Other Income / Expense	3,250	3,278	3,002	2,958	12,488	12,987	13,507
Consolidated EBITDA	\$ 5,147	\$ 2,835	\$ 2,169	\$ 2,495	\$ 12,646	\$ 24,167	\$ 28,771
Margin (%)	41.0%	27.6%	21.3%	23.8%	29.1%	35.2%	37.8%

Notes:

Hashprice is a term created by Luxor in 2019. It is a measure used in the Bitcoin mining industry to represent the revenue earned per unit of hashrate (usually per petahash per second, or TH/s). It is calculated by dividing the total daily mining revenue by the total network hash rate, giving an indication of the profitability of mining operations. Changes in Bitcoin price, network difficulty, and transaction fees all influence hashprice.

Soluna's ownership in each of the projects varies. See Appendix for more details.

SHI SG&A excludes stock compensation, impairment expense, and other miscellaneous non-cash expenses. 1Q24 Actuals include other income/expense.

Key Assumptions:

Hashprice (\$/PH/s / Day) \$ 92 \$ 70 \$ 65 \$ 65 \$ 73 \$ 65 \$ 65



Key Earnings Power Assumptions

Post-halving Hashprice

\$45 Base / \$65 Upside Case

Dorothy 2

Dec 2024: Initial energization

July 2025: 100% ramped up

Hosting contract terms are similar to those achieved in D1A

Sophie

Assumes hashrate and J/TH improvements in 2025 as hosted customers begin to turn over

D₁B

Assumes no refresh of miner equipment

Demand Response

Assumes power price, demand response revenues are those achieved in 2023

Αl

No revenue illustrations from Soluna Cloud







Soluna develops data centers co-located with renewable power plants, turning their wasted energy into sustainable computing resources.

How Soluna Makes Money

- Current revenue sources
- Future revenue sources

Prop Bitcoin Mining

- Soluna or JV owned Bitcoin mining machines
- Bitcoin sold daily
- Soluna provides Managed Infrastructure Services

Grid Ancillary Services

- Compensation to act as behind-the-meter flexible load for the grid
- Paid on \$ / MWh basis by Utility or Grid Operator

Hosting for Bitcoin Miners

- Third-party machines hosted at Soluna Data Centers
- Soluna provides Managed Infrastructure Services

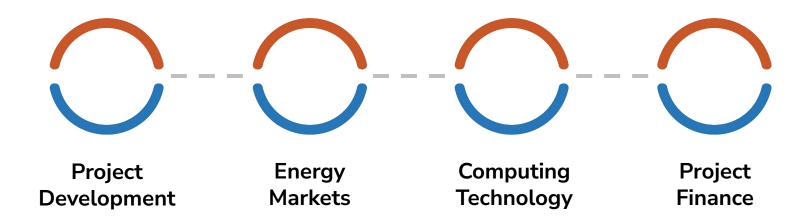
High Performance Computing

- GPU Cloud AI/ML, simulation, visualization, predictive analytics, and deep learning
- GPU machines could be hosted or owned by Soluna at Projects



Why Soluna

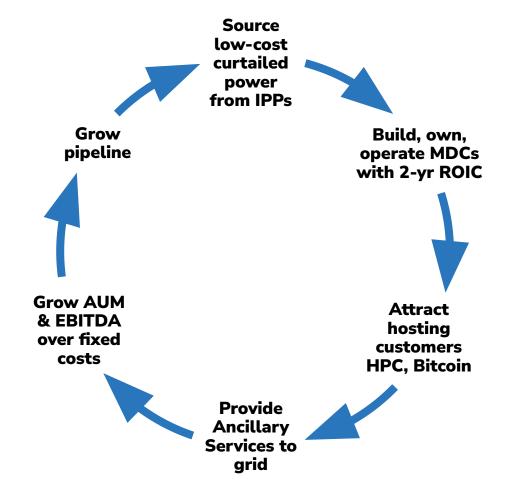
Power producers and computing partners choose Soluna because of our **four pillars of expertise**



