Investment presentation – 08/2022

CTRL*ENERGY

Why CTRL ENERGY ?

Our core mission is to bring clean energy to the masses through smart connected small and mid-size off-grid energy storage and supply units.

We Make Clean Energy

EFFICIENT

Push energy storage and supply to a new level thanks to cutting edge hardware and software innovations

DISTRIBUTED

The network is fully funded and owned by the community through our security and utility tokens

How we make it?

SOFTWARE

Uniquely designed batterie monitoring and management system

HARDWARE

Revolutionary optimized energy storage and supply systems

BLOCKCHAIN

Authentication, Critical data and funding management

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About CTRL*ENERGY

Our Vision
The Future is off-grid!

We believe that large grids are inefficient due to their cost of construction and maintenance in addition to the electrical lines' losses, in a city like Paris 11 500Gwh are lost per year that's 16% of the city's total consumption!

To make clean energy the norm we bet on small to mid-size autonomous energy storage and supply units.

CTRL ENERGY ambitions to empower the shifting to an all-electric planet through cutting edge software and hardware technologies.

Our first building block LIGHT BMS is the most advanced battery management system on the market, based on our 15 years of experience in the energy efficiency market and 3 years of R&D

But our vision goes beyond that and with this first milestone secured we ambition to supply 10% of the global off-grid energy by 2030

Experienced and complementary founding team

Before joining forces to build CTRL ENERGY, we are two friends with more than a decade of experience in the energy sector and more, collaborating on various projects with high complementarity and mutual trust.

Raouf Remidan - CEO

Raouf is a serial entrepreneur with an extensive knowledge of international markets, with a first venture created at the age of 14 he launched 9 venture in 7 regions.

With a deep expertise of the energy market, he managed the operations of an energy storage specialist for 15 years as COO then CEO.

Adlene Denni - CTO

Adlene is a maker at heart with high expertise of electronics and robotics, with tens of hackathons and robotic contests under his belt.

He led regional prototyping for a fortune 500 tech/security company for 2 years and the R&D of an energy storage specialist for 4 years.

Safe batteries last longer

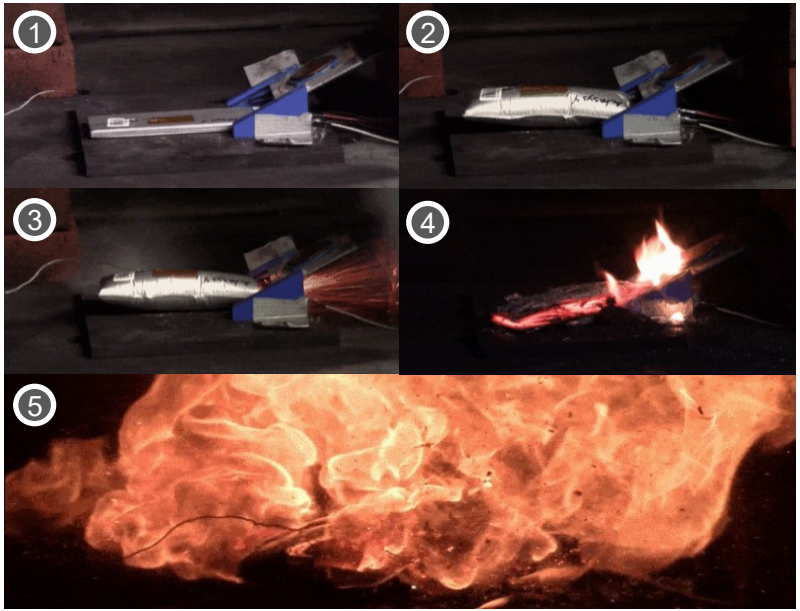
Batteries and moreover lithium batteries can react badly under drastic conditions.

Overheating, overcharging and cell short circuit are the main –well-known- dangers that can lead to a battery failure or explosion, damaging the equipment and causing immeasurable harm.

