## SOLUNA Holdings

# The future of renewable energy is computing.

Nasdaq: SLNH | Investor Presentation | December 2024

#### Preamble

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



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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, potential market opportunity, financial performance and needs for additional financing. We have used words like "anticipate," "believe," "could," "estimate," "inture," "inture," "interd," "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.

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## **Company Overview**

We are driving the convergence of renewable energy & advanced computing infrastructure.

Up to 40% of generated energy goes unused. Soluna converts this excess into high performance computing, turning wasted power into value. Renewable Energy has a wasted energy problem. To reach its full potential AI needs a sustainable energy source.

## **RENEWABLE COMPUTING**



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		-							6,000
		And the second s							0
<b>2022</b> Source: IEA data 6   Nasdaɑ:		2024E	2025E	2026E	2027E	2028E	2029E	2030E	

#### **RENEWABLE ENERGY HAS A WASTED ENERGY PROBLEM**

of energy produced by renewable plants goes unused.



Storage is not yet sufficiently scalable...

Transmission upgrades face too many challenges & take too long... Computing is ready now.





# The future of renewable energy is computing...

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

#### We have a massive pipeline of wasted renewable energy to power high performance computing.

## 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 AI 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.



## Why Soluna, Why Now

#### We have

a proven behind-the-meter approach to source power, track record of execution, a business model that works. **2.6**GW

pipeline of wasted renewable energy to power our data centers.

#### **18%** greener

than traditional data centers, ready to drive sustainable AI.

*Our current (BTC)* data center projects return capital in

2.5 Years

#### We have

an experienced team with deep expertise in project development, energy markets, computing technologies, and project finance.

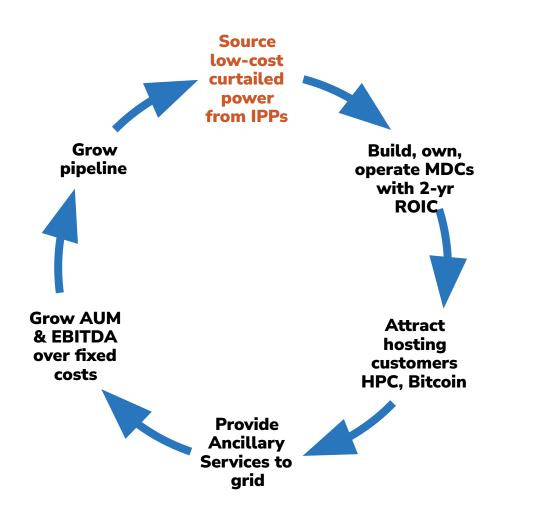
#### **MaestroOS**<sup>™</sup>

Our proprietary software platform. A force multiplier in making our business model work.



## 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.



## Business Segments

Diversified Revenue Streams

Soluna Digital

Soluna Cloud



- 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



## **Meet the Soluna Leadership Team**

150 years of combined experience in starting, managing, and leading companies



John Belizaire Chief Executive Officer Executi



Michael Toporek Executive Chairman

John Tunison Chief Financial Officer



**Dipul Patel** r Chief Technology Officer



Mary O'Reilly Chief People Officer





Jessica Thomas Chief Accounting Officer



**Phillip Ng** VP, Corporate Development



Larbi Loudiyi VP, Power



Dan Golding Advisor



# 

#### AI CLOUD Training. Tuning. Inference.

GPU-as-a-Service Solutions for Enterprise

512 Cluster provided by Renewable at HPE DC Energy

**Strategic Partner** 

Hewlett Packard Enterprise

## Al Cloud — Al Infrastructure

AND IN THE OWNER

**Hosted Infrastructure / Colocation** 

Service at our purpose-built data centers -Sourced from our 2.6GW pipeline

#### 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



#### AI HAS AN ENERGY CONSUMPTION CHALLENGE

# Al energy demand is growing exponentially

1 GWh

ChatGPT-3

**Training Time** 

Each step increase in the power of Al models requires an exponential increase in energy consumption just for training.