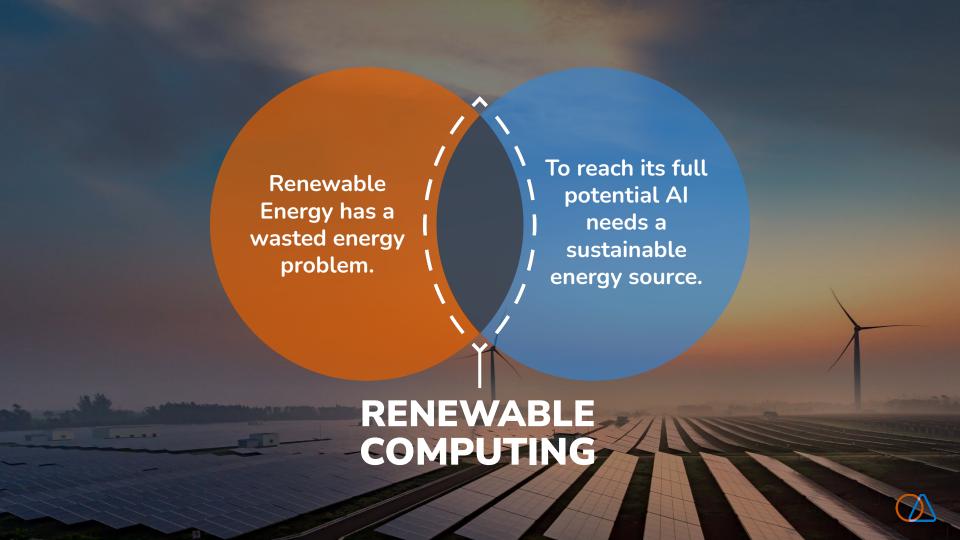


The Soluna Way

We tackle wasted energy through digital infrastructure. As we optimize the grid and serve our customers, we fuel our growth, funding further expansion to make renewable energy a superpower.

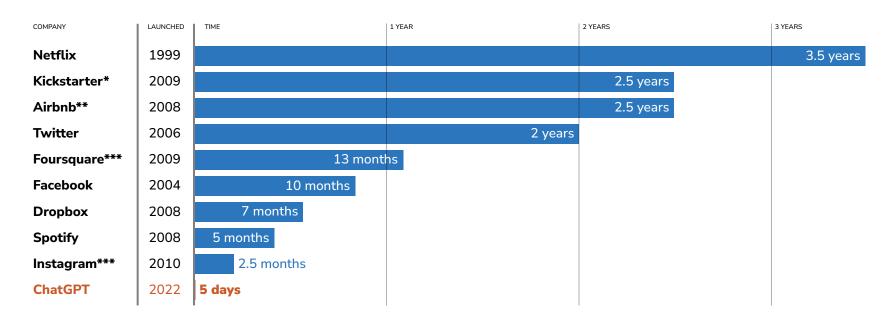






Al is the fastest growing technology today

Time it took for selected online services to reach one million users



^{*} one million backers: ** one million nights booked. *** one million downloads Source: Company announcements via Business Insider/LinkedIn/Statista



Al's hidden challenges

Al is hungry

Al computing's energy density and space needs exceed current hyperscale data center capabilities. Energy demand for Al is projected to exceed the entire current data center levels. Some estimates put it at 20-30GW.

Al is thirsty

Traditional data centers, particularly those utilized for AI, exhibit substantial water consumption. Microsoft used an estimated equivalent of 2.8 Million glasses of water to train ChatGPT-3 due to the current cooling design of traditional data centers.

Al is dirty

Traditional data centers are responsible for 2% of overall U.S. greenhouse gas emissions. GPT-3, Gopher, BLOOM, and OPT had more than 900 tonnes of carbon emissions.



"Using renewable energy grids for training neural networks is the single biggest change that can be made. It can make emissions vary by a factor of 40, between a fully renewable grid and a full coal grid."

- Alexandra Luccioni, Hugging Face



The Lifecycle of AI

Gen AI is batchable: Parts of the Generative AI lifecycle are perfect computing applications for co-location with renewable power plants, because they are inherently batchable.