But there are numerous causes that can lead to the same result aside the manufacturing defect, and human error/ misusage is on the top

LIGHT BMS goes beyond the –usual- prediction and detection and can –if given the rights- take control with no human's assistance to prevent this kind of situation

Below you can see a 2.7V 10 Ah pouch cell exploding in a thermal runaway event caused by over-charging.



So, imagine what can cause an EV 48V 2000Ah battery or 10x 127V 3000Ah in a powerplant

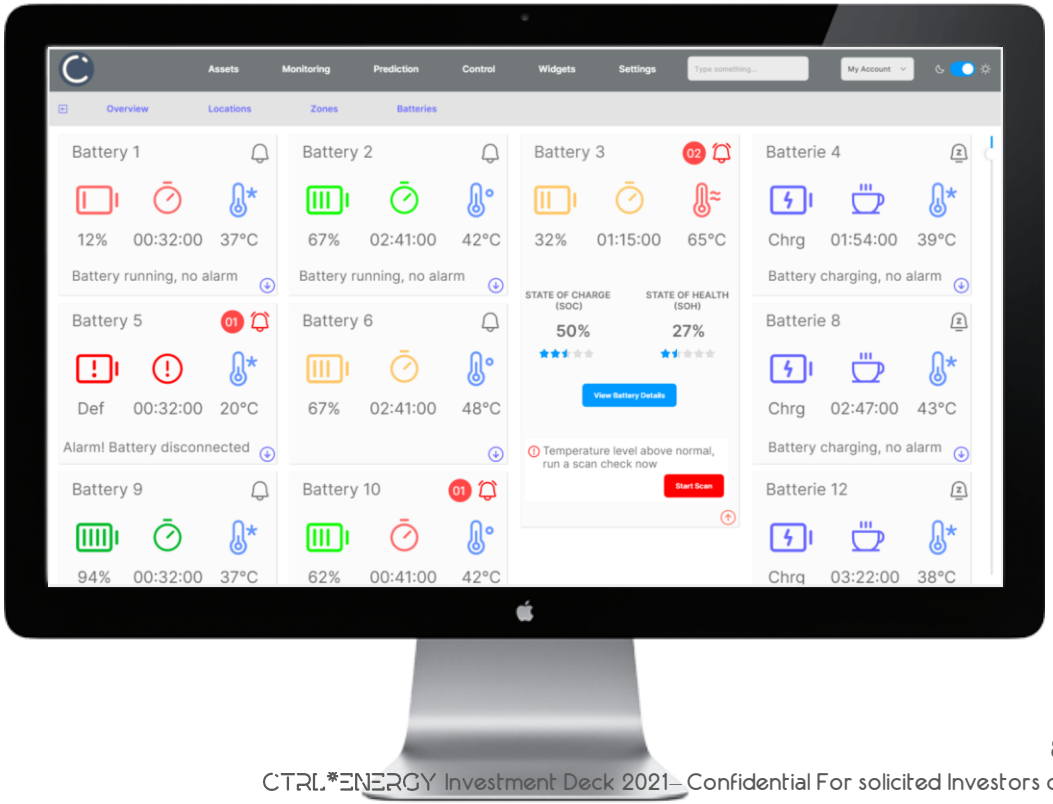
LIGHT BMS: The first building block

LIGHT BMS

SPEAKS HUMAN LANGUAGE

A BMS (battery management system) is traditionally either a 3rd party extra layer on the top of an existing setup with only monitoring/alarm capabilities, or a built-in (by manufacturers) card with protection capabilities, in reality, the « management » is only in the name

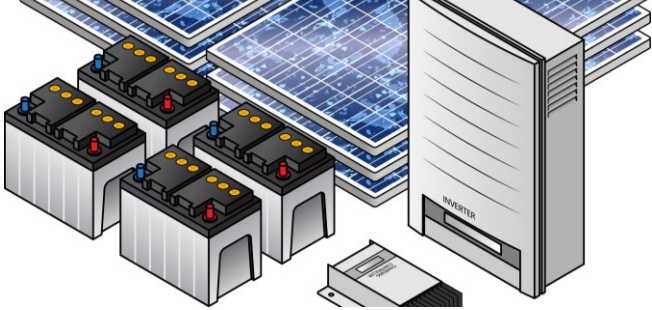
We are changing this conception to introduce a new standard



