

Energy Storage Request for Proposals

Contract Announcement

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June 16, 2023

RFP Summary

Issued September 2021

Specification	Base Proposal	Alternate Proposal
SiteExisting 2 nd & N substation.....	
SPP InterconnectionBehind-the-meter.....	
Contract Structure10-year PPA (\$/kW _{AC} -month).....	
Technology	Lithium-Ion	Non-Lithium
Size	1 – 3 MW / 2 – 4 hours	At least 250 kW / 2 hours

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Proposals	46	5

Project Quick Hits

Alternate proposal selected as lowest per-unit cost option (net \$/MWh):
3 MW / 4-hour zinc battery, expected to reach COD in 2025.

Many inherent advantages to Lithium-Ion proposals, but lower round trip efficiency and higher self-discharge rate will be operational considerations.

Site preparation and net operating costs projected at approximately \$5.7M; slightly more than 2015 \$4.7M Burlington Northern and Santa Fe Railroad settlement earmarked for the project.

PPA arrangement plus relatively small size of project allowed LES to be much more aggressive than normal, pursuing a newer technology with a smaller developer.

At the time of the RFP launch:

- Only one such battery system was in commercial operation world-wide.
- Capacity and energy ratings of LES' project would have exceeded all previous and in-progress installations of such battery systems...combined.

Project Developer



Colorado-based clean technology and renewable project development company, specializing in energy management software and battery storage management.



Co-developing a microgrid for a native American tribal reservation casino facility and several other tribal buildings.



Providing energy management system services and microgrid controls for a 16-story apartment building.



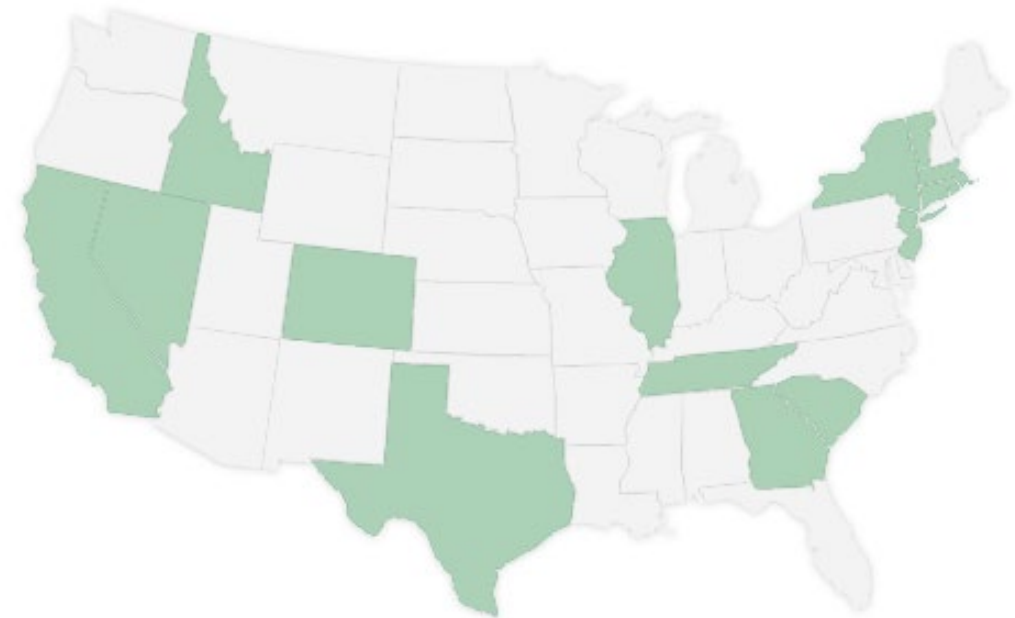
Working with a New York based battery manufacturer to create portable solutions that allow construction sites to use batteries in a densely packed urban environment, reducing noise and pollution.

Financing Partner

TRUE GREEN CAPITAL

Renewable energy infrastructure private equity fund manager investing in distributed solar power generation projects, batteries, and microgrids in the U.S. and Europe.

- ~ 539 MW operating, construction, and construction-ready project portfolio.
- 39 investments in 14 different U.S. states representing ~ \$510M in equity capital.