Source:

https://www.google.com/url?q=https://mpost.io/gpt-4s-leaked-details-shed-light-on-itsmassive-scale-and-impressive-architecture/&sa=D&source=editors&ust=170422157363 6791&usg=AOvVaw25HujDC36Qznmm6xHfBbkz

#### 10-20 GWh

GPT-4

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## 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 processReal-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 OpenAI'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 AI, such as when ChatGPT gives a response, or Stable Diffusion generates an image.



#### Soluna Cloud's Differentiators



We're powered by renewable energy



We're enterprise scalable

Full turnkey software platform designed for rapid deployment of Gen AI workloads



We help meet ESG goals



Soluna utilizes wasted energy in our purpose built data centers



We are cost-effective for getting started with AI





**Operational Highlights** 2024

#### Soluna Highlights<sup>1</sup>

INSTALLED HASHRATE

**2.6 EH/s**<sup>2</sup>

MW MANAGED 75 MW > 478 MW<sup>3</sup> \$29.7 Million

AVERAGE POWER COST<sup>5</sup>

CURTAILED ENERGY MONETIZED

87,377 MWh

**GROWTH EQUITY LINE** 

\$25 Million

**GPUs DEPLOYED** 

512

POWER DEVELOPMENT PIPELINE

~2.6 GW

AVERAGE J / TH/s

<26 J / TH/s <sup>4</sup>

All numbers are as of September 30, 2024 unless otherwise noted
Includes a mix of Prop Miners and Hosted Miners.
Sophie (25 MW - operational) + Dorothy 1 (50MW - operational) + Dorothy 2 (48 MW - Construction) + Grace (2 MW - In Development) + Kati (166 MW - In Development) + Rosa (187MW - In Development)
Sophie (23 - Sophie (24 - September 2024)



#### **Our Accomplishments in 2024**



#### Business Milestones

- Hire new CFO
- Launch new business unit, Soluna Cloud
- Sign strategic OEM deal with HPE to secure 512 Nvidia H-100 GPUs
- Raise \$25M in growth capital from Yorkville Advisors
- Reduced Convertible Notes below \$2M and extended term to January 2025



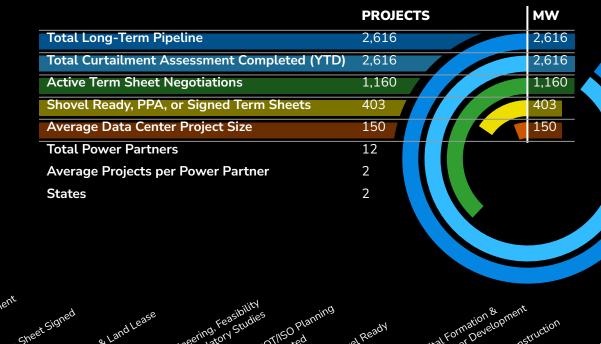
#### Project Milestones

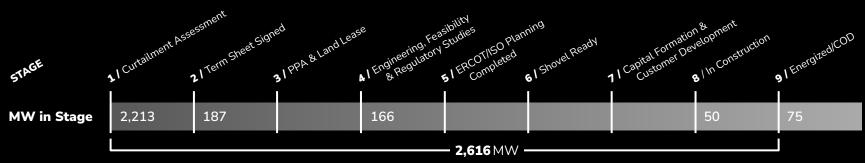
- Project Kati signs PPA for 167 MW
- Raised \$30M Spring Lane Capital to finance Dorothy 2
- Broke Ground on Dorothy 2
- Sign term sheet for Project Rosa 187 MW
- Long term pipeline exceeds 2.6 GW; AI pipeline grows



#### We have a growing pipeline of projects

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







## **Our Data Center Projects**

We have over 478 MW of data center capacity in operation, construction or development

Project	Location	Power Source	Size (MW)	Model	Status	Partner
Dorothy 1A	ТΧ	Wind	25	BTC Hosting	Operating	Spring Lane
Dorothy 1B	ТХ	Wind	25	BTC Mining	Operating	Navitas
Sophie	KY	Grid	25	BTC Hosting	Operating	N/A
Dorothy 2	ТХ	Wind	48	BTC Hosting	Construction	Spring Lane
Grace	ТΧ	Wind	2	AI Hosting / Cloud	Development	TBD
Kati	TX	Wind	166	BTC Hosting / Al	Development	TBD
Rosa	ТХ	Wind	187	BTC Hosting / Al	Development	TBD





## Project Dorothy 2

#### Construction is underway at the expansion of our flagship project.

Foundations for the first 30 MW have been poured and MDC fabrication and framing are underway.