L!GHT BMS

L!GHT WE!GHT – L!GHT SPEED

Based on our experience and expertise of the energy storage and supply market we built a BMS with no equivalent on the market



1 Versatile

Unlike our competition L!GHT is not focused on EV nor limited to Li-Ion instead it is able to manage any battery type for any application

2 Connected

L!GHT is equipped with a wide range of electric & environment sensors.
Data is synced in real-time through 0G network sigfox

3 Actionable

Full and instant remote control of all the battery managed by L!GHT
The system is scalable and can manage thousand distant batteries even in motion

4 Intelligent

L!GHT is constantly learning to optimize the performance of the installation and detect, correct and prevent human errors especially in critical applications

5 Secure

Each device is authenticated through 2FA and secured through blockchain to be compliant with the most demanding applications

6 Integrable

L!GHT API allows live data visualization in other applications.
Our open ecosystem allows developers to integrate our BMS with other applications (iOT, security, etc.)

Markets & Applications

Light BMS is needed in every application where monitoring, control and protection of batteries is required.
We grouped our potential markets in two segments, energy supply operators and energy consumers.

Energy supply network operators

- Cities
- Solar energy operators
- NGOs
- Utilities operators
- EV Charging docks developers
- Real estate developers
- Power grid operators

Energy consumers looking for reliable off-grid clean energy

- Crypto mining farms
- Data centers
- Telecom operators
- Offshore platforms
- Industry & logistics
- Transportation
- EV Makers and fleet managers
- Aerospace
- Defense Borders

We detailed in the next slides two use-case examples where LIGHT BMS can add a real value to our customers business with safer and smarter batteries.

Use-case Example : Electric scooters fleet

Scooters Fleet + Battery + LIGHT BMS → Secured data transmission → Control Terminal

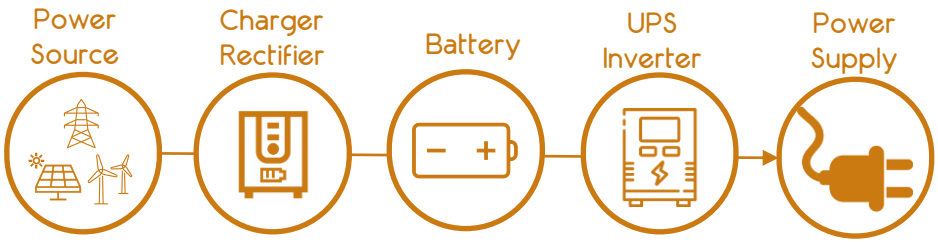
- Battery full protection (short-circuit, overheating, etc.)
- Battery charge & discharge management to optimize the lifecycle
- Ensure fail-safe operations of the battery pack.
- Battery calibration (current flow regulation, avoid voltage memory effect)

- Real-time charge and health monitoring for the entire fleet
- Geolocation of defective/empty batteries to Optimize scooters/batteries collection
- Remotely deactivate any scooter with defective battery
- Anticipate batteries replacement and manage warranty during the lifecycle
- With our API each scooters autonomy can be displayed to their users in the app