Eos Zinc Battery

Next generation Z3 product in development/testing, slated to be used for LES' project

Eos Zynth Gen 2.3



Gen 2.3



Z3

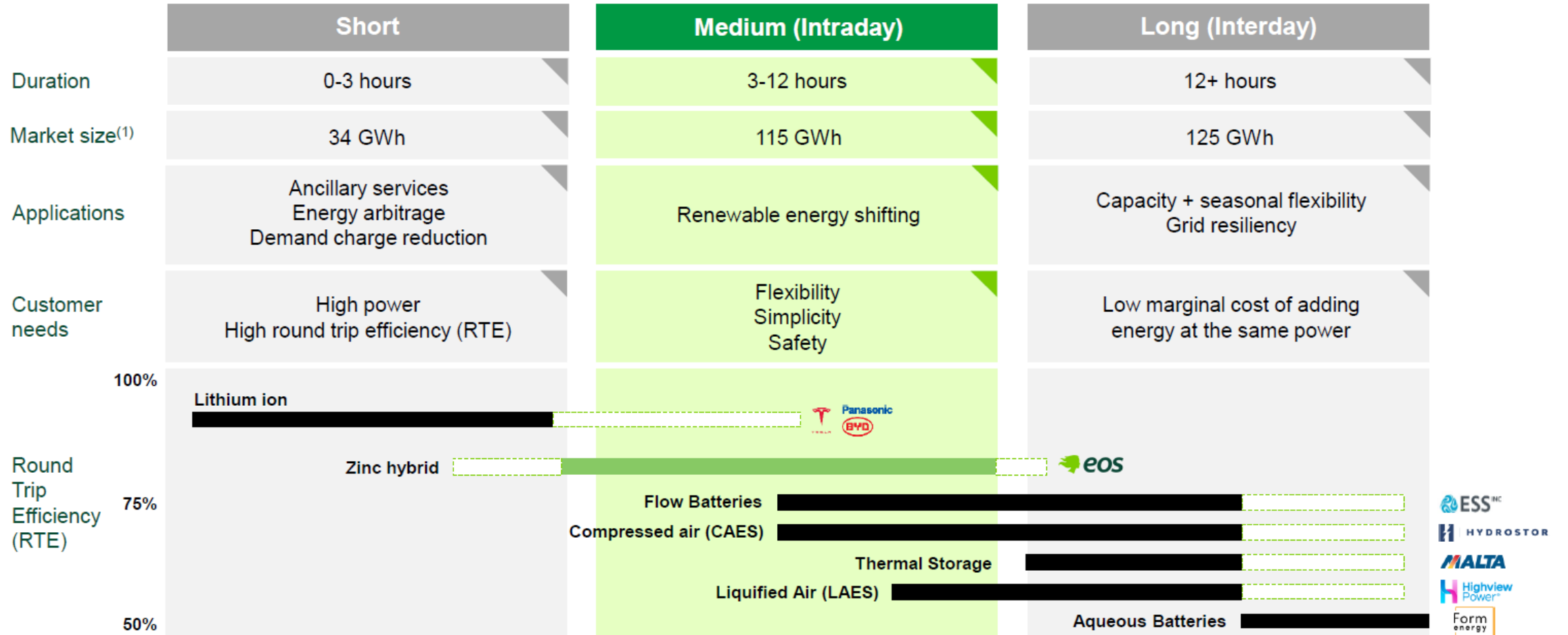
~2.5x
Power
Density

Sources: [Eos Cube Brochure/https://www.eose.com](https://www.eose.com), Eos Energy Enterprises

Source: [Eos Energy Enterprises, Inc. – Company Overview](#), Eos Energy Enterprises, June 2022

Eos Zinc Battery

Taking the next step in longer duration storage



Source: [Eos Energy Enterprises, Inc. – Company Overview](#), Eos Energy Enterprises, June 2022