The initial scope of work for the substation interconnection has been scheduled to be completed in November with a tie-in expected in early January.





#### Soluna Cloud Update

#### Milestones Q3

. Deployed GPU cluster at Tier-3 facility in Canada

Hired new sales team

10 POCs or evaluations completed

Nvidia CSP partnership

application submitted

Attended Ai4 conference and spoke on supply chain panel

Attended Open Compute

Project in San Jose

Signed with Gynger as a financing Partner for customers

HPE Event on Sustainability

and Al Irecord is here

Roadmap Q4

Deploy first customer(s)

and POCs on cluster

Attend super compute 2024

Sign additional referral and

marketplace partners

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Signed strategic OEM deal

with HPE for access to 1st

GPU Cluster

. Raised \$13.25m from

Private Investors



# Financial Highlights

## **Q3 FY24 Financial Highlights**

#### Solid Third Quarter Revenue

Revenue increased by 30% to \$7.5 million in the three months ended third quarter of 2024 compared to \$5.8 million in the three months ended of third quarter of 2023.

#### Continued Strong Revenue

2024 Year to Date ("YTD") revenue reaches a high of \$29.7 million, compared to the 2023 YTD of \$10.9 million, a \$18.8 million increase or 172%.

#### Resilient Adjusted EBITDA

#### 2024 YTD adjusted EBITDA is \$3.5 million, compared to the 2023 YTD of (\$4.5 million), an increase of \$8.0 million driven by continued revenue growth despite Bitcoin halving.

Unrestricted cash increased 38% from the end of 2023, reaching \$8.8 million.

Strong Cash

Growth



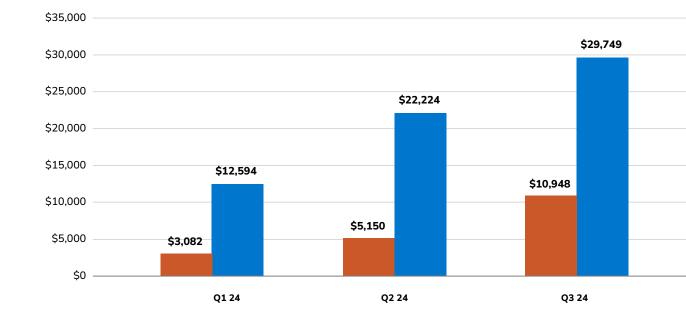
## **Cumulative Revenue by Quarter**

(Consolidated)

#### Q3 2023-24 (in 000's)

Best YTD Revenue to Date -2024 Year to Date ("YTD") revenue reaches a high of \$29.7 million, compared to the 2023 YTD of \$10.9 million, a \$18.8 million increase or 172%.





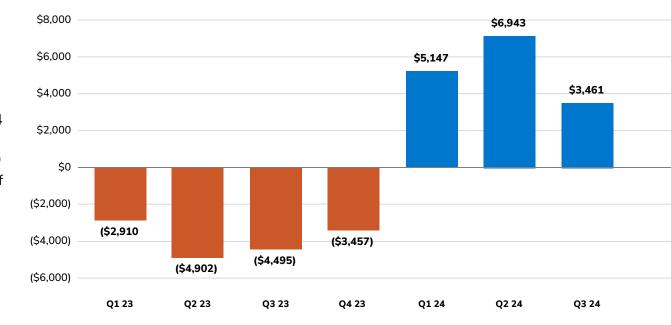


## **Cumulative Adjusted EBITDA by Quarter**

(Consolidated)

# **Q1 2023-24** (in 000's)

**Resilient Adjusted EBITDA -** 2024 YTD adjusted EBITDA is \$3.5 million, compared to the 2023 YTD loss of (\$4.5 million), an increase of \$8.0 million driven by continued revenue growth despite Bitcoin halving and early phase, pre-revenue, Soluna Cloud expenses.