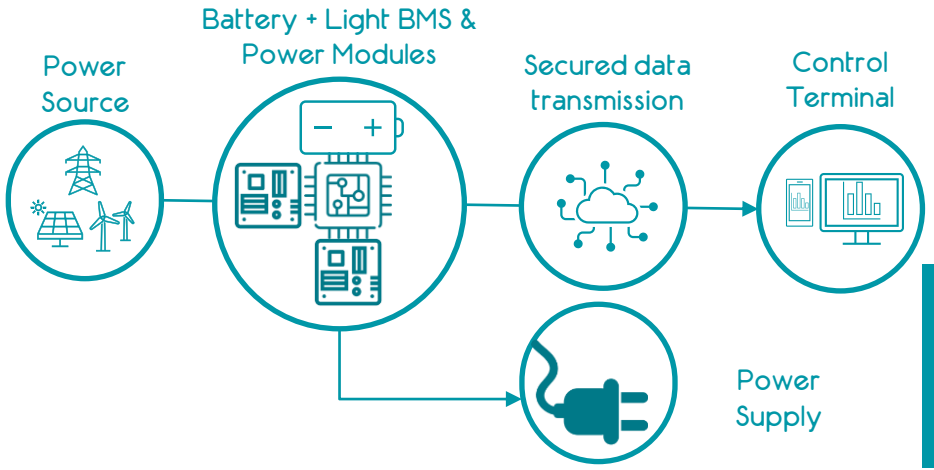
Electric scooters and e-bikes are the low hanging fruit however the same use-case is valid for any electric vehicle and moreover for autonomous vehicles

Use-case Example : Energy storage – Stationary

Classic power storage & supply setup



CTRL power storage & supply setup



Proprietary features

- No remote monitoring or control
- On-site staff and daily health-check necessary
- Batteries aging depends only on conditions of use
- For safety reasons batteries need to be replaced at 25%-35% of their theorical age
- With its stackable architecture LIGHT BMS replaces the full value chain (charger & UPS) leading to a drastic reduction costs (45%) and footprint (40%) reduction
- Batteries are constantly monitored and remotely controlled
- Every parameter (including ambient temperature & humidity) are taken into consideration by the algorithm to optimize the batteries cycles and duration
- The battery matrix can be reconstructed to optimize supply
- Batteries are regenerated when not in use
- AI takes the lead in case of emergency to prevent failure (blackout , conflagration, etc)

CTRL LIGHT BMS cuts the setup cost by 45% the operations costs by 70% and the footprint by 40%
Batteries lifecycle increases by 65% by preventing premature aging

The fastest growing energy market segment

$12.1B

In 2025

“The global battery energy storage system market size is expected to grow at a CAGR of 32.8% from 2020 to 2025, reaching USD 12.1 billion by 2025 from USD 2.9 billion in 2020

Gartner – Oct 2020

The huge demand for batteries is driving the need for smarter battery management. A battery management system is the key to reliable and efficient functioning of the battery.

By 2030, the off-grid solar sector will serve as many as 132 million households, which in turn would require between $6.6 billion to $11 billion in additional financing[1].

Electrical vehicles' volume would grow to above 11.2 million in 2025 and 31.1 million by 2030 which represent 38% of the global automotive market[2].

The global lithium-ion battery market was valued at $36.7 billion in 2019 and is projected to hit $129.3 billion by 2027, at a CAGR of 18% from 2020 to 2027 [3].

[1] World Bank - Off-Grid Solar Market Trends Report 2020

[2] Deloitte - Electric vehicles Setting a course for 2030

[3] Alllied Market Research - Lithium-ion Battery Market Expected to Reach$129.3 Billion by 2027

Competitive landscape

Despite a similar name, we don't consider battery manufacturers' proprietary BMS as competitors , their main purpose is in fact basic protection of a preset battery.

But we noticed a trend for battery manufacturers and OEMs abandoning their in-house BMS to use third party solutions.

We also noticed that main energy actors (Siemens, Schneider, Total, Engie, etc.) are lowering their investments in proprietary solutions to invest in innovative startups

We are Aliens!

All our competitors (except IONENERGY) are PhD lead companies originated from universities labs. When we are experienced business operators with strong technical expertise and a product focus with fast go to market.
Our frugality, hacker's mindset and tangible experience of the most drastic market conditions are a real edge over established actors