Eos Zinc Battery

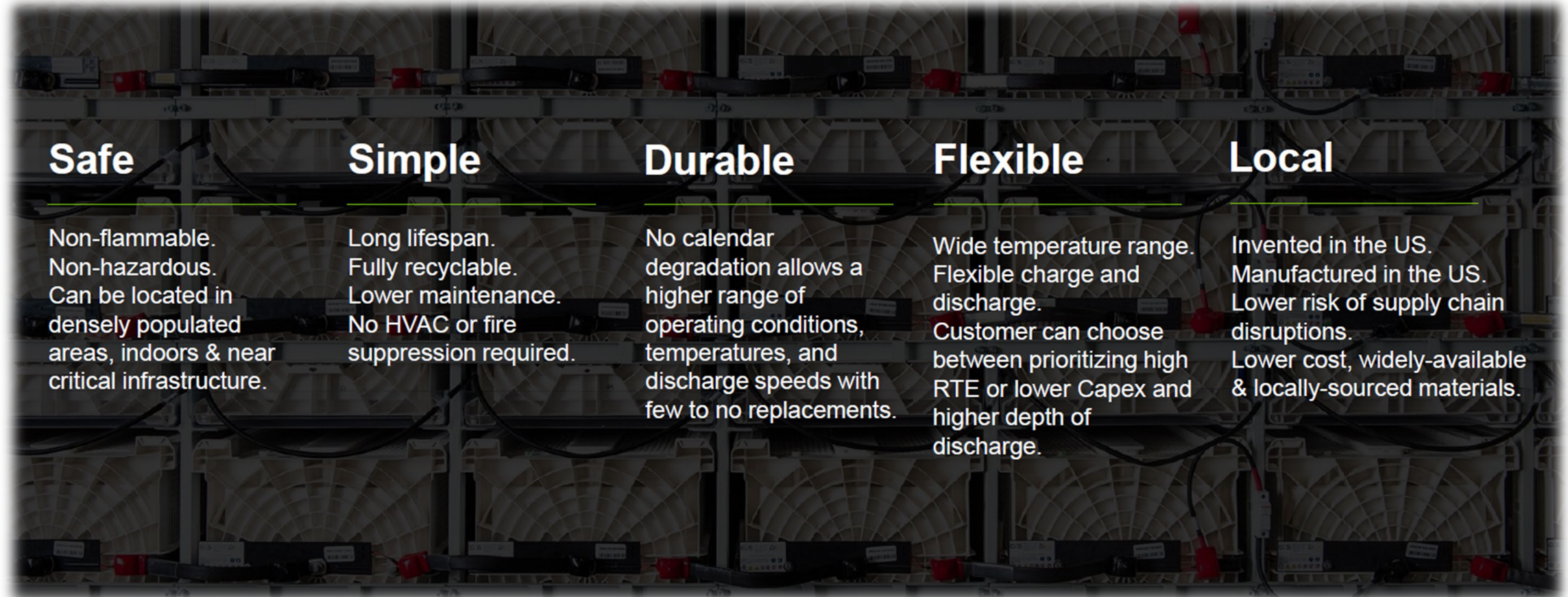
Long Duration Energy Storage Council – Technology providers



Source: www.ldescouncil.com/#

Eos Zinc Battery

Additional advantages beyond being LES' lowest evaluated cost proposal



Safe

Non-flammable.
Non-hazardous.
Can be located in densely populated areas, indoors & near critical infrastructure.

Simple

Long lifespan.
Fully recyclable.
Lower maintenance.
No HVAC or fire suppression required.

Durable

No calendar degradation allows a higher range of operating conditions, temperatures, and discharge speeds with few to no replacements.

Flexible

Wide temperature range.
Flexible charge and discharge.
Customer can choose between prioritizing high RTE or lower Capex and higher depth of discharge.

Local

Invented in the US.
Manufactured in the US.
Lower risk of supply chain disruptions.
Lower cost, widely-available & locally-sourced materials.

Source: [Eos Energy Enterprises, Inc. – Company Overview](#), Eos Energy Enterprises, June 2022

Battery Storage Project

Projected benefit streams

- 1 Support transmission and distribution system reliability by deferring load during peak periods.
- 2 Load-related energy arbitrage; charge (buy) at low market prices and discharge (sell) at higher prices.
- 3 Load-related ancillary services; assist the market with reliably balancing load and generation.
- 4 Further development of energy storage knowledge and experience within LES.
- 5 Strengthen the LES community microgrid.