## **Revenue & Cost of Revenue by Project Site**

#### **Q3 2024** (in 000's)

Revenue for the third quarter of 2024 was \$7.5 million, currently representing 100% of the company's consolidated revenue. This is an increase of \$1.7 million over the third quarter of 2023.

**Total Cost of Revenue for the third quarter of 2024 was \$6.0 million**, compared to \$4.4 million in the third quarter of 2023.

	Digital										1	Cloud			
(Dollars in thousands)		Project Dorothy 1B		Project Dorothy 1A		Project Sophie		Other		Digital Subtotal		Project Ada		Total	
Cryptocurrency mining revenue	\$	2,811	Ş	2	Ş	120	\$	2	\$	2,811	\$	-	\$	2,811	
Data hosting revenue		52		3,515		756		2		4,271		2		4,271	
High-performance computing service revenue		-		-		-		-		-		-		-	
Demand response services		12		22		328		443		443		2		443	
Total revenue		2,811		3,515		756	_	443		7,525		-		7,525	
Cost of cryptocurrency mining, exclusive of depreciation		1,963		-		-		-		1,963		-		1,963	
Cost of data hosting revenue, exclusive of depreciation		đ		2,025		521		9		2,555				2,555	
Cost of high-performance computing services		-		70		-		-		-		2,859		2,859	
Cost of revenue- depreciation		1,076		284		152				1,512		5.		1,512	
Total cost of revenue	s	3,039	\$	2,309	\$	673	\$	9	\$	6,030	\$	2,859	\$	8,889	
Gross Profit	Ş	(228)	\$	1,206	\$	83	\$	434	\$	1,495	\$	(2,859)	\$	(1,364)	

## **Revenue & Cost of Revenue by Project Site**

# **Q3 2023** (in 000's)

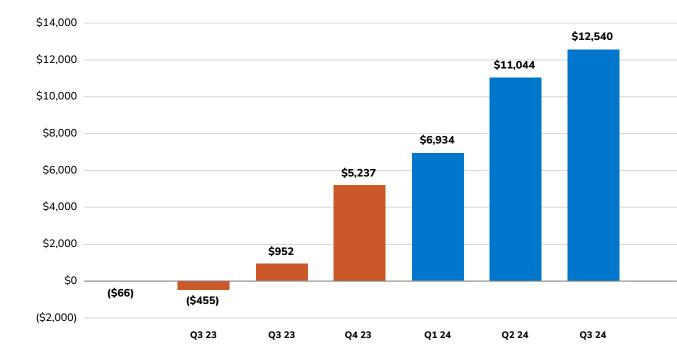
					D	igital						
(Dollars in thousands)		Project Dorothy 1B		Project Dorothy 1A		Project Sophie		Project Marie		Other		Digital Total
Cryptocurrency mining revenue	Ş	1,739	\$	-	Ş	47	Ş	-	Ş	-	s	1,786
Data hosting revenue		-		3,016		991		- 51		4		4,011
Demand response services		-		-		-		~		-		-
Total revenue	_	1,739	_	3,016	_	1,038			_	4	_	5,797
Cost of cryptocurrency mining, exclusive of depreciation		1,023		-		17		2		-		1,040
Cost of data hosting revenue, exclusive of depreciation		-		1,766		384		-		-		2,150
Cost of revenue- depreciation	12	739	103	284	-	171	35	6		ω,		1,200
Total cost of revenue	Ş	1,762	\$	2,050	\$	572	\$	6	\$	-	\$	4,390
Gross Profit	\$	(23)	\$	966	\$	466	\$	(6)	\$	4	\$	1,407



#### Cumulative Gross Profit by Quarter (Digital)

**Q1 2023-24** (in 000's)

Year-to-date 2024 Gross Profit is \$12.5 million, compared to the 2023 YTD of \$1.0 million.





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