Most Active Competitors

IONENERGY
2017 | V: $22M

TWAICE
2018 | V: $156M

moixa
2010 | V: $67M

BrillPower
REVOLUTIONIZING ENERGY STORAGE
2016 | V: $29M

TITAN
2016 | V: $60M

AKKURATE
2016 | V: $23M

Competitive advantage

Company	Software Actions			Hardware			Battery type	AI	Security	Communication
	Predictive (simulation)	Analytics (real time)	Control	Sensor	Protection	Power & regeneration				
CTRL*ENERGY	✓	✓	✓	✓	✓	✓	All	✓	2FA & Blockchain	0G or GSM
IONENERGY	✓	✓	✗	✓	✓	✗	Lithium	✓	Single token	3G & Blutooth
AKKURATE+	✓	✓	✗	Software only			Lithium	✗	✗	3G & WIFI
BrillPower REVOLUTIONIZING ENERGY STORAGE	✓	✓	✗	✓	✓	✗	Lithium	✗	✗	3G & WIFI
TWAICE	✓	✓	✗	Software only			Lithium	✗	✗	3G & WIFI
TITAN	✓	✓	✗	Software only (use of ultrasounds)			Lithium	✓	✗	3G & WIFI
moixa	✓	✓	✗	Mounted in proprietary device			Lithium	✗	Single token	3G & WIFI
ALGOLION	✓	✓	✗	Software only			Lithium	✓	✗	3G & WIFI

✓ Sensors : Use of sensors on the battery only

✓ AI : Used for predictive modeling only

Our business model

Our two product ranges can cover the needs of all our targeted applications, the client will pay the hardware BMS and the basic software with minimal features (monitoring & alarm) and the support and can opt for a subscription to our advanced software to get the full power of LIGHT BMS.
Due to the critical aspect of these applications we expect 100% of our clients opting for the full package.

Hardware BMS

- 1 time purchase
- Equipment / Battery
- From $95 / Battery
- To $4900/ Battery

Basic software (Monitoring & Alarm)

- 1 time purchase
- License / Battery / User
- From $590 / User
- To $1950 / User

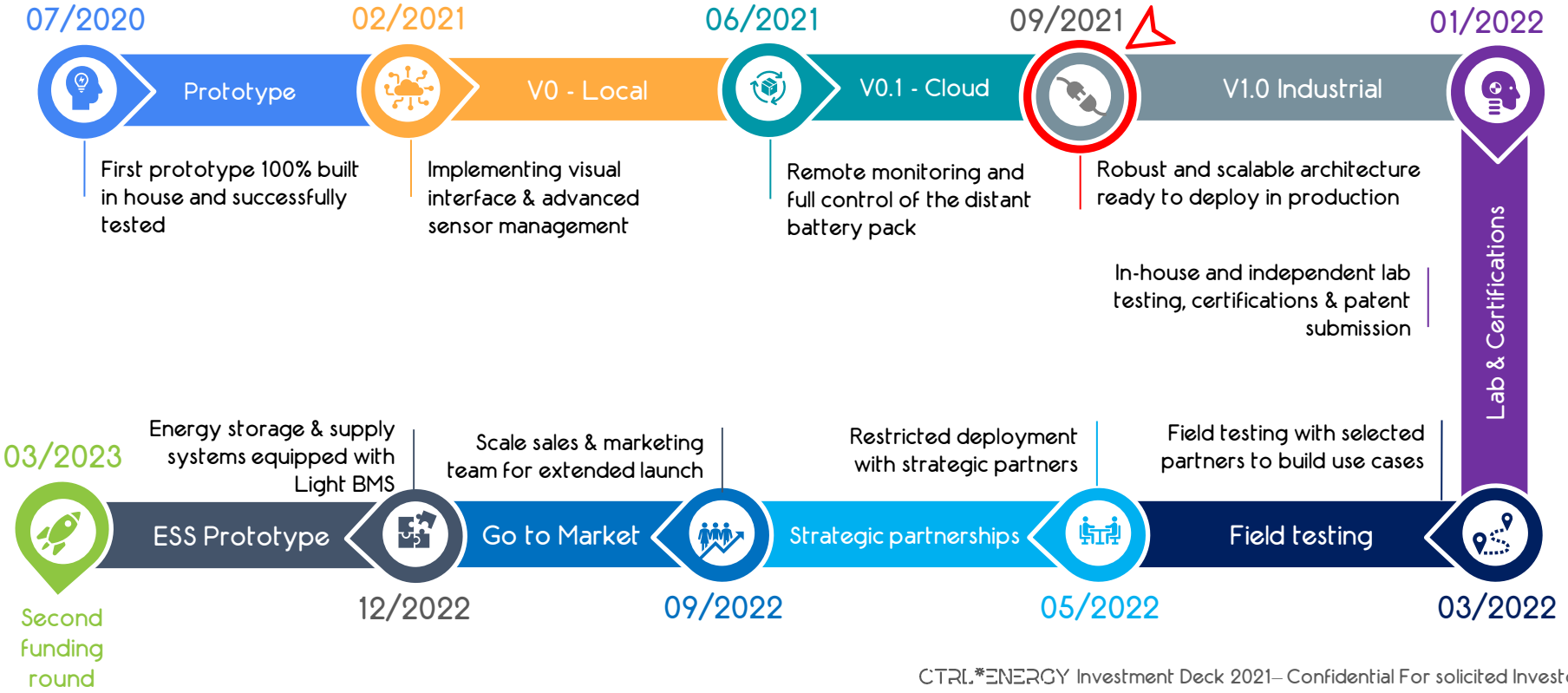
Advanced Software (Analytics, Control, AI)