Batchable process

Real-time process

Training



A new model is created from scratch by learning from a large corpus of text. The phase requires the largest number of resources. For example, an iteration of OpenAl's GPT-3 was trained on 10,000 NVIDIA V100 GPUs for 15 days.

Fine Tuning



A pre-trained model is trained further on a smaller, task-specific dataset. This phase is where customers may take an off-the-shelf pre-trained model ad fine-tune it to their proprietary information.

Inferencing



Using a pre-trained model to generate predictions or outputs based on input data. This is 'using' the Al, such as when ChatGPT gives a response, or Stable Diffusion generates an image.



Soluna's Data Center Strategy

Soluna's Helix Data Centers are purpose-built for AI, with a unique access to power.

Soluna's behind-the-meter structure allows flexibility for its proprietary data centers - drawing power from the grid or serving as a renewable power plant and providing ancillary services.

This results in scalable, green, plug and play Helix DCs with industry-leading metrics.





Scalable



Green Power



Zero Water



Plug & Play







Key Operating Metrics¹

NASDAQ

SLNH / SLNHP

MW MANAGED

75 MW > 291 MW²

INSTALLED HASHRATE

2.5 EH/s^{1&4}

AVERAGE POWER COST*

<\$29 / MWh³

CURTAILED ENERGY MONETIZED

56,145 MWh¹

POWER USAGE EFFECTIVENESS (PUE)

 1.03^3

BITCOIN MINERS DEPLOYED

~24,000^{1&4}

AVERAGE J / TH/s

~26 J / TH/s^{1&4}



⁽¹⁾ All numbers are as of March 31st, 2024

⁽²⁾ Sophie (25 MW - operational) + Dorothy 1 (50MW - operational) + Dorothy 2 (50 MW - In Development) + Kati (166 MW - In Development)

^{(3) 3-}month average (January 2024 - March 2024)

⁽⁴⁾ Includes a mix of Prop Miners and Hosted Miners.

^{*}Levelized Cost of Energy - Calculates present value of the total cost of building and operating a power plant over an assumed lifetime.



Project Dorothy 1A

CAPACITY

25 MW

INSTALLED HASHRATE

949 PH/s¹

POWER USAGE EFFECTIVENESS

1.03²

POWER SOURCE

Wind

CURTAILED ENERGY CONSUMED

27,112 MWh³

MODEL

Hosting

ENERGIZATION

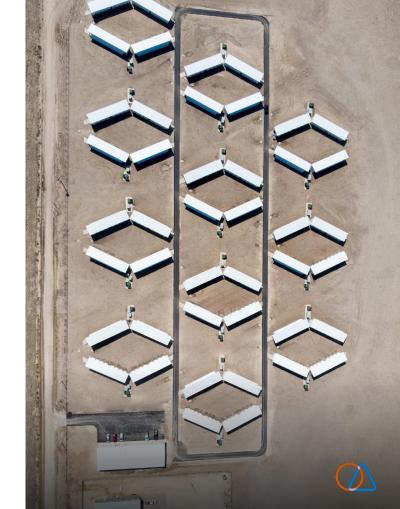
Operational

AVERAGE 3-MONTH ANNUAL LCOE*

~\$28 / MWh²

PARTNER

Spring Lane Capital



⁽¹⁾ All numbers are as of March 31st, 2024

^{(2) 3-}month average (January 2024 - March 2024)

⁽³⁾ Since inception of the Dorothy 1A project to March 2024

^{*}Levelized Cost of Energy - Calculates present value of the total cost of building and operating a power plant over an assumed lifetime.



Project Dorothy 1B

CAPACITY

25 MW

INSTALLED HASHRATE

817 PH/s¹

POWER USAGE FEFECTIVENESS

 1.03^{2}

POWER SOURCE

Wind

CURTAILED ENERGY CONSUMED

26,128 MWh³

MODEL

Prop Mining

ENERGIZATION

Operational

AVERAGE 3-MONTH ANNUAL I COF*

~\$28 / MWh²

PARTNER

Navitas Global



⁽¹⁾ All numbers are as of March 31st, 2024 (2) 3-month average (January 2024 - March 2024)

⁽³⁾ Since inception of the Dorothy 1B project to March 2024

^{*}Levelized Cost of Energy - Calculates present value of the total cost of building and operating a power plant over an assumed lifetime.



Project Sophie

CAPACITY

25 MW

INSTALLED HASHRATE

778 PH/s¹

POWER USAGE EFFECTIVENESS

 1.03^{2}

POWER SOURCE

Hydro/Grid

MODEL

Hosting

ENERGIZATION

Operational

AVERAGE 3-MONTH ANNUAL LCOE*

~\$31/MWh²

PARTNER

None



⁽¹⁾ All numbers are as of March 31st, 2024 (2) 3-month average (January 2024 - March 2024)

^{*}Levelized Cost of Energy - Calculates present value of the total cost of building and operating a power plant over an assumed lifetime.





Project Dorothy2

CAPACITY

50 MW

POWER SOURCE

Wind

PARTNER

TBD

MODEL

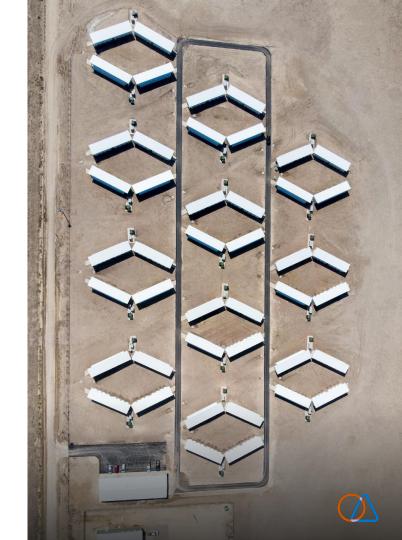
Hosting & Al

ENERGIZATION

Design & Planning

AVERAGE ANNUAL LCOE

~\$27 / MWh





Project Kati

CAPACITY

166 MW

POWER SOURCE

Wind

PARTNER

TBD

MODEL

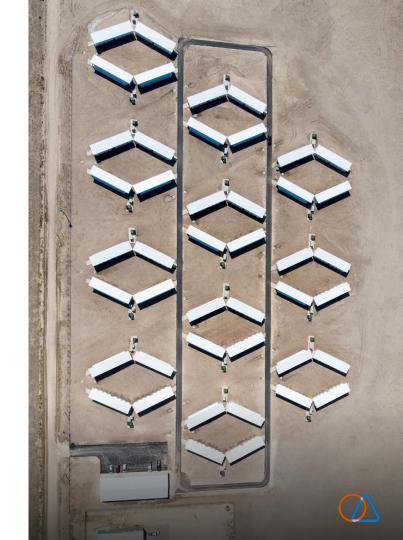
Hosting

ENERGIZATION

Development

AVERAGE ANNUAL LCOE

~\$30 / MWh



We have a growing pipeline of projects

Data **25**M\// Centers & Sophie **Pipeline**







50MW Operating

100MW

Dorothy





Design & Development*

166MW

Kati



2GW+ long-term pipeline with large IPPs and infrastructure funds in the US and beyond



^{*}Design – design and development activities with the IPP underway and submission to ERCOT LFL started.



Data Center Locations & Ownership

Project	Corporate Entity	State	MW	SLNH Initial Ownership	Business Model
Sophie	Soluna SW, LLC	KY	25	100%	Hosting
Dorothy 1A	Soluna DVSL ComputeCo, LLC	TX	25	15% ^[1]	Hosting
Dorothy 1B	Soluna DV ComputeCo, LLC	TX	25	51%	Self-mining
Dorothy 2	Soluna DVSL II ComputeCo, LLC	TX	48	TBD ^[2]	Hosting

Notes:

[1] Under the project-finance vehicle for Dorothy 1A, SLNH receives initially 15% of the cash flows of the project. SLNH may increase its share of the project to as high as 57.3% as certain return thresholds are met. We are currently project that SLNH will reach maximum share of the cash flows sometime in 2027.

[2] Under the termsheet entered into with Spring Lane, SLNH has rights to own up to 49% of the project equity.



Connect With Us









Newsletter bit.ly/solunasubscribe



WELCOME TO

RENEWABLE COMPUTING

Learn more at solunacomputing.com