- Subscription
- User / Month
- From $95 /User/ Month
- To $295 /User/ Month

Support & Updates

- Subscription
- License / Year
- From $195/User/ Year
- To $345/User / Year

18 months roadmap



Our future: From BMS to ESS

A credible alternative to the grid

Following a successful deployment of LIGHT BMS our next target is to build the first self-sustained clean energy generation storage and supply ecosystem based on three pillars

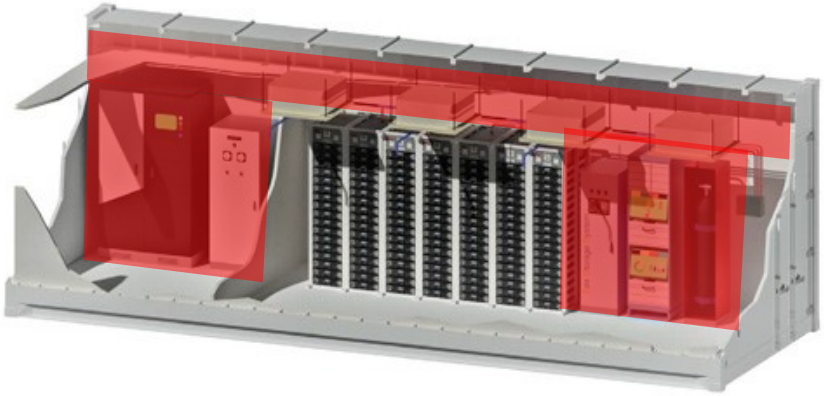
Software & Hardware optimization
Building the most advanced battery storage and supply systems on the market.

Platform adoption
Delivering an opened platform allowing other actors to join the movement.

Blockchain integration
Reshaping the economic aspect of energy through blockchain, otherwise how energy is produced, owned and consumed

Why Energy Storage & Supply Units?

Improving LIGHT BMS thanks to the aggregated data to build a world class energy management system will help us to fully replace all the charging, cooling and supply equipment's (below marked in red) leading to a significant cost and footprint optimization.



This improvement will allow the building of the most advanced energy storage and supply systems with no equivalent capacity and autonomy in the market and yet keep an aggressive pricing.

A glance at the future

680GwH under Management
By 2025

That's 10% of the annual consumption of a city like Paris!

To make that possible we are disrupting the full energy economic model through blockchain.

Splitting the ownership and the consumption using our smart-contract platform will allow easier adoption and wider expansion.

We aim to target the domestic ESS market within 24 months and the containers ESS in 36 months.

Up to 17KwH
Scalable, affordable, as easy to use as a power bank more powerful than a Tesla Powerwall.
Each PowerTower can be split into 10 portable smaller units to match the users needs

Up to 1.3GwH
Turnkey Smart Autonomous and connected energy generation storage & supply units.
Each units can supply energy up to 3,500 people fully off-grid.

Funding Needs

Funding Need

We seized our needs to fast track our go to market and give us the necessary means against more mature competitors.

Conservative Valuation

We considered our valuation based on a DCF with a 60% discount rate which is lower than all our competitors' valuation at a similar stage.

Our Engagements during This Period

- Management Salary: Founders agree to take minimal salary during this period
- Reinvest Dividends: 85% of our the generated profit will be reinvested to grow CTRL ENERGY
- Next Round Priority: You will have the priority to participate to the next round

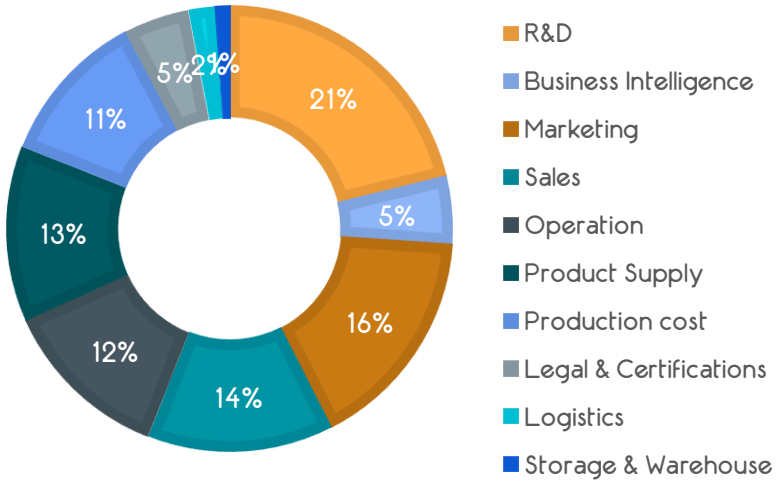
Funding allocation

World class R&D team
Our first priority is to build the optimal product team by adding new skills in software development, security and blockchain.
A state of art testing lab is also necessary to validate our iterations faster.

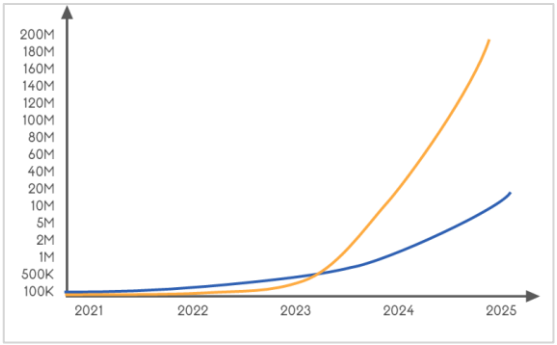
Dedicated sales & Marketing team
Spreading the core values and vision of CTRL ENERGY to raise awareness and prepare for our products launch.

Secure IP and technology
Build strategic partnerships and secure or technology through

Get ready for production
A strong production process and credible capacities are must haves to close bigger deals with demanding clients.

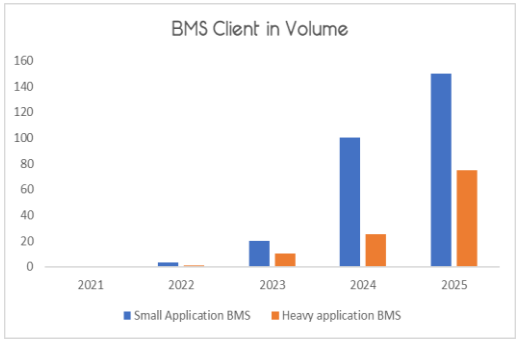


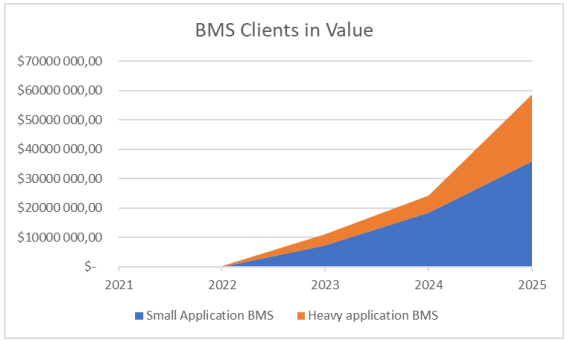
Financial Forecasts



Break even will be reached at Q2 2023

Our goal is to reach profitability for LIGHT BMS before raising a second round to scale our capacity and fund the launch of our owned ESS

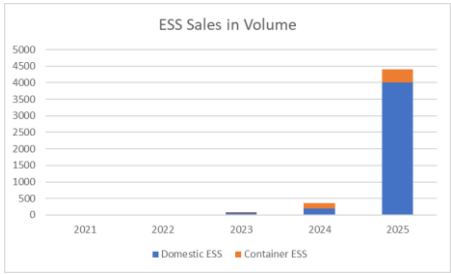




BMS Clients evolution

As we scale our capacity we will be able to tackle global clients in heavy application with for international deployments, however light applications will remain dominant in volume.

Q2 2023
CTRL ENERGY
ESS launch!



ESS Evolution

Off grid ESS will grow to be our growth driver, With the leading position and expertise in the BMS market we will secure the differentiation of our ESS offering a product with no comparable autonomy and capacity.

Financial Forecasts Details

	Cost type	2021	2022	2023	2024	2025
Expenses	R&D	$ 115 500,00	$ 294 000,00	$ 738 000,00	$ 1 260 000,00	$ 1 800 000,00
	Business Intelligence	$ 10 500,00	$ 84 000,00	$ 108 000,00	$ 204 000,00	$ 210 000,00
	Marketing	$ 52 500,00	$ 264 000,00	$ 654 000,00	$ 810 000,00	$ 1 110 000,00
	Sales	$ 44 400,00	$ 216 000,00	$ 426 000,00	$ 504 000,00	$ 882 000,00
	Operation	$ 29 400,00	$ 208 800,00	$ 261 600,00	$ 333 600,00	$ 424 800,00
	Product Supply	$ 29 400,00	$ 216 000,00	$ 5 564 000,00	$ 12 724 000,00	$ 24 284 000,00
	Production cost	$ 31 740,00	$ 186 000,00	$ 618 000,00	$ 1 492 000,00	$ 2 924 000,00
	Legal & Certifications	$ 37 500,00	$ 54 000,00	$ 126 000,00	$ 138 000,00	$ 382 800,00
	Logistics	$ 7 500,00	$ 30 000,00	$ 78 000,00	$ 294 000,00	$ 540 000,00
	Storage & Warehouse	$ 2 400,00	$ 18 000,00	$ 51 600,00	$ 60 000,00	$ 96 000,00
	TOTAL	$ 360 840,00	$ 1 570 800,00	$ 8 625 200,00	$ 17 819 600,00	$ 32 653 600,00
Revenue	Software licenses	$ -	$ 14 700,00	$ 313 000,00	$ 1 077 500,00	$ 2 347 500,00
	Hardware	$ -	$ 38 300,00	$ 9 990 000,00	$ 20 225 000,00	$ 46 425 000,00
	Software Subscriptions	$ -	$ 34 080,00	$ 464 880,00	$ 2 441 880,00	$ 5 672 880,00
	Support & updates	$ -	$ 3 810,00	$ 237 210,00	$ 1 330 460,00	$ 2 903 960,00
	Domestic ESS	$ -	$ -	$ 16 250 000,00	$ 50 000 000,00	$ 100 000 000,00
	Container ESS	$ -	$ -	$ 470 000,00	$ 7 050 000,00	$ 18 800 000,00
	TOTAL	$ -	$ 90 890,00	$ 27 725 090,00	$ 82 124 840,00	$ 176 149 340,00
	EBITDA	$ -360 840,00	$ -1 479 910,00	$ 19 099 890,00	$ 64 305 240,00	$ 143 495 740,00

CTRL*ENERGY

Thank You!

Want to build the future of off-grid energy with us?

Let's Talk!

Raouf REMIDAN

+33.767.732.021

investor@ctrl.energy / raouf@remidan.